교과과정

「과정 개요(학사과정)」
UNDERGRADUATE COURSE DESCRIPTIONS
2018 서울대학교
교과과정
「과목 개요(학사과정)」
UNDERGRADUATE COURSE DESCRIPTIONS
# 목 차

- 교양과목 ........................................................................................................... 1
- 인문대학 ........................................................................................................... 99
- 사회과학대학 .................................................................................................... 199
- 자연과학대학 .................................................................................................... 275
- 간호대학 ........................................................................................................... 321
- 경영대학 ........................................................................................................... 329
- 공과대학 ........................................................................................................... 347
- 농업생명과학대학 ............................................................................................ 449
- 미술대학 ........................................................................................................... 515
- 사범대학 ........................................................................................................... 553
- 생활과학대학 .................................................................................................... 631
- 수의과학대학 .................................................................................................... 655
- 약학대학 ........................................................................................................... 671
- 음악대학 ........................................................................................................... 685
- 의과대학 ........................................................................................................... 713
- 자유전공학부 ................................................................................................... 731
- 교직과목 ........................................................................................................... 737
Courses for General Education
This course offers the experience of whole process for writing an essay. All members of this class should search the topics concerned with natural science & technology and set up the own hypothesis and assertion. For this, students try to argue own position based on the appropriate materials & inference. Today society demands the problem-solving & rational communicating ability. Satisfying this demand, this course aims to improve the ability of creativity, critical thinking & adequate expression through writing.

031,031 말하기와 토론 3-3-0

Speech and Debate

이 교과목은 ‘공적 발언하기’와 ‘토론’을 학습한다. 발언하기는 자신의 의의, 생각, 논점을 명확하게 전달하는 데, 즉 대중 앞에서 자신의 생각과 의견을 적절하게 전달할 수 있는 능력을 요구한다. 학생들은 주제 선택과 함께 토론의 원리와 목표를 정하기 위한 준비 과정에서 자신의 논점을 명확하게 전달할 수 있도록 한다. 특히 다양한 형식의 말하기 실습을 통한 합리적이고 책임 있는 의사소통 능력을 배양한다. 학생들은 주제를 정하고 이에 대해 자신의 주장과 가설을 세우고 충분한 자료와 근거에 입각하여 논증하는 연습을 해야 한다. 오늘날 사회는 창의적인 문제해결능력과 합리적 의사소통능력을 요구하고 있다. 이 강좌는 이에 부응하기 위한 일환으로 창의성과 비판적 사고, 정확한 표현능력 등을 급구하다는 토론을 통해 태어나는데 그 목적이 있다.

031,032 창의적 사고와 표현 3-3-0

Critical Thinking and Expression

오늘날 대학교육에서 가장 절실히 요구되는 것 중 하나는 창의성 교육이다. 본 교과목은 특정 주제를 중심으로 다양한 의사소통능력을 연습하고 이를 통해 합리적으로 창의적 사고를 배양하는데 그 목적이 있다. 따라서 해당 주제와 관련된 다양한 텍스트에 대한 논리적이고 합리적인 문제해결능력을 요구한다. 이를 위해 수강생들은 관련 주제를 탐색하고 이에 대한 자신의 주장과 가설을 세우며 충분한 자료와 근거에 입각하여 논증하는 연습을 해야 한다. 오늘날 사회는 창의적인 문제해결능력과 합리적 의사소통능력을 요구하고 있다. 이 강좌는 이에 부응하기 위한 일환으로 창의성과 비판적 사고, 정확한 표현능력 등을 급구하다는 토론을 통해 태어나는데 그 목적이 있다.

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031,031 말하기와 토론 3-3-0

Speech and Debate

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031,032 창의적 사고와 표현 3-3-0

Critical Thinking and Expression

오늘날 대학교육에서 가장 절실히 요구되는 것 중 하나는 창의성 교육이다. 본 교과목은 특정 주제를 중심으로 다양한 의사소통능력을 연습하고 이를 통해 합리적으로 창의적 사고를 배양하는데 그 목적이 있다. 따라서 해당 주제와 관련된 다양한 텍스트에 대한 논리적이고 합리적인 문제해결능력을 요구한다. 이를 위해 수강생들은 관련 주제를 탐색하고 이에 대한 자신의 주장과 가설을 세우며 충분한 자료와 근거에 입각하여 논증하는 연습을 해야 한다. 오늘날 사회는 창의적인 문제해결능력과 합리적 의사소통능력을 요구하고 있다. 이 강좌는 이에 부응하기 위한 일환으로 창의성과 비판적 사고, 정확한 표현능력 등을 급구하다는 토론을 통해 태어나는데 그 목적이 있다.
Critical thinking is one of the most highly claimed ability for university students, but has been largely ignored. ‘Critical Thinking and Expression’ aims to develop the critical thinking ability, providing various opportunities of communication on a given subject. Students are asked to read actively relevant texts, to discuss their interpretations of texts and to express their opinion via writing and other communicative means. Independent and liberal attitude is more emphasized rather than academically correct understanding.

032.002 중급한국어 1 3-3-0
Intermediate Korean 1

This course aims to help foreign students acquire the following mid-low level skills for Korean.
- ability to comprehend university-level lectures and class presentations.
- ability to make a note for lectures.
- ability to make an answer for essay questions.
- ability to conduct low-mid level everyday conversation.

Students learn a variety of colloquial expressions commonly used in university-level lectures, useful expressions for lecture notes, and skills for making an answer for essay questions. By using audiovisual materials, students can improve their ability to conduct everyday conversation in Korean.

032.003 중급한국어 2 3-3-0
Intermediate Korean 2

This course aims to help foreign students acquire the following mid-high level skills for Korean.
- ability to participate in questioning, answering and discussing.
- ability to comprehend mass media.
- ability to conduct mid-high level everyday conversation.
- ability to prepare mid-high level document.

Students learn a variety of useful expressions commonly used in questioning, answering, and discussing in a class, and practice how to use those expressions. They also study lots of useful expressions frequently used in mass media such as radio, TV and movies, and practice how to comprehend those mass media. Furthermore, students will have
mid-high level proficiency for everyday conversation and documentation.

032.004  
**Advanced Korean**

본 과목은 외국인 학생을 대상으로 하는 과목으로서 다음과 같은 고급 한국어 능력을 기르는 것을 목표로 한다.
- 신문 기사 및 잡지의 독해 능력
- 한국의 사회, 문화, 역사 관련 문헌 텍스트 독해 능력
- 구두 발표 능력
- 한국어 실용문 해독력

이를 통해 신문을 비롯한 여러가지 한국어 텍스트를 분석하고 요약하며 자신의 견해를 발표하는 연습을 한다. 나아가 교수와 학생, 학생 상호간의 토론을 실시한다. 10분 구두 발표를 위한 발표 문 준비와 실제 구두 발표를 실습하며, 여기에 계획서, 자기소개서, 편지 등 대학 생활과 관련된 실용문들의 이해와 작성도 연습한다.

The aim of this course is to help foreign students acquire the following advanced-level Korean skills:
- ability to comprehend newspaper and magazine articles
- ability to comprehend texts on the society, culture, and history of Korea
- ability to give oral presentations
- ability to comprehend a variety of practical texts in Korean.

Students will practice analyzing, summarizing, and orally presenting their responses to a variety of Korean texts including newspaper articles. In addition, they will hold discussions both among themselves and with the instructor. Students will also prepare 10-minute oral presentations and practice writing diverse texts related to college life such as study/research plans, self-introductions, and academic papers.

032.005  
**Elementary Classical Chinese 1**

본 교과목은 한자와 한문에 대해 거의 모르는 초보자를 위한 강좌로 한문에 대한 기초적인 이해와 지식의 배양에 중점을 둔다. 여기서는 한문의 품사와 기본 구조 등 문법에 대한 기초적인 이해를 함과 동시에 선원하고, 고전 산문 문장과 시가 작품들을 익힐 수 있다. 여기서는 보다 완결된 형태의 문학, 역사, 역사 등 다방면의 고전 산문 텍스트와 시가 작품들을 익힐 수 있다. 이를 통해 한문 문법 지식을 체화하고 구문에 익숙해지도록 함과 동시에 선원하고, 고전 산문 문장과 시가 작품들을 익힐 수 있다.

This course is designed to provide students who have no prior knowledge of Chinese characters and Classical Chinese with the basic understanding of Classical Chinese. After learning the basic grammar and sentence structure of Classical Chinese, students will analyze short sentences and learn to appreciate classical poetry. Through such exercises, students will improve reading skills in Classical Chinese, as well as learn idiomatic phrases for daily usage.

032.006  
**Elementary Classical Chinese 2**

본 교과목은 초급한문과 중급한문에 이은 고급 수준의 한문 강좌이다. 초급 한문 과정에서 다져진 기초 실력을 바탕으로 한문에 대한 이해를 심화하고 보다 발전된 한문 독해 실력을 배양하는 과정이다. 여기서는 보다 완결된 형태의 문학, 역사, 역사 등 다방면의 고전 산문 텍스트와 시가 작품들을 익힐 수 있다. 이를 통해 한문 문법 지식을 체화하고 구문에 익숙해지도록 함과 동시에 선원하고, 고전 산문 문장과 시가 작품들을 익힐 수 있다.

This course is designed to provide students who have successfully completed this course may proceed to take Intermediate Classical Chinese.
taken Intermediate Chinese or its equivalent. Students will do a close and in-depth reading of masterpieces in Korean and Chinese classics. The readings will cover works of Confucian classics, history, philosophy and literature (経史子集). While students have only looked at model sentences until the intermediate level, in this course, students will frequently deal with complex and abnormal sentence structure as a way to learn how to construe and analyze unconventional sentences. The course is recommended for, but not restricted to, students who plan to major in related fields. Students are expected to show a great enthusiasm for learning Classical Chinese and East Asian thought.

032.009 中國語文與哲學 3-3-0

Selected Classical Chinese Readings in History and Philosophy by Chinese and Korean Writers

역사와 철학과 관련된 중국의 고전적 저술들을 강독하는 과목이다. 학문의 깊이, 인간과 자연, 사회정체, 가족과 공동체, 문학과 예술, 역사의식 등 다양한 주제들을 다룬 글들이 선도 내용에 포괄되며, 헌문 독해 등 인문학 연구자로서의 기본적인 자질을 배양하는 데 강의의 목적이 있다.

032.010 業精中文 1 3-3-1

Elementary Chinese 1

고등학교 과정에서 중국어를 배우지 않은 학생을 위한 초급 단계의 중국어 강의이다. 중국어 발음법을 정확하게 습득한 후 구문을 토대로 한 초급 문법을 학습하여 회화 및 독해에 적합한 기초를 생성하는 과정이다. 따라서 본 과목은 이전 과정에서 중국어를 학습한 경험이 있는 학생의 강의는 권하지 않는다.

This course is the first step of Elementary Chinese course. Students enrolling in this course will be able to practice Chinese pronunciation and to learn the basic of elementary level grammar, reading and writing. This course is for students who have never taken Chinese class.

032.011 業精中文 2 3-3-1

Elementary Chinese 2

고등학교 과정에서 2학년 학기 이상 중국어를 배웠거나 중국어에 대한 초보적인 지식이 있는 학생을 위한 초급 두 번째 단계의 강의이다. 중국어 발음법을 정확하게 습득한 후 구문을 토대로 한 초급 문법을 학습하여 회화 및 독해에 적합한 기초를 생성하는 과정이다. 따라서 본 과목은 이전 과정에서 중국어를 학습한 경험이 있는 학생의 강의는 권하지 않는다.

This course is the second step of Elementary Chinese course. This course is for students who have taken Elementary Chinese course in high school. Students enrolling in this course will be able to learn the basic of elementary level speaking, listening, reading, writing and grammar synthetically.

032.012 業精中文 3 3-3-0

Intermediate Chinese 1

본 과목은 초급중국어 2 또는 고등학교에서 중국어를 4개 학기 이상 수강한 학생을 대상으로 발현, 듣기, 읽기, 쓰기의 전영역에 걸쳐 중급 수준의 중국어를 학습할 수 있도록 개설하였다.

본 과목은 중급중국어 1을 이어 일상의 구어 틀기와 발리기에, 중국의 고등학교 수준의 문법 익기와 쓰기의 기초를 익힌다. 본 과목은 수강한 학생은 중급중국어를 모국어로 쓰는 사람들과 일상생활에서의 원활한 의사소통이 가능한 문법기본적인 문장 해독도 어려움이 없게 될 것일 것이다. 또한 한국어로 학문 및 사회생활을 수행할 수 있는 고급 문법 해독의 기초를 담은 과정으로 중국 관련 학문 및 직업에 종사하는 학생은 반드시 수강해야 한다.

This course especially focuses on developing students’ ability of speaking, listening, reading and writing. This is a follow up course to Elementary Chinese 1. Students enrolling in this course will be able to enhance their language capabilities required for communication with native speakers and interpretation of elementary level texts written in Chinese. This course is also intimately related to <Readings in Chinese>, a major subject of Dept. of Chinese Language and Literature.

032.013 中國語文與哲學 1 3-3-0

Intermediate Chinese 2

본 과목은 중급중국어 1을 수강한 학생을 대상으로 중급중국어 1을 이어 발언, 듣기, 읽기, 쓰기의 기초를 익힌다. 수강생은 본 과목으로 수강한 학생은 수학과를 모국어로 쓰는 사람들과 일상생활에서의 원활한 의사소통이 가능함을 토대로 중급 수준 이상의 문장 해독도 어려움이 없게 됨. 또한, 중급중국어 학문과 전공과정에서 개설된 체계의 고급 중국어 문학을 수강할 수 있다. 이 과목은 한국어로 학문 및 사회생활을 수행할 수 있는 고급 문법 해독의 기초를 담은 과정으로 중국 관련 학문 및 직업에 종사하는 학생은 반드시 수강해야 한다.

This course especially focuses on developing students’ ability of speaking, listening, reading and writing. This is a follow up course to Intermediate Chinese 1. Students enrolling in this course will be able to enhance their language capabilities required for communication with native speakers and interpretation of intermediate level texts written in Chinese. This course is also intimately related to <Advanced Chinese>, a major subject of Dept. of Chinese Language and Literature.

032.014 中國語文與哲學 2 3-3-0

Chinese Conversation 1

본 과목은 중급중국어 1 이상의 수준을 갖추고 있는 학생을 대상으로 회화에 중점을 두고 중국어로 말하기를 훈련한다. 중급중국어 1과 중급중국어 2를 이어서 말하기와 듣기 훈련을 통해 수강생은 중국어로 쓰는 사람들과 중급 이상의 원활한 의사소통이 가능하게 됨. 중국 현지에서 일상생활을 정상적으로 영위할 수 있는 수준의 회화 구사력을 갖출 수 있다. 이 과목은 이어짜리에 중국어회화 2 과목까지 수강한다면 고급의 회화 소통을 향상시켜 전체중국학과 전공과정에서 개설된 과목들 중 중국어학과 전공과목을 수강하는 데에도 큰 이점을 느끼지 않을 것이다.

This course especially focuses on developing students’ ability of speaking, listening, reading and writing. This is a follow up course to Intermediate Chinese 1 and above. Students enrolling in this course will be able to enhance their language capabilities required for intermediate level communication with native speakers. This course is also intimately related to <Advanced Chinese>, a major subject of Dept. of Chinese Language and Literature.
032.015 College English 1 2-3-0

Chinese Conversation 2

This course especially focuses on developing students' ability of speaking advanced-level Chinese. This course is for students who have taken Chinese Conversation 1 and above. Students enrolling in this course will be able to enhance their language capabilities required for advanced-level communication with native speakers. This course is also intimately related to <Advanced Chinese>, a major subject of Dept. of Chinese Language and Literature.

032.016 College English 1 2-3-1

College English 1

This course helps students to develop both language skills and critical thinking ability by offering them an opportunity to read, discuss, and write about a selection of representative nonfictional essays from diverse academic disciplines, including humanities, arts, social sciences, and natural science. The class may either be organized around a single overarching theme or cover a series of different yet preferably interrelated themes.

032.019 College English 2: 말하기 2-3-0

College English 2: Speaking

‘대학영어 2: 말하기’는 ‘대학영어 1’을 수강한 학생들의 영어 발음, 발언, 발표 능력을 지속적으로 향상시키는 데 그 목적이 있다. 본 강의를 통해 학생들은 정중함을 유지하고 효과적으로 영어로 인사를 나누거나 발표를 하는데 필요한 인사법, 비유적인 기술과 여러 주제에 관한 다양한 토론에 참여할 수 있는 기술과 방법들을 배우게 된다.

032.020 고급영어: 산문 2-3-0

Advanced English: Prose

인문학, 예술, 사회과학, 자연과학 등 다양한 학문 분야의 대표적인 주제들을 텍스트로 삼아 다양한 단락을 구성하는 방법과 재능을 배우게 한다. 또한 학생들은 다양한 주제에 대해 텍스트로 작성한 글을 발표하고 토론할 수 있도록 하여 비판적 사고의 함양을 목표로 한다.

032.021 고급영어: 학술작문 2-3-0

Advanced English: Academic Writing

영어로 학술적인 글을 쓰는 능력과 기술을 기르는 것을 주요 목표로 삼는다. 학생들은 다양한 주제들에 대해 학교와 사회, 과학 등 다양한 분야의 학문 연구를 보고서, 논문, 논평 등 다양한 형식의 학문적 자료를 작성하는 능력을 배우게 된다.

The main goal of this course is to teach students how to write decent academic prose in English. Students may begin by constructing a self-contained paragraph and gradually proceed to write multi-paragraph argumentative/analytical essays or complete term papers on pre-assigned topics or texts. They will also have opportunities to be acquainted with general rules and conventions of writing in English and learn the elements of good prose style. Each writing assignment will be coupled with appropriate reading assignment, which in itself should be a fine example of English prose.
Advanced English: Exploring Film

This course aims to improve students’ language competence and critical thinking ability by performing English-language dramas. Students will develop their understanding of the texts by studying their historical and social contexts, analyzing characters, investigating symbols and themes, and rehearsing scenes from each play. Students will also engage in performance by acting live in a classroom setting, thus experiencing more active involvement in the text.

Advanced English: Drama Workshop

This course aims to improve students’ language competence and critical thinking ability by performing English-language plays. Students will develop their understanding of the texts by studying their historical and social contexts, analyzing characters, investigating symbols and themes, and rehearsing scenes from each play. Students will also engage in performance by acting live in a classroom setting, thus experiencing more active involvement in the text.

Advanced English: Literature

This course aims to improve students’ language competence and critical thinking ability by performing English-language novels. Students will develop their understanding of the texts by studying their historical and social contexts, analyzing characters, investigating symbols and themes, and rehearsing scenes from each play. Students will also engage in performance by acting live in a classroom setting, thus experiencing more active involvement in the text.

Advanced English: Presentation

This course aims to improve students’ language competence and critical thinking ability by performing English-language presentations. Students will develop their understanding of the texts by studying their historical and social contexts, analyzing characters, investigating symbols and themes, and rehearsing scenes from each play. Students will also engage in performance by acting live in a classroom setting, thus experiencing more active involvement in the text.
이 본문에서 학습한 기본 어휘, 문법, 표현들을 응용한 간단한 각 문은 연습함으로써 초급 수준에서 발전한, 희가, 쓰기의 능력을 단 계적으로 고루 향상할 하는 목적으로 하는 강좌이다. 이들은 프 랑스어와 문학, 특히 프랑스어의 정석적인 법을 토대로 하는 방식으로 본문 베타트를 구성함으로써 프랑스어를 공부하면서 자연스럽게 프랑스의 생활과 문화에 접근할 수 있도록 한다.

이 본문에서 학습한 기본 어휘, 문법, 표현들을 응용한 간단한 각 문은 연습함으로써 초급 수준에서 발전한, 희가, 쓰기의 능력을 단계적으로 고루 향상할 하는 목적으로 하는 강좌이다. 이들은 프랑스어와 문학, 특히 프랑스어의 정석적인 법을 토대로 하는 방식으로 본문 베타트를 구성함으로써 프랑스어를 공부하면서 자연스럽게 프랑스의 생활과 문화에 접근할 수 있도록 한다.

이 본문에서 학습한 기본 어휘, 문법, 표현들을 응용한 간단한 각 문은 연습함으로써 초급 수준에서 발전한, 희가, 쓰기의 능력을 단계적으로 고루 향상할 하는 목적으로 하는 강좌이다. 이들은 프랑스어과 문학, 특히 프랑스어의 정석적인 법을 토대로 하는 방식으로 본문 베타트를 구성함으로써 프랑스어를 공부하면서 자연스럽게 프랑스의 생활과 문화에 접근할 수 있도록 한다.

This course is designed for those who have already taken Elementary French 1 and 2 or are assumed to have prerequisite knowledge of French or who have learned French in high school or in other educational programs. The course has a core that focuses on mastering sentence structure-oriented grammar, syntax-oriented grammar based on their foundation knowledge of French along with fostering various usage of French. This intermediate course also revises and consolidates the knowledge of French students already have and teaches more advanced language by reading various texts, including literary works.

This course is designed for those who have already taken Elementary French 1, 2 and Intermediate French 1 or who have systematic understanding of French. This course is aimed at the acquisition of advanced French grammar, various expressions and usage. This course will extend students’ language skills, enhance their knowledge of grammar and develop the skills needed to study at a higher level. Through this course, students will be able to foster their skill of reading academic and professional texts and to express their own opinion properly and accurately. Students are to master their reading skills through literary works of various genres, logical writings and other texts written in French. By reading original texts carefully chosen, the course helps to enable students to improve their commands of grammar and vocabulary.

This course is designed for students with basic French writing skills. It will cultivate skills for writing simple sentences. A thorough study of the sentence structure and the syntactic roles of words will be undertaken along with writing exercises and corrections.
032.032 프랑스어 말하기 3-3-0

French Conversation

본 교과목은 보다 실용적인 강의의 필요성이 강조되는 사회 환경과 변화하는 학생들의 요구에 부합하기 위해 문법, 독해가 아닌 회화 위주로 진행되는 수업이다. 불어문학과 전공 이학습습실에서 진행되는 이 교과목은 비디오테이, 카세트테이프, CD ROM 타이틀 등 다양한 매체를 통한 프랑스어 말하기 능력의 습득을 목표로 하고 있다.

Considering the changing social climate for more pragmatic studies, this course focuses its goals not on grammar or reading, but on conversation. Taking place in the language lab of the French department, the class will not only provide a platform for students to enhance their speaking and listening skills, but also to deepen their understanding of the French culture and society.

032.033 시사프랑스어 3-3-0

Current French

<Le Monde>, <Le Point>의 사실, 한국 관계 기사 등을 주요 텍스트로 하여 세계에 대한 시사적인 관심과 현재에 대한 비판적 안목을 기르는데 주안점을 두는 수업이다. 강의는 주로 기사를 문법적 설명을 걸작하며, 토론의 방식으로 진행한다.

Using editorials and Korea-related articles from <Le Monde>, <Le Point> as well as other materials as main texts, this course will increase students' interest in the current world issues and critical views. The class will emphasize reading together with grammatical explanations and discussions on related issues.

032.034 초급독일어 1 3-3-1

Elementary German 1

독일어는 유럽에서 가장 많은 사람들이 사용하는 언어이며, 문학, 철학, 법학, 사회과학, 자연과학 등 다양한 학문분야에서 활발한 기능을 수행하는 데에 필수적인 언어이다. 또한 쉽게 접할 수 있는 유럽문화와 사회를 이해하는 데에 반드시 필요한 언어이다.

This course is aimed at students who have already followed foundation course, Basic German 1, and those who acquire a basic knowledge of German. Students are to improve their speaking and listening skills based on their foundation knowledge of German. This course also covers general aspects of German culture and society.

032.035 초급독일어 2 3-3-1

Elementary German 2

본 교과목은 기초적인 독일어 지식을 가지고 있는 학생들을 대상으로 하는 독일어 강좌로서, <초급독일어 1>을 수강하였거나 고등학교 과정에서 주당 3시간의 독일어 강좌를 2학기 이상 수강한 학생들이 참여할 수 있다. 본 강좌는 그간의 독일어 텍스트의 독해를 위한 초급 수준의 문법과 독해능력의 배양 그리고 독일어를 사용한 일상적인 의사소통 능력을 함양을 제1차적인 목적으로 한다.

This course is designed for those who have already taken Elementary German 1 and 2 or have acquired understanding of basic German. In this course, students are to study grammar and to improve their speaking, listening and reading skills based on their foundation knowledge of German. This course also covers general aspects of German culture and society.

032.036 중급독일어 1 3-3-0

Intermediate German 1

본 교과목은 초급 수준의 독일어 지식을 가지고 있는 학생들을 대상으로 하는 독일어 강좌로서, <초급독일어 1, 2>를 수강하였거나, 고등학교 과정에서 주당 3시간의 독일어 강좌를 4학기 이상 수강한 학생들이 참여할 수 있다. 본 강좌는 그간의 독일어 텍스트의 독해를 위한 중급 수준의 문법과 독해능력의 배양 그리고 독일어를 사용한 일상적인 의사소통 능력을 함양을 제1차적인 목적으로 한다.

This course is designed for those who have already taken Elementary German 1 and 2, or who have acquired understanding of basic German. In this course, students are to study grammar and to improve their speaking, listening and reading skills based on their foundation knowledge of German. This course also covers general aspects of German culture and society.

032.037 중급독일어 2 3-3-0

Intermediate German 2

본 교과목은 초급 수준의 독일어 지식을 가지고 있는 학생들을 대상으로 하는 독일어 강좌로서, <초급독일어 1, 2>를 수강하였거나, 고등학교 과정에서 주당 6시간의 독일어 강좌를 4학기 이상 수강한 학생들이 참여할 수 있다. 본 강좌는 그간의 독일어 텍스트와 독해능력의 배양 그리고 독일어를 사용한 일상적인 의사소통 능력을 함양을 제1차적인 목적으로 한다.

This course is aimed at students who have already followed foundation course, Elementary German 1, and those who acquire a basic knowledge of German. Students are to improve their reading skills by reading literary works, logical writings and other texts written in German and to understand elementary German grammar. The objective of this course will also include acquiring various German expressions and cultivating reading and writing skills.

032.038 독일어 글쓰기 3-3-0

German Composition

이 강좌는 독일어문학 1과 2를 수강했거나 그러한 과정에서 독일어를 수강하면서 독일어 문학과 독일어 문학에서 학습한 독일어의 문학에 익숙한 학생들에게 도입과 제1차적인 문학의 이해를 제공하는 과목이다.

This lecture is offered for students who have completed Introduction to German I or II demonstrate equivalent com-
The course will help students acquire the practical German speaking skill needed to interact with those from German speaking countries.

**L0441.000300**

**Readings in German Texts**

This course is recommended for students who have completed Elementary German 1, 2 or demonstrate equivalent competence. The student will acquire the ability to read books in German while examining German literature, history, philosophy and social science.

**O32.040**

**Contemporary German**

Time and materials, culture and society, and geopolitical information, is well integrated with course materials. At the end of the semester, students are required to act out short skits in groups based on all course materials and creative collaboration.

**O32.041**

**Elementary Russian 1**

This course is recommended for students who have never learned Russian before, the course aims to teach students elementary Russian grammar and vocabulary. By taking this course students can carry on basic conversation adequately in everyday social and cultural contexts. This course is basically language course, but other related knowledge, such as Russian geography, history, culture, society and geopolitical information, is well integrated with course materials. At the end of the semester, students are required to act out short skits in groups based on all course materials and creative collaboration.

**O32.042**

**Elementary Russian 2**

This course is recommended for students who have taken Beginning Russian 1 or those who have been taught elementary Russian grammar. The course enables students to master Russian case system and irregular verbal conjugation. The most difficult Russian grammar, such as verbal aspect, impersonal sentence, passive sentence, constructions using reflexive verbs will be included in this course. In this course, students are expected to read basic Russian prose and dialogues, as well as compose short texts and carry on everyday conversations.

**O32.043**

**Intermediate Russian 1**

This course is recommended for students who have taken Intermediate Russian 1, 2 or those who have been taught elementary Russian grammar. This course is basically language course, but other related knowledge, such as Russian geography, history, culture, society and geopolitical information, is well integrated with course materials. At the end of the semester, students are required to act out short skits in groups based on all course materials and creative collaboration.

**O32.044**

**Intermediate Russian 2**

This course is recommended for students who have taken Intermediate Russian 1, 2 or those who have been taught elementary Russian grammar. This course is basically language course, but other related knowledge, such as Russian geography, history, culture, society and geopolitical information, is well integrated with course materials. At the end of the semester, students are required to act out short skits in groups based on all course materials and creative collaboration.
skills to read basic Russian texts in all speech or literary genres. The course helps students to develop a curiosity about and love for Russian culture, history, and literature.

032.045 Russian Conversation

This course aims to help students to develop speaking and writing proficiency. The course focuses on teaching students how to speak and write logically, appropriately in a refined manner on given topics. Texts for reading, composition, and discussion include prose, poetry and film. The course includes practice in the speech etiquette of common social situations and spoken and written registers. Vocabulary is reinforced through reading of classic and contemporary literary texts as well as Russian periodicals and news media dealing with current Russian culture and society.

032.046 Readings in Russian Art and Culture

This intermediate course is for students who have attended <Elementary Spanish 1> or its equivalent. The primary goal of this course is to improve students' knowledge of grammatical structure and communication in Spanish. The course aims to help students acquire the necessary skills to communicate proficiently in Spanish and develop reading and writing skills at a commensurate level in a cultural context. Students will also be introduced to the many Hispanic cultures that comprise the Spanish-speaking countries.

032.047 Exploring Russian Media

The course improves the students' ability to understand Russian sentence structure while offering opportunities to study its literature.

032.048 Elementary Spanish 1

This course improves the students' ability to understand Russian sentence structure while offering opportunities to study its literature.

032.049 Elementary Spanish 2

This course improves the students' ability to understand Russian sentence structure while offering opportunities to study its literature.

032.050 Intermediate Spanish 1

This intermediate course is for students who have attended <Basic Spanish 2> or its equivalent. The objective of this course will also include acquiring various Spanish expressions and cultivating reading and writing skills. The course develops accurate and idiomatic oral and written expression in a cultural context. Students achieve a higher level of syntactical and lexical competence through reading and discussing essays and literary texts and viewing films. Students review grammar structures on their own with instructor's correction and support. Classes are conducted in Spanish.
This course is for students who have attended <Intermediate Spanish 1> or its equivalent. This advanced course is designed to prepare students for study abroad, entry into the Spanish major. Students study stylistics, analyze and discuss texts, view films, and acquire advanced reading strategies. Spanish is actively used in oral presentations and communicative, creative, and critical-thinking activities. Students review grammar structure and continue to develop speaking ability. Lecturers explain grammar while students practice speaking and listening activities. Spanish is the primary language in class. Students will work in groups to complete assignments and test skills. This course is two-fold: to help students understand the society and culture of the Spanish-speaking countries and to improve students' competence in Spanish grammar. Students will read Spanish articles in the daily newspapers and texts related to the society and culture of Spain as well as today's Hispanic America.

This course is for students who have attended <Introduction to Portuguese 1> or its equivalent. The purpose of this course is to help students acquire a basic level of Portuguese language ability while broadening their overall understanding of the culture and society of the Portuguese-speaking World. The course will begin with the Portuguese alphabet, and continue with basic skills in conversation and reading.

This course is for students who have attended <Introduction to Portuguese 2> or its equivalent. The goal of this course is to improve students' understanding and communication in Portuguese. This class will also survey Portugal and Brazil for a general study of the culture and society of Portuguese-speaking World.

Italian 1

Italian is an Indo-European language that is rooted in the culture and history of the region. This course improves one's understanding of the Italian language and its culture.
이 과목은 이태리어 1 (032.057)의 과목 내용을 기초로 이론의 확대적용 및 발전을 좀 더 깊이 있게 모색한다.

A continuation of the course <Introduction to Italian I>, this class will further and expand the knowledge of the Italian language and culture in more detail.

스와할리어를 처음 접하는 학생들을 위해 스와할리어의 문자와 발음을 구문구조를 이해할 수 있는 기초적인 문법을 배우고 기본적인 회화수업을 병행한다.

This is an introductory course for students with little or no background in Swahili language. Student will learn Swahili letters, pronunciation and the grammar essential for understanding the language, as well as elementary Swahili speaking skills. The objective of this course is to enable students to listen, read, and speak basic-level Swahili language.

초급 스와할리어를 이수한 학생들 혹은 그에 상응하는 기초 실력을 갖춘 학생들을 대상으로 한다.

This course is designed for students who have successfully taken the introductory classes in Swahili language or have an equivalent proficiency in Swahili language. This course focuses on raising the students’ ability to read and write Swahili, as well as to listen and speak Swahili, so that the students can develop a well-balanced foundation in all four skills in Swahili language. The goal of this course is for the students to acquire a higher proficiency in Swahili.

본 교과목은 몽골어의 읽기, 쓰기, 독해의 기초를 훈련하며, 이와 함께 중동지역의 세계 문화적 위치에 대한 기초적 시각을 제공한다. 따라서 단문 중심의 히브리어 텍스트 독해를 목표로 하며, 이와 함께 히브리어의 어휘, 텍스트에 반영된 유대인의 역사와 문화를 이해함으로써 유대민족의 언어와 문화의 관계를 탐구한다. 특히 현대의 히브리어가 고전 히브리어로부터 어떤 영향을 받았는지 탐구한다.

This course introduces (i) basics of reading and writing of Hebrew, and (ii) the cultural historical position of the Middle East in the world history. The students get training in text comprehension with simple sentences, and they are introduced to the historical/cultural significance reflected in the vocabulary and texts. The course offers basic knowledge on the relationship between the Hebrew language and the culture. In particular, the course discusses the influence from the classic Hebrew language onto the modern Hebrew with respect to both cultural and historical aspects.

 본 강좌의 페닌둘리어의 읽기, 쓰기, 독해의 기초를 훈련하며, 이와 함께 중동지역의 세계 문화적 위치에 대한 기초적 시각을 제공한다. 따라서 단문 중심의 히브리어 텍스트 독해를 목표로 하며, 이와 함께 히브리어의 어휘, 텍스트에 반영된 유대인의 역사와 문화를 이해함으로써 유대민족의 언어와 문화의 관계를 탐구한다. 특히 현대의 히브리어가 고전 히브리어로부터 어떤 영향을 받았는지를 탐구한다.

This course is an introductory Finnish language class. The goal of this class is for students to learn Finnish pronunciation, basic vocabulary, and essential grammar of modern Finnish. They will learn and practice grammar rules such as noun/adjunct inflections, and the various patterns of verbal constructions and sentence types. In addition, this course provides drill sessions for acquired simple conversation skills.

This course is an intermediate level of Finnish language class. The goal of this class is for students to learn advanced grammar and vocabulary, and further to develop text analysis and understanding in various genres. The students will have drill sessions for speaking as well as writing to be equipped with extended communication capacities in Finnish.

본 교과목은 히브리어의 읽기, 쓰기, 독해의 기초를 훈련하며, 이와 함께 중동지역의 세계 문화적 위치에 대한 기초적 시각을 제공한다. 따라서 단문 중심의 히브리어 텍스트 독해를 목표로 하며, 이와 함께 히브리어의 어휘, 텍스트에 반영된 유대인의 역사와 문화를 이해함으로써 유대민족의 언어와 문화의 관계를 탐구한다. 특히 현대의 히브리어가 고전 히브리어로부터 어떤 영향을 받았는지를 탐구한다.

This course introduces (i) basics of reading and writing of Hebrew, and (ii) the cultural historical position of the Middle East in the world history. The students get training in text comprehension with simple sentences, and they are introduced to the historical/cultural significance reflected in the vocabulary and texts. The course offers basic knowledge on the relationship between the Hebrew language and the culture. In particular, the course discusses the influence from the classic Hebrew language onto the modern Hebrew with respect to both cultural and historical aspects.

본 강좌는 페닌둘리어의 읽기, 쓰기, 독해의 기초를 훈련하며, 이와 함께 중동지역의 세계 문화적 위치에 대한 기초적 시각을 제공한다. 따라서 단문 중심의 히브리어 텍스트 독해를 목표로 하며, 이와 함께 히브리어의 어휘, 텍스트에 반영된 유대인의 역사와 문화를 이해함으로써 유대민족의 언어와 문화의 관계를 탐구한다. 특히 현대의 히브리어가 고전 히브리어로부터 어떤 영향을 받았는지를 탐구한다.

This course introduces (i) basics of reading and writing of Hebrew, and (ii) the cultural historical position of the Middle East in the world history. The students get training in text comprehension with simple sentences, and they are introduced to the historical/cultural significance reflected in the vocabulary and texts. The course offers basic knowledge on the relationship between the Hebrew language and the culture. In particular, the course discusses the influence from the classic Hebrew language onto the modern Hebrew with respect to both cultural and historical aspects.
Arabic is the lingua franca of the Middle East in addition to being the common language of 22 Arab countries, religious language of the 1.3 billion Muslims, and one of the 6 official languages of the United Nations. This course is made for the beginners and it focuses on not only grammar but also basic speaking, listening, reading and writing skills. More concretely it will proceed with a focus on writing Arabic alphabets, pronunciation, essential words and expressions used in daily life.

- 15 -
standing of modern Indian culture and society to have the knowledge of Hindi. This course, consisting of a two-semester program, offers basic grammatical knowledge of Hindi, which is not dealt with in the first semester program. In addition, students will develop vocabulary and language skills in spoken Hindi.

Turkish 1

This introductory course is for students with little or no background in Malay-Indonesian. Students will learn the pronunciation and script of Malay-Indonesian, followed by basic sentence structures and basic grammar. Through this course, students will develop a basic foundation in Malay-Indonesian.

Turkish 2

This class is for students who have taken Malay-Indonesian 1. Students in this class will learn basic grammar and conversation, and will extensively practice listening and speaking in particular. The goal of this class is to enable students to listen, read, and speak Malay-Indonesian at a basic level.

Vietnamese 1

This introductory course is for students with little or no background in Vietnamese. Students will learn the pronunciation and script of Vietnamese, followed by basic sentence structures and basic grammar. Through this course, students will develop a basic foundation in Vietnamese.

Vietnamese 2

This course is a continuation of Vietnamese 1. It aims at introducing the grammar structure of Vietnamese and cultivating basic ability to hold conversation and text-reading. It further develops skills to speak, listen, read and write through simple sentences.
교양과목(Courses for General Education)

032.078 고전 그리스어 2 3-3-0

Classical Greek 2

고전 그리스어 I의 과정을 이수한 학생들에게 보다 전진된 그리스어 과정을 제시하는 데 목적이 있다. 고전 그리스어의 기초를 위주로 하여, 에도토스와 성서의 문장을 읽고 학습함으로써 보다 확실한 그리스어 해독 능력을 배양시키고 그리스문화의 저명한 철학자와 문학자들의 작품을 읽는 근본을 마련하고자 한다.

A sequel to Introductory Greek, covering the principles of ancient Greek grammar, with an introduction to selected readings from original sources that illustrate episodes in ancient Greek history or characteristics of different literary genres. Readings generally are from Xenophon, Herodotus, Plato, and the Bible.

032.079 라틴어 1 3-3-0

Latin 1

라틴어는 고전 그리스어와 더불어 서구의 문화를 연구하는데 매우 중요한 고전어이다. 고전 그리스어의 문법과 문법의 문법을 읽고 학습한다.


032.080 라틴어 2 3-3-0

Latin 2

이 과목은 <라틴어 1> 과정을 이수한 학생들에게 보다 전진된 라틴어 과정을 제시하는 데 목적이 있다. 고전 그리스어와 더불어 서구의 문화를 연구하는데 매우 중요한 고전어이다. 이 과정에서는 고대 라틴어의 초급 문법지식을 습득하여 초보적인 라틴 고전문헌의 독해능력을 함양하는 훈련을 한다.

A sequel to Introductory Latin, covering the principles of Latin grammar, with an introduction to selected readings from original sources that illustrate episodes in Roman history or characteristics of different literary genres. Readings generally are from Cicero, Catullus, and Livius.

033.001 수학 및 연습 1 3-2-2

Calculus 1

자연계열 학생들을 위한 기초 수학과목으로서 실수의 성질, 급수, Taylor 전개, 벡터 및 행렬과 행렬식, 공간의 곡선 등과 그 응용을 배운다.

As a basic mathematics course for students in science and engineering, it discusses the properties of real numbers, series, Taylor expansions, vectors, matrices and determinants, curves, and their applications are discussed in depth.

033.002 수학 및 연습 2 3-2-2

Calculus 2

<수학 및 연습 1>의 연속 강의로서 다변수함수의 미분과 적분, 벡터장, Green 정리, Stokes 정리 등의 내용을 보다 깊고 자세히 배운다.

As a sequel to <Calculus 1>, derivatives and integrals of several variable functions, vector fields, Green theorem and Stokes theorem are studied in this course.

033.003 고급수학 및 연습 1 3-2-2

Honor Calculus and Practice 1

<수학 및 연습 1>의 고급 과정으로서 성수의 성질, 급수, Taylor 전개, 벡터 및 행렬과 행렬식, 공간의 곡선 등의 내용을 보다 깊고 자세히 배운다.

This is an advanced Calculus course designed to investigate properties of real numbers, series, Taylor expansions, vectors, matrices and determinants and curves.

033.004 고급수학 및 연습 2 3-2-2

Honor Calculus and Practice 2

<수학 및 연습 1>의 연속 강의서서 다변수함수의 미분과 적분, 벡터장, Green 정리, Stokes 정리 등의 내용을 보다 깊고 자세히 배운다.

As a sequel to <Advanced Calculus and Practice 1 & 2>, derivatives and integrals of several variable functions, vector fields, Green theorem and Stokes theorem are studied in this course.

033.005 미적분학 및 연습 1 4-3-2

Differential and Integral Calculus 1

자연계열 학생들을 위한 기초 수학과목으로서 성수의 성질, 급수, Taylor 전개, 벡터 및 행렬과 행렬식, 공간의 곡선 등과 그 응용을 심도 있게 배운다.

As a basic mathematics course for students in science and engineering, properties of real numbers, series, Taylor expansions, vectors, matrices and determinants, curves, and their applications are discussed in depth.

033.006 미적분학 및 연습 2 4-3-2

Differential and Integral Calculus 2

<미적분학 및 연습 1>의 연속 강의로서 다변수함수의 미분과 적분, 벡터장, Green 정리, Stokes 정리 등의 내용을 심도 있게 배운다.

As a sequel to of <Differential and Integral Calculus 1>, derivatives and integrals of several variable functions, vector fields, Green theorem and Stokes theorem and their applications are discussed in depth.

033.007 생명과학을 위한 수학 1 3-3-0

Calculus for Life Science 1

생명과학을 전공할 학생을 위한 기초 수학과목으로서 성수의 성질, 급수, Taylor 전개, 벡터 및 행렬과 행렬식, 공간의 곡선 등과 그 응용을 배운다.

As a basic mathematics course for students in life science, differential equations describing various natural phenomena related to life science and their solutions are introduced. Differential equation models and successive approximation are employed to study the spread of epidemics. Mathematical computer programming is used.
교양과목(Courses for General Education)

<table>
<thead>
<tr>
<th>번호</th>
<th>과목명</th>
<th>학기</th>
<th>시간</th>
</tr>
</thead>
<tbody>
<tr>
<td>033.008</td>
<td>생명과학을 위한 수학 2</td>
<td>3-3-0</td>
<td></td>
</tr>
<tr>
<td>033.009</td>
<td>경영학을 위한 수학</td>
<td>3-3-0</td>
<td></td>
</tr>
<tr>
<td>033.010</td>
<td>인문사회계를 위한 수학 1</td>
<td>3-3-0</td>
<td></td>
</tr>
<tr>
<td>033.011</td>
<td>인문사회계를 위한 수학 2</td>
<td>3-3-0</td>
<td></td>
</tr>
<tr>
<td>033.014</td>
<td>공학수학 1</td>
<td>3-3-0</td>
<td></td>
</tr>
<tr>
<td>033.015</td>
<td>공학수학 2</td>
<td>3-3-0</td>
<td></td>
</tr>
</tbody>
</table>

Calculus for Life Science 2

이 과목에서는 미적분의 기초부터 시작하여 다양함수의 미적분을 공부하고 경제학에 어떻게 응용되는지 배운다. 이와 아울러 자연과학과 사회과학에서의 데이터 분석과 각 분야의 주요한 수학적 개념을 배운다. 또한, 이 과목은 미적분학의 기본 원리와 응용을 공부한다. 이 과목은 생명과학과 경영학에 적용되는 수학적 기법을 배우는 과정이다.

Calculus for Business

이 과목에서는 미적분의 기초부터 시작하여 다양함수의 미적분을 공부하고 경제학에 어떻게 응용되는지 배운다. 이와 아울러 자연과학과 사회과학에서의 데이터 분석과 각 분야의 주요한 수학적 개념을 배운다. 또한, 이 과목은 미적분학의 기본 원리와 응용을 공부한다. 이 과목은 생명과학과 경영학에 적용되는 수학적 기법을 배우는 과정이다.

Calculus for Humanities and Social Sciences 1

이 과목에서는 미적분의 기초부터 시작하여 다양함수의 미적분을 공부하고 경제학에 어떻게 응용되는지 배운다. 이와 아울러 자연과학과 사회과학에서의 데이터 분석과 각 분야의 주요한 수학적 개념을 배운다. 또한, 이 과목은 미적분학의 기본 원리와 응용을 공부한다. 이 과목은 생명과학과 경영학에 적용되는 수학적 기법을 배우는 과정이다.

Calculus for Humanities and Social Sciences 2

이 과목에서는 미적분의 기초부터 시작하여 다양함수의 미적분을 공부하고 경제학에 어떻게 응용되는지 배운다. 이와 아울러 자연과학과 사회과학에서의 데이터 분석과 각 분야의 주요한 수학적 개념을 배운다. 또한, 이 과목은 미적분학의 기본 원리와 응용을 공부한다. 이 과목은 생명과학과 경영학에 적용되는 수학적 기법을 배우는 과정이다.
This course will give an introduction to basic statistical concepts, and help students enhance their ability to solve actual statistical problems based on their study of regression analysis, categorical data analysis and analysis of variance.

033.016

033.017

033.018

033.019

034.001

034.002

Statistics Concept and Lab.

Statistics Lab.

Statistics

Physics 1

Physics 2
This is an introductory physics course for students majoring in natural science or engineering. Topics discussed include electricity and magnetism, light, special relativity, basic quantum physics, and atomic and particle physics.

Foundation of Physics 1

This course is intended for more advanced students with some degree of familiarity with the materials in Physics 1 already.

Foundation of Physics 2

This is a one-semester introductory physics course offered to students in general liberal arts and science. Basic ideas on the particle motion and force, gravitation, waves, electricity and magnetism, and quantum theory are explained, to provide students with a general perspective on the physical universe.

Physics for Humanities and Social Sciences

Generically based in the humanities and social sciences, this course introduces various topics relevant to our everyday life experience as a way to motivate students to develop the fundamental physics concepts needed by all citizens. This course introduces various topics relevant to our everyday life experience as a way to motivate students to develop the fundamental physics concepts needed by all citizens.

Physics for Humanities and Social Sciences

This is a one-semester introductory college physics course, designed for non-science major students, which uses algebra and trigonometry in developing some of the fundamental concepts of classical physics. This course introduces various topics related to our everyday life experience as a way to motivate students to develop the fundamental physics concepts needed by all citizens.
ical concepts, the course offers a couple of experiment proj-
ects and utilizes video and demonstration equipments.

034.009  
**Physics Lab. 1**

This course provides students with opportunities to explore
various phenomena in nature and to understand the basic
physical principles hidden in everyday life by actively partic-
ipating in a series of experiments. This course provides in-
tegrated laboratory experiences to students who want to ma-
jor in physics, natural science, engineering, and other related
fields. Experiments are chosen from topics like forces and
motion, energy, waves, and thermodynamics.

034.010  
**Physics Lab. 2**

As a sequel to *Physics Lab. 1*, this course provides stu-
dents with opportunities to explore various phenomena in
nature and to understand the basic physical principles hidden
in everyday life by actively participating in a series of
experiments. Experiments are chosen from topics like elec-
trical phenomena in matter, magnetic phenomena, light, spe-
cial relativity, and quantum phenomena in the atomic world.

034.011  
**Physics Lab.**

This one-semester course provides students in science (or
social sciences) with laboratory experiences that can make
smooth transition to undergraduate general physics course. It
can even cover high school level physics if necessary. The class
will be run as one-to-one tutor system and the content can be ad-
justed to each students’ level of understanding. In concurrence
with Physics 1, the following topics will be covered: kine-
matic description of motion, motions under constant gravita-
tional field and inverse square central field, circular motion,
simple harmonic oscillator, collisions, thermal phenomena, dy-
namic model of gas molecules and basic laws of thermodynamics.
Each class will include brief explanation of basic physics concept and problem solving. Homework will be
assigned every week. The final grade will be given as S/U.

034.013  
**Basic Physics 2**

Basic Physics 2 is intended for students who have not
taken physics course at all and those with only Physics 1
background at high school. This course will cover elementary
physics topics so that the target students can have smooth
transition to undergraduate general physics course. It can even
cover high school level physics if necessary. The class will be
run as one-to-one tutor system and the content can be ad-
justed to each students’ level of understanding. In concurrence
with Physics 1, the following topics will be covered: kine-
matic description of motion, motions under constant gravita-
tional field and inverse square central field, circular motion,
simple harmonic oscillator, collisions, thermal phenomena, dy-
namic model of gas molecules and basic laws of thermodynamics.
Each class will include brief explanation of basic physics concept and problem solving. Homework will be
assigned every week. The final grade will be given as S/U.

034.014  
**Astronomy**

This course provides students who have not
taken physics course at all and those with only Physics 1
background at high school. This course will cover elementary
physics topics so that the target students can have smooth
transition to undergraduate general physics course. It can even
cover high school level physics if necessary. The class will be
run as one-to-one tutor system and the content can be ad-
justed to each students’ level of understanding. In concurrence
with Physics 2, the following topics will be covered: electricity and magnet-
ism, optics, basic quantum physics, atomic and particle
physics. In each class, tutor will explain basic physics con-
cepts briefly, and student will solve related problems. And
homework will be assigned every week. The final grade will be given as S/U.
Astronomy Lab.

This course is intended for students to have a first look at the Universe. They will learn by themselves the basic principles for measuring properties of various cosmic objects through laboratory works. They will also be encouraged to study basic observational facts through references and internet sites. In class, professor will theoretically interpret the observations to reveal fundamental principles behind them. The chapters include Kepler and Newton, tidal interaction, and spontaneous process and electrochemistry.

034.015 Astronomy Lab. 1-0-2

034.016 Chemistry 1 3-3-0

034.017 Chemistry 2 3-3-0

034.018 Chemistry 3 3-3-0

Advanced Chemistry

0443.000100 Advanced Chemistry 3-3-0
034.022 화학실험 1 1-0-2

Chemistry Lab.1

This course accompanies Chemistry 1 Its primary aim is to improve students’ ability to conduct experiments and deepen their understanding of chemical concepts and reactions.

034.023 화학실험 2 1-0-2

Chemistry Lab.2

This course accompanies Chemistry 2 Its main focus is on improving students’ ability to conduct experiments and deepen their understanding of chemical concepts and reactions.

034.024 기초화학 1 1-0-2

Basic Chemistry 1

This course aims to help students taking Chemistry 1 to learn the chemical concepts. It teaches basic experiments, but does not provide sufficient experience for students whose majors are closely related to chemistry.

034.025 기초화학 2 1-0-2

Basic Chemistry 2

This course aims to help students taking Chemistry 2 to learn more advanced chemical concepts. It deals with basic experiments, but does not provide sufficient experience for students whose majors are closely related to chemistry.

034.026 인문사회계를 위한 생물학 3-3-0

Biology for Humanities and Social Sciences

This general chemistry course covers Kinetics, nuclear chemistry, quantum mechanics, atomic structure, chemical bonding, transition metal, coordination compound, structure of solid, sulfur, phosphorus, nitrogen, halogens, noble gases, organic compounds and polymer.

034.027 생물학 1 3-3-0

Biology 1

This course accompanies Chemistry 1 Its primary aim is to improve students’ ability to conduct experiments and deepen their understanding of chemical concepts and reactions.

034.028 생물학 2 3-3-0

Biology 2

This course accompanies Chemistry 2 Its main focus is on improving students’ ability to conduct experiments and deepen their understanding of chemical concepts and reactions.

034.029 인문사회계를 위한 생물학 3-3-0

Biology for Humanities and Social Sciences

This course accompanies Chemistry 2 Its main focus is on improving students’ ability to conduct experiments and deepen their understanding of chemical concepts and reactions.
기초생물학은 생명과학 및 생명학을 수강하는 학생으로서, 고등학교에서 ‘생물학 2’를 이수하지 않은 학생을 대상으로 한다. 

기초생물학 1은 생명과학 교육에 대한 기본기를 제공하고자 기초 생물학 교육의 목표를 달성하기 위한 학문을 배우는 것을 목적으로 한다. 

기초생물학 2는 생명과학 및 생명학을 수강하는 학생으로서, 고등학교에서 ‘생물학 2’를 이수하지 않은 학생을 대상으로 한다. 

기초생물학 교육에 대한 기본기를 제공하고자 기초 생물학 교육의 목표를 달성하기 위한 학문을 배우는 것을 목적으로 한다.

Basic Biology 1 

Basic Biology 2
034.039 Atmospheric Science Lab.

Atmospheric Science Lab.

The Earth is composed of four major systems-earth, hydrosphere, atmosphere, and biosphere. These systems govern the surface processes and internal dynamics of the Earth. The Earth will be explored in the process of crustal evolution, environmental changes, and biotic successions since its formation as a planet. We will conduct various experiments related to the course Earth System Science. This course will challenge students to develop models of how the earth functions. Topics include brief introductions to astronomy, meteorology, oceanography, and geology.

034.040 Earth System Science Lab.

Earth System Science Lab.

The Earth is composed of four major systems-earth, hydrosphere, atmosphere, and biosphere. The interactions of these systems govern the surface processes and internal dynamics of the Earth. This course will explore the process of crustal evolution, environmental changes, and biotic successions since its formation as a planet. We will conduct various experiments related to the course Earth System Science. This course will help increase our scientific understanding and improve our ability of interpretation.

034.041 Earth System Science

Major topics dealt with in the class are physical, chemical, and geophysical characteristics of the ocean and its environments; physicochemical properties of seawater, marine ecosystem, marine biotechnology, origin and structure of seafloor and sedimentation process in the sea. Lectures will help comprehensive and basic understanding of characteristics of the ocean.

034.042 Oceanography

Oceanography

Lectures will help comprehensive and basic understanding of characteristics of the ocean.

034.043 Oceanography Lab.

Oceanography Lab.

Major topics dealt with in the class are physical, chemical, and biological characteristics of the ocean and its environments; physicochemical properties of seawater, marine ecosystem, marine biotechnology, origin and structure of seafloor and sedimentation process in the sea. Lectures will help comprehensive and basic understanding of characteristics of the ocean.
기법을 배양하도록 한다.

This course will cover general concepts for computers and their application. In particular, students will study word processing, education using computers, design using computers, decision-making support systems, and problem solving methods. As a result, the students will be able to take advantage of Artificial Intelligence techniques and master computer application through practice.

**Fundamentals of Computer System**

This course deals with computer application for scientific computation in science for the novice. Throughout this course, the students will learn some computer knowledge and its application for scientific computation. This course aims at encouraging students to develop computer skills that enable the realization of scientific ideas and engineering problems using computers. Starting with the fundamentals of computer, the course will include practical demonstrations and labs which will naturally lead to better understanding towards scientific computation. Furthermore, we expect students can eventually develop their own scientific computation and analytical perspectives on human nature, new tools for problem-solving, and insights into the industrial and social changes in the digital age. The course consists of lectures and practices.

**Computer Application for Scientific Computation**

This course provides an introduction to computer science and programming language for freshmen. It consists of the fundamentals of programming and the basics of C.

**Computational Thinking and Practice**

This course teaches students in varied majors the underlying principles of how to think and problem-solve so that the end result be a computer software. Through lectures and intuitive programming exercises students will learn how to solve problems by computer software with a proper understanding of the limitation as well as the power of such “computational thinking.”

**Introduction to Artificial Intelligence**

Artificial intelligence is based on the understanding of how human mind and brain work and requires interdisciplinary research among humanities, natural sciences, and engineering. Overcoming the limitations of the classical rule-based programming approach, the modern data-driven deep learning approach has made great progress. As the data size and computing power grow more rapidly, AI is expected to be a major driving force for the 4th industrial revolution. This course teaches the principles, methods, and applications of artificial intelligence to provide the students with the basic knowledge and skills required by the future-generation creative talents. Not only the students in humanities, social sciences, and arts, but also those in natural sciences, engineering, and medicine will obtain new computational perspectives on human nature, new tools for problem solving, and insights into the industrial and social changes in the digital age. The course consists of lectures and practices.

The practices provide the opportunities for the students in team work to get hands-on experience of solving problems with artificial intelligence tools.
Language and Culture of the Korean

우리 민족의 전통 및 현대 문화에는 국어와 관련하는 내용들이 여러 가지 있다. 그 중에는 중등교육 이상을 이수한 우리나라 사람이 누구나 상식적으로 이는 사실이라고, 그렇게 말할 수 있다. 널리 알려져 있는 사항들이 곧바로 아우이라며, 우리 사회의 지식인들이 상식적으로 숙지하고 있는 길한 사항들도 대개의 경우 자세한 내용은 모르고 다만 별개로 언급하면, 혹은 부득이하게 알려져 있는 내용들이 적지 않다. 본 과목은 수행생활을 이해하는 데 있어 필요한 사항들에 대하여 지식적으로 축적한 업적성과를 요약하여 이해를 돕는 경로의 목표에서 개설되었다.

1) 민족과 ‘민족’의 관계, 2) 우리 민족의 근원과 국어, 3) 우리 민족의 성격과 국어, 4) 국가와 언어, 5) 문자의 인류 문화적 의의, 6) 민족사와 국어의 문자 표기, 7) 한국의 민족 문화적 의의, 8) 우리 민족의 국어 의식, ‘국어사랑 나라사랑’의 실험, 9) 민족과 국어, 남한의 ‘국어순화’와 북한의 ‘말다듬기’운동, 10) 남한의 ‘표준어’와 북한의 ‘문어’, 남북한 표기법의 차이, 11) 국어의 사회학적 성격, 12) 구어와 문어, 현대국어 문어의 문제, 13) 인터넷 시대의 문어.

Among the various traditional and contemporary aspects of Korean culture, many are related with the Korean language. Some of them are commonly known, not necessarily accurately, to those who have had high-school or beyond level of regular educations in Korea, while, others are not. The aim of this course is to have the students widen and deepen their understandings of language-related cultural aspects of Korea, based upon the accumulated, learned knowledge on such subjects as follows:


Korean Literature and World Literature

이 과목은 한국문학을 대표한다. 할 수 있는 주요 작품들은 중국문학이나 일본문학 같은 인접한 동아시아문학을 비롯해 고대 시대부터 현대 시대의 다양한 지역의 문학작품을 그 중에서 대표작품들로 외유와 고유한 문화적 특성을 이해하고 더 나아가 한국문학을 포함한 세계문학의 그룹들을 깊이 있게 이해하는 것을 목표로 한다. 또한 현재의 의미를 지닌, 대체 이후의 시대 및 한국학 작품들에 그 주된 대우로 하여 문학작품의 주제와 문학의 주제에 대한 이해를 주장하고자 한다. 마지막으로 다양한 문학작품을 이해하는 데 도움이 되어 주는 시대적 특성과 흐름을 비교문학적 관점에서 고찰할 수 있게 한다. 따라서, 이 과목은 한국문학을 대표하는 주요 작품들을 그 중에서 대표작품들로 외유와 고유한 문화적 특성을 이해하고 더 나아가 한국문학을 포함한 세계문학의 그룹들을 깊이 있게 이해하는 것을 목표로 한다.
works that capture the Korean expression of life. Fossilized relics, but as living songs and stories, creative living, breathing creative works. In this way they will be used to produce courage students to combine the Korean sentiments they find and understand literary works in detail, it will actively encourage, this course will not merely equip students to analyze, providing them with the opportunity to experience both the universal, this course will not merely equip students to analyze and develop specific skills related to writing the types of cultural texts in which they are interested. Lastly, they will hear from media guest lecturers, who will not only speak about the prospects of their profession but teach proper writing in their respective fields.

Today, popular culture such as films, television dramas, songs, and novels are drawing attention for their representations of Korean traditional literary heritage. As Korea becomes a more important player on the world stage, the current secondary education curriculum in terms of the understanding of Korean literature is not enough. We need a strong vocabulary in order to teach students the structure of Korean vocabulary and expressions (phrases, idiomatic expressions, sayings) needed to compose and comprehend advanced and academic writings. Students must have a strong vocabulary in order to improve their composition and comprehension abilities. The course will emphasize Sino-Korean vocabulary and expressions from various fields of knowledge.

This course is designed to improve students’ command of Korean vocabulary and expressions (phrases, idiomatic expressions, sayings) needed to compose and comprehend advanced and academic writings. Students must have a strong vocabulary in order to teach students the structure of Korean vocabulary and expressions (phrases, idiomatic expressions, sayings) needed to compose and comprehend advanced and academic writings.

- **041.010 한국현대시 읽기 3-3-0**

**Reading Modern Korean Poetry**

This course will prepare Seoul National University students to become leaders in their respective fields as professional intellectuals. First, students will analyze Korean texts in a variety of cultural media in order to comprehend their nature. Second, they will master the essentials of proper writing. Third, they will identify and correct the various errors in existing texts. Fourth, they will divide into groups and develop specific skills related to writing the types of cultural texts in which they are interested. Lastly, they will hear from media guest lecturers, who will not only speak about the prospects of their profession but teach proper writing in their respective fields.

This course is designed to improve students’ command of Korean vocabulary and expressions (phrases, idiomatic expressions, sayings) needed to compose and comprehend advanced and academic writings. Students must have a strong vocabulary in order to teach students the structure of Korean vocabulary and expressions (phrases, idiomatic expressions, sayings) needed to compose and comprehend advanced and academic writings.

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이 강의는 21세기의 변환된 문화 환경 아래에서 한국 현대소설이 어떠한 문학적 모세와 실험을 해왔는지를 참조하고 앞으로 어떻게 대응해 나갈 것인가를 전망하는 것을 목표로 한다. 이를 위해서 중요 작가들의 문제작들을 중심으로 한국 사회 속에서의 문화적 맥락, 한국 사회에 대한 제한의 전략과 방법 등을 복합적으로 이해하도록 할 것이다. 이 과정에서 학생들은 한국 소설에 대한 폭넓은 이해를 가질 수 있게 되며, 새로운 미디어 환경 속에서 서사(Narrative)의 나라간 방향에 대한 새로운 시각을 확보할 수 있을 것이다.

This course aims to achieve two key objectives. First objective is to help you better understand contemporary Korean literature. Attention will be given to the social and cultural environment in which the texts were produced and to which they respond. Second objective is to train you to have a critical point of view concerning the past, present and the future narratives. Analyzing contemporary Korean literature and sharing your opinions and feelings with other students through various activities, you will experience the immense power of Korean literature.

이 과목은 음바른 이문 생활의 필수적인 요소인 한글맞춤법을 비롯한 국어의 어문규범 제한에 대해 그 원리를 이해하고 실생활에서 적용할 수 있는 능력을 갖추는 것을 목적으로 한다. 어문규범의 준수는 교양인이 갖추어야 할 매우 기본적인 소양 중 하나이며 글쓰기의 가장 기초적인 요소이다. 그럼에도 현대 중등 및 고등 교육과정에서 이를 제대로 교육하지 못하고 있다. 이 과목을 통해 한글맞춤법, 표준어규정(표준어사정원칙 및 표준발음), 표준어모음, 외래어표기법, 국어의 로마자표기법 등의 기본 원리 및 세부 조항들을 학습함으로써 국어 및 한글 사용에 있어서의 문제들을 학습자 스스로 해결할 수 있는 능력을 갖출 수 있다. 나아가 이러한 학습 과정에서 언어와 문학의 관계를 명확히 이해할 수 있게 되고 세계의 여러 언어와 문학을 가운데 국어와 한국의 위상 및 가치를 살펴볼 수 있다. 특히 한국의 문학적 및 창제 원리에 대한 학습을 통해 한글의 우수성과 과학성에 대해서도 명확히 인식하게 될 것이다.

This course aims to develop the ability to understand the principles of general norms of the Korean language including Hangul orthography, and apply them to everyday life. Obeying the norms is the most fundamental element for writing as one of the properties required for cultured persons. However, they are not taught well in secondary educations. This course studies the basic principles and technicalities of Hangul orthography, rules of standard Korean (principles for deciding standard Korean and standard pronunciation), loanword orthography, or the romanization rule. It will help to develop the ability to solve the problems from using the Korean language and Hangul. Furthermore, it will provide a good chance to understand the relation between language and spelling system, and to identify the status and value of the Korean language and Hangul among other languages and spelling systems around the world. In particular, it will also help to realize the excellence and scientific nature of Hangul.
Introduction to Oriental Classics

The course aims to compare Chinese language with other Asian languages, such as Korean, Japanese, and Sino-Tibetan languages. It will also help students understand the language and culture of ancient Korea, China, Japan, and India, as well as other Asian countries. It aims to comprehend human nature, thought, and lifestyle through these texts.

Understanding Chinese Language and Culture

This course will study classic texts of literature, philosophy, and religion from ancient Korea, China, Japan, and India. It focuses on Chinese people and language backgrounds. This course focuses on Chinese people and language features of Chinese language based on synchronic, diachronic, and cultural backgrounds. So most of the Chinese language courses are insipid lacking their deep, plentiful cultural backgrounds. This course fosters students' understanding of the fast emerging transnational English-speaking culture by exploring such socio-linguistic themes as language and gender; language and race; as well as cultural diversity. It will provide students with skills needed to make them into international citizens and leaders in today's global society.

Understanding Western Literature, 1500-1900

This course fosters students' understanding of the fast emerging transnational English-speaking culture by exploring such socio-linguistic themes as language and gender; language and race; as well as cultural diversity. It will provide students with skills needed to make them into international citizens and leaders in today's global society.

Literature and Psychoanalysis

This course will study modern European literature. The course will focus on literary discussions and representations of the encounter between the East and the West. In addition, the historical events that ushered in the new era, shaping and developing modern European literature, will be examined.

Korean students to learn Chinese. At the end of this course, students will have better understanding on Chinese language.
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문학으로 읽는 서양문명 3-3-0

Reading Western Civilizations through Literature

근대 초기 이전의 서양을 대표하는 문학 작품들을 우리말 또는 영어 번역으로 읽음으로써 서양 문명이 고대에서 중세를 거쳐 로네상스에 이르면서 진화한 과정을 살펴본다. 홍페로스, 베르길리우스, 오비디우스 등 고전 시대 시인들, 무훈시와 가사 로렌츠를 포함하는 다양한 중세 문학 장르, 아리오스토, 세르반테스, 세인트주안, 덴лу 등 초기 근대 작가들을 다룰 있으며, 개별 텍스트와 그 사회문화적 맥락뿐 아니라 작품과 작품, 문학과 문명 간의 역사적, 문화적 맥락 또한 포괄한다.

By reading representative literary works from the pre-modern and early modern West in Korean or Modern English translations, this course aims to explore the evolution of Western civilizations from classical antiquity through the Middle Ages up to the Renaissance. The reading list may include classical poets such as Homer, Virgil, and Ovid; diverse genres of medieval literature including chansons de geste and chivalric romances; and early modern authors such as Ariosto, Cervantes, Shakespeare, and Milton. Special attention will be paid not only to individual texts and their respective contexts, but also to inter-textual, inter-cultural, and inter-historical shifts.

041.025 문학과 철학의 대화 3-3-0

Literature and Philosophy in Dialogue

본 강의는 문학과 철학의 상관관계를 크게 네 방향으로 나누어 접근한다. 우선, 문학과 철학 사이의 연관성과 상호작용을 고려하여 신화시대부터 시작하여 오늘날에 이르기까지 역사적으로 검토한다. 또한 문학과 철학에서 ‘현실 이해’와 ‘해석’의 문제를 여러 종류의 텍스트들 통해 조명한다. 이어서, 문학 쪽에서 제기하고 있는 철학의 문제와 세계관의 문제를 토대로 논의한다. 이에 더해 다양한 문화적 철학적 문학 텍스트가 앞으로도 계속 돌아오다. 다음과 같이 철학 쪽에서 제시하고 있는 문학관 또는 예술관에 대한 이해를 시도한 것인데, 이에 학생들은 개별 텍스트의 학문적 논의에 대한 논의를 통해 학문의 문제를 보다 깊게 이해해 나가게 된다. 예를 들어, 비극, 실존주의, 상상력, 해석론, 낭만주의 가운데 하나의 개념을 곁들여 상층적인 이해를 시도하기로 한다. 이 부분에서 다루는 개념은 예학적 백설을 바탕으로 한다.

The main objective of this course is to examine the inter-relationship between literature and philosophy. First of all, we will review the love-and-hate relationship between literature and philosophy from the ancient age to the present time. And we will delve into the problem of ‘perception’ and ‘interpretation’ through selected literary and/or philosophical texts. Then, we will examine various philosophical problems raised on the side of literature. For our better understanding of the problems, we will read selected literary texts whose contents are closely related to various philosophical issues. Now, we will examine various philosophical positions and opinions presented by philosophers as to the idea of art and literature. To do so, we will read some philosophical texts whose arguments are closely related to various issues of art and literature. Finally, we will proceed to the in-depth study of a philosophically and literally problematic issue through a specific concept such as tragedy, existentialism, imagination, deconstruction, or romanticism. The issue dealt at this ses-

041.028 영어로 읽는 세계문학 3-3-0

World Literature in English


This course introduces various writers from different racial/ethnic/cultural backgrounds who are writing in English or whose works are translated into English. Its aim is to help students develop a comprehensive and critical understanding of the world and its cultures through English as an international language. Focusing on a variety of issues including (colonial/postcolonial) identity, gender, race, nationality, etc., students will gain insights into other cultures, not as different national literatures but as world literature.
French literature and contemplate on different aspects of human nature, relationships, and society in relation to love. This course will provide an overview of the history of French literature by using various texts from medieval to contemporary ages and will allow students to analyze literature in depth.

041.029 말과 마음 3-3-0

Language in the Mind

우리는 매일 언어로 생각하고 언어로 이야기한다. 우리의 마음은 우리가 사용하는 말 통해 표현되고 이해한다. 언어 속에 담긴 마음, 그리고 마음이 담긴 언어, 그리고 그 속에 숨겨진 인간의 인지능력, 이것이 본 강의의 주제이다. 이 강의는 우리의 마음을 표현하고 이해하기 위한 언어와 인지 능력을 파악하는데 목표를 두고 있다. 본 강의에서는 언어의 기구, 내재적 기능, 그리고 인간의 인지 능력을 연계하는 학문 분야 및 방법론을 소개한다. 또한 강의 후반부에는 심리에 관한 과학적 방법을 통해 언어의 구조적 요소, 인간의 인지 장치를 탐구해 보는 기회를 갖게 된다. 본 강의의 이러한 과정을 통해 인간의 마음과 언어가 작용에 있어서 새로운 시각을 연개 될 것으로 기대한다.

Everyday we think and speak in language. Our minds are expressed and understood through the words we use. The mind embedded in language, the language containing the mind, and the cognitive ability of the human brain hidden underneath are the main themes of this lecture. The aim of this lecture is to understand the basic principles and cognitive abilities of language which we use to express and understand our minds. This course introduces the basic principles of language communication and the disciplines and methodologies in studying the human language cognitive ability. In the second half of the lecture, students will have the opportunity to explore the process of language learning through self-initiated lectures. Through the process of this lecture, students can expect to gain a new perspective on human language use and cognitive function.

041.032 문학과 사회 3-3-0

Literature and Society

이 과목은 동서고금의 고전적인 문학작품을 통해 인간사회의 다양한 강점양상과 그것을 해석하기 위한 시도가 문학작품에서 어떻게 구체적으로 형성되어 있고 그것을이어져, 대학생들에게 하루하루 인간과 사회를 읽어가며 사고할 수 있도록 하기 위해, 이 과목의 장치로서 제도적으로 갖추어야 할 비판적 사고와 보편적 가치관의 함양하도록 하는 데 주목점을 두었다.

Through the review of classical literary works from the ancient to the contemporary period, students will gain a perspective on how the phenomena of various conflicts in human societies and their efforts to solve them are formulated in the compositions. By the end of the course, the students will be equipped with an understanding of man and society as well as a proficiency in critical thinking, important skills for their future life as social leaders.

041.033 여성과 문학 3-3-0

Women and Literature

이 강의에서는 문학 텍스트에 나타난 여성적 정체성을 살펴보고 분석하는 것을 주요 내용으로 한다. 강의의 전반부에서는 주로 불문학사상의 중요한 작가들이, 그리고 그들의 작품에서의 고전적 주제에 대한 이해를 시도한다. 본 강의에서는 동서고금의 고전적인 문학작품을 통해 인간사회의 다양한 정체성과 그것을 해석하기 위한 시도가 문학작품에서 어떻게 구체적으로 형성되어 있고 그것을이어져, 대학생들에게 하루하루 인간과 사회를 읽어가며 사고할 수 있도록 하기 위해, 이 과목의 장치로서 제도적으로 갖추어야 할 비판적 사고와 보편적 가치관의 함양하도록 하는 데 주목점을 두었다.
This course aims to analyze the identity of women described in the literature. The first half of the course deals with the representative works from the eighteenth century to the present, focusing on feminine fragility and femininity, but also present issues such as modernity and eroticism. The second half takes a closer look at how women have established their identities through women writers' works. We also discuss how historical, political, and social factors influenced women's discourses. We will consider not only traditional themes such as maternity or eroticism, but also present issues such as modernity, urbanity, and body.

041.034 독일명작의 이해 3-3-0
Understanding German Masterpieces

This course explores the complex interplay between literature and film and their respective characteristics as artistic genres by reading literary works and comparing them with their visual equivalents. The course aims to understand how the self-reflective and realistic features of novels are applied to movies. This course examines the original novels and their film versions, comparing them with their visual equivalents. The course takes this course will be able to gain a deeper understanding of the peculiar ways of representation used in movies and understand the different ways in which women have established their identities through women writers' works. The course also discusses how historical, political, and social factors influenced women's discourses. We will consider not only traditional themes such as maternity or eroticism, but also present issues such as modernity, urbanity, and body.

041.036 러시아명작의 이해 3-3-0
Understandings Russian Masterpieces

041.037 라틴아메리카 문학과 사회 3-3-0
Literature and Society of Latin America

041.038 문학과 영상 3-3-0
Literature and Film
041.039 Understanding of Hispanic Masterpieces

This course will explore the outstanding literary masterpieces and cinematic achievements of Spain and Hispanic America. Its aim is to enable students to understand Hispanic culture, history and tradition. The examined texts and works will consist of literary works that have been translated into English or Spanish, as well as cinematic works produced in these countries. The course will provide the basic understanding of the language-in-use of Spanish-speaking countries, as well as an introduction to the history and culture of these regions.

041.040 World of Languages

This course offers a general survey of Altaic peoples, followed by classes focusing on the three main subdivisions of the Altaic language family: the Turkic, Mongol and Manchu-Tungus branches. For each of these, you will cover the extent of the people's use of their language and culture, as well as the current preservation efforts of the culture. As required, material (including visual data) gathered from on-site fieldwork will be used to illustrate more vividly the Altaic languages and cultures. In addition, the course also aims to explore the relationship between the languages introduced and the Korean language.

041.041 Understanding Language

This course introduces the area of linguistics that deals with natural language and variations of natural language (historical-comparative linguistics).

041.043 Languages of Altaic Peoples

This course will build a basic understanding of human language itself and its function in society. The course will provide the basic understanding of human language and the universe. Thus, the course will let the students learn the universality of "information" and "communication" in many academic fields.

041.044 Greek Tragedy

This course aims to expand the understanding of classical literature and culture by reading the works of Aeschylus, Sophocles, Euripides and Aristophanes. The English translations of the tragedies will be read with a focus on the methods for understanding the classics. In view of the fact that the classics form the basis of Western civilization, how to read and enjoy Western literature as well as varying ways to approach Western culture will be explored.

041.045 Greek & Roman Mythology

This course will offer a general survey of Greek and Roman Mythology, following by classes focusing on the three main subdivisions of the Altaic language family: the Turkic, Mongol and Manchu-Tungus branches. For each of these, you will cover the extent of the people's use of their language and culture, as well as the current preservation efforts of the culture. As required, material (including visual data) gathered from on-site fieldwork will be used to illustrate more vividly the Altaic languages and cultures. In addition, the course also aims to explore the relationship between the languages introduced and the Korean language.
World of Ancient Greek & Roman Literature

The course surveys Greek and Roman poetry, epics, and tragedies to provide a comprehensive understanding of Greek and Latin literature. The characters and themes of these works are analyzed to study the values and "weltanschaung" of ancient Greeks and Romans. They are then compared to works of both Western and Eastern literature. The course aims to enlarge the understanding of Drama that increasingly gains attention as the significant cultural genre and expose students to both the theory and practice of the Drama. For this purpose, the course considers the nature of the Drama theoretically and study various elements comprising Drama in the first part of the lecture. In the second part, we will have a chance to watch a piece of the Drama in various aspect on basis of these study.
인식을 교육하고 한국 신화에 대한 이해를 통해 한국문화의 중추
을 같이 있게 이해하기 위해 이 교과목은 개설된다.

한국 신화는 문학과 구전 두 가지 방식으로 전승되고 있다. 문
학에 기록된 신화가 주로 시조신화, 건국신화라 불리우는 신화는
주로 무당들이 곡을 한 때 부르는 무당(產符) 속에 보존되어 있는
신화로 천지개벽신화, 인류기원신화, 문화기원신화, 홍수신화, 신들
의 기원신화, 당신신화, 조상신화 등이 있다. 전설만을 한국 신화
라고 오해하는 경향이 있지만 후자가 더욱 풍부하고 본격적인 한국
신화라고 할 만하다. 이들 텍스트에 대한 문화적 분석을 통해 한국
신화의 의미를 정확히는 강의의 중점이 될 것이다.

이 분석의 과정에서 이 교과목은 두 가지 접근 방향을 가지고
있다. 하나는 한국 신화를 고립적으로 이해하는 것이 아니라 동아
시아 비교신화학이라는 둘째 비교하는 것이다. 신화는 민족적
보편성상이 아니라 문화권(혹은 지역적) 보편성이 지니고 있기
때문에 문화권 내의 비교는 신화에 대한 올바른 이해를 심화시킬
수 있기 때문이다. 다른 하나는 동시대 인문학적 관심을 고려하
는 신화 해석의 방향이다. 민족주의 혹은 중화주의, 여성주의, 탄
구주의 등과 같은 주제를 통해 한국 신화를 새롭게 이해하려고
한다.

Many Koreans have a fixed image that Greek-Roman
myths-so-called classic myths—are standard of myth. This
image is related to Euro-centered education in school of
Korea. Many Korean students ask; Why don’t we have a
creation myth, and Why have no heroes like Greek heroes?
But There are Many kinds of myth in Korean oral and liter-
al tradition. We have a creation myth, a flood myth, the ori-
gin myth of god, the birth myth of a nation, a shrine myth,
and progenitor myth. We will analyze and interpret these
kinds of Korean myth in class. We will also analyse myths
by some theory like a comparative mythology, Sinocentrism,
feminism and poststructuralism. Through this subject, attend-
ees will understand not only Korean myth, but also Korean
culture and cultural unconsciousness deeply.

042.005 한자와 동양문화 3-3-0
Chinese Character and Oriental Culture

한자는 감골문부터만 계산해도 대략 3,500년의 역사가 가지
고 있으며, 오랫동안 동양의 문화 전반에 걸쳐 큰 영향을 미쳤다.
특히 한중일 삼국은 한자를 배로 한 문화적 동통성을 많이
가지고 있어 한국문화권이 속하는 것으로 불리한다. 본 과목에서
는 한자를 관련된 동양의 문화와 그 속에 담겨진 동양의 사유
방식을 살펴보는 것을 그 목적으로 한다. 강의의 내용에는 다음
과 같은 내용이 포함된다: 1) 한자의 역사와 발전 과정, 2) 성형에
많이 참여하는 한국의 원래 의문, 3) 한자와 동양문화, 한자와 동양
인의 영향, 한자와 동양인의 금기 등의 한자와 고대인의 생활, 4) 한자
와 사고, 한자와 시에처럼 한자와 현대인의 취에 대한 부
문, 5) 한자와 디자인 등 직접 현대에 이르는 가능한 동양의 문화,
강의의 과정에서는 시장적 자료로 많이 활용하여 시각적 효과를
높이며, 실제 생활에 적용 가능한 문화적인 요소에 대해 수용성
으로 찾아가도록 유도할 것이다.

Since the form Jiagu wen (Oracle-bone Inscription),
Chinese Characters have had a great influence on oriental
culture throughout their long history. It is what China,
Korea, and Japan have in common in their cultures; thus,
they belong to the same cultural field called the “Cultural
field of Chinese Characters.” This course aims to foster
understanding of the East Asians’ way of thinking as reflected
in their own culture through Chinese Characters. The follow-
ing are the course contents:

1) Historical changes and developments of Chinese
Characters

2) Original meaning of Chinese Characters used in today’s
practical life
3) Chinese Characters vis-a-vis Asians’ life: agriculture,
names, taboos
4) Chinese Characters vis-a-vis modern people’s interest:
Si junzi (four noble characters; Plum, Orchid, Bamboo,
and Chrysanthemum design), calligraphy
5) Looking for new ways to utilize Chinese Characters
and oriental culture: Design

This course will use various virtual materials that can help
students gain understanding on each course content. For part
5 in particular, student participation will be encouraged to
determine and discover aspects of Chinese Characters
that are applicable to today’s practical life.

042.006 중국어권의 사회와 문화 3-3-0
Understanding the Society and Culture of
the Sinophone World

이 강의는 갈수록 그 영향력이 증대하는 한자와 동양문화의
사회, 문화적 상황 및 자세한 발전방향에 관심을 가진 학생들을
위해 개설되었다. 70대 말 대개개발을 시작한 이래 연평균 9%
가 넘는 경제성장률을 이어온 중국의 발전은 이제 미국과 이이
를 나란히 하는 글로벌 레이터 중 하나로 인정받는 국가에 이르렀다.
중국이 이로운 급속한 발전의 배후에는, 종교 및 세계 문화적
협동화의 변화에 대한 역동적 이해가 있음을 말한다. 본 강의는
당신을 이렇게 끊임없이 변화하고 있는 중국에 대해, 그리고, 
미국에게, 그 변동을 깊이 있게 이해하기 위해 제목이 되는 두
목표를 둔다.

This is an undergraduate course designed for students
interested in understanding the society and culture of mainland
China and the larger Sinophone world (Taiwan, Hong Kong, and
ethnic Chinese communities around the globe). China’s
economic growth since its reform and opening in the late
1970s, averaging over 9% per year, has allowed the country
to gain influence and to emerge as a global leader on a par
with the U.S. Behind this rapid development lie close coop-
erations of, and coordinations with, Taiwan, Hong Kong, and
the ethnic Chinese network worldwide. This course will sur-
vey the factors enabling China’s development from cultural,
historical, and political perspectives, and seek to understand
both the sociocultural similarities and differences marking the
Taiwanese and Hong Kong experience, as well as the experi-
diences of diasporic Chinese communities, vis-a-vis mainland
China. Attention will be paid to both the present situation
and possible avenues of future development. The aim is for
students to acquire the breadth and depth of understanding
necessary to respond actively to future global changes spear-
headed by the Sinophone world.

042.007 미국문화와 현대사회의 이해 3-3-0
Understanding American Culture and
Contemporary Society

미국문화의 이해를 통해 현대사회에 대한 이해를 목표로 하는 강의
이다. 미드에 대한 폭넓고 깊이 있는 이해를 위해 제시되어 세계대전
이후의 다양한 역사, 철학, 대중문화, 문학 텍스트를 고찰하여 미

- 36 -
교양과목(Courses for General Education)

이 강의는 이미지와 상상력이 생성되고 발현되는 상상의 특성을 소개하는 것을 일차적 목표로 한다. 따라서 이 강의는 상상력이 실질적으로 구현되고 있는 문화 현상의 각종 예들을 동시대와 동시대의 축을 따라 동서양의 지리적 역사적 맥락 속에서 소개하고 동시에, 문과 학문의 경계를 넘어 인간학 대상 전반에 걸쳐 행해지는 문학을 통해 상상력의 기능과 작용 유리에 대한 이해의 틈을 제공함으로써 그 연구방법론을 도출하고, 새로운 인식을 모색하는 것을 궁극적인 목표로 한다.

This course will primarily introduce the characteristics of the imaginary world, a place for the creation and manifestation of images. It offers a framework for the understanding of the functions and working principles of imagination. In order to draw a methodology and a new epistemology of the imaginary world, an overview analysis of human studies beyond the boundaries of separate disciplines will be performed. This will acquaint the students with diverse examples of cultural phenomena in a geographical and historical context of the East and West, showing, diachronically as well as synchronically, the actual embodiments of the imagination.

042.008 영미문화 읽기 3-3-0
Reading Anglo-American Culture

This course introduces students to Anglo-American mainstream culture by reading selected prose works of various genres—essays, short stories, biographies, historical writings, memoirs, political pamphlets, etc.—in English. Through intensive reading of texts, students are expected to improve reading skills in English. Along with this, various writing styles shaped by and resistant to the idea of culture will be discussed in a way that students can gain an in-depth knowledge of Anglo-American culture.

042.009 상상력과 문화 3-3-0
Imagination and Culture

이 강의는 이미지와 상상력을 이해하고 발전하는 이론적 특성을 소개하는 것을 목표로 한다. 따라서 이 강의는 상상력이 삶과 문화 형상의 각종 예들을 동시에 동시대와 동시대의 축을 따라 동서양의 지리적 역사적 맥락 속에서 소개하고 동시에, 문과 학문의 경계를 넘어 인간학 대상 전반에 걸쳐 행해지는 문학을 통해 상상력의 기능과 작용 유리에 대한 이해의 틈을 제공함으로써 그 연구방법론을 도출하고, 새로운 인식을 모색하는 것을 궁극적인 목표로 한다.
Culture. Hence, this course will analyze various cultural texts created by individuals, but in a broad sense of the traditional narrow sense which perceives a work of art as an inorganic nets of history and society created by human beings. All texts exist in the frame of world culture. This course will focus on the relationship of the fine arts with other fields of art. Emphasis will be on the descriptive as well as other fields of art.

042.014 Understanding of the Hispanic Culture

This course is an investigation of traditional art from China, Korea, Japan, and India, focusing on their artistic and historical contexts. Emphasis will be on the characteristics and significance of such works. Additionally, the class will focus on the relationship of the fine arts with various media including newspapers, broadcasting, and literature. They will examine current issues systematically and concretely and investigate the culture and society of Hispanic countries.

042.015 Understanding of the Hispanic Culture

This course will cultivate students’ understanding of modern culture through various media including newspapers, broadcasting, and literature. They will examine current issues systematically and concretely and investigate the culture and society of Hispanic countries.

042.016 Understanding of the Hispanic Culture

This course will cultivate students’ understanding of modern culture through various media including newspapers, broadcasting, and literature. They will examine current issues systematically and concretely and investigate the culture and society of Hispanic countries.

042.017 Understanding of the Hispanic Culture

This course will cultivate students’ understanding of modern culture through various media including newspapers, broadcasting, and literature. They will examine current issues systematically and concretely and investigate the culture and society of Hispanic countries.

042.018 Understanding of the Hispanic Culture

This course will cultivate students’ understanding of modern culture through various media including newspapers, broadcasting, and literature. They will examine current issues systematically and concretely and investigate the culture and society of Hispanic countries.
040.017 종교와 영화 3-3-0
Religion and Film
 종교학은 인간의 건축에서 두툼한 복잡한 영상문화라는 프라임을 통해 다양한 종교적 문제들로 탐구한다. 영상매체가 주로 제작의 당연한 영상으로 인해 인간의 문제와 가치를 이해하는 데 도움이 되는 종교에 인간의 이해하는 영상동을 드러내게 될 것이다.
 This course investigates the relationship between religion and visual culture, mainly cinema. It will explain that religion is the key to understand human beings through exploration of a variety of movies that deal with religious motifs such as time and space, suffering, death, myth and ritual.

040.018 종교와 예술 3-3-0
Religion and Arts
 종교와 예술이 어떻게 서로 만나면서 관계를 만들어왔는지를 살펴보며, 인간의 문화 활동의 산물인 예술을 종교적인 맥락에서 접근할 수 있는 안목을 보여주며, 또한 그 반대인 종교문화에서 예술이 차지하는 모순은 이미하저를 개괄적으로 알아보는 데 그 목적이 있다.
 This course investigates the historical relationships between religion and art.

040.019 현대문화와 기독교 3-3-0
Modern Culture and Christianity
 현대사회의 다양성의 문화에 지배하는 사회이다. 이러한 사회 속에서 기독교는 다른 종교들과 함께 매우 다양한 변화를 경험했다. 특히 한국의 사회문화 속에서 기독교는 한국 종교문화의 주류로서 자리 잡아 왔다. 본 강좌는 세계와 한국의 현대문화 속에서 기독교의 존재방식을 살펴보면서 종교문화에 대한 이해를 넓히고, 나아가 현대문화와 기독교의 관계에 대한 성찰을 심화시켜 줄 수 있을 것이다.
 This course provides an analysis of the presence and influence of Christianity in Korean culture and the rest of the world.

L0546.000200 예술의 가치와 비평 3-3-0
Art Criticism and Values of Art
 예술은 다양한 방식으로 인간 삶에 개입해왔으며, 그러한 경험을 의미화하려는 노력로 예술 비평이 이어진다. 예술 비평이란 예술에 대한 우리의 경험을 체계적으로 조직된 것으로, 예술의 가치를 판단함으로써 예술에 대한 이해를 넓히는 데 있다.
 This course provides an inquiry into aesthetics and the relationship between society and art.

L0546.000500 공연예술의 이해 3-3-0
Introduction to the Performing Arts
 본 교과목은 ‘무대와 관객의 관계’를 중심으로 하는 공연예술 전반에 대한 이해를 도모한다. 우선 공연예술 일반론을 학습하여 이와 관련된 몇 가지 공연 예술의 핵심적, 전통주의 공연, 알렉산드르 (안가) 연극, 음악, 무용 각각을 개관하며, 나아가 오늘날의 다양한 복합 장르 공연 예술 현상을 소개함으로, 예술의 해석과 가치 평가의 방법론을 아우르는 방법론을 제공한다.
 This course comprehensively explores studies on performing arts, which are characterized by its emphasis on the on-site relationship between stage and audience. The main objective of this course is to enhance students’ interests and understanding of general theories about performing arts, the history of major genres of performing arts (verbal theatre, music, dance) and the practice of interdisciplinary contemporary performing arts. Throughout this course, students are also expected to advance their abilities in appreciating and criticizing contemporary performing arts.

L0546.000600 미술론입문 3-3-0
Introduction to Theory of Fine Arts
 ‘미술론 입문’은 ‘미술이란 무엇인가’라는 기본 문제에 대해 서로 다른 역사적 맥락들을 상호관계적으로 미술 개념의 변화를 개관하며, 이를 통해 미술이란 어떠한 의미에 대한 해석이 고찰할 수 있다. 이를 위해 고대 그리스 미술에서 동시대 미술까지의 시대적 변화의 역사적 변천을 살펴보고, 그러한 변화에 이르러 미술 내적이고 외적인 활동들에 대한 이해를 모색하며, 미술과 관련되어 있는 ‘미술사’라는 미술과의 문제들을 함께 고찰해본다. 또한 역사적 의미의 다양한 관점에서 다양한 미술을 바라보고 이해하는 다양한 전통적 변화들을 알아가면서 우리가 살고 있는 동시대 미술에 대한 경청력을 높이고, 그에 대해 논할 수 있는 자
Art and Science

This course addresses the validity of the dichotomization of viewing sense and reason, investigating the origin of this perspective.

Introduction to Film Art

This course will inquire into spiritual aspects of Asian arts through aesthetic approaches. It will study the concept of arts in Asia, the formation of aesthetic consciousness and its development, the relationship among poetry, calligraphy and paintings, the reciprocal relations of Confucianism, Taoism and Zen, the categories used in creative activities and critical perspectives on film. In addition to preparing weekly readings, students will be required to view a variety of films prior to each class meeting.

Understanding Popular Art

This course aims to provide students with the capacity to relate it to the humanities.

Introduction to Theory of Art

This course would provide the opportunity to develop the free and deliberate thoughts on the visual arts, to discuss them, and to write on them, too.

Introduction to Theory of Music

This course will inquire into spiritual aspects of Asian arts and art history from the ancient Greek arts to the Western contemporary arts, introducing the critical and major conceptual frameworks and pluralistic perspectives, which would help the students to experience our contemporary art works much better.

Introduction to Film Art

This course introduces students to the basic concepts, technical analyses, and theories of film. As the title indicates, film will occupy a central position in the course, much as cinema has been the dominant medium for the last 100 years. The study of film has a long and diverse tradition, which will frame academic inquiry in the fields of film in this class. Throughout the semester, this course will introduce central topics of film including mise-en-scène, cinematography, framing, editing, narrative, genre and author, as well as a survey of critical perspectives on film.

Understanding Popular Art

This course will study the concept of arts in Asia, the formation of aesthetic consciousness and its development, the relationship among poetry, calligraphy and paintings, the reciprocal relations of Confucianism, Taoism and Zen, the categories used in creative activities and critical perspectives on film. In addition to preparing weekly readings, students will be required to view a variety of films prior to each class meeting.
The way of reading of artistic experience which should not be limited to the immediate production and consumption, but should be a broader and more complex approach to contemporary arts and culture. Today, we need various views to compensate for the limitations of traditional aesthetics and criticism. Because the rise of new media, various desire of audience, institutionalization of arts, and sensitivity of artistic consumption and its challenge. Now that it is not a simple perceptual object, but as cultural text. In order to understand contemporary arts and culture deeply, we will look at representative examples which show the diversity and specificity of contemporary popular arts using aesthetic perspectives. We will analyze popular arts as a everyday experience as well as a collective experience using the main concepts of aesthetics such as art, aesthetic experience, and aesthetic sensitivity, and thereby cultivate liberal humanity that connects cultural experiences with critical theories. Through classes that look back on popular arts as easy, familiar, and entertaining, from critical and reflective approaches, we seek to gain a new perspective on the popular ‘art’. To this end, we will survey previous studies, debates, and perspectives on “popular art”. We will also look at representative examples which show the transformations of genres and medium, and examine how they have forces the aesthetics to adjust its methodologies and perspectives. Popular art is not only for the masses, but also an art given to the masses. And it is often created by the masses themselves. Through the multifaceted analysis and understanding of the stereoscopic aspect of these popular arts, we will share a new dimension of public, culture, art, and sensitivity.

Feminist Aesthetics and Arts

 현대예술과 문화를 폼딩고 21세기 이해하기 위해서는 전통적인 미학과 비평의 한계를 보완하는 다양한 관점이 필요하다. 현대의 예술과 문화현상은 제작과정의 변화, 새로운 매체의 도래, 수용자와 다양한 욕구, 예술적 소비의 경향화와 그에 대한 도전 등 실제 복잡한 요소들을 포함하기 때문이다. 따라서 현대예술과 문화현상에 접근하는 데 있어, 장르와 형식에 대한 관조적 태도는 부적절하며 다양한 접근이 요구된다.

 Feminist Aesthetics is an art given to the masses. And it is often created by the masses themselves. Through the multifaceted analysis and understanding of the stereoscopic aspect of these popular arts, we will share a new dimension of public, culture, art, and sensitivity.

Perspectives on Asian Art

This course is an introduction to the history of Asian art for non-art major students. It will cover the major artifacts of China, Japan, and Korea from the ancient to the modern era and attempt to define the characteristics that distinguish Asian art from Western art. The role of art will be discussed in social, historical, and cultural contexts.

Art and Civilization of Western World

This course breaks away from the traditional limitations of conventional art history, and adopts a broader view to understand Western art in the context of the politics, economy, religion, and literature of each era to the Modern age. Instead of dealing with Western art as part of culture, this course focuses on examining the process in which visual culture is formed from within the more expansive territory of civilization. With this wider focus students will understand
042.038 Understanding Western Art

This course examines the characteristics and development of Western arts, their differences, and surveys the current status of Western arts.

042.039 Understanding Masterpieces of Art

This course seeks to expand the overall perspective and understanding of art, through the appreciation of masterpiece paintings and architectures of the East, West and other regions.

L0546.000100 Understanding Contemporary Art

오늘날 현대미술은 미술작가들의 역할 변화, 새로운 미술 체계들, 그리고 미술제도의 규격화 영향 등이 복합화되고 다원화되고 있습니다. 이러한 현대미술의 변화에 대한 이해를 넘기기 위해 본 수업은 담론중심적이고 연대기적인 관점에서 보았으나 현대미술의 흐름을 주도해 온 미술실천들의 변화에 주목하고 이와 연관된 작가들의 작품과 미술현장의 주요 이슈들을 중점적으로 소개합니다. 그리고 이러한 미술실천들의 의미와 현대미술가들이 제기하는 이슈들을 이해함으로써 현대미술과 미술현장이 세화되어진 미술제도로 이해를 제공하는 기회를 제공합니다. 특히 본 수업은 이론의 차원을 넘어서 수업 자체가 현대미술과 미술현장에 영향을 끼친 미술제도의 영향을 제공하는 기회를 제공합니다. 하지만 이론의 차원을 넘어서 수업 자체가 현대미술과 미술현장에 영향을 끼친 미술제도의 영향을 제공하는 기회를 제공합니다. 그레고 보다 이론적이고 학문적이다. 현대미술의 역할은 미술작가들과의 관계를 이해하는 데 중요한 과제가 될 것이다. 그리고 이러한 관계를 이해하기 위해서는 현대미술의 전통과 태도를 정상화하여 공감하는 데 중요한 과제가 될 것이다. 현대미술의 역할은 미술작가들과의 관계를 이해하는 데 중요한 과제가 될 것이다. 그레고 보다 이론적이고 학문적이다. 현대미술의 역할은 미술작가들과의 관계를 이해하는 데 중요한 과제가 될 것이다. 현대미술의 역할은 미술작가들과의 관계를 이해하는 데 중요한 과제가 될 것이다.

Contemporary art is becoming more complex and diverse with rapid changes in the role of artists and art institutions, and newly emerging art practices. In order to broaden the students’ understanding of such changes in the contemporary art landscape, this course moves away from the discourse-oriented, chronological approach. Rather, the students are encouraged to explore first hand, the art practices that brought about such change; the work of leading artists; and major issues of the art world to ultimately see the contemporary art world as a systemic institution. As such, this course will be centered on not only class lectures but also field trips. The aim of this course is to aid students in understanding contemporary art and the field of art within the context of art institution, and to make art more accessible, and intriguing to the future gallery-goers.

042.041 Introduction to Modern Music

This course provides a detailed examination of representative pieces of modern music. Students will listen to various kinds of music including instrumental, vocal, and incidental music of various countries. Topics includes history, philosophical background, composer, style, and interaction with other arts.

042.042 Philosophy in Music

This course provides a historical and systematic foundation to help students appreciate classical music in its various contexts. Students will have the opportunity to survey a wide variety of texts in philosophy and music. Emphasis is broadly placed on addressing the following questions: ‘What music theory was based on philosophical principles?’ and ‘What
philosophical implications are discovered through music?"
The purpose of this class is to provide a humanistic viewpoint to understand music.

042.043 음악의 원리 3-3-0
The Elements and Structural Principles of Music

This course will provide new perspectives on Korean cultural history. Students will examine the cultural characteristics of Korean religion, science, politics, society and art. Special focus will be placed on the interactions between cultural history and the environment.

043.004 군·현대 한국민족주의의 3-3-0
Nationalism in Modern & Contemporary Korea

한국과 중국, 일본은 고대로부터 서로 국경을 맞대고 역사를 발전시켰다. 그 과정에서 각국이 존재하였던 국가와 종족의 귀속문제, 현재의 국경선과 다른 형태의 영토개념 등이 논쟁되는 경우가 종종 있다. 각국의 정치적인 목적에 의해 역사적 사실을왜곡, 변형시키려는 경우도 있다. 이러한 문제점으로 인해 현재의 정적인 무역, 역사, 정치 등이 위태롭게 되고 있다. 이러한 문제점을 극복하기 위해서는 이러한 문화가 발생하게 된 역사적 배경과 그 내용, 그리고 국토변화의 상호 인식이 마련되어야 한다. 이 과목은 한국사 전반에 걸쳐 있는 학생들이 역사의 내용을 이해하고 극복의 방안에 대해 고민하는 기회를 제공할 것이다.

Korea, China, and Japan shared a border and developed their histories since the ancient period. In the process, issues of belongings of the nation and ethnic groups that existed in the past, and different concept of territory in the past from
today’s border line have often emerged as major interest. There were even cases of distorting and changing the historical facts according to their political goals. These problems aroused political conflicts and hostilities against each other in today’s society. In order to overcome these problems, consensus about historical background from which these conflicts occurred, its contents and the way to solve them should be arranged among the countries. This course aims to provide opportunities to understand the ongoing historical conflicts and to consider effective solutions even for students who are not majoring in Korean history.

043.006 역사와 역사 재현 3-3-0

**History and Historical Representation**

한국의 역사와 문화에 대해서 역사 소설과 역사 비디오, 그리고 박물관과 기념관 등 역사의 재현물을 통해 살펴본다. 역사의 재현물에 대한 고찰을 통해서 실제의 진실한 역사상과 일반인들의 기억 속에 있는 전통과학이 상당히 거리가 있음을 살펴보려 한다. 이러한 고찰을 통해서 다양한 역사의 텍스트를 읽는 인문학적, 역사적 안목과 소양을 기르는데 이 수업의 목표를 둔다. 한국의 역사에서 전통 과학 문화라는 대중에게 익숙하지 않은 분야에 초점을 맞추어 살펴볼 것이다.

This class surveys the traditional culture in Korean history through represented architects of history like museums, memorials and historical novels. Students will come to perceive the gaps between their memory and historical truth.

043.007 한국사 3-3-0

**Korean History**

한국사 전반에 대한 기초적인 지식과 함께 한국사의 필요성을 이해시키기 위하여 개설하였다. 고대에서 근 대에 이르는 한국사의 발전과정을 연구·소개함으로써 최근의 한국사 연구동향과 성과들을 이해시키고 나아가 이는 전문의 사고력을 신장시키는데 목 적이 있다.

This class will not only provide students with a basic knowledge of Korean history, it will also help them understand the importance of learning history. Through an introduction to the academic achievements made in this area, students will be able to understand how Korean history has evolved as a field of study. They will also further develop and refine their scientific thought process, a very necessary skill in historical studies.

043.008 한국인의 역사의식 3-3-0

**Historical Consciousness of the Korean People**

한국 역사학의 발달과정을 소개함으로써 전근대 역사학이 근대 적인 면모를 갖추게 되는 과정과 그에 따른 역사의식과 방법론상의 변화를 검토한다.

This class will present the developing process of Korean historical studies, examining the transitions made as pre-Modern historical studies were reformed into Modern-style historical studies. Certain changes in the people’s way of viewing history, and the ways the methodologies were applied to actual studies will also be studied.
교양과목(Courses for General Education)  

issues in Ancient Korean History  

한국고대사의 쟁점 3-3-0

Cultural Heritage of Korea

한국의 문화유산 2-2-0

Confucianism in Korean History

유교는 동양 삼국사에서 역사적으로 가장 많은 영향력을 발휘했던 대학문의 세계(Worlds of Knowledge)

L0547.000900 한국사 속의 유학 3-3-0

Confucianism was the most powerful ideology that has ever existed throughout the history of East Asia. It served as the guiding principles in politics and social regulations. Confucianism influenced the society the most during the Joseon Dynasty, and the ideology regulated literally everything from the government bodies to the lives of private citizens. In this class, students will have an opportunity to examine how the Confucian thoughts and culture were formed, developed and affected in Korean history, and how this process was related with the development of Confucianism in the East Asia. Through this process, students will understand the Korean history in this aspect of Confucianism.

인물로 본 한국사 2-2-0

Korean History Viewed through Lives of Great Figures

한국사에서의 일반 대중의 사상 등 다방면에서 조명한다

L0547.001100 한국고대사의 쟁점 3-3-0

Issues in Ancient Korean History

한국고대사는 고조선 이후 통일신라, 발해에 걸쳐 많은 종족과 국가가 황동성쇠를 겪으며 한국문화의 일원이 만들어지고 한국인족의 모태가 형성된 역동적인 시대였다. 따라서 많은 사건과 인물의 활동이 포함되며 중국, 일본 등 주변국가와도 다양한 형태의 교섭을 진행하였다. 이러한 이유로 인해 일반인들은 한국고대사의 정체성에 대한 인식을 얻어 만약 이를 악용한 비정당적인 사상이 사회여론에서 반영되는 현상이 벌어지기도 한다. 현재까지는 근대 이후 일본에 의한 식민지 전략, 중국과의 동북자방의 귀속을 둘러싼 논란이 전개되면서 한국고대사의 중요한 쟁점들이 부각되고 해석에서도 다양한 편차를 노출하고 있다. 이 과목은 한국사를 정확히 알고 있는 학생들이라도 현실적으로 관심을 갖고 있는 한국고대사의 다양한 주제를 다루면서 온바른 역사성을 갖추는 것을 목표로 하고 있다.

Cultural Heritage of Korea

한국의 문화유산 2-2-0

Cultural Heritage of Korea

한국은 우리민족의 문화유산을 체계적으로 학습할 수 있는 과목이다. 사찰과 궁궐 등의 건축물과 불상이나 석탑 등의 조형물에 따르는 많은 사건 및 활동이 포착되며 중국, 일본, 등 주변국가와도 다양한 형태의 교섭을 진행하였다. 이러한 이유로 인해 일반인들은 한국고대사의 정체성에 대한 인식을 얻어 만약 이를 악용한 비정당적인 사상이 사회여론에서 반영되는 현상이 벌어지기도 한다. 현재까지는 근대 이후 일본에 의한 식민지 전략, 중국과의 동북자방의 귀속을 둘러싼 논란이 전개되면서 한국고대사의 중요한 쟁점들이 부각되고 해석에서도 다양한 편차를 노출하고 있다. 이 과목은 한국사를 정확히 알고 있는 학생들이라도 현실적으로 관심을 갖고 있는 한국고대사의 다양한 주제를 다루면서 온바른 역사성을 갖추는 것을 목표로 하고 있다.

Confucianism in Korean History

유교는 동양 삼국사에서 역사적으로 가장 많은 영향력을 발휘했던 대학문의 세계(Worlds of Knowledge)

L0547.000900 한국사 속의 유학 3-3-0

Confucianism was the most powerful ideology that has ever existed throughout the history of East Asia. It served as the guiding principles in politics and social regulations. Confucianism influenced the society the most during the Joseon Dynasty, and the ideology regulated literally everything from the government bodies to the lives of private citizens. In this class, students will have an opportunity to examine how the Confucian thoughts and culture were formed, developed and affected in Korean history, and how this process was related with the development of Confucianism in the East Asia. Through this process, students will understand the Korean history in this aspect of Confucianism.
교양과목(Courses for General Education)

tradition'

L0547.000400 동서문명의 만남과 실크로드 3-3-0
The Silk Road and the Confluence of Civilizations

본 강의는 유라시아의 다양한 문명들이 실크로드를 통해 어떻게 서로 상호 영향을 주고 받았는가 하는 문제들을 다루는 것이다. 특히 중앙유라시아를 무대로 펼쳐진 세계사의 전개를 기각적 관점에서 조망함으로써, 수많은 문화적 요소들이 어떻게 역배향하여 현대문화의 특성을 이해할 수 있는 기회가 될 것이다.

L0547.001800 동아시아의 왕권 3-3-0
Royal Authority in Traditional East Asia

동아시아 문명을 주도적으로 선도한 중국문화의 가장 큰 특징은 강한 정치적 성격이기 때문에, 이 성격은 황제 권력을 효과적으로 유지하고 행사하기 위하여 구축된 황제지배체제에 의하여 결정되었다.

L0547.000300 중국의 전통과 현대 3-3-0
Tradition and Modernity in China

이 강의에서는 전통시대와 현대사회의 이론적 명분과 역사적 성취를 파악하며 현대 한국사회에 남아 있는 조선王조의 유산에 대한 이해를 통해 한국사회의 미래 전망을 창출할 수 있는 역사적 관점을 제공한다.

L0547.001900 이슬람 문명의 역사 3-3-0
History of Islamic Civilization

이 강의는 이슬람 문명사를 이슬람의 발전에서부터 현재까지 개관하며, 국가와 사회의 기본적인 운동 방식, 경제 제도, 문화적 특성, 종교와 철학 등 여러 분야의 역사를 종합적으로 살펴본다. 역사적 사건들에 대한 세부사항보다는 역사상의 주요한 호흡과 변
This course surveys the history of Islamic civilization from the rise of Islam to the present, generally exploring the basic mode of operation of the states and societies, economic institutions, cultural standards, religion and philosophy and so forth. It would emphasize major historical trends and developments as well as interactions in world history rather than details of historical events. Translated sources from Arabic or Turkish (mostly into English) will be used to promote vivid details of historical events. Translated sources from Arabic or Turkish (mostly into English) will be used to promote vivid details of historical events.

Themes in Chinese History

동아시아에서 위치한 우리나라라는 한국의 사용, 불교나 유교와 같은 종교, 각종 법령 등에서 전통적으로 중국은 독특한 법률 체계와 이에 기반한 중앙집권의 확대, 한국의 사용, 유교와 불교와 같은 종교적 전통의 발전 등을 통해 동아시아 여러 나라에게 있어 학습의 대상이었고, 한반도 이러한 문물을 수입하며 중국과 간접한 관계를 맺었다. 따라서 중국의 역사와 문화에 대한 이해는 단순히 중국이라는 한 나라의 역사 발전과 변화상에 대한 지식 습득의 차원을 넘어서, 한국의 태동과 다양한 왕조의 흥망, 다른 지역 혹은 다른 민족들의 교류로 통한 문화와 공감, 다양한 삶의 모습 등을 거시적이고 다각도로 조망할 수 있다는 점에서 중 요하다. 이러한 맥락에서 본 과목은 중국의 역사와 문화를 중요한 주제별로 탐구함으로써 전통사와 중국 문화의 특성을 살펴보고, 나아가 그 영향을 받은 동아시아의 종합된 문화 특성을 이해하는 것을 목표로 한다. 특히, 단순히 시대 순서 혹은 정치사적 변화를 비롯한 역사적 파악을 의학적, 과학적, 문화적 관점에서 전통사와 중국 문화의 특성을 살펴보며, 그 문명의 진보도에 대한 고찰의 방법을 이용할 것이다. 이를 통해 전통사와 사회는 전통사와 지역의 두 차원에서 나아가 간접하게 연관되어 있는가 하는 역사 인식의 지평 확장을 도모한다.

By developing legal codes, governmental structure, writing system, religious beliefs such as Buddhism and Confucianism, China provided a model for other East Asian states in the pre-modern period. Importing part of Chinese culture, Korea has also been in close contact with China. Thus learning Chinese history and culture is not only necessary for understanding the historical development of Chinese civilization, but also essential for having a broader and multi-dimensional perspective on the East Asia, by learning the birth and growth of a civilization, the rise and fall of many dynasties, long-term interactions with other cultures, and many aspects of material life. In this sense, this course aims to survey the characteristics of Chinese history and traditional culture, focusing on a series of important topics. Also it is intended that students will have a better view on common cultural traditions shared in East Asia. Especially this course aims to improve students’ understanding by approaching Chinese history through carefully chosen topics that could represent important aspects of people’s life in the pre-modern period, rather than surveying Chinese history simply following political or dynastic changes. It also is expected that students will recognize how closely traditions from pre-modern period are linked to our life in present times.

China and Its Neighbors in History

고대 이래로 중국 문명은 동아시아 문명의 ‘중심’으로서 기능해 왔다. 문명의 발달 수준에 대한 자부심은 ‘중심’과 ‘이익’의 구분 나타나려고, 중국이 독특한 천하관념을 낳았다. 본 강의는 ‘중심’의 세계가 그 ‘주변’ 지역과 역사적으로 어떻게 관계를 맺었는지, 그 특성은 어떠한 것인지 등의 문제에 관여하여 살펴볼 것이다. 본 강의는 주변 국가들의 관계를 통도적으로 조망함으로써 동아시아 국제 관계의 국제적 현상을 다룬다.

Throughout history, Chinese civilization has functioned as the center of East Asian civilization. The confidence in its cultural superiority was expressed as the distinction between ‘the central state’ and ‘the barbarians’, which formed a Sino-centric world view. This course will trace the history of the relationship between China and its neighbors, and will examine its characteristics. Although its centrality was weakened at the beginning of modern era, China is rising again as the new ‘center’ of East Asia and the world. Therefore, historical knowledge and understanding of the relationship between China and its neighbors in the past is essential for understanding contemporary East Asia and for predicting its future. This course will provide an outline of the past and present of the East Asian world order through surveying the general history of the relation between China and its neighboring countries.

Major Personalities in Japanese History

일본 역사상 중요한 인물들을 통해 일본사의 전개와 특성을 살펴보고자 한다. 단순히 인물의 일명을 살펴보는 것이 아니라, 그 인물들의 행동과 사상을 가능케 했던 시대적 배경과 사회구조를 파악한 다. 이를 통해 한 개인의 역사적 선택, 결정, 성향 등을, 그 배후에 놓어있는 거대한 역사적 동태의 관점에서 바라 볼 수 있는 능력을 함양한다.

This course seeks to explain Japan’s salient historical developments through major personalities. Instead of merely surveying their biographical backgrounds, we will approach the contemporary context and social fabric from which their thought and behavior emerged; their choices and dispositions, in turn, may be placed in perspective against the backdrop of larger historical currents.
Cultural Traditions of the West

This course surveys Western history from the ancient times to the French Revolution. It provides a deeper understanding of history by using various materials. The instructor will choose twelve important issues from each period and provide students with appropriate materials pertaining to those issues. Through critical reading, discussion, and/or writing, the students will gain a more in-depth understanding of history.

Modern Civilization of the West

This course surveys Western history from the ancient times to the French Revolution. It provides a deeper understanding of history by using various materials. The instructor will choose twelve important issues from each period and provide students with appropriate materials pertaining to those issues. Through critical reading, discussion, and/or writing, the students will gain a more in-depth understanding of history.

Citizen and the Bourgeoisie in History

This course surveys Western history from the ancient times to the French Revolution. It provides a deeper understanding of history by using various materials. The instructor will choose twelve important issues from each period and provide students with appropriate materials pertaining to those issues. Through critical reading, discussion, and/or writing, the students will gain a more in-depth understanding of history.

History of Utopianism

This course surveys Western history from the ancient times to the French Revolution. It provides a deeper understanding of history by using various materials. The instructor will choose twelve important issues from each period and provide students with appropriate materials pertaining to those issues. Through critical reading, discussion, and/or writing, the students will gain a more in-depth understanding of history.

Christianity and Western Civilization

This course surveys Western history from the ancient times to the French Revolution. It provides a deeper understanding of history by using various materials. The instructor will choose twelve important issues from each period and provide students with appropriate materials pertaining to those issues. Through critical reading, discussion, and/or writing, the students will gain a more in-depth understanding of history.
043.033 역사와 무엇인가 3-3-0

Introduction to History

This is an introductory course for the beginners of historical study in the university. In the class the students will think over why we study and learn history, what meaning historical studies have for our life, what are the characteristics of historical studies and historical methodology etc. More concretely to say, the course aims to provide answers to the following questions: What is historical fact and historical truth? How can we grasp historical facts and explain them through the practice of historians’ work.

This course aims to help the students understand the past and the present, thus gaining a more refined perspective on our subjectivity and historical facts.

In this class the students will have the chances to read and analyze historical sources by themselves and through it they will try to interpret historical facts. It means that the students experience the practice of historians’ work.

043.034 서양문화의 역사 1 3-3-0

History of Western Civilization 1

역사는 현재와 과거의 대화라는 관점에서, 서양사에 전개된 중 심 테마를 통해 과거의 사실을 이해하고 나아가 현재의 이해도 되도록 하는 것이 목표로 한다. 역사학은 어떤 방법론으로 연구하는가를 살펴본다. 그 중 구체적으로 말하자면, 역사적 사실과 역사적 진실은 무엇이며 인간은 그것을 어떻게 파 았는데, 역사학은 역사적 사실들을 어떻게 상호 관계하여 설명 하는가, 그리고 우리의 주관은 역사적 사실을 설명하는 데 어떤 역할을 하는가 등을 체계적으로 살펴본다. 이 강의에서 수강생 들은 사료를 직접 읽고 분석하여 역사적 사실을 해석하는 작업도 한다. 이를 통해 수강생 스스로 역사가가 되어 역사학 연구의 실체를 경험하게 되는 것이다.

043.035 서양문화의 역사 2 3-3-0

History of Western Civilization 2

역사는 현재와 과거의 대화라는 관점에서, 서양사에 전개된 중 심 테마를 통해 과거의 사실을 이해하고 나아가 현재의 이해도 되도록 하는 것이 목표로 한다. 역사학은 어떤 방법론으로 연구하는가를 살펴본다. 그 중 구체적으로 말하자면, 역사적 사실과 역사적 진실은 무엇이며 인간은 그것을 어떻게 파 았는데, 역사학은 역사적 사실들을 어떻게 상호 관계하여 설명 하는가, 그리고 우리의 주관은 역사적 사실을 설명하는 데 어떤 역할을 하는가 등을 체계적으로 살펴본다. 이 강의에서 수강생 들은 사료를 직접 읽고 분석하여 역사적 사실을 해석하는 작업도 한다. 이를 통해 수강생 스스로 역사가가 되어 역사학 연구의 실체를 경험하게 되는 것이다.

043.036 서양사 속의 제국 3-3-0

Empire in Western History

19세기 후반 이후 허충이 가속화된 유럽의 팽창을 닦아 alm에 준 것은 서구 민족의 제국주의 정책이다. 본 교육과정에는 역사 속 세계의 이념과 실제를 살펴보고, 유럽의 팽창과정과 그것이 식민 사회에 가능한 건축 등을 살펴본다. 나아가 그러한 팽창의 동인이 되 었던 제국주의 정책의 동반성과 그 주요 내용 및 성격, 그리고 그 귀결로서의 제1차 세계대전 등에 관해 검토한다.

Since the second half of the nineteenth century, the policy of imperialism of the Western powers greatly supported the expansion of Europe. This course examines the idea and practice of empire in the Western history, the expansion of Europe and its impact on colonial society. It also explores imperial policies which contributed to the expansion, including their background and main contents as well as its characteristics. Finally, the class deals with the First World War which resulted from the imperial policies of Western powers.

043.037 민족과 국민의 역사 3-3-0

History of Nation

19, 20세기 인간의 주된 노력은 민족을 불변의 역사적, 정치적 공동체의 단위로 통합시키는 데 두었다. 그리고 그 과정에서 확립 된 민족주의는 양 세기의 역사를 규정하였고, 지금도 여전히 그 영향력을 잃지 않고 있다. 민족주의에 대한 수많은 이론들은 민족주의가 인권, 자유, 평등의 이념을 내포한 집단적 감정으로서 시작되었다는 점을 인정하지만, 민족주의의 범위는 크고 작은 갈등의 원인이 되어 왔다. 이를 넘어가기 위해서는 민족과 민족주 여가의 단위가 아니라 인간 역사 속에서 형성되었던 가변 적 단위임을 인식해야한다. 이 수업에서는 민족의 형성과 국민주 의의 존재형태를 역사 속에서 통시적으로 살펴보고자 한다. 한국 민족주의의 일반적 접근적 시도 중요한 목적의 하나이다.

Throughout the nineteenth and twentieth centuries, the world had been reoccupied with establishing the nation as an unalterable historical and political entity. In the process, the concept of nationalism appeared and developed into a dominant ideology. Nowadays it is admitted that nations are not heavenly-iven entities but historically constructed products. This course focuses on the making of nations in history and the role of state through history in the process.
to concretize the nature of nation as a constructed unit. It also aims to approach nationalism in Korea from critical perspectives.

Gender in Western History

This course investigates the ways in which various prehistoric societies developed into great ancient civilizations. Our specific interest will be on the factors that enabled and shaped the origins of these civilizations. Our specific interest will be on the factors that enabled and shaped the origins of these civilizations. The main topics of this course include the emergence of first human beings (from Australopithecus to modern Homo sapiens, the first stone tools, the origins of language, sign and symbol, and the origins and spread of agriculture.

Introduction to Archaeology

Archaeology is the study of mankind through a systematic reconstruction of past cultures and societies with existing artificial and natural artifacts that are left in our environment. This class is comprised of lectures on the history, theories, and methodology of archaeology, and the development of mammal culture. For a more effective approach, lessons will be accompanied by visiting and experiencing site excavations and museums/laboratories.

Introduction to Korean Art

This course introduces the origin and evolutionary path of human being and human culture. The major topics of this course include the emergence of first human beings (from anatomically modern Homo sapiens to modern Homo sapiens, the first stone tools, the origins of language, sign and symbol, and the origins and spread of agriculture.

Introduction to Oriental Art

This course introduces the origins and evolutionary path of human being and human culture. The major topics of this course include the emergence of first human beings (from Australopithecus to modern Homo sapiens, the first stone tools, the origins of language, sign and symbol, and the origins and spread of agriculture.
043.046

Introduction to Western Art

This course is an overall survey of the history of western art with an emphasis on important works that have had a tremendous impact on the development of the culture of mankind. An accessible introduction to art from the Egyptian, Grecian, Roman, Byzantine, Romanesque, Renaissance up till the Contemporary period will be given with a special focus on the varying characteristics of the different schools and styles.

043.047

Understanding Western Philosophy

The objective of this course is to examine the nature of important philosophical problems and topics. The first part of the course deals with the basic question: What is the distinctive characteristic of philosophy? The second part deals with the various philosophical problems related to art, religion and other sciences. Also examined are key issues in metaphysics and epistemology such as existence, essence, knowledge, truth, empiricism and rationalism.

043.048

Understanding Asian Philosophy

This course helps student to understand the core ideas of Asian philosophical traditions. The topics discussed range from classical and contemporary ideas to modern practical ethics such as bio and information ethics. The range of ethics discussed in this class is far and wide. It outlines the minimum morality required for our society and critically reflects on its present situation.
043.053 Introduction to Philosophy

This course will delve into the various aspects of the nature of philosophy. It asks why human beings cannot avoid philosophy due to their nature, and what are the characteristics of the philosophical questions usually asked. The course also provides perspectives on our current philosophical problems.

043.058 Bio-Medical Ethics

This course deals with the philosophical issues concerning bio-medical fields such as abortion, euthanasia and organ transplants. It will investigate the moral and ethical grounds of which decisions are made, including philosophical discussions of these topics. Students can expect to improve their ability to objectively and critically examine important, ethical problems.

043.060 Understanding Social Philosophy

This course examines various philosophical problems raised by empirical sciences. What is the goal of science? What methods do scientists use to achieve it? Does scientific activity help attain truths about the world? Does science...
progress? Is scientific activity rational as is often argued? Is science interest-independent? How can we draw the line between science and pseudo-science?

043.069  
**Philosophy of Gender and Sexual Morality**

Gender, sex, and sexual orientation are perhaps the most fundamental categories, distinguishing and organizing the way we perceive and interact with the world. As such, issues related to gender, sex, and sexual orientation are of great importance and concern. This course will investigate how various theories and approaches regarding gender and sexuality can help us understand these categories and their implications.

043.070  
**Computer and Mind**

In this course, we will explore the nature of human thought and its relationship to physical processes. We will examine the relationship between mind and computer, and discuss how these two entities interact and influence each other. We will also consider the implications of these findings for our understanding of the mind.

043.071  
**Logic**

Logic is the study of reasoning and argumentation. This course will introduce students to the fundamental principles of deductive and inductive reasoning, and will provide them with the tools to analyze and evaluate arguments. Students will learn how to construct and evaluate arguments, and will be able to apply these skills to a variety of contexts.

043.072  
**Chinese Classics and Chinese Thoughts**

The Chinese classics are a rich and diverse body of literature that has shaped the cultural and intellectual development of China for centuries. This course will introduce students to the major works of Chinese literature, and will explore the themes and ideas that have characterized Chinese thought throughout history.

0547.000100  
**Moral Reasoning**

In this course, we will explore the nature of moral reasoning and the role it plays in ethical decision-making. We will examine various theories of ethics, including virtue ethics, utilitarianism, and deontological ethics, and will consider how these theories can be applied to real-world situations. Students will have the opportunity to engage in ethical debates and to develop their own moral reasoning skills.
L0547.000600 Law and Values

This course begins with an introduction to the biblical sources and discussion of the central figure of Jesus. Then it moves on to world religions including Christianity, moving on to world religions including Christianity, Buddhism, and Islam. Finally, we will consider new religious movements of the modern world. Audiovisual materials will be used extensively in this class. Students will be expected to develop their own creative interpretations of religious symbols in various contemporary cultural contexts. They will look at movies, literature, sports, and arts to develop their interpretive skills. Throughout each step, students will be trained in critical writing skills and be asked to participate in class discussion; they will learn to express their ideas in a clear and convincing manner. I am confident that students will develop a deeper understanding different worldviews.

L0547.002400 Understanding Religious Studies

Understanding Religious Studies is designed to provide students with basic knowledge of the academic discipline of religious studies and to help them take an objective view of religion, which is believed to involve the most complicated contemporary cultural phenomena, as well as symbols seen in the classics. To achieve this goal, first students will study basic theories that explain religious symbols. Next, they will examine religious symbols of various religious traditions, starting with primitive (or archaic) religion, and then moving on to world religions including Christianity, Buddhism, and Islam. Finally, we will consider new religious movements of the modern world. Audiovisual materials will be used extensively in this class. Students will be expected to develop their own creative interpretations of religious symbols in various contemporary cultural contexts. They will look at movies, literature, sports, and arts to develop their interpretive skills. Throughout each step, students will be trained in critical writing skills and be asked to participate in class discussion; they will learn to express their ideas in a clear and convincing manner. I am confident that students will develop a deeper understanding different worldviews.
and profound human thoughts and practices. Students will be encouraged to examine various academic perspectives through which scholars have approached religion and to study the way they have explained central topics of religious studies, including myth, ritual, religious experience, and sacred place/time. In addition, this course will ask students to have a broad view of religion, as well as religious studies, by illuminating major methodologies that have been used to elucidate religion by scholars of subdisciplines or related fields, such as comparative religion, sociology of religion, psychology of religion, and anthropology of religion. Students will also be expected to ferret out delicate religious issues of the contemporary global world, for instance conflicts between religions, and to think over how religious studies would contribute to their settlement.

043.078  인간과 종교 3-3-0

Man and religion

This course introduces the various religious traditions of meditation and practice. The aim of this course is to understand the aspect of 'practice' in religious traditions, which orient and even determines the state of mind and body of the members of the religious community. In other words, by sharing a certain tradition of religious practice, members of a religious community manage to sustain their religious identities; at the same time, they can also modify their shared religious practice in order to make a new religious movement or develop the tradition they inherited.

In order to understand such aspects of religious practice, the course explores diverse faces of meditation and practice in various religious traditions so as to ascertain their commonalities and differences, and provides students with the opportunity of to cultivate an objective perspective on various religious practices. Also, the course aims to foster an attitude of mature reflection on religious diversity as well as an attitude of constructive dialogue with the religious practitioners.

043.079  신화와 역사 3-3-0

Myth and History

This course explores diverse faces of meditation and practice in various religious traditions so as to ascertain their commonalities and differences, and provides students with the opportunity of to cultivate an objective perspective on various religious practices. Also, the course aims to foster an attitude of mature reflection on religious diversity as well as an attitude of constructive dialogue with the religious practitioners.

043.080  세계종교입문 3-3-0

Introduction to World Religions

This course provides an overview of the structure and dynamics of culture, focusing on how they have created, maintained and changed religions.

043.083  미학과 예술론 3-3-0

Aesthetics and Art Theory

This course introduces the various religious traditions of meditation and practice. The aim of this course is to understand the aspect of 'practice' in religious traditions, which orient and even determines the state of mind and body of the members of the religious community. In other words, by sharing a certain tradition of religious practice, members of a religious community manage to sustain their religious identities; at the same time, they can also modify their shared religious practice in order to make a new religious movement or develop the tradition they inherited.

In order to understand such aspects of religious practice, the course explores diverse faces of meditation and practice in various religious traditions so as to ascertain their commonalities and differences, and provides students with the opportunity of to cultivate an objective perspective on various religious practices. Also, the course aims to foster an attitude of mature reflection on religious diversity as well as an attitude of constructive dialogue with the religious practitioners.
This course inquires into the relationship between art and philosophy. Art is the fruit of practical life and the object of philosophical reflection. We can obtain an intensive insight of ourselves and our world through philosophical thought. The goal of this course is to study the historical origin and context of the major concepts regarding art, the background and meaning of philosophical discourses around art, and the process of formation and transfiguration of the definition of art and its critical categories.

This course is planned to help students achieve a holistic understanding of India and the Indian civilization through an introduction to the physical environment, history, religions, society, and culture of the Indian subcontinent. We aim to look beyond the popular images and prejudices of India, and examine the current social phenomena and problems through a survey of Indian history, the trajectory of various religions in India, and the social changes in India as well as Indian studies through the turmoil of colonial rule and independence. We will also discuss architecture and art, clothes and food, popular culture with a critical perspective.

This course enables students to understand the changing nature of contemporary politics. The world is undergoing dramatic transformations, especially in the political, economic, and social spheres. Understanding contemporary politics requires an interdisciplinary approach, integrating historical, social, and cultural perspectives.

This course will cover various aspects of contemporary politics, including the role of democracy, citizenship, and human rights. It will explore the relationship between art and politics, examining how art reflects and influences political sentiments and social movements. Students will engage in discussions on the role of art in shaping public discourse and promoting social change.

This course is designed to provide a comprehensive understanding of contemporary politics, equipping students with the analytical skills and critical thinking necessary to navigate the complex and rapidly evolving political landscape.
Politics and Political Ideology

본 강좌는 현대에 이르기까지 정치계에서 영향력을 행사해온 다양한 이념들에 대한 체계적인 이해를 통해 학생들의 시민정신과 정치적 사유능력을 제고함을 목적으로 한다. 정치이념은 정치공동체의 전바닥 수립과 유지, 그리고 개혁과정에 작용하는 상징체계로서 인간의 집단적 삶의 조건과 목적, 운영의 원리에 대한 관념 및 가치들로 구성된다. 그리고 정치행위에 대한 의미부여와 집단적 정체성 형성, 사회통합의 기능을 담당하며, 정치적 과제 수행에 필요한 사상적 기반이 제공한다. 따라서 정치공동체를 지탱하는 기존 이념 및 신념에 대한 이해는 시민교육의 일환으로서의 중요성 을 띈다.

This course is intended to help students understand the significance of political ideas and the value of public autonomy by reading and discussing classical texts in the history of political thought. Political ideas, being in action as a system of symbols underlying the whole process of collective (inter)actions, consist of notions and assumptions on the principles of the body politic. They illuminate meanings of political actions, serve to form a collective self-identity, maintain social integration, and provide ideological grounds for effective implementation of public policies. In this regard, understanding the ideological foundation of politics constitutes a core of political education.

Understanding and Analyzing Korean Politics

이 과목은 한국정치를 국제정치적, 정치정체적, 정치문화적, 정치과정적 분석하는 데 목적이 있다. 국제정치적 분석에서는 미국과 소련과 같은 강대국들이 한국의 정치에 어떠한 영향을 미쳤고 앞으로 우리는 어떠한 대외정책을 가져야 할 것인지에 대해 고민하고, 이를 토대로 해석을 주요 주제로 하여 전문 견해를 제공한다. 정치정체적 문제는 전통적 정치문제는 현대 정치문화와 어떠한 연관성과 전달성을 가지고 있는지를 살펴본다. 정치과정적 문제에서는 한국의 정치과정은 외국과 비교할 때 어떠한 특성을 가지고 있는지를 분석한다.

This course analyzes contemporary Korean politics from the four perspectives: international politics, political economy, political culture and political processes. From the perspective of international politics how Korean politics has been influenced by international politics surrounding the Korean peninsula is analyzed. From the political economy perspective characteristics of Korean political process are described in comparison with other democratic countries.
은 한반도 평화와 통일의 정점 3-3-0

Emerging Issues on Peace and Unification of the Korean Peninsula

21세기 한반도의 새로운 세대들에게 있어서 통일에 대한 평화와 공존의 가치가 그칠 수가 없다. 이 새로운 세대의 아이들은 한반도 평화와 통일에 관여받아 토론되어 이슈의 외연이 넓혀질 가능성이 높다. 따라서 보건, 환경, 에너지, 지역 행정, 기술, 이주, 교육, 문화 등과 같은 다양한 분야의 전문가들에게 대한 이해가 필요하게 되며, 평화와 통일의 과정에서 중요하게 제시될 것으로 예상된다.

In this lecture, students can analyze different aspects of peace and unification under traditional positions and emerging process of peace, coexistence, integration and environment, energy, local administration, technology, migration, public diplomacy. By inviting several experts in various fields of study, this lecture discusses how media and digital communication, art and culture, trade and technology could take part in achieving the goals of public diplomacy.
This course surveys Economics and its objectives by introducing the correlation between economic policies and theories. Students will explore conditions for economic freedom, introducing the correlation between economic policies and theoretical perspectives on economic inequality.

Prospects of South-North Relations and Unification

이 강의의 내용은 오늘날의 남북관계와 통일의 전망에 대한 것이 다. 그러기 위해서 이 강의는 역사적, 정치적, 사회적 차원에서 남북관계를 조망하게 될 것이다. 주요 내용은 북반, 남한의 역사를 객관적인 시각으로 살펴보고, 둘째, 오늘날의 변화하는 남북관계에 대해 정치사회적인 면에서 분석하고, 셋째 앞으로의 전망에 대해 다른 나라의 사례를 통해 예측하는 것으로 구성된다.

이 강의의 내용은 변화하고 있는 남북관계를 이해하고, 앞으로의 전망을 살펴보는 데 있다. 오늘날 남북관계는 마지막 6.25전쟁의 전성과도 갖추고 있다. 정부 간 대화뿐만이 아니라 민간자원의 교류와 협력이 활발하게 벌어지고 있다. 과거와 달리 수많은 사람들의 상대방 지역을 방문하고 있으며, 서로에 대한 이해도를 높이고 있다. 그러나 다른 한편, 한반도를 허용하는 국제관계는 여전한 갈등과 간격을 내포하고 있다. 특히, 북-미관계는 동북아시아의 폭이 한반도의 평화에 직접적으로 영향을 미치고 있다. 이 과정에서 남북관계의 변화는 한반도 및 동북아시아의 평화와 번영을 위한 가장 중요한 원동력이자, 앞으로의 통일을 이끌어가기 위한 중요한 성과도 갖고 있다. 이 강의는 남북관계의 과거와 현재의 변화를 객관적으로 살펴보고, 미래를 조망하는 익바른 시각을 확립하는 데 있다.

This class aims at understanding changes and prospects of the South-North relations. This course analyses the origin of the division of Korean Peninsula, the history of the development of the South and the North, and the significant changes since the Summit in 2002. On the basis of the above, we would try to predict the future of Korean Unification. Today, the South and the North take steps into the process to clear off the cold war era. The interchanges and cooperation between the two are going actively. But, the international atmosphere surrounding the Korean Peninsula is still in conflicts and strains. Especially, the North and the U.S. relations are influencing on the peace of Peninsular as well as Northeast Asian region immediately. In this situation, the changes between the South and the North can be the main driving force for the peace, the co-prosperity of the Peninsula and the development Northeast Asia. This class intends to look into the changes of the South-North relations objectively and to establish the objective visions on the future of the Peninsula.

Introduction to the Theory of Business

본 강의는 경영학에 입문하는 학생들로 하여금, 경영학의 기초적인 이론과 개념이 실제 세계에서 어떻게 작용을 하는지를 이해할 수 있도록 한다. 이 수업은 경영학의 전반적인 환경에 대해 제공할 것이다. 그리고에서 특히 전략 경영, 인적 자원 관리, 조직 관리 등의 주요 경영 이론을 다루며 있다. 이 수업은 개인과 기업의 관점에서 실제 경영이에 대해 생각해보고 학습할 수 있다.

This class is designed to introduce students to the world of business. This course will introduce students to the environment in which business is transacted in modern times by presenting an overview of functional areas of business and the basic concepts of the business world. Students will learn about the external and internal environment of business. Especially, this course deals with real issues on the strategic management, human resource management, and the organizational structure of a firm to develop student’s skills at understanding the business world. This course focuses on management issues from the case study and group activity. Students will have the opportunity to experience the processes and problems involved in working with other group members to reach a specific objective.

Mankind and Food

실업생을 대상으로 하는 입문 강좌. 농업의 기원과 역사에 대하여 공부하고 농업혁명, 산업혁명, 정보기술혁명이 식량생산과 소비에 미치는 영향을 다룬다. 세계 식량문제의 본질, 세계화와 식량안보, 환경변화와 식량생산, 남한과 북한의 식량 문제 등을 학습한다.

This introductory course for freshmen includes the history and origin of agriculture, and the effects of the agricultural/industrial/information technology revolution on food production and consumption. Other topics include the nature of world food problems, globalization and food security, and environmental changes and food production. We will also discuss food problems in South and North Korea.

Society and Law

생활현장에서 현대사회에서 발생하는 각종 법현상을 이해하고 대처할 수 있는 능력과 법의 사회적 기능과 법체제에 대한 바이칼과적 관점을 함양하는 것이 목표이다. 법 현상을 과학적으로 분석하는 사회과학적 틀로 검토한다. 범에 따른 일반적인 지식을 바탕으로 사회에서 발생하는 범죄현상에 대한 포괄이론을 통하여 수상자를 스스로 범에 대한 이해를 심화시킨다. 따라서 사회를 중심으로 하는 토론식 수업으로 진행하며 수상자의 적극적인 참여가 필요하다.
In this lecture, we aim to train the students’ ability to understand legal appearances through a critical viewpoint on the social function of laws and the legal system. To critically analyze legal appearances, we should teach students with a social scientific method. Discussions on various legal appearances and the social function of laws will increase the students’ critical awareness on legal matters. Active participation in discussion sessions is very important.

Gender and Law

Gender and Law lectures are aimed at encouraging students to present, read, and discuss the substantive equality between women and men so that both genders coexist equally and harmoniously. The students will review the stereotype on gender in the current law, and feminist theory, and the notion of equality and difference. In the first part, it will discuss the specific statutes regarding sexuality, institutional theory, and the notion of equality and difference. In the second part, it will discuss the specific statutes regarding sexuality, institutional theory, and the notion of equality and difference.

044.019
Democratic Citizenship, Constitution, and Civil Rights

This course offers, to the undergraduate students entering the initial stage of the highest education in their respective fields, a forum to take seriously the initial stage of the highest education in their respective fields and to develop their genuine perspectives therein—the structure of our government and its operation and the fundamental values as norms in our society, as established and ordained in our fundamental law of the constitution. During this course, the participating students will discuss the nature of the individual fundamental rights through the analysis of actual constitutional law provisions and cases, and will obtain a basic understanding on the governmental structure and its operations as a means to better protect the democratic values and the basic rights of the individuals. This course further includes discussions on the necessity and the mechanisms for the protection and preservation of the constitution. Finally, this course intends to be an advocacy for the heightened awareness of civil rights and of the responsibility towards the community and the constitution among the students as the democratic citizens of our society.
법학개론

Introduction to Law

법학이란 무엇이며, 어떠한 원리들이 법학의 틀을 이루고 있는가에 관하여 소개하는 학문이다. 대체로 법학적으로 문제 삼고 있는 원리들을 틀로 하여 한편을 위시한 행정 실정법이 어떠한 사회 형을 규율하고 있는가를 개괄적으로 소개함으로써 법학적 지식을 갖출 수 있도록 하는 강의이다.

This course offers an introduction to the study of Law, and to the principles which constitute the foundation of studies in Law. This course provides general outlines of issues related to current law, including the Constitution, and the basis of legal philosophical principles.

예술과 지식재산

Art and Intellectual Property

한국이 고도산업사회로 발전하고 선진국가 대열에 근접함에 따라 지식재산에 대한 법률적 보호가 국가적으로도 중요한 과제가 되고 있는 상황입니다. 본 과목에서는 대학생들에 대한 일양 고양 과목 차원에서, 예술보호에 가장 밀접한 법제를 알고 할 수 있는 지식재산권법에 대해 학습하게 됩니다. 특히 지식재산권법 중 하나인 저작권법은 종전까지 어문저작물을 주된 대상으로 하다가 현재는 첨단정보통신기술에서 파생하는 다양한 법률제와 가장 밀접한 법의 하나가 되었습니다. 본 과목은 저작권법을 중심으로 하여 예술보호를 다룹니다.

As the Republic of Korea develops into a highly industrialized society and approaches the ranks of advanced countries, legal protection of intellectual property is becoming a national issue with high priority. In this course, undergraduate students will learn intellectual property law at the level of general education. This is because intellectual property law is the most relevant area of law protecting artistic property. This course especially focuses on copyright law, which has changed dramatically with the advent of Internet technology, will be introduced as well. Introducing a legal system inevitably en-

범죄와 형법

Crime and Punishment

다양한 전공을 탐구하는 대학생의 기본 소양으로서 우리나라의 형법과 형사소송법의 기본 개념과 원리를 체계적으로 이해함을 돕기 위해 범죄학문대학원이 제공하는 교양과목이다. 이 강의는 현대 민주의 사회에서 형사법의 역할과 한계, 수사기관과 사법기관의 역할과 구조, 수사, 기소, 재판 등 형사절차 등을 공부하고, 나이가 어려운 형사사건을 분석한다. 법률해석에 집중 하는 범죄학문대학원의 형법과 형사소송법 수업과 달리, 형사법 고전 강독과 형사법에 대한 법사학적, 법정사학적 분석이 이루어진다.

Offered by the School of Law, this course aims to provide systematical comprehension of the basic concepts and principles of the Korean Criminal Law and Criminal Procedure Law for students with various educational backgrounds. This course deals with the role and limitations of criminal law in modern democratic society, the role and structure of investigation agencies and judicial institutions, criminal procedures such as investigations, prosecutions, and trials, and furthermore analyzes actual criminal law cases. Unlike Criminal Law and Criminal Procedure Law courses in Law School which tend to focus on legal interpretation, this course puts emphasis on reading original texts regarding criminal law and analyzing criminal law from perspectives of sociology and politics.

民主市民과 기본적 인권

Democratic Citizen and Fundamental Human Right

정치적 민주화가 정착된 이후 우리 사회에서는 인권과 관련된 논의가 활발히 전개되고 있다. 민주화 이후의 민주주의의 발전과 성숙을 위해서는 정치과정에 대한 참여와 확보된 보장 이외에도 사회·경제적 평등의 실현, 소수와 집단의 보호 등이 관건이 된다는 인식은 대부분의 사람들 사이에 확립되어 있다. 따라서 우리 학생들이 민주시민으로서 보장되는 기본적인 인권과 함께 이를 보장하기 위한 각종 제도들에 대한 기본적인 지식을 습득하는 것은 우리 시민사회에의 임무로서 지나치게 할 수 없다. 특히 기본적 인권의 보호와 내용을 구체화한 우리의 사회·경제적 맥락에서 이해하고 그 체계적 구제를 위해 고려되는 기본적 인권을 법제외의 맥락에서 접근하여 이해하는 것이 필요하다. 이를 통해 학생들은 결코 우리 분야에서 활동하면서 사회과제에 대처할 수 있도록 변할 수 있는 인권의 이해 및 행사와 관련된 다양한 상황을 해결하기 위한 기본적인 준비를 하게 될 것이다.

Since the Korean society established the political democracy, the discussion on basic human rights has further developed. The social/economic equality and protection of minorities are indeed essential in developing democracy after democratization. As such, students need to learn how the democratic society protects the basic human rights and what institution is required to protect such rights. And the study on social/historical/institutional background unique to Korea will help students better understand the contents of basic human rights and the relief we can resort to when our rights are infringed upon. Such understanding will equip the students with problem solving skills in the context of basic human rights.

주권국가과 국제법원

Sovereign States and International Courts

이 과목은 국제사회의 핵심 주체인 주권국가들이 어떠한 법적 권리와 의무를 토대로 국제사회의 질서를 구축하고, 이를 통해 상호간 분쟁을 해결하며 나가는지를 살펴보는 것을 기본 목표로 하고 있습니다. 특히 국가간 다양한 법적 분쟁이 여러 국제법원에서 어떻게 다루어지며, 이들 국제법원이 어떻게 구성되고, 여기에 어떠한 조건이 적용되는지 여부 등 국제법원의 기본적인 구체적 결과를 학생들에게 전달하고자 합니다. 또한 주요 국제기구에서 국제법원이 갖는 특성과 지역적 특성을 살펴보고자 합니다.

This course aims to provide a comprehensive, general overview of the rights and obligations applicable to sovereign states in the modern global community. Based on this overview, students will understand how and why legal disputes arise between sovereign states. In particular, the focus of the course is to be placed on international courts and tribunals such as the International Court of Justice, International Tribunal for the Law of the Sea, World Trade Organization Dispute Settlement Proceedings, Investment Arbitration, and State Arbitration.
044.022 국가와 시민 3-3-0

The State and Citizenship

본 과목에서 다루게 될 주제는 크게 7가지이다. 즉 국가의 권 위와 개인, 자유, 정체적 평등, 사회경제, 관용, 정치적 복종, 민주 시민의 의무와 덕목이 그것이다.

This course will cover seven major topics: state authority and the individual, freedom, economic equality, social justice, tolerance, political obedience, and civic duties and virtues.

044.023 북한학개론 3-3-0

North Korean Studies

본 과목은 민족동일이라는 민족사적 당위성에 입각하여 북한체 계를 정치, 경제, 사회적 측면에서 각각으로 이해하고 현실적인 통일방안을 탐구하는 것을 목적으로 한다.

The aim of this course is the objective comprehension of the political, economical, and sociatal aspects of the North Korean System.

044.024 글로벌 이슈와 윤리적 사고 3-3-0

Global Issues and Ethical Thinking

국제윤리분야는 현대주의와 자유주의를 비롯한 다양한 윤리적 전통들이 경쟁하며 발전해왔다. 본 강의는 다양한 윤리적 전통들 이 어떻게 지각적 이슈들이 야기하는 도덕적 문제들을 다루기로 한다.

This course will examine how different ethical traditions address moral problems in a global era. In the field of international ethics, various ethical traditions have been presented, including realism and liberalism. This course will consider how each of these traditions provides guidelines for ethical judgment and action. Along with each tradition, this course will consider a case study approach on various global problems. The approach will provide a useful lens through which to focus on discussion of the larger theoretical debates and the recommended courses of action. The issues examined are justice, war, terrorism, humanitarian intervention, global poverty and foreign aid, and economic sanctions. This applied approach helps students develop their skills in policy analysis while gaining the several perspectives for understanding the morality of the actions of state and non-state actors which play a crucial role in shaping international relations.

044.025 소비자와 시장 3-3-0

Consumer and the Market

현대사회는 소비자사회이다. 소비자지향의 패러다임이 사회와 학문의 각 분야에서 중요하게 되고 있는 가운데, 역동적으로 소비자의 권익이 그 어느 때보다도 위협받고 있다. 난로 점진되는 세계화와 정보화의 물결 속에 놓인 현대를 이해하기 위해서는 소비사회에 관한 이론적 이해와 다이나믹 소비자와 시장에 대한 현실적 사례가 매우 필요하다. 또한 소비자의 권익을 지키기 위한 정부정책, 기업의 책임, 그리고 소비자의 소통과 행동을 학습할 수 있는 수단을 제공하고자 한다.

This course will focus on various consumer-related issues in modern society. The topics will include: (1) the societal, cultural, and market characteristics that affect consumers’ decisions; (2) how consumers’ behaviors are formed; (3) the factors that affect consumption; (4) the distinctive features of modern consumption; and (5) how to protect consumers through consumer protection laws and policies.

Various teaching aids such as magazines, advertisements, novels, and movies will be used to motivate students. Throughout this course, they will be able to more deeply understand ‘consumers and the market’ and reconsider their consumer.
ism, elitism, liberalism, and Marxism.

Understanding Public Administration

This course aims to enhance students' understanding toward the operation of modern government. The specific goals of the course are first, to provide comprehensive knowledge about the public administration including government's role and function, policy formation process, dynamic relationship between government and civil society, second, to introduce public administration theories with relevant cases in public sectors, third, to build up students' public minds through the empirical approach to government works, forth, to induce students' interests regarding public issues and to have a balanced view on public policy.

Introduction to Public Policy

This course brings a better understanding of public policy theories and to encourage the students to study public policy more deeply. It deals with academic and real issues related to public policy phenomena including participants in making processes such as president, congress, bureaucrat, the judicial, interest groups and policy communities, and major theories in policy making, policy analysis, policy implementation and policy evaluation.

Human Rights, NGO, and International Community

This lecture helps to understand the conflicting context around our life and reflect on ethical issues of life phenomena such as population governance, low birthrate, reproductive diversified, health belief, successful aging, anti-ag

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This course assists students in developing skills to ascertain ways of improving the current state of human rights in Korea in accordance with the changing environment of the international community. Also, the students will learn to understand and evaluate the validity of current human rights regulations and institutions. Finally, through assessment of theoretical debates about social movements as well as evaluating such movements in Korean society, they will develop the ability to analyze Korean civil society and social movements.

This course introduces the central concepts, methods, and theoretical orientations from the discipline of Sociology. The sociological imagination is illustrated through the investigation of recent theory and research. Possible topics include the persistence of class stratification, gender issues, social inequality, social movements and protest, as well as criminology and social deviance.
<학문의 세계(Worlds of Knowledge)>

|
| 045.004 | 인구와 문화 3-3-0 | Man and Culture |
| 045.005 | 언어와 사회 3-3-0 | Language and Society |
| 045.006 | 전통과 일상의 한국문화론 3-3-0 | Korean Culture and Tradition in Everyday Life |
| 045.007 | 전통과 일상의 한국문화론 3-3-0 | Korean Culture and Tradition in Everyday Life |
| L0549.000900 | 일본대중문화 3-3-0 | Japanese Popular Culture |
| L0549.001000 | 문화의 세계(Worlds of Knowledge) 3-3-0 | Culture and Illness |

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### Man and Culture

본 강의에서는 인간의 신체적 특성과 생활양식간의 관계, 문화의 형성과 변화, 문화의 개인의 관계, 문화의 대양상과 보편성 등에서 인문학적 관점에서 살펴볼 것이다. 특히, 우리는 다양한 문화에 대한 이해와 이를 통해 우리 자신의 문화를 상호작용적으로 되돌아보는 자세에 대해 훈련할 것이다.

This course deepens students’ understanding of Man and his cultures by examining the relationship between human biological nature and life styles. Students are led to reflect on their own culture through analyses of other cultures. The course will cultivate attitudes and perceptions necessary for facilitating inter-cultural communication in the modern world.

### Language and Society

이 과목은 사회 및 문화의 각각 속에서 언어와 말을 바라보고 이해하는 주요한 연구들을 입문적으로 소개하는 내용이 될 것이다. 특히 근대에 발달한 사회언어학의 다양한 경험적 연구결과들, 그리고 한국 사회에서의 언어 사용의 주요한 특성들이 중점적으로 다루어질 것이다.

This is an introductory course in language and society that provides an overview of the major studies that analyzes language and speech from the perspective of society and culture. Systematic attention will be paid to the introduction of a variety of recent empirical studies in the field of sociolinguistics, and to the discussion of significant aspects of language use as practiced in Korean society.

### Evolution and Human Society

우선, 진화의 개념과 전화적 사고의 전개과정을 교육한다. 이는 인간이 다른 유기체와 공유하는 공통점과 차이점, 인간이 자연 속으로서의 특성이 나타나게 된 과정, 인간이 다양한 생태학적 환경에 적응해 온 역사, 지구상의 생물계에서 인간이 차지하는 위치, 인간생물학과 인간문화의 상호유전성과 상호작용을 교육한다.

The students will first learn the concept of evolution and the historical development of evolutionary thoughts. Then they will learn the characteristics of human beings that are common to all organisms as well as those that distinguish them from other organisms, the processes in which characteristics of human beings as a species developed, the history of human adaptation to a variety of ecological environments, the place which human beings hold in the world of life on the earth, and the interrelationship and the interaction between human biology and human culture. This class will also examine the relationship of human evolutionary biology and modern cultural institutions and ideas, and the new problems that arise and confront humans with ongoing modern technological developments, employing a comprehensive perspective that covers not only evolutionary biology but also human-social sciences. The class will specifically deal with subjects such as human universality and human diversity, nature and nurture, race and racism, sex and sexual differences, human beings and food, beauty and body-crafting, human beings and diseases, morality and social life, family life of human beings, life science technologies and humanity, etc.

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본 교과목은 인구의 고령화, 의료기술의 발전 및 전자문화와 같은 변화된 사회문화적 환경 속에서 점차 중요한 사안으로 등장하
provide models for their analysis and treatment. First, we will discuss the significance of interpersonal relationships. The course introduces several theories which systematically explain the psychological factors in human relationships. Focus will be on the four major kinds of human relationships: family members, friends, colleagues, and between different sexes. Furthermore, methods for analyzing and improving one’s human relationships are investigated through lectures and small group activities.

045.014 Global and Regional Environmental Issues

This course explores the relationships among culture, health, and illness, which become more important in today’s sociocultural context of aging, advanced medical technology and globalization, through examining various regional and historical examples in the world. In this course, students will learn that illness and health are not only the issues of medical exploration but also are the subjects that can be better understood in the political, economic, social and cultural contexts.

045.015 Spatial Information and Visualization

This course aims to address the concept and principles of the spatial information, spatial analytics, and various visualization techniques. For this, GIS data model, spatial analysis and visualization, and web/mobile based spatial data applications are comprehensively discussed at an introductory level. Further, students are required to implement simple laboratory exercises in order to make their ability of manipulating, mapping, and visualizing spatial information.

045.016 Natural Environment and Human

The objectives of this course are to increase the students’ psychological understanding of human relationships and to
This course aims at understanding the principles and enhancing the geographical perspectives of regional phenomena resulting from the interactions between people and their social environment and between people themselves in space. The main topics include development of geographical perspectives, understanding of urban space, globalization and economic space, culture and cultural landscape, population perspectives, understanding of urban space, globalization and economic space, culture and cultural landscape, population perspectives, understanding of social welfare policies and programs related to quality of life and happiness.

1) Use variety of references (Movies, Dramas, Book, etc) to understand social systems that affect the happiness of our lives, 2) study the factors that determine the happiness and quality of life, and 3) inquire social welfare policies and programs that are related to quality of life and happiness.

First of all, this course begins with the question of "what is welfare state?" and deals with welfare state characteristics and its origins. Secondly, theories on the history of welfare state development and welfare state typology are explored. Thirdly, issues on welfare state are discussed, including the necessities of welfare state, criticisms on the welfare state, and the relationship between social welfare and economic growth. In addition, the issues of globalization and social welfare, privatization, and changes of Swedish model are reviewed. Finally, discussions are made on Korean social welfare so as to study the possibility of confucian welfare state model, the reasons of underdevelopment in Korean welfare system, and the prospects of Korean welfare model.

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learn and understand how international development cooperation programs deal with the developmental issues including poverty reduction. Students can develop comprehensive thinking by linking development and social welfare with an international perspective through teaching offered by Professor and experts on international development cooperation programs. All the students are required to read the textbook carefully before the class begins so that they can actively participate in a class discussion with the students and the professor.

**045.022 미디어와 현대사회 3-3-0**

*Media and Contemporary Society*

This course will examine the political, economic, cultural factors that create the context in which mass media operate and affect ideological processes in society. We will study the history and structure of the mass media and take a close look at mass media in our society in many forms. The purpose of this course is to increase the students' understanding of the various dimensions of the media so they will become more competent to carefully consider and criticize mass media contents.

**045.024 페미니즘의 이해 3-3-0**

*Understanding of Feminism*

This course aims at an understanding of parental beliefs, attitudes, and roles. The necessity of parental education will be discussed in relation to the trends in and problems of modern society. Values in education, the structure and activities of education, and the nature of educational subjects are to be studied. Discussion will be attempted concerning both the theoretical possibilities and the limits of the public education system in modern society.

**045.026 교육의 이해 3-3-0**

*Understanding Education*

This is a beginner's course for the understanding of education in its most general aspects, including the general concepts, the general areas of discourse, and the general systems of education. Values in education, the structure and activities of education, and the nature of educational subjects are to be studied. Discussion will be attempted concerning both the theoretical possibilities and the limits of the public education system in modern society.

**045.028 부모교육 3-3-0**

*Parenting*

This course addresses educational theories necessary to study and evaluate education in terms of a discipline. It covers examples of educational lives of Jesus, Confucius, Buddha, and Socrates. The course also deals with the intrinsic principles of education.
045.029
Marriage and Family

Marriage and Family

This course will deal with the meaning of marriage and family, love, marital selection, and the process of getting married. Through a practical approach, it will help students plan their future family life and to adjust to problems in their own family life.

045.030
Fashion and Society

Fashion and Society

Fashion is a social phenomenon that manifests in the human’s dress. This course especially focuses on the fashion of contemporary fashion designers will be reviewed for more profound understanding of current fashion.

046.001
Mathematics in Civilization

Mathematics in Civilization

This course aims to help students understand what role mathematics has played in the inception of the computing machinery and in the birth of the modern information-based society. Issues of the science and technology of the modern society and speculation on the future direction of computer are examined.

046.002
Mathematics in Information Age

Mathematics in Information Age

The aim of this course is to help students understand how mathematics and computer science interact with each other.

046.003
The World of Uncertainty and Statistics

The World of Uncertainty and Statistics

This course aims to study various institutional responses to realize a sustainable society. Especially, this course focuses on responses to environmental problems which were the background of the advent of the concept of sustainable development. It explores theoretical discussion on environmental administration and policy and institutional arrangement to solve environmental problems, and examines alternatives to realize a sustainable society through literature reviews and case studies. It explores global environmental problems responses as well as domestic ones. Students will comprehensively understand institutional responses required to realize a sustainable society with lectures, discussions, field works, and mock role play provided by this course.
go and philosophy, and the connection to the newest developments in science.

Without using mathematics, this course aims to introduce students to basic concepts of quantum theory and their influences on human civilization. Topics to be discussed in some detail include the origin of the universe and matter, how quantum physics has contributed to our understanding of the physical universe, and modern technological advancements made possible by quantum theory.

This course aims at understanding whether the chemical and biological evolutions on the Earth could be a universal phenomenon in the Galaxy. From astronomical point of view we will examine the evolution of cosmic matter up to heavy elements, which are essential ingredients for forming biological creatures. We then examine how modern techniques have enabled us to search exo-planets in the Galaxy. Particular emphasis will be paid on limitations of the current techniques and also the promises of the future searches. The formation of terrestrial planets is to be distinguished from that of the Jovian ones. Orbits of the exo-planets so far detected will be analyzed in the sense whether they could be examples of solar terrestrial planets. We will then briefly follow the evolutionary path the Earth went through over last 4.6 billion years. The chapters include: evolution of cosmic matter through nucleosynthesis; formation of stars from dark molecular clouds; dynamic evolution of self-gravitating, rotating disk; formation of terrestrial planets in the proto-solar nebula; formation of Jovian planets in the proto-solar nebula; discovery of exo-planets and exo-planetary systems; Goldilock’s problem of the atmospheric evolution; chemical evolution in the Earth; biological evolution in the Earth; birth and growth of civilization; parameterization of human ignorance by Drake’s equation; Gaia, and Ohn-SaengMyung; interstellar communication; terraformation of Mars; heavens and hells.

This course introduces the cosmos to students by surveying from historical perspectives. Developments in classical mechanics, entropy and statistical mechanics, electromagnetism, theory of relativity, and quantum theory are considered. Major themes in physics and their conceptual structure are surveyed from historical perspectives. Developments in classical mechanics, entropy and statistical mechanics, electromagnetism, theory of relativity, and quantum theory are considered. General features of the universe and other recent developments in physics are also discussed briefly.

Evolution of the Universe

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Energy is one of the most important topics in modern civilization based on science and technology and is the fundamental concept in natural science. For one semester, the [Energy] class will cover the basic concepts of energy and the application in daily life through the topics widely spread in physics, chemistry, biology and earth science. The origin, the definition and the conservation of energy will be introduced and various topics will be covered including the photosynthesis using solar energy to deepen the understanding of students on energy storage and conversion in photosynthesis using solar energy to deepen the understanding of energy will be introduced. The process of billion dollar molecules will be delineated especially in the light of new highlighted knowledges such as quantum theory, chemical evolution, atomic structure, quantum mechanics and the conservation of energy will be introduced. The following phenomena are discussed in this course: 1) the earth systems including the solid earth, biosphere, atmosphere, and hydrosphere; 2) principles required for understanding the rock records; and 3) the evolution of the continents, ocean/atmosphere, and life through time 4) the future of the earth.

046.011 10억불 분자 3-3-0

A Billion Dollar Molecule

Small molecules have played a key role in the development of core technologies such as those in information, medicine, and automobile industries. It is marvelous endeavor to fathom the process through which these small molecules composed of a few elements such as carbon, hydrogen, oxygen and nitrogen are placed in the focal point of the construction of brand new industries. In this class the birth process of billion dollar molecules will be delineated especially in the light of new highlighted knowledges such as BT (Biotechnology), IT (Information Technology), NT (Nanotechnology), and ET (Environment Technology). Several professors will participate in a series of lectures to cover diverse kind of materials. Students without previous knowledge of physics, chemistry or biology can take this course.

046.012 지구의 이배 3-3-0

The Earth: Present & Past

지구에 살고 있는 구성원이 하나로, 우리의 생활 뼈대인 지구에 대해 알아가는 기초적인 자연현상에 대하여 알게 된다. 강의는 크게 3 부분으로 이루어져 1) 현재 지구를 구성하는 시스템의 특성과 상호관계, 2) 암석에 남아있는 과거의 기록을 읽는 방법과 원리, 그리고 3) 시간의 흐름에 따른 자연, 수련, 기원, 생명주의의 변천 과정을 포괄적으로 다룬다. 이러한 이해를 바탕으로 인류의 생태계에서 지구의 미래를 논의한다.

The following phenomena are discussed in this course: 1) the earth systems including the solid earth, biosphere, atmosphere, and hydrosphere; 2) principles required for understanding the rock records; and 3) the evolution of the continents, ocean/atmosphere, and life through time 4) the future of the earth.

046.013 화산과 지진 3-3-0

Volcanoes and Earthquakes

화산과 지진으로 대표되는 지구내부의 움직임을 지질학 및 지구물리학적 관점에서 이해하고, 이에 따른 지구의 안정성을 자연재해에 대해 소개한다. 관광구조 및 관광구조물은 기초로 지구내부의 움직임에 대한 이해이론을 강의반별로 가르치고, 주요에는 화산과 지진과 관련 과학적 체계를 전수하며, 주요부분은 인
교양과목(Courses for General Education) :: 과학의 세계(Worl ds of Knowledge)

046.015 서양문화와 과학기술 3-3-0
Western Civilization and Science and Technology

고대에서부터 현재에 이르기까지의 과학발전의 역사를 지적적 및 사회적 맥락에서 개괄함으로써 그 본질, 방향, 기호와 사회에서의 역할을 이해하도록 한다. 과학적 사상의 연대들나 얼마나, 사회적, 전문화적 내용을 다루는 주요 개념, 이론의 변천과 그 사회적, 사상적 배경을 중심한다.

046.016 컴퓨터과학이 여는 세계 3-3-0
Computational Civilization

학생들이 컴퓨터와 소프트웨어의 원천 기반 기술을 이해하고 장차 각자의 분야에서 미래의 가능한 용용을 창조하거나 예측할 수 있는 만큼을 기르도록 한다.

046.017 기술과 경제 3-3-0
Technology and Economy

본 과목은 기술발전의 사회적 역할과 영향을 중심으로 “기술혁명”과 “사회발전”의 상호작용의 원리를 다루고자 한다.

도네시아 쓰나미(지진해일)와 우리나라의 백두산 화산폭발로 대표되는 거대 규모의 자연재해에 대해 사례별로 검토 및 실습한다.

이론적 내용보다는 주요 개념, 이론의 변천과 그 사회적, 사상적 배경을 중심한다.

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эт이를 극복하기 위한 최첨단 기술의 적용 사례들을 소개한다.

상황에 의한 자연재해가 막연한 미지의 대상이 아닌 극복 가능한 현상임을 인식하게 하여 사회 전체적인 자연재해 대응 능력을 향상시킬 수 있도록 한다.

인식하고 예측하기 위한 자문단 기술의 적용 사례들을 소개한다.

결론까지의 정보화 문명은 이제 막 시작에 불과할 뿐이고, 미래에 이어질 거대한 변화에 비하면 지금까지의 컴퓨터과학의 성과는 매우 미미한 시작임을 상기시킨다.

기술혁명의 의미와 사회적 파급효과 그리고 다양한 분야의 성장을 가속시키는 인프라가 되고 있음을 구체적인 예를 통해 전달한다.

Students will understand clearly the underlying principles, future possibilities, and inherent limitations of the technological engines (digital computer and software) behind the modern information technology. Equipped with such understanding students can lead, create, or at least anticipate innovative applications in each of their specialties.

Students will learn through a series of concrete examples that computer science is an infrastructure, like mathematics, for wide spectrum of disciplines including natural sciences, physical sciences, social sciences, engineering, humanities, and arts.

Students will be reminded that the current achievement in computing technology is still premature, hence has lots of rooms for revolutionary developments.

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In spite of recently enhanced concern about global environmental changes and natural disasters, general understanding lacks detailed information on how the earth environment changes and how such environmental changes are urgently perceived. Owing to recent advances in sciences and technology, natural disasters can be better assessed and better understood presently than in the past. This course introduces our technological efforts, challenges, and limitations to better understand and predict the natural disasters, and examples of cutting-edge technologies to overcome the limitations.

Students will be reminded that the current achievement in computing technology is still premature, hence has lots of rooms for revolutionary developments.

Students will learn through a series of concrete examples that computer science is an infrastructure, like mathematics, for wide spectrum of disciplines including natural sciences, physical sciences, social sciences, engineering, humanities, and arts.
미치는 영향과 파급효과를 촉진하기 위한 각종 사회 시스템 및 제도, 그리고 혁신적 기술을 사회적으로 보호하는 각종 제도 및 장치들을 논의할 것이다.

마지막으로 기술의 사회적 과학, 확산, 이전의 과정을 설명하고 이를 촉진하기 위한 각종 사회 시스템 및 제도, 그리고 혁신적 기술을 사회적으로 보호하는 각종 제도 및 장치들을 논의할 것이다.

이론적 및 실증적 연구결과가 사회에 영향을 미치는 부분에 대하여 외부 전문가를 초청하여 강의하고 토론을 할 것이다.

Diverse organisms on earth are products of the evolution of billions of years. Students in this course are provided with the history and phylogeny of organisms as a result of evolution on a macro time scale from the birth of the earth to the present. This course covers development history of evolution from ancient Greek philosophy to the theory of molecular evolution by providing scientific evidences on evolution, and discussing the origin of species and the evolution of humans. This course aims to deepen students' appreciation for the organisms surviving in natural environments according to the struggle for existence and the survival of the fittest.

문인과학도, 사회과학도와 같이 생명과학이나 주변 학문을 전공으로 하지 않는 학생들을 위하여 개설된 과목이다. 생명과학은 정부, 산업, 사회와 더불어 21세기 산업을 이끌어 갈 양대 축으로 간주되는 분야이다. 특히 인간의 유전형태의 지능체의 지능화가 속속 밝히됨에 따라 21세기 사회학적, 문화적 대변혁을 예상된다. 본 과목은 이와 같은 변화를 주도적으로 대처하는데 필요한 생명과학적 저자와 관련 사회분야를 소개하는 것을 목적으로 한다. 본 강의의 1부에서는 생명 과학의 본질을 이해하는데 핵심적으로 필요한 사항들을 설명할 것이다. 이는 인생의 발생, 세포, 유전자, 정신과 행동 등이 포함된다. 2부에서는 생명과학의 연구결과가 사회에 영향을 미치는 부분에 대하여 외부전문가를 초청하여 강의하고 토론을 할 것이다. 주요 주제로서는 인신증명의 문제, 생명과 생물학 문화, 생명과학, 인류의 기원, 생명의 기원 등이 있다.

This is an undergraduate course offered to non-biological science majors. The course is designed to introduce the information and knowledge caused by the advances in biological sciences. The first half of the semester is focused on the development, cells, genes, mind and behavior. Various topics concerning biological information and society are reviewed in the second half. Biology and ethics of abortion, sexual orientation, religion and life science, origin of life, infectious disease and cancer are also discussed and lectures on controversial subjects are given by guest speakers from outside.
Plants and Society

식물은 지구상의 생명체에게 식량을 비롯한 여러 가지 친언 물질을 제공한다. 따라서 식물은 인류의 역사, 문화, 정치, 경제에서 핵심적인 위치를 차지하고 있으며 앞으로도 그러한 역할은 증대되리라 본다. 특히, 도시 생활사회에서 살아가는 현대인들 사이에는 친 자연, 친 환경에 대한 관심이 증가하고 있어 앞으로 그 중요성이 더욱 커질리라 본다. 본 강좌는 학생들의 자기 주도적으로 그리고 비판적인 안목에서 식물학을 학습할 수 있는 환경을 제공한다. 수강 대상으로는 생명과학을 전공하지 않는 비전공자들로 한다. 식물에 관한 교과서적인 지식 전수차원에 머물지 않고, 생명 현상, 환경생물학의 유행학, 환경 생활 등 식물과 관련된 다양한 사회적 이슈를 소개하고 이들 토론을 통해 보다 비판적으로 인식할 수 있는 기회를 제공한다.

Plants provide humans with foods and various natural products such as woods and pharmaceuticals. As a result, the interactions between plants and human are essential in human history. Recently, people are getting more interested in plants because of well-being life. Many of the well-being pattern of life are based on plants and plant-based products. Furthermore, societal issues such as GMO (genetically modified organism) safety, environment-friendly fuels, and GMO-associated bioethics require us to make a right choice based on knowledgeable facts rather than rumors and feelings. This class is open to the students who are not majoring biology. After introduction to important topics on plant biology, students will be asked to perform self-oriented learning processes. Specifically, students are supposed to 1) submit a report on specific topic of their choose after group learning processes. Specifically, students are supposed to 1) submit a report on specific topic of their choose after group learning processes. Furthermore, societal issues such as GMO (genetically modified organism) safety, environment-friendly fuels, and GMO-associated bioethics require us to make a right choice based on knowledgeable facts rather than rumors and feelings. This class is open to the students who are not majoring biology. After introduction to important topics on plant biology, students will be asked to perform self-oriented learning processes. Specifically, students are supposed to 1) submit a report on specific topic of their choose after group study, or 2) to form a team and participate in a debate. After taking this class, students will be equipped with both essential knowledge on plant biology as well as more critical views on the societal issues.

Microorganisms for Human Welfare

미생물은 우리 눈에 보이지 않지만, 인류의 생활에 깊숙이 관여하고 있다. 의약품, 식품, 환경, 보건의학 등 많은 분야에서 인류의 생명수준을 높이는 데 중요한 역할을 하고 있다. 자연계에서의 많은 기능을 인체가 생활에 응용함으로써 인간들이 생활하도록 못했던 여러 가지를 만들어 내고 있는 것이다 미생물학의 일반과 대 사 작용, 그 결과 나타나는 이차산물의 이용 등 기초미생물학에서 바탕을 두고 응용과 관련한 여러 가지를 논의하고자 한다.

Microorganisms are involved in every aspect of human lives. They play crucial roles in such areas as drugs, foods, environment, and many health-related issues This course helps students understand general life phenomena and metabolism of microorganisms, exploring various ways to utilize their products.

Ecosystems and Environmental Pollution

1970년대 이후 급속히 부각된 환경문제는 이제 인류의 생존과 존제에 적절되는 중요한 문제로 인식되고 있다. 이에 본 강좌는 ‘상호작용을 기반으로 하는 인간과 환경’이라는 부제를 가지고 생물 다양성을 중심으로 현재 환경 문제에 대치해 기반적인 소양을 체계 하는 것을 목적으로 한다. 강좌는 배 주 강의와 함께 관련된 환경 영상을 촬영하고 학생 발표로 이루어진다.

This class is designed to help students analyze, understand, and discuss recent environmental issues. Students explore the evolving natural world and present different environmental problems and their solutions. Audio-visual materials are used extensively to show the environmental issues in Korea.

인체생물학

본 과목은 현대인의 교양으로 생명과학에 대한 이해를 바탕으로 생활과 건강에 관한 주제를 생리학적으로 이해하고 이를 바탕으로 건강한 생활을 도모하고 사회생활에서 대인 관계를 원활히 하는 데 목적이 있다.

This course is designed for non-biology major students to improve human health and human relationship by understanding the biological principles of the human body. Topics include basic principles of biological sciences and biotechnology, sex and reproduction, development, genetics, cancer, aging, the nervous system, exercise, hormones, blood circulation, immunity and nutrition.

인지의 이해

이 과목은 현대인의 교양으로 생명과학에 대한 이해를 바탕으로 생활과 건강에 관한 주제를 생리학적으로 이해하고 이를 바탕으로 건강한 생활을 도모하고 사회생활에서 대인 관계를 원활히 하는 데 목적이 있다.

This undergraduate course introduces the organization and function of the brain and its role in behavior. Topics include cell biology of neurons, electrical and biochemical signaling by neurons, establishment of neural circuits and networks. Also covered in the course are mechanisms of sensation and perception, control of movement, learning and memory, language, motivation and emotion and neuronal disorders.

인간과 지구환경

인간의 행동과 사고를 지배하는 뇌의 구조와 기능의 기초를 학부생들이 이해할 수 있도록, 뇌를 구성하고 있는 신경세포, 신경세포들간의 network 형성 및 신경계의 발생과정을 설명하고 이를 기초로 신경계의 이상에 의해 발생되는 여러 신경질환에 대한 이해를 증진시키고 향후학과 기역 및 행동에 관한 신경생물학적 기반을 이해하도록 한다.

This course covers the general meteorology. Based on the acquired knowledges of meteorology, we will talk about the urbanization, air pollution, the effects of human activities on environment, and vice versa. And also we will deal with the desertification.

지구환경변화

지구환경 변화는 변화에 따른 환경 변화에 대해 본격적인 연구를 시작한 것이 본 강좌의 주제이다. 지구환경 변화는 지구온난화, 오존층 파괴와 같은 인간의 생활과 자연환경의 상호작용을 다루며 최근 사막화 등의 문제를 토론한다.

This course deals with the desertification and the effects of human activities on the natural environment and vice versa. And also we will deal with the desertification.
This course teaches global environment changes and mechanisms in the past, differences between past and present changes, and expected global changes in the future. Emphasis will be placed on (1) present anthropogenic changes such as global warming and destruction of ozone layer, (2) natural changes such as early earth's climate evolution, glacial-interglacial cycles, abrupt climate change, and (3) future changes and our responsibility.

Voyage to the Sea

본 강의에서는 바다가 어떻게 생겼고(구조), 어떤 역할을 하고 있으며(기능), 왜 파괴되었는지(해수/오염) 등을 국내 사례를 통해 알아보고, 바다를 보전 및 복원하려는 인간의 노력에 대해 살펴본다. 기행이라면 휴로하여 국내의 바다와 해양생태계 현장을 생동감 있게 전달함으로써 바다와 관련된 여러 가지 과학적 지식과 함께 인간의 활동을 조명한다. 또한 바다를 지키기 위한 정책적 노력과 영해를 롯불린 국제사회의 호응 등에 대해서 토의함으로써 다학제적 사고도 배양한다.

We will study the origin, evolution, function, and management of the sea through various examples around us and our seas. The socio-ecological values and benefits of our sea and marine ecosystem will be delivered with basic scientific backgrounds. Each subject will be dealt with couple of examples around our seas to better understand the actual conditions given in the field. The link between science and policy will be highlighted through open discussions in terms of interdisciplinary research.

Water Crisis

기후변화에 따른 홍수와 지진과 같은 문제와, 물의 분쟁, 인위적, 자연적 수질오염 등과 같은 물의 위기는 전 세계에서 현실로 나타나고 있으며 앞으로 더욱 심화될 전망이다. 이와 같은 물문제는 전국에 관계없이 모든 사람들에게 물에 대한 과학적, 공학적 상식을 바탕으로 명확하게 대처하고 관리해야 한다. 인류가 이러한 문제의 위기에 대응하기 위해서는 현재 나타나고 있는 전 세계의 물문제를 파악하고, 과거의 인류의 역사와 현대 물문제를 풀어나가는 방법을 알아가는 것이 중요하다. 이렇게 함으로써 물문제(Water illiteracy)는 극복하고 지구를 살아가는 인류의 한사람으로서 구체적으로 대처할 수 있는 능력을 마련하고 생각을 정리할 수 있다. 본 강의의 목적은 전공에 관계없이 물에 대한 기초적인 지식을 배우고, 물이 인류 문화사에 미친 영향, 그리고 미래의 물문제를 대비하기 위한 올바른 물관리 방안에 대한 공학적 지식, 과학적 내용을 비판우크로 가르쳐 올바른 상식을 가지도록 하는 것이다.

본 강의에서는 물에 대한 인간적 기반상식을 알아두면 앞으로 국내외의 각 분야에 진출하여 리더이 되어 물 문제를 해결하기 위한 자연적인 활동을 함으로써 사회의 감동을 최소화하고, 지속가능한 발전에 참가하는데 기여할 수 있을 것이다.

Water crisis such as water disaster due to climate change, water conflict, water pollution etc is becoming a reality and expected to be even worse. This kind of water crisis should be managed by all the people in the world regardless of the major based on the scientific and engineering common sense.

In order for ordinary citizen to prevent water crisis, it is most important to understand the world water problems, the historical solution of water crisis. By doing this, water illiteracy can be overcome and each people in the earth can make a sound logic for an action. The purpose of this class is to teach the students of non engineering major to have a right common sense about the basic ideas about water, how water affected the cultural history of mankind, and how to prepare for the future water crisis. The findings from this class will help students from various academic background to learn how to solve the conflict in the society and develop the sustainable society as leaders of society in Korea as well as in the world.
047.013  
**Life and Biotechnology 3-3-0**

"Life and Biotechnology" course introduces not only essential basics of biotechnology but also applied aspects of biotechnology in detail. This class deals with comprehensive and up-to-date contents in biotechnology, such as transgenesis, animal/plant cloning, biotechnology in animal, plant, medical and food science. Also, history, research methodology, consumer concern and ethical consideration of biotechnology, and career in biotechnology are also introduced.

047.014  
**Insects and Humans 3-3-0**

This lecture provides students with factual, unbiased informations such as health insurance; and the health care system. The purpose of this course is for non-pharmacy students to understand drug-related issues such as the following: dosage forms; method for avoiding medication errors; drug metabolism; drug abuse; diabetes; antibiotics; health-related regulations such as health insurance; and the health care system. This lecture provides students with factual, unbiased information about those topics in a way that could be understood by those without a background in biology or chemistry.

047.015  
**Nutrition for Health 2-2-0**

"Nutrition for Health" introduces the various inevitable relationships between insects and human society and their impacts on human affairs from different points of view, thereby making students comprehend the importance and roles of insects in human lives. Students will study on how insect pests have competed with human race, how they affected our lives, and how we have controlled pest populations. Students will also study on the beneficial insects as useful resources, and on the potentials of insects as basic tools for the fundamental study on the beneficial insects as useful resources, and on their impacts on the beneficial insects as useful resources, and on the impact of cultural, natural, and sociological environments on the choice, utilization, cooking, and storage of foods will be studied in this course. An introduction to the problems and solutions related to overnutrition, malnutrition, and health hazards in the context of the production and consumption of foods will also be provided.

047.016  
**Drug and Health 3-3-0**

"Drug and Health" lecture course is to provide students with understanding the anatomical structure and physiological functions of the human body, based on medical sciences. Through learning classical cases of physiological experiments and state-of-art cellular physiology studies, the students are expected to have rational and scientific views on the phenomena of our biological life. This course would be delivered mostly as lectures by professors in the department of physiology and anatomy. The major evaluation would be based on these knowledges, students will develop the ability to plan and practice dietary intake for optimal nutrition and healthy life.

047.017  
**Understanding the Human Body 3-3-0**

"Understanding the Human Body" lecture course is to provide students with understanding the anatomical structure and physiological functions of the human body, based on medical sciences. Through learning classical cases of physiological experiments and state-of-art cellular physiology studies, the students are expected to have rational and scientific views on the phenomena of our biological life. This course would be delivered mostly as lectures by professors in the department of physiology and anatomy. The major evaluation would be based on these knowledges, students will develop the ability to plan and practice dietary intake for optimal nutrition and healthy life.
done by term examination and reports.

047.019 Structure and Function of Human Brain

본 교과목에서는 우선 사람 체의 구조 및 각 영역별 기능의 이해를 통하여 사람 체에 대한 기본적이고 포괄적인 지식 얻을 기회를 제공한다. 또한 체 구조 및 기능의 영역과 기능과 함께 다양한 학문분야에서의 연구 결과를 통하여 해부학, 생물학, 의과학, 의학 등 다양한 학문간 융복합 학문의 관점에서 사람 체의 이해가 가능하도록 한다.

Through this course, the students are expected to understand the structure and function of the human brain, and also to perceive brain study as an interdisciplinary research, integrating anatomy, physiology, behavioral and cognitive neuroscience, neuroimaging, and many more. Furthermore, several techniques for depicting human brain function and structure in vivo will be introduced, providing students with an opportunity to learn the research techniques of the human brain in vivo brain studies.

047.020 Introduction to Human Life Science

The purpose of this course is to provide general information for a clinical understanding of medical science. The present age is the age of science and the rapid progress of science is uncovering the veil of life. This course will introduce complex biological systems and their relationship with human health and the environment and general techniques for depicting human brain function and structure in vivo will be introduced, providing students with an opportunity to learn the research techniques of the human brain in vivo brain studies.

047.021 Topics in Well-being Medicine

‘well-being’ means ‘welfare, peace, or good health’ which can be categorized into pathophysiology, toxicology and medical jurisprudence associated with deaths. Essentially, major topics can be divided into three parts: 1) death and dying, 2) research and methodology focused on academic and social needs in death-associated phenomena.

The primary goal of this class is to provide a basic knowledge for the interpretation of scientific/medical facts associated-death, and the circumstances surrounding explained or unexplained causes as well as historical and philosophical stuffs related to death. This class will offer a quality knowledge and methodology focused on academic and social needs in death-associated phenomena. Essentially, major topics can be categorized into pathophysiology, toxicology and medical jurisprudence associated with deaths.

047.022 Understanding Death: A Scientific View

이 교과목의 목표는 의학을 전공하지 않은 다른 모든 전공 학생이 교수의 강의를 통해 우리 삶의 마지막 장면을 대한 과학적 이해를 높이고 이러한 지식의 바탕이 되는 의사적/철학적 함의를 분석하여 현대 사회에서 의학에 의한 다양한 사회 현상의 분석력을 향상시키는데 그 목적이 있다. 이 교과목에서는 의학과 관련한 과학적 자료를 제시하고, 현대 사회에서 의학의 문제에 대한 윤리적/철학적 고찰을 통해 의학에 대한 방향성을 제시하고자 한다. 기본적으로 이 강의에서는 의학과 관련된 인류의 의학적 인식, 사회적 의미 및 정치적 의미를 분석하고자 한다. 이 교과목에서는 의학과 관련된 복합한 사회현상에 대해 과학적으로 접근하는 방법을 탐구하게 됨이다.

047.023 Obesity and Health

Obesity is one of the most significant public health problems that affect millions of people worldwide. It is defined as a condition in which an individual's body mass index (BMI) is greater than 30 kg/m², which increases the risk of various health complications such as diabetes, heart disease, stroke, and certain types of cancer. Obesity-related health issues can lead to a decreased quality of life and a higher risk of premature death.

In this course, students will learn about the causes, effects, and prevention strategies for obesity. They will study the physical, psychological, and social factors that contribute to obesity and explore ways to promote healthy eating habits and physical activity. The course will also cover the importance of public health policies and interventions to address obesity at the population level.

The primary goal of this course is to provide a comprehensive understanding of obesity and its impact on public health. By the end of the course, students will be able to critically analyze the factors contributing to the obesity epidemic, understand the implications of obesity for individuals and society, and develop strategies for preventing and managing obesity.
Global problems are closely connected with each other. Perspectives and visions for the future are derived during the course of reviews of major causes and state of those problems at present and exploring the solution to them.

047.025  환경과 건강 3-3-0

Environmental and Health

The future of the environment and climate change

This course will consider environmental disaster, environmental toxicology, water pollution, air pollution, global climate change, indoor environmental, environmental microbiology, industrial health, industrial hygiene and health impact assessment. This course will cover popular films that explore issues in environmental health. After viewing films, a discussion follows focusing on the ethical, legal, social, and environmental factors that relate to the issues presented in the film. Students are expected to develop their own views on the issues presented in the films and to demonstrate their ability to evaluate the environmental impact of their own actions.
tics that are related with environmental health.

Understanding Oral Health in Life

Consumption which in effort is the outcome of reduction of waste. This course is structured to focus on the entire life cycle of a product or service - from purchase, usage to waste - has been spreading while being implemented as the basis for an eco-friendly lifestyle. This course is structured to focus on

Green Energy

Energy is an integral resource for the advancement and maintenance of human civilization. It is also at the center of international politics, economics, and conflict. The rapid increase in energy consumption has resulted in a multitude of ill side-effects including global warming, and the call to solve these problems is evermore increasing in urgency and importance. One key to overcoming energy insecurity is through facilitation of development and use of “green energy” including renewable energy. Green energy, however, is high in cost while low in energy-density, is yet unreliable in its supply, and may also create environmental damage during production. This course will explore the concept of “green energy”, study the available technology and its use, and further discuss the role and the limits of green energy as a solution to energy security issues. Students will study the current state of green energy in Korea, and contemplate the future of energy. The class is designed to encourage students to raise problems, and seek answers through discussion and debate, thereby fostering leadership qualities that will lead society into a new energy paradigm.

Green Life and Consumption

With the growing concern on the ecosystem and climate change, consumer awareness on eco-friendly product as well as the impact of human behavior on environment have become an important issue in the society and business. Green Consumption which in effort is the outcome of reduction of carbon emissions and resources in the physical life-cycle of a product or service - from purchase, usage to waste - has been spreading while being implemented as the basis for an eco-friendly lifestyle. This course is structured to focus on consumers behavior patterns (as both the villain and the victim of climate change) while providing opportunities to examine the consumption style and its surrounding social environment. The relationship of ecosystem and consumer will be dealt through the System Theory, and today’s lifestyle consisting of clothing, dining, and living will be critically evaluated through the lens of Green Consumption. The final objective of this course will be to discuss consumer’s decision making process and to propose ways to increase Green Consumption in the real world.
기후변화는 인류가 당면한 가장 중요한 현안의 하나로, 궁극적으로 사람과 생태계의 건강성을 위협한다. 기후변화로 발생되는 건강 영향은 어느 한 특정 영역의 노력과 변화로 해결되는 부분이 아니기 때문에 학계적 접근과 다양한 축의 지식습득을 필요로 한다. 따라서 이 강좌는 기후변화로 인한 건강영향 문제의 배경과 현황, 사회 정치적 맥락을 고찰함으로써 주제에 대한 전반적인 틀을 다지고자 한다. 구체적으로는 기후변화가 건강영향에 미치는 직접적 영향과 함께 그 외 매개곤충, 생태 등의 문제가 초래한 생물학적 요인, 환경오염 등의 화학적 요인을 검토하여 기후변화가 동반한 건강문제에 대한 이해를 높이고자 한다. 나아가 건강문제에 대한 적응과 대응 전략을 다양한 접근방법을 통해 모색해보는 기회를 갖고 궁극적으로는 지속가능한 사회로 나아가기 위해 필요한 지점을 인식하고 학습할 것이다.

Climate Change and Health

Climate change is one of the most important issues against which human future is challenged and human intelligence is tested. Due to the level of intensity and diversity required in addressing the impact of climate change on health, students will accumulate multidisciplinary knowledge and learn approaches of health, natural, and engineering sciences. Overall, this course will provide students with understanding on basic background and current status of the health problems directly or indirectly related to climate change, as well as the socio-political issues. Specifically, direct health impacts from climate change, biological factors including insect vector and the ecosystem, as well as chemical factors such as pollution will be covered. Efforts toward sustainable society as well as adaptation and mitigation strategies will be discussed. This class will cover broad area of climate change from a perspective of health and will serve as an introduction for the undergraduate students of all major.
Volleyball is a sport that can be enjoyed by everyone. Other than the skills needed, the rules, responsibilities, and manners will be taught through the actual practicing of the sport.

Physical Education 1

Physical Education 1

Physical Education 2

Soccer

Soccer

Volleyball

Volleyball

Archery

Archery

Baseball

Baseball

Taekwondo

Taekwondo
Aerobics

The essence of modern dance and its distinctiveness will be covered in this course, as well as a step-by-step guide to practicing the basic movements of the breast stroke. Main contents include an introduction to swimming history, characteristics, effects, physiological value, social value, and the basic movements of the breast stroke (motion, practice of leg motion, practice of arm motion, connection of leg and arm movements, breathing methods).

Modern Dance

The significance of modern dance and its distinctiveness will be taught through its basic moves. By practicing simple moves, the students should learn to create their own pieces. The course covers the basics of creation (aim, topic, desire, motivation), actual creation (choice of topic, motions), basic moves (bounds, stretch), bar motion (pilie, leg extension, swing, kick), and center motion (bounds, swing).

Recreation

In this course, students will study the game rules and kinds of swimming, relationship between water and the body, and need for swimming through lectures. They will practice free-style basic moves including leg kicking, hand motion, and breathing and connect these moves so that one full free-style motion can be made. Students will learn arm and leg (limb) movements as well as the mechanical and anatomical principles of swimming. They will also practice breathing methods using physiological principles.

Korean Dance

The course covers the basics of creation (aim, topic, desire, motivation), actual creation (choice of topic, motions), basic moves (bounds, stretch), bar motion (pilie, leg extension, swing, kick), and center motion (bounds, swing).
051.015 수영 4(자유형) 1-0-2  
Swimming 4

초급단계에서 얻은 자유형의 기본동작을 정확한 영법의 지도를 통해 완전한 종합동작으로 완성하도록 교육한다. 즉 완벽한 다리 동작과 팔 넓기, 누르기, 잡기, 당기기, 밀기, 밀기, 되돌리기로 이어지는 필동작의 완성도를 높이고 팔과 다리 동작의 정확한 연정을 팔과 다리동작의 정확한 연결로 완전한 자유형 동작을 할 수 있도록 실시 지도한다. 또한 동작연결의 효율성을 높이고 호흡에 의한 에너지소모를 극소화하여 자유형의 경기기술을 환상시키며 지구력 강화훈련을 통해 장기적 경영에도 익숙하도록 지도한다.

In this course, students will learn the entire free-style swimming techniques on the basis of what they have learned in beginning-level courses. Complete leg motion and arm motion made with arm strokes, pushing, pulling, holding, pressing, and swimming are the techniques covered. Students will reach the complete free-style level by connecting leg and arm motions. They will also learn to reduce energy waste while breathing and make efficient connections for the improvement of game skills.

051.016 수영 5(경영) 1-0-2  
Swimming 5

경영을 통하여 수영의 경기 방법 경영의 종류를 이해시키고, 경영의 기본동작인 발동작, 팔동작, 호흡 등의 단계별 지도와 종합동작의 지도를 통하여 경영의 정확한 동작을 체득하도록 한다. 구체적인 교수내용으로는 경영의 종류와 그에 따른 경영의 과학적 원리, 출발법과 반환법, 경영의 특정, 기본자세, 다리동작, 팔동작, 홀과 다리동작의 연결, 호흡법, 종합동작 등이 포함된다.

In this course, students will learn the butterfly swimming techniques including game methods, basic leg motion, arm motion, and breathing methods. Topics will cover swimming events and distance, scientific theories of swimming, methods of starting and returning, characteristics of the butterfly style, basic form, leg motion, arm motion, connection of arm and leg motion, breathing methods, and overall motion.

051.017 호신술 1-0-2  
Martial Arts

예측할 수 없는 많은 위험에 직면한 현대 사회에서 자신의 몸을 보호하기 위해 요구되는 체력과 자기 방어술을 기초부터 단계적으로 교육한다. 이런 위급한 상황에서도 스스로를 보호할 수 있는 능력을 가질 수 있도록 투기 동작의 기본 기술을 이해하며 다양한 호신 기술을 습득하는 것을 목표로 한다. 유도, 태권도, 합기도, 점도 등의 기술을 이용하여 필요한 체력을 얻어가며, 위급한 상황에 알맞게 대처할 수 있는 능력을 기르도록 한다.

In modern society, one cannot predict the dangers that surround us in everyday life. It is therefore important to learn to protect oneself and to build physical strength by stage. Various kinds of self-defense techniques will be covered in this course because one should be able to protect oneself in any situation. Judo, taekwondo, kendo, and aikido skills will be used to build physical strength and more demanding fighting skills will be studied so that students can react appropriately to emergency situations.

051.018 체력단련 1-0-2  
Weight Training

체력의 개념과 체력단련의 중요성을 현대생활에 비추어 강의, 토의함으로써, 자신의 요구에 맞는 체력 프로그램을 작성하여 트레이닝을 할 수 있는 기초적인 능력을 배양하도록 교육한다. 각 부위별 체력계를 구성하고, 체력요소기술 기반으로 운동 수행시의 과학적인 원리를 적용하도록 강의와 트레이닝을 강화한다. 자신의 체력을 스스로 기르고 체력 단련에 의한 효과를 이해하는 것 등을 주요요소로 한다.

In this course, students will discuss physical strength and the importance of physical training in modern society. They will write a physical training program suitable for each person and cultivate the basic capacity by following the program. Students will train each part of the body. Training and lectures will be provided so that students can apply scientific principles and exercise prescriptions for building up stamina. The course will also focus on an understanding of the effect of physical strength. It will be important to plan suitable training time, intensity, frequency, and build one’s own physical strength.

051.019 테니스초급 1-0-2  
Beginner’s Tennis

테니스에 입문하는 과정으로 테니스의 역사, 특성 및 효과, 시설 및 용구, 경기방법, 용어, 매치, 각종 세계대회의 성격과 배경을 이해시키고, 테니스의 기초기술을 습득하도록 한다. 체육과 대조하여 자기 담당의 기술을 통해 기본 기술을 익히도록 하고 동시에 테니스의 관련된 과학적 원리를 알도록 한다. 구체적인 교수내용으로는 서브시의 전략들, 스포트와 역행, 서브, 리 서브, 발리, 스톤, 포핸드의 기초기술과 단식, 복식의 경기 방법, 포지션에 따른 경기방법, 기초기술의 연습방법, 기본적인 싱글을 포함한다.

In this beginning course on tennis, students will study the history, special characteristics, effects, game methods, etiquette, equipments, terms, international games, and background of tennis. They will also learn the basic skills through individual lessons and explore scientific principles related to tennis. Topics will cover basic skills such as grip, strike (forehand and backhand), serve, receive, volley, smash, and rove. Also covered will be the rules for single and double matches, different positions, practice methods, and refereeing.

051.020 테니스중급 1-0-2  
Intermediate Tennis

경기에 필요한 경기기법과 기초기술 및 응용기술을 습득시켜 단식 및 복식 경기를 할 수 있는 능력을 갖추도록 한다. 경기 활동으로 테니스를 즐기고 운동의 효과를 체험하고 테니스를 즐기며 트레이닝을 할 수 있는 수준에 도달하도록 한다. 체육과 대조하여 자기 담당의 기술을 통해 기본 기술을 익히도록 하고 동시에 테니스의 관련된 과학적 원리를 알도록 한다. 구체적인 교수내용으로는 서브시의 전략들, 스포트와 역행, 서브, 리 서브, 발리, 스톤, 포핸드의 기초기술과 단식, 복식의 경기 방법, 포지션에 따른 경기방법, 기초기술의 연습방법, 기본적인 싱글을 포함한다.

In this course, students will learn the basic skills of tennis so that they can play single and double matches. They will be encouraged to play well enough so that they can enjoy the game as a lifelong sport. Lessons will include strategies of serving, base line strategies, back court rally, position change, and single and double match strategies.
Beginner’s Golf

Playing golf allows individuals to improve their physical fitness and sociability. Golf is a sport that can be played in relatively small spaces. The course will involve the basic positions and skills of golf and develop the ability to play a real game. Students will receive individualized attention to improve their swing such as addressing, back swing, down swing, and follow-through. Students will receive individualized attention to identify their swing positions and to correct them on outdoor golf ranges.

Dance Sport

In this course, students will learn the techniques of various dances including waltz, jive, cha-cha, foxtrot, polka, rumba, and swing such as addressing, back swing, down swing, and follow-through. Students will receive individualized attention to identify their swing positions and to correct them on outdoor golf ranges.

Intermediate Table Tennis

This course offers table tennis as a way of keeping physical fitness even in relatively small space. Topics will cover the history, facilities and equipment, characteristics, and rules of table tennis. Students will learn to play single and double matches in addition to the basic skills such as position, grip, stroke, smash, receive, and serve.

Inline Skate

In this course, students will learn basic and advanced skills including high clear, drop, drive, smash, hair pin, service, receive, forehand stroke, backhand stroke, and overhead stroke as well as strategies for single and double matches such as ways of improving their physical fitness and coaching and refereeing.

Beginner’s Badminton

Badminton's special characteristics are that it is a sport that can be played in relatively small spaces. The course will involve the basic positions and skills of badminton and develop the ability to play a real game. Students will receive individualized attention to improve their service, smash, receive, forehand stroke, backhand stroke, service, receive, overhead stroke, and strategies for single and double matches such as ways of improving their physical fitness and coaching and refereeing.

Beginner’s Table Tennis

This course offers table tennis as a way of keeping physical fitness even in relatively small space. Topics will cover the history, facilities and equipment, characteristics, and rules of table tennis. Students will learn to play single and double matches in addition to the basic skills such as position, grip, stroke, smash, receive, and serve.

Intermediate Table Tennis

This course offers table tennis as a way of keeping physical fitness even in relatively small space. Topics will cover the history, facilities and equipment, characteristics, and rules of table tennis. Students will learn to play single and double matches in addition to the basic skills such as position, grip, stroke, smash, receive, and serve.

Inline Skate

In this course, students will learn various techniques for playing tennis, including high clear, drop, drive, smash, hairpin, service, receive, forehand stroke, backhand stroke, and overhead stroke as well as strategies for single and double matches such as ways of improving their physical fitness and coaching and refereeing.

Beginner’s Badminton

Badminton’s special characteristics are that it is a sport that can be played in relatively small spaces. The course will involve the basic positions and skills of badminton and develop the ability to play a real game. Students will receive individualized attention to improve their service, smash, receive, forehand stroke, backhand stroke, service, receive, overhead stroke, and strategies for single and double matches such as ways of improving their physical fitness and coaching and refereeing.
In contemporary society, the flow of leisure circumstance has changed the pattern person’s according to the introduction of 5 days’ duty. The diffusion of In-line skate is the typical example. In-line skate is aerobic sport. Through this class we get the effective result in hip, thigh and shank. Moreover, through In-line skate we can consume more calory rather than athletic sports. And in-line skate increase stamina, power and the sense of equilibrium that is require to live in everyday. Therefore, the introduction of In-line skate place an important role in modern society.

**051.033** 현대사회와 스포츠 1-1-0

**Modern Society and Sports**

사회제도의 한 형태로 발전한 스포츠를 사회학적으로 분석하는 과목으로 스포츠와 정치, 경제, 종교, 문화, 교육 등에 관한 내용을 교수한다. 스포츠 참여의 과정, 스포츠와 사회참, 스포츠와 대중매체, 여성의 스포츠 참여, 스포츠와 관중, 스포츠와 경제, 스포츠와 교육, 스포츠와 공격성 등에 관해 논의함으로써 현대사회에서의 스포츠의 의미의 역할에 대한 이해를 높이도록 한다.

This is a course which sociologically analyzes the development of sports as a form of a social system. Subject matters will include sports and politics, economics, religion, culture, and education. This is in order to have a better understanding of sports and its role and significance in modern society.

**052.001** 도예의 기초 2-0-4

**Introduction to Ceramics**

점토의 성질을 익히고 여러 가지 기법이나 형태를 만들어 육아을 바르고 구하기는 도예의 기본적인 건 과정을 제시한다. 이러한 과정을 통해 전문적인 학문 연구의 성취감을 다른 미적 체험을 얻기를 통해 아울러 비전문적인 차원에서의 육아성과 유희성을 개발한다.

This course examines the nature of clay and provides overall processes of ceramic handicraft practices.

**052.002** 수묵화의 기초 2-1-2

**Introduction to Sumukhua**

미술을 전공하지 않는 학생들이 동양화의 기본원리와 조형요소를 이론과 실기를 통해 익히고 이해하며, 그림상의 운도에 대하여 기초적인 인문과 사군자 그림(그림, 복화, 난초, 국화, 대나무, 문화화 등의 실과정을 통해 동양 고유의 수묵예술에 대하여 이해와 표현의 폭을 넓힙니다.

This course is for non-art major students as an introduction to the basic techniques of Asian brush and ink painting. Students will get near to drawing into their daily life. The basic theory of Sumukha and the Sagunja; Four Gracious Plants (plum, orchid, chrysanthemum and bamboo) and the painting in the literary artists style will be taught. A proper understanding of the relevant aesthetic concepts and practices will also be emphasized in order to broaden students perspective on traditional art.

**052.003** 수채화의 기초 2-0-4

**Introduction to Watercolor**

수채화의 입문과정으로서 투명, 블루점을 수채효과를 이용한 인물 및 자연소재를 통하여 미적 활동 및 감상 등의 교양을 높입니다.

This course introduces watercolor painting, through actual practices of depicting figures and nature in transparent and opaque watercolors.
052.004 소개의 기초 2-0-4
Introduction to Drawing
소묘의 실습을 통해 미술에 대한 관심과 창조적 미의식을 계발한다. 연필, 목탄, 콘테 등의 소묘재료를 사용하여 자연의 관찰을 통한 기독적 의미로서의 소묘의 기초능력을 함양시키며 감상과 평가를 통해 미술이란 독立의 함을 얻는다.
By practicing sketching and drawing landscape with pencils, conte, and charcoal, students will enhance their interest in and learn to appreciate art and develop their creativity in this course.

052.005 교양연주 - 합창 1-0-2
Music Performance - Chorus
발성, 체계적인 앙상블 훈련 등 합창활동에 필요한 기본적인 교육과 고전에서 현대에 이르는 다양한 합창곡의 실습을 통해 음악적 소양을 함양한다. 수강생들은 적연한 기초적인 시장 및 가창 능력을 필요로 하며 매 학기말 수강생 전원이 함께하는 합창 연주회를 개최한다.
Through vocal exercises, vocal ensemble and choir, the students develop their musical attainments and interests. The students must have elementary ability for sightseeing and singing. At the end of each semester, a choir-concert will be held.

052.006 교양연주 - 색소폰 1 1-0-2
Music Performance - Saxophone 1
대중적으로 많은 사랑을 받고 있을 뿐만 아니라 상대적으로 배우기 쉬운 색소폰을 배우는 방법으로써 보다 능동적인 예술적 체험을 할 수 있는 음악적 소양을 함양한다.
Through taking saxophone lessons, the participants might have more active musical experiences besides musical appreciation.

052.007 교양연주 - 색소폰 2 1-0-2
Music Performance - Saxophone 2
대중적으로 많은 사랑을 받고 있을 뿐만 아니라 상대적으로 배우기 쉬운 색소폰을 배우는 방법으로써 보다 능동적인 예술적 체험을 할 수 있는 음악적 소양을 함양한다. <교양연주-색소폰 1>과 연결된 하나의 과정이다.
Through taking saxophone lessons, the participants might have more active musical experiences besides musical appreciation.

052.008 교양연주 - 가야금 1-0-2
Music Performance - Gayageum
음악을 전공하지 않는 학생들에게 가야금 연주 경험을 제공하는 실습과목으로써 연주능력을 습득하고 그 과정을 통해 한국 전통음악에 대한 이해를 높인다. 
Through Gayageum (a Korean traditional 12 string instrument) lesson, students can deepen their understanding of Korean traditional music.

052.009 교양연주 - 거문고 1-0-2
Music Performance - Geomungo
음악비전공 학생들에게 연주 경험을 제공하는 실습과목으로 거문고 연주 능력을 습득하고 그 과정을 통하여 한국 전통음악에 대한 이해를 높인다. 
Through Geomungo (a Korean traditional 6 string instrument) lessons, students can deepen their understanding of Korean traditional music.

052.010 교양연주 - 단소 1-0-2
Music Performance - Danso
음악비전공 학생들에게 연주 경험을 제공하는 실습과목으로 해금 연주 능력을 습득하고 그 과정을 통하여 한국 전통음악에 대한 이해를 높인다. 
Through danso (a Korean recorder) lessons, students can deepen their understanding of Korean traditional music.

052.011 교양연주 - 해금 1-0-2
Music Performance - Haegum
음악비전공 학생들에게 연주 경험을 제공하는 실습과목으로 해금 연주 능력을 습득하고 그 과정을 통하여 한국 전통음악에 대한 이해를 높인다. 
Through haegum (2 string Korean fiddle) lessons, students can deepen their understanding of Korean traditional music.

053.001 신입생세미나 1-1-0
Freshman Seminars
신입생 세미나는 새로운 대학생활을 첫 단계로 하는 신입생들에게 학문적 탐구를 위한 기회를 제공한다. 이 세미나는 학문적 탐구의 기본태도를 형성하고, 진로를 모색하며 인생과 세계를 내다볼 수 있는 기회를 제공한다. 또한 이론 강의와 함께 토론, 현장학습, 초청강연 등의 다양한 방식으로 운영되어 기존 강의와는 구별된 자유로운 분위기 속에서 진행된다. 
The Primary goal of the freshman seminars is to enhance the student's intellectual potential and to increase the student's capability for a successful college life. The freshman seminar program offers opportunities for freshmen to work with members of the faculty in small group settings and to formulate the foundations for the various modes of academic inquiries. In the seminars, students are encouraged to contemplate their future careers and to share their views about life and the world. The seminars will explore topics of special interest through lectures, class discussion, field trips, and presentations by invited speakers, and thus freeing the faculty and students from the usual constraints associated with a regular course offering.

L0654.000100 한국 수화 언어의 이해 2-2-0
Understanding Korean Sign Language
한국 수화(手話/手語 언어)는 한국어와는 전혀 다른 독특한 구조와 문법을 가진 독자적인 언어이다. 그런데 한국 사회는 단일 언어 사용 사회가 아니라 민족적 인식으로 인해 한국어 이외의 언어 사용자에 대한 사회적 수용성이 현저히 부족한 것이
사회봉사 2는 사회봉사 1을 수강한 학생들을 대상으로 하여 실천현장에 대한 경험과 지식을 바탕으로 사회봉사에 대한 이해를 심화하고 봉사자 리더십을 가르는 것에 주안점을 둔다. 학생들은 사회봉사활동에서 요구하는 리더의 의미와 바람직한 리더십의 개념을 이해하고, 이를 봉사활동에서 적용하면서 리더로서의 사회적 책임감을 깨닫고 적극적으로 주체로서 사회 변화와 발전에 앞장서는 역할을 경험하게 된다. 사회봉사3는 기본교육과 기간평가 및 기여치사회의 다양한 곳에서 이루어지는 직접적인 봉사활동으로 구성된다.

Volunteer Social Service 2

사회봉사 2는 사회봉사 1을 수강한 학생들을 대상으로 하여 실천현장에 대한 경험과 지식을 바탕으로 사회봉사에 대한 이해를 심화하고 봉사자 리더십을 가르는 것에 주안점을 둔다. 학생들은 사회봉사활동에서 요구하는 리더의 의미와 바람직한 리더십의 개념을 이해하고, 이를 봉사활동에서 적용하면서 리더로서의 사회적 책임감을 깨닫고 적극적으로 주체로서 사회 변화와 발전에 앞장서는 역할을 경험하게 된다. 사회봉사3는 기본교육과 기간평가 및 기여치사회의 다양한 곳에서 이루어지는 직접적인 봉사활동으로 구성된다.

Volunteer Social Service 3

사회봉사3는 사회봉사 1, 사회봉사 2를 모두 수강한 학생들을 대상으로 하여, 실천현장에 대해 심화된 경험과 지식을 바탕으로 봉사활동의 기획 및 실행을 포함한 주도적인 국내외 봉사활동 참여에 주안점을 둔다. 학생들은 주도적으로 사회봉사활동 현장의 욕구를 파악하여, 대상자의 욕구에 맞는 봉사활동을 스스로 기획하여 실시하고 평가할 수 있게 된다. 사회봉사3은 기분교육과 기간평가 및 국내외 지역사회에 대한 다양한 곳에서 이루어지는 주도적인 봉사활동으로 구성된다.

Volunteer Social Service 3은 for students who have successfully completed the Volunteer Social Service 1 course. The course is designed to provide an in-depth understanding of volunteer work and leadership of volunteer programs for the students. The students are expected to learn about the concept and meaning of effective leadership in volunteer programs by applying leadership skills while doing volunteer work at various social service agencies. Throughout the course, leader’s role as an active participant to initiative social change and development is emphasized.

Volunteer Social Service 3

Volunteer Social Service 3 is for students who have successfully completed Volunteer Social Service 1 and Volunteer Social Service 2. The course is designed to provide an in-depth understanding of volunteer work and leadership of volunteer programs. The students are expected to take an initiative for assessing clients’ needs and to design a volunteer activity based on their assessments. Also, they will be able to implement their plan in the field and evaluate their work. Volunteer Social Service 3 is composed of basic education, final evaluation and direct practice of volunteer activity at various social service agencies.
demic credits based on their internship reports.

053.007  Green Leadership Internship 2 3-0-6

Global Internship 2

The objective of this course is to integrate in-class learning materials about the environment and sustainability with real-world on-site experiences through internships at governmental organizations, enterprises, research institutes, or civic groups. Upon completion, the student is expected to have acquired practical skills and knowledge that will provide insights on sustainability and which could be applied to future career pursuits.

In order to further such objectives, the students will be staying together in dormitories during the five-week internship program. Through this, the students will regularly communicate with fellow students and advisors about their work and progress while putting green leadership skills into practice.

053.008  Career Development: Exploration and Planning

Career Development: Exploration and Planning

This course is designed to help students address career issues including enhancement of career self-efficacy, career goal setting and career planning. To meet such objectives, the course-work will be composed of group activities and alumni interviews. The course themes will include self-exploration, workplace exploration (mostly interviews), career goal setting and dealing with career barriers. Only undergraduate students are eligible for this course. Academic credits will be awarded based on alumni interview reports and career information research assignments.

053.010  Sustainable Living Design

L0654.000200  Sustainable Living Design

C053.011  Green Leadership Internship

This course aims for students to understand and correlate the variable social issues with the insight of sustainability. Considering the complexity of environmental issues, it is important to understand and learn their diverse social aspects.

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Design helps to express oneself to the world and can be a tool for introspection of the world, and are therefore, foundations for human creativity. This course aims to help students build capacities as green leaders by providing them chances to learn about green environmental art, eco-design, and ecological art practice. The purpose of this course is to understand ways to realize green society through design by providing theoretical knowledge and practical experiences. Through this course, students will examine diverse kinds of eco-friendly artistic forms including street art. Study on the environmental art and related artists will also be conducted as it is an important factor in heading towards a green society. Also, to understand the meaning and methods of eco-design, students will be learning about factors of eco-friendly design through case studies and be recommended to present and publish their research outcomes.

This course is designed to provide continuous and advanced self-directed learning and creative/critical thinking ability of undergraduate students who already participated in Independent Research 1. As liberal education program, students may select research themes, research methods, and advisors in interdisciplinary fields or contemporary issues. Students would submit research proposals and conduct research of their own with the support of the professor(s). Students would receive academic credits (2, A–F) based on the final reports of their research, and be recommended to present and publish their research outcomes.
Gwanak Omnibus Course (Themes)

The Primary Purpose of the Omnibus courses is to interpret and analyze a theme, and an event, a book, or a historical or political figure. These courses nurture student's capacity of multi-dimensional thinking through the training to investigate the subject from multiple angles, and to be exposed to a broad scope of interpretations.

Creative Thinking and Life

“창의적 사고와 삶” 교과목은 창의성에 대하여 다양한 관점에서 이해하고 그 사례를 살펴봄으로써 학생들의 창의성을 함양하는 것을 목적으로 한다. 강의는 크게 ‘유니버스 강의’와 ‘팀 프로젝트 과제’의 두 개의 축으로 구성이 되었다. 유니버스 형식으로 진행되는 각 강의들 통해서 학생들은 창의성이 무엇인지에 대해서 이해할 수 있으며, 이러한 접근에서 창의성이 발현될 수 있는지에 대해서 알 수 있다. 또한, 팀 프로젝트를 통해서 학생들은 창의성을 발휘할 수 있는 기회를 직접 경험할 수 있게 되었다.

The course, “Creative Thinking and Life”, aims to help students to establish interdisciplinary theoretical frames of reference on creativity and develop their own creative thinking. It consists of two pivotal parts, which are omnibus lectures and team projects. Omnibus lectures provide students with an opportunity to understand creativity in thought and life. Also, as team projects require every students to engage with an opportunity to understand creativity in thought and life. Through the course students will develop students' ethical competencies as a responsible member of human community.

Great Books Reading Seminar

동서양의 고전을 심층적이고 능동적으로 읽고 성찰함으로써 대학 외부과정 학생들이 인류공통에의 바람직한 인간으로서 갖추어야 할 태도와 정서, 관념과 실천능력을 함양하는 것을 목적으로 하는 교과목임. 고전에 나타난 인간의 삶과, 다양한 가치, 보편적 문제들에 대하여 관심을 가지고 이해하게 하며, 이에 대하여 이해하고 성찰하고 자극적으로 탐색하고 실천함으로써 보다 이타적이며 공통체지향적으로 인류사와 인간의 다양한 가치를 구현할 수 있는 태도와 능력을 갖추도록 함. 소규모 세미나 형태로 학생들의 적극적인 인식과 발표 활동을 중심으로 운영하고, 고전 텍스트에 앞서 인간의 사례와 문제들에 견해를 바탕으로 다양한 사례와 주제적 참가가 참여해 삶에 이르기 쉽도록 함. 동일 교과목에 다양한 주제의 복수 강좌를 개설함으로써 학생들의 관심과 흥미도를 담가주고, 수준과 배경, 문제 등에 따라 선택할 수 있게 함.

With reading western and eastern great books as well as sharing the themes and spirit in them, this course aims to develop students' ethical competencies as a responsible member of human community. Through the course students will ponder upon diverse approaches to moral attitudes such as ‘Goodness’, ‘Justice’, ‘Happiness’, ‘Community’, ‘Peace’, ‘Love’, ‘Leadership’, ‘Destiny’, ‘Desire’ etc. The more al-trustic and committed way of life will also be considered. As a seminar-kind course of 20 people it focuses on students activities(readings, debating, character analysis, reciting, role playing, project performance etc) rather than lecturing. This activity-based learning will make students more understanding, empathetic and matured person. Multiple classes of different themes and books will be offered, which help students to choose what they want according to their problems, concerns and backgrounds.
The consequences of the new findings and developments, and synthesizing an organism. As technologies progress, however, secrets of life: in defining characteristics of an organism, in descriptions, and now they seem to be finding essential keys to the work? Scientists have tried for centuries to answer the question.

What is life? Where does it come from? And how does it operate? By making students happier.

What is the purpose of this course? This course is an interdisciplinary approach to investigate a variety of contemporary issues surrounding life. Over the course of the semester, students will be asked to regularly attend lecture classes, to actively participate in discussion sessions, and to produce thoughtful written responses.

This course is an intensive reading comprehension class designed to help students improve their understanding of classical texts written in foreign languages (including Latin and Greek, or classical Chinese) under a guidance of an instructor. Established in July, 2005 as a part of the four-year Humanities Development Program, this course aims to foster creative learning process and provide custom-made opportunities to students with diverse interests. Less than five students will meet in the instructor’s office, and choose a book from the reading list provided by the instructor. This class is recommended to students with beginners level in comprehension skill.
students will meet in the instructor’s office, and choose a book from the reading list provided by the instructor. This class is recommended to students with intermediate level in comprehension skill.

L0655.000100 고전으로 읽는 인문학 1 - 인간과 사랑 3-3-0

Reading Classics in the Humanities 1 - Human being and Love

1학기에 진행될 <문학과 사랑>은 동서양의 문학 전통에서 남만적 사랑의 이상이 형성되고 변천한 과정을 살펴는 과목이다. 문학의 영원한 주제인 사랑을 근대의 주제의 구성, 페미니즘/제외 이데올로기의 (再)편성 등에의 맥락에서 논의하며, 시대, 문화 간의 차이와 전연성에 주목한다. 절약 분야가 다른 세 과목이 공동 강의를 하고 입학과 수학에 중점을 둔다.

2학기에 진행될 <인간으로 산다>는 서양의 고전을 통해 인권의 삶에서 허용할 수 없는 과오와 운명에 대해 탐구한다. 3인의 인문대 교수는 서로 다른 시기와 지역에서 탄생한 3편의 고전을 소재로 이 주제에 대해 강의하고, 학생들의 글을 가지고 토론하는 방식으로 진행될 것이다. 각 기간 5세기 이탈리아에서부터 19세기 미국과 라이선스에 이르는 넓은 시대적 공간적 배경에서 인간이 마주했던 과오와 운명이 무엇이었는지, 인간에서 산다는 것이 무엇인지 고전을 통해 살아보고 글을 통해 자신의 생각을 표현함으로써 자신의 고통, 사랑과의 불화는 물론, 타인의 과오와 운명에 대한 인문적 공감과 이해의 폭을 넓혀나갈 것이다.

The course <Literature and Love>, provided for the 1st semester, explores the formation and transformation of the ideal of romantic love in the Western and Eastern literary canon. The eternal literary theme of love will be discussed in relation to the making of the modern subject and the (re)configurations of gender, sex, and class ideologies. Focus will also be given to intercultural, as well as historical, differences and affinities. The course will be taught by a team of three instructors from different disciplinary backgrounds with a special emphasis on reading and writing.

The course <To Live as a Human Being>, provided for the 2nd semester, explores the meaning of the stories of inevitable human suffering and destiny described in the famous Western canons. Three faculties of College of Humanities offer collaborative lectures on three classics of different periods and regions, and organize the productive discussion about students' essays on how to live as a human being. This course covers the spatio-temporal period from 5th century B.C. to the 19th century Russia and America, attempting to enhance students’ humane sympathy and compassion with what men have undergone as human beings through the critical inquiry into the classic manifestations of human suffering and fortitude.

L0655.000200 고전으로 읽는 인문학 2 - 개인과 세계 3-3-0

Reading Classics in the Humanities 2 - Individuals in the World

1학기에 제공되는 ‘길 터지는 인간’에서는 서양 근대 여행 문학의 대표적 고전을 통해 개인과 세계라는 주제에 대해 탐구한다. 3인의 인문대 교수는 서로 다른 시기와 지역에서 탄생한 3편의 고전을 소재로 이 주제에 대해 강의하고, 학생들의 글을 가지고 토론하는 방식으로 진행될 것이다. 자아와 일체, 인생의 힘을 받고 낳은 외부로 향하는 모험의 여정이 어떻게 동시에 인간 자신 내부에 대한 탐구가 되는지 17세기 스페인, 18세기의 영국과 프랑스라는 서양 근대의 출발점을 중심으로 살펴볼 것이다. 학생들은 글로 자신의 생각을 표현함으로써 개인과 사회의 관계, 나선 세계의 발전, 세계의 불행에 대한 맥락의 의미와 주제, 근대적 인간의 탄생 등 인문학의 기본 주제에 대한 공감과 이해의 폭을 넓힐 것이다.

2학기에 진행될 ‘사랑, 권력과 개별’은 동서양의 고전 세편을 꼭잡히면서 역사와 권력 사이에 놓이 개인과 주제의 문제를 깊게 탐구한다. 18세기에 20세기 후반에 걸쳐 개개인의 삶이 둥근 몇이 놓은 역사적 사건들을 소재로 한 동서양의 고전 임대기를 통해 본 교과목은 역사적 편견과 개인의 목소리, 애착과 권력과 저항적 주제의 문제가 역사적 시공을 겪어 다양한 개개인의 일상에서 어떻게 드러나는지 깊게 살펴보며 21세기를 살리는 우리의 삶과 역사의 관계를 되돌아 볼 것이다. 특히 한국사, 미국사, 유럽사를 넓게 조망하고 인류 보편의 역사적 시사의 의미를 탐색하며 경제, 인종, 지리 등의 정체성을 넘어 타인의 존재의 방대함을 느낄 것이다.

The course entitled "Individuals on the road" which will be open to the students in the spring semester explores the formation of the self through voyages—on land, on sea, across continents and cultures—in the modern western imagination. The course will cover three representative works from the Spanish, English, and French literary traditions. Three faculty members will team-teach this course, offering a comparative perspective on such themes as the self/other, civilization/barbarianism, the old world/the new world. Cervantes’s Don Quixote, Defoe’s Robinson Crusoe, and Voltaire’s Candide reveal that the modern western self was crucially a mobile, traveling self in constant conflict with the existing social structures of western Europe, deeply invested in moving beyond both the social and moral boundaries of the old world, and finely attuned to the ethical and political challenges of European imperialism.

The course entitled “History, Power and Individuals” which will be open to students in the fall semester will examine the problems of individual and subjectivity in the context of history and power. We will do a close reading of three classical texts—Korean, German and American—spanning from the 18th century and 20th century, and examine how individual voices resist against various historical discourses and oppressive power. By thinking about how our everyday ordinary lives are transformed by/transform history and power, we will also discuss the significance of history in 21st century.

054.012 주제로 읽는 고전: 성과 사랑 3-3-0

Classics Theme: Sexuality and Eros

우리는 일반적이고 보편적인 인간의 뿐 아니라 특정한 정치경제적 환경에서 특정한 욕망을 가지고 살아가는 매우 구체적인 개별주체들이다. 하나의 개별주체를 규정하는 사회문화적인 표지로는 인종, 계급, 성 등이 있으며, 우리는 특정한 인종적 계급적 성적 정체성을 통해 주제를 구별하게 된다. 이 수업에서는 특히 성(sexuality)에 주목해서 우리가 살아 존재하는 주제의 표지로 이해건한 역사로 죽고자 한다. 모든 인간이 남성 또는 여성으로 규정되는 것이 너무나 자연스러운 현상으로 받아들여지지만, 그런 단순한 분류에 구속되지 않고 복잡한 역사적 복잡성과 다양한 문화적 다양성이 있다는 사실에 충격을 받는다. 성의 구별이 역사적으로 어떻게 건설되어 왔는지 성의 차이가 어떻게 해석되었는지, 성의 차이가 어떻게 차별로 발전하면서 고착화되는지, 차별에 저항하는 파멸이나 이에 인도된 동물과의 상호작용은 얼마나 진실한지 향유적, 심리학, 생물학, 정치학, 역사, 여성학, 문화학자들 간의 관계를 통해 입체적으로 논의한 것이다.
While we all belong to the general category of human beings, each one of us represents an individual subjectivity with a corporeal body under some specific economic circumstances. Race, class, and sex are the most important socio-cultural markers that identify the individual subjectivity. With a special focus on ‘sex’ among these three markers, this course is devoted to studying the history of sexuality. Challenging the common assumption that the binary opposition between man and woman is only a natural phenomenon, this course concentrates on how sexual difference has been established and interpreted historically, how ‘difference’ has been replaced with ‘discrimination’, and how feminism has shaped and evolved. Through a selection of readings in philosophy, psychology, biology, political theory, gender studies, and literature and arts, this course also reflects upon the myriad ways of how sexual energy in the form of ‘eros’ has shaped and evolved. Through a selection of readings in philosophy, psychology, biology, political theory, gender studies, and literature and arts, this course also reflects upon the myriad ways of how sexual energy in the form of ‘eros’ has been inscribed in human history.

054.019 현대도시건축설계 3-2-2
A Glance at Korean Contemporary Urbanism and Architecture

The purposes of this course are followings: 1) Understanding Korean contemporary urbanism and architecture, 2) Having student’s own views of urbanism and architecture as a professional working in different field. This course is composed of 1) lectures about historical context of architecture as a professional working in different field. This course is designed to provide a basic scientific understanding of musical instruments. Students will make and play their own instruments, all by themselves. Lectures on musical instruments and basic acoustics will be given within first 8 weeks. World’s folk musical instruments and professor’s hand-made instruments will be introduced also. Then, each group will make plans of making their own musical instruments with discussion. A group consists of two students. Finally, students will have demonstrations of their instruments. The demonstration includes explanation and performance.

054.021 창조와 디자인 3-2-2
Creativity and Design

This course concentrates on how sexual difference has been established and interpreted historically, how ‘difference’ has been replaced with ‘discrimination’, and how feminism has shaped and evolved. Through a selection of readings in philosophy, psychology, biology, political theory, gender studies, and literature and arts, this course also reflects upon the myriad ways of how sexual energy in the form of ‘eros’ has been inscribed in human history.
강의의 의도에 따라 가상미술관의 전시를 구현하도록 한다. 전시 준비 과정에서 수강생은 팀워크 활동을 하게 될 것이며 팀원들과의 상호작용 속에서 리더십을 효과적으로 증진시킬 수 있다.

This course develops creative problem solving skills by enabling students to experience a deep thinking process and practical exercises at an art museum. The main assignment is to plan an on-site and a virtual exhibition utilizing the actual space of Museum of Art, Seoul National University. The content for each exhibition is not limited to artworks but various aspects of museum facility. Students will have chances to manipulate museum space, temperature and humidity control settings, and lighting structures. They are expected to find their relationships. In addition, students will search for evaluation methods to determine the levels of interactions between their relationships. In addition, students will learn the ways to define and analyze ideas and themes. They will also learn the skills to communicate with audience and develop new ways to describe the exhibition content. The art museum environment will allow students to experience many ways of thinking based on their understanding of the museum. Each student will select a unique topic regarding ways of thinking and creates a story. Each exhibition will be based on each student’s story. Two exhibition topics selected through a discussion during the course are to be implemented an on-site exhibition at the Museum of Art, Seoul National University; the others are to be presented in the format of a virtual exhibition. Team projects will support students to become more interactive and promote their leadership skills.

054.023 과학기술과 대중문화 3-3-0
Science, Technology, and Popular Culture

이 과목에서는 과기 또는 현대 사회의 대중문화와 과학기술의 상호 관련을 탐구한다. 과학기술을 단지 그것을 생산하는 과학자 공학자의 관심에서 뿐 아니라 그것을 소비하고 활용함으로써 그 발전 방향에 큰 영향을 미치는 대중문화의 관련 하에서 살펴본다. 특히 다양한 시대, 다양한 사회에서 과학기술과 대중문화의 관계를 다루고 이로 삼차비교하여, 과학과 사회문화의 관계에 대한 더 풍부한 통찰을 얻을 것을 목적으로 한다.

This course examines interactions between science and popular culture in a variety of historical settings. This will provide students with a deeper insight to understand the complex relationship between science and culture, in which the latter very often exerts substantial influence on the former. Students also understand that popular culture is not a mere external background of science and technology. They are expected to find their relationships.

054.024 과학기술과 사회 3-3-0
Science, Technology and Society

현대사회에서 과학과 기술이 사회와 덧붙여 있는 다양성과 복잡성을 통합적으로 다루며, 사회 속에서의 과학기술의 역할, 과학의 과학기술의 현황과 발전방향, 과학기술과 관련 사회적 문제, 과학기술의 사회적 책임 등의 주제를 포괄한다.

This course surveys various aspects of the relationship between science & technology and society in a systematic way. The topics include the roles of science & technology in society, social issues related to science & technology, and social responsibilities of scientists and engineers.

054.025 공학윤리와 리더십 3-3-0
Engineering Ethics and Leadership

산업현장에서 졸업생들의 활동의 상당수가 일반국민들의 생활과 연결되어 있다. 따라서 이공계 학생들, 특히 엔지니어가 가지고 있는 윤리와 리더십은 매우 중요한 요소가 된다. 산업현장의 전반적인 다양한 현황에서 이를 문제로 대표적인 것이 다. 본 강의에서는 이러한 문제에 대한 윤리적 접근과 리더십 배양의 관점에서 교육을 시도한다. 윤리와 관련법규, 리더십과 의사소통 방법을 연구, 학습하며 또한 사회적규범과 팀별 심층을 통해 학교에서 배운 과목내용과의 연계를 통해 이공계 지식의 이해와 성공하는 졸업생으로의 소양에 대해 하이옥한다. 따라서 본 과목은 이공계 관련 대학의 학생 모두가 가능하다.

Ethics and leaderships for engineers and natural scientists are the main topics of this course. When engineering graduates start to apply knowledge obtained in-class lectures in the real life, ethics and leadership of the engineer become very important as various engineering practices affect many aspects of ordinary people’s life. Safety and environmental problems are among them. Lectures on ethics and related laws as well as leadership, teamwork and communication skills will be provided. Also, various application case studies will be introduced and discussed.

054.027 창업과 경제 3-3-0
Entrepreneurship and Economy

본 과목은 학부생들을 대상으로 성장잠재력이 높은 미래기술의 발전세를 분석하고 창의적인 기업가정신을 배양하며 기술창업에 필요한 실무지식과 절차를 습득함으로써 현장지향적인 인재를 양성하는데 그 목적이 있다. 이론적 분석보다 실무지식이나 사례중심 강조하는 세미나 및 현장파견방식으로 진행되며 주요 주제는 우리나라 경제현황, 기업구조 및 기업가정신, 과학기술과 산업, 기업시상 및 기술창업의 이해, 벤처기업 현황, 산학협력 분야, 기업 재무재표 분석, 유동, 채무 및 부동산시장의 이해, 한국의 CEO 강연 등으로 구성된다.

The objective of this course is to bring up students with practical mind by providing lectures on the analysis of the future technology trends and on the real knowledge and procedures for establishing venture companies. The course will be proceeded with seminars and special lectures by the specialists in the real world on many case studies. The topics will be current situation of Korean economy, structure of entrepreneurship, the relationship between technology and industries, understanding of electronic and automobile industries, current situation of venture industries, Blue-ocean strategies, analysis of company financial statements, understanding of stock markets and real-estate markets, and experience of CEOs.

054.028 특허와 기술창업 3-3-0
Patent and Technology Entrepreneurship

R&D 과정을 통해 얻어진 우수한 결과들을 연구(발명자)들이 활용하기 위해서는 이를 지식재산(특허)의 형태로 보호해야 하고, 이를 타인에게 라이센스하거나 혹은 자신이 직접 창업을 하여 발
Researchers protect their intellectual property resulted from their R&D in the form of property rights (patents), and capitalize the invention either by licensing out the rights to other enterprises or by starting up a company by themselves. This course teaches what is the intellectual property, how researchers’ inventions are protected, and what knowledge and skills are need to start a technology based company, and allows students opportunity to practice knowledge and skills they learned through a team project.

L0655.000700

Understanding Big Data

The purpose of this class is to provide understanding of body's significance, opportunities and limitations so that they can find good big data applications in their respective areas of interest. They will learn what drives the change and its technical background. In addition, they will study applications in various areas. At the end of the course, each student will present ideas about new applications in the area of their choice.

054.030

Understanding and Practice of Physical Activity

The purpose of this class is to figure out how our body changes while riding a bicycle as well as to learn a scientific principle applied on cycling. You will learn not only equipment; bicycle, helmet, cloths, shoes but also role of researchers' inventions are protected, and what knowledge and skills are need to start a technology based company, and allows students opportunity to practice knowledge and skills they learned through a team project.

054.031

Mountain and Life

The purpose of this course is to improve your physical fitness and mental health by mountain climbing. You will learn how to face and treat the nature and it will bring big abundance to your life.

054.032

Bicycle and Sports Science

The purpose of this class is to provide understanding of human body through experiment of body movement as well as to give an opportunity to improve understanding of human body through experiment of body usage. Also, you will look through how our body re-adapt in the several living environment.

054.034

Interpreting Cities

The purpose of this class is to provide understanding of mystery of human body and research a scientific theory of body movement as well as it would give an opportunity to improve understanding of human body through experiment of body usage. Also, you will look through how our body re-adapt in the several living environment.
Photography is one of the most important visualization tools in geography. With the recent developments in technology, especially digital cameras and smartphones, photography is no longer a professional tool but a more universal visualization tool. This course aims to enhance students’ understanding and perspectives on geography through Geophoto (Geographical Photography). This course consists of two parts. The first part is to improve students’ geographical visualization tool. This course aims to enhance students’ understanding of geography, especially digital camera and smartphone, photography tools in geography. With the recent developments in technology, students are expected to create new geographical landscapes over the world. The second part of this course is to improve students' geographical representation techniques. Learning geographical visualization is no longer a professional tool but a more universal visualization tool. This course aims to enhance students’ understanding and perspectives on geography through Geophoto (Geographical Photography). This course consists of two parts. The first part is to improve students’ geographical imagination and expression skills through the learning of Geophoto representation techniques. Learning geographical knowledge through Geophotos taken from natural and/or cultural landscapes over the world is the second part of this course. Students are expected to create new geographical knowledge and to enhance geographical thinking by using the skills and learning in this course.

055.002 한국어 3-3-0  <국제한계강좌>

Korean Language

This program provides Korean language lessons and opportunities to experience Korean culture in the process of language learning. Classes will be offered at two levels of proficiency, beginning and advanced, with an average of twelve students per class. (Students with intermediate proficiency will be placed in the advanced class.) Classes will focus on building basic communicative skills that students can use to enrich their stay in Korea. A variety of educational materials, including textbooks, e-learning, and authentic materials from daily life in Korea will be used. Students will be given numerous opportunities to practice Korean with SNU students.

055.003 한국어와 한국문화 3-3-0

Korean Language and Culture

This course will provide a review on the literati culture of East Asia and the importance of the Korean language with honorific forms. Other topics are Korean history, nature, economy and society. Also the Korean art, music, literature and philosophy as well as problems concerning the traditional culture such as family, relatives, wedding, funeral ceremony, folk’s belief, shamanism, seasonal rite and custom.

055.004 동아시아의 문헌문화 3-3-0

Literati Culture in East Asia

This course will provide a review on the literati culture of East Asia societies, focusing on China and Korea. Topics will include: (a) socio-economic and political status of literati in the traditional era, (b) contributions of the literati in the formative period of the East Asian civilization, and (c) meaning and impact of literary activities in maintaining societies.

055.005 한국근대소설의 이해 3-3-0

Modern Korean Fiction

This course will provide a review on the literati culture of East Asia societies, focusing on China and Korea. Topics will include: (a) socio-economic and political status of literati in the traditional era, (b) contributions of the literati in the formative period of the East Asian civilization, and (c) meaning and impact of literary activities in maintaining societies.
This course aims to introduce students to Korean literature in English translation. The first half of the semester will be devoted to pre-modern texts, including prose fiction, essays, and poems with an emphasis on Buddhism and Confucianism; in the second half, short stories and poems of the 1920’s through the 1980’s will be examined against the backdrop of the Japanese colonization and the Korean War.

**055.008  동아시아 불교문화 3-3-0**

**Buddhist Culture in East Asia**

This course will attempt to answer this question by looking at some of the key visual legacies of this tradition, including Buddhist imaginations of the afterlife, the development of the tea ceremony, and the history of the samurai. The emphasis will be on demonstrating how these topics have shaped modern Korean culture and society from its culture and economy to national security, and enrollment is open to students of all majors.

**055.015  현대한국사회론 3-3-0**

**Contemporary Korea**

This course is intended as a general introduction to the study of modern Korean society. Korea is widely regarded as a spectacular success story of modern capitalism. It emerged from the ashes of a civil war and the battleground of the first East-West confrontation in the mid-1950s as one of the poorest countries in the world. But it soon embarked on a rapid road to industrialization and modernization, and transformed itself into an Asian industrial powerhouse in the late 1980s. The story of modern Korea is an indispensable part of the turbulent history of the 20th century.

Students are not required to have prior knowledge of neither Korean nor Korean language as most course material is in English. The course covers a broad range of topics about Korea from its culture and economy to national security, and enrollment is open to students of all majors.
Two Korea: Modern Korean History and Society

1. The subject is the history of Korea and the society through lectures, movies, discussions, and written assignments. The course is divided into two main parts: (i) a general introduction to Korean history and society; (ii) the development of the Korean legal system and the structure and recent changes of the Korean criminal procedure.

2. The course proceeds along the following themes and topics: (i) a general overview of the judicial system; (ii) in the area of constitutional law, a history of the Constitution, the separation of powers and the constitutional institutions, the fundamental rights and the constitutional adjudication; (iii) in the area of civil law, distinctive features of the Korean civil law, particularly focusing on contracts and torts, and the civil procedures in Korea; and, (iv) in the area of criminal law and criminal procedure, basic principles and core issues of the Korean criminal law, and the structure and recent changes of the Korean criminal procedure.

Music of the World

This course introduces different world musics of each continent with their cultural backgrounds. Each civilization in its personal background has developed its personal culture and made diverse color from it. Between all those culture circumstances, music is the one which shows clearly this nature. To understand a specific music, we have to know about the civilization of this music but understanding the music first, gives the occasion to know more easily the different civilization. Audio visual materials will be used to have a large view of the world and to understand the universality and the difference of several civilizations. A tour from Africa, West Indies, Oceania, America, Southern Europe, Northern Europe, Eastern Europe, Arab, Central Asia, Southern Asia, Southeast Asia, Japan · China of the Far East Asia and to Korea will complete the term. For more information about the structure and the contents of this lecture, please refer to its plan. The lecture and teaching materials will be in English. The basic material will be introduced at the first lecture and a CD of audio visual materials will be distributed to each student. This lecture will move ahead with a group presentation of studies done before and a written opinion of the lecture, thoughts and hearing, a free discussion and a supplementary appreciation. The evaluation will be done with a midterm and a final examinations, an written assignment, the attendance and the participation in the class.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>055.021</td>
<td>한국음악개론 (Introduction to Korean Musical Culture)</td>
<td>3-3-0</td>
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</tbody>
</table>

This course provides students with an introduction to Korean music-genres, aesthetics, performance styles. The class is for general students with an interest in learning more about Korean culture through music. The course will be taught in English.
인 문 대 학
College of Humanities
인문대학(College of Humanities)  

공통과목(Extradepartmental Courses)  

<table>
<thead>
<tr>
<th>과목</th>
<th>수강이수</th>
<th>1-1-0</th>
</tr>
</thead>
<tbody>
<tr>
<td>100.165</td>
<td>실과 인문학</td>
<td>1-1-0</td>
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</tbody>
</table>

Life and Humanities  
인문학을 시작하는 학생들에게 인문학이 무엇인지 소개하고 인문학 전공자로서 사회에 기여할 수 있는 바가 무엇인지 알려줌으로써 전공 과목을 위한 토대를 제공하는 것을 목적으로 한다. 이를 위하여 인문학을 전공하는 학자들과 인문학을 전공한 후 사회에 이르러 분야에서 활동하고 있는 인사를 조정하여 음바ريس식으로 강의를 진행함으로써, 수강생들에게 인문학을 공부하는 것이 자신의 삶과 사회생활에서 어떤 의미를 갖는가를 이해할 수 있는 기회를 제공한다. 이 강의는 수강생들의 유대감을 향상시키기 위한 단계 담할수로 한다.

This course is designed to provide freshmen of the College of Humanities with a broad survey of diverse central problems in humanities. It is aimed at acquainting students with the aims, significances and methodology of various disciplines in humanities. It consists of a series of lectures by specialists in and outside the campus as well as a field trip intended to promote the solidarity of the students.

전공탐색과목  
(Pre-major Tracks for College of Humanities)  

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<tbody>
<tr>
<td>100.100</td>
<td>한국어연구입문</td>
<td>3-3-0</td>
</tr>
<tr>
<td>100.102</td>
<td>한국문학연구입문</td>
<td>3-3-0</td>
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</tbody>
</table>

Introduction to Study of Korean Literature  
이 과목은 한국어 연구를 위한 기초를 다지게 한다. 학생들은 한국어학의 역사적 변천상, 현대어의 특징을 인지하고, 한국어의 문법, 경사, 은박을 이해함으로써 한국어학의 위치를 정립하는 것을 목표로 한다. 한국어학은 한국어의 역사적 변화 양상, 문법적 특징 등에 초점을 맞춘다.

This course will provide students with an overview of Korean language and culture. It will include lectures on the history and development of Korean language, the role of the Chinese character in Korean, and the various genres found in Korean literature.

100.103 | 한국문학과 한국사회 | 3-3-0 |

Korean Literature and Korean Society  
이 과목은 민족학 사회를 반영하면서 동시에 작품의 배경으로 삼기도 한다는 문학 일반의 원칙을 한국 문학 작품들을 통해 확인함으로써, 학생들이 문학과 실제 사회의 연관성을 이해하도록 하는데 목적을 맡는다. 구체적으로는, 소설, 동화, 광역 등으로서 한국 문학을 한국인의 삶의 현장인 한국사회의 관점에서 살펴보는 것을 주된 내용으로 삼는다. 이를 바탕으로 학생들은 본격적인 한국문학 연구를 위한 기초를 다지게 된다.

This course will help students understand the association between literature and life. Through Korean works, students will confirm the general principle that literature reflects society. They will examine Korean poetry, novels, and criticism in the context of Korean society; through this examination, students will strengthen their foundation for further, more thorough research into Korean literature.

100.105A | 한국자체계 | 3-3-0 |

Understanding Chinese Character  
한자는 중국어, 즉 국어학과 이어지는 학문이며, 구체적으로 무엇을 연구하는데에 대한 정보를 제공하고, 동시에 국어가 어떠한 특성을 지닌 인연인지 알아보는 데 학생들이 본인 개개의 국어학에 접근할 수 있도록 한다. 구체적으로는 일반언어학과의 관계에서 정립되는 국어학의 위치, 국어학의 핵심 분야들, 연구대상 및 범위, 국어의 역사적인 변화 양상, 현대어의 은박, 문법, 어휘적 특징 등을 고찰한다. 이를 바탕으로 학생들이 더욱 깊이 있는 국어학문을 위한 기초를 다지도록 한다.

This course will help students understand the association between literature and life. Through Korean works, students will confirm the general principle that literature reflects society. They will examine Korean poetry, novels, and criticism in the context of Korean society; through this examination, students will strengthen their foundation for further, more thorough research into Korean literature.

100.106 | 중국의 대중문학 | 3-3-0 |

Chinese Popular Literature  
이 과목은 역대 중국인들에게 친숙하게 읽었던 대중문학 작품들을 대상으로 하며, 먼저 개인적인 이해를 위한 대중문학의 의미 및 가치, 사회적 전후 상황 등에 대해 살펴봄으로써, 이후 독립적인 작품에 대한 심화된 접근과 부분적 강조이 이루어진다. 대부분의 과목은 주제 소설과 화학 장르로 산발된다. 이 과정에서 학생들은 중국문학의 주요한 연대를 일부도 쉽게 학습하는 기초를 마련한다.

This course will provide students with an overview of Chinese life and culture and the value of popular literature in the context of dynastic social circumstances.
이 과목은 20세기 이후 창작된 중국근대문학 작품 중에서 명작으로 는 여러 수없이 많은 시, 소설, 극작 등의 작품들을 학생들이 직접 읽고 감상할 수 있도록 개정된 영문학과 강독의 기회를 제공한다. 이를 바탕으로 한 후 학생들은 중국현대언어학비평과 중국현대사, 중국현대문화사 등을 넘어서 계속할 수 있게 학습하는 기초를 마련한다.

이 과목은 중국근대문학의 개념과 그 연구대상 및 연구 방법 등에 대하여 양아보โดยเฉพาะ 학생들이 보다 친근감을 느끼면서 중국 고전문학과 접근할 수 있도록 한다. 구체적으로 학생들은 중국고전문학의 개념과 법언, 장르, 영문학적 전개 과정, 미학적 특성, 전반적인 작품의 형식 등을 체계적으로 고찰한다. 이를 통하여 학생들은 역사적이고 문화적으로 중국고전문학 연구를 위한 기초를 다지게 된다.

This preparatory course introduces the major genres and concepts of literary analysis in English literature, and is for all English majors. Content and emphasis vary according to instructor.

영미영문학과 전공탐색과목. 영문학의 대표적인 고전들로 선정하여 읽으면서 문학적인 흐름과 분석하는 법을 배운다. <영문학적 진보>에서부터 다양한 작품들을 읽으며, 소설, 시, 화가 등 주요 장르 이상을 다루는 것을 원칙으로 한다.

In this preparatory course for English majors, students will read British and American classics in English and discuss topics pertaining to content, history, and form. Texts vary according to instructor.

프랑스어 문학과 예술의 흐름에 대한 이해를 통해 프랑스어 문학과 예술의 전반적인 이해를 높이고, 프랑스어 문학과 예술의 직접적인 경험을 제공한다. 이를 통해 학생들은 프랑스어 문학과 예술의 전반적인 이해를 높이고, 프랑스어 문학과 예술의 직접적인 경험을 제공한다.

프랑스의 지식인들이 상아탑에 안주하기 이전에 많은 문학가들 은 작가로서 동시에 희곡이나 비행기 같은 비평적 희곡과 상품되었다. 그러나 이전에 비평적 희곡과 상품화가 된 것을 확인할 수 있었다. 이렇게 프랑스어 문학은 예술의 전반적인 흐름과 분리에서 이해할 수 있는데, 우리는 시대에서 현대에 이르는 프랑스어 문학 작품과 예술 작품들을 당대의 사상적 맥락에서 체계적으로 분석하고 그것을 우리의 시대로 재구성함으로써 프랑스어 문학과 예술의 전반적인 흐름을 이해하고자 한다.

The artistic, philosophical, spiritual and cultural influence of France on Europe and on the world is tremendous. This course will familiarize students with the concerns, concepts, and methods of French Classics. Students will learn about the range, genres, processes of historical development, and aesthetic characteristics of French Classics to form a solid foundation that is essential for future studies in this field.

This preparatory course introduces the major genres and concepts of literary analysis in English literature, and is for all English majors. Content and emphasis vary according to instructor.

프랑스의 지식인들이 상아탑에 안주하기 이전에 많은 문학가들 은 작가로서 동시에 희곡이나 비행기 같은 비평적 희곡과 상품화가 된 것을 확인할 수 있었다. 그러나 이전에 비평적 희곡과 상품화가 된 것을 확인할 수 있었다. 이렇게 프랑스어 문학은 예술의 전반적인 흐름과 분리에서 이해할 수 있는데, 우리는 시대에서 현대에 이르는 프랑스어 문학 작품과 예술 작품들을 당대의 사상적 맥락에서 체계적으로 분석하고 그것을 우리의 시대로 재구성함으로써 프랑스어 문학과 예술의 전반적인 흐름을 이해하고자 한다.

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This preparatory course introduces the major genres and concepts of literary analysis in English literature, and is for all English majors. Content and emphasis vary according to instructor.
This course prepares students for studying Russian literature in depth as their major with the overall knowledge of the Russian intellectual history. The readings and discussions of the texts on literature and intellectual history in the course will provide the students with profound understanding of the Russian society and history melted in the confluence of literature and thoughts.

100.124 러시아예술과 문화 3-3-0

Russian Art and Culture

러시아의 역사, 종교, 관습, 제도, 예술 등과 관련된 다양한 텍스트들을 섭렵함으로써 러시아 문학에 대한 심도 깊은 이해의 기초를 마련하고 아울러 러시아 문화사 전반에 대한 학습의 기회를 제공한다.

In this course students will study the history of Russian culture through readings of various texts related to Russian history, religion, custom, systems, and art.
A deeper understanding of Spanish literature and the exploration of this history will enhance awareness of the importance of Spanish culture, leading to a deeper understanding of their cultural identity. The discovery of Islamic world during 8 centuries, the penetration of Spanish and missionary passion for Catholicism provides a crucial factor in determining their cultural identity. Students will be expected to actively participate in class discussion with original and creative thoughts.

This course will provide students a basic understanding of Spanish, giving them lectures such as the importance of Spanish grammar. This course is not only for beginners but also for those who already has some Spanish grammars. This course will provide students a basic understanding of Spanish, giving them lectures such as the importance of Spanish grammar. This course is not only for beginners but also for those who already has some Spanish grammars. This course will provide students a basic understanding of Spanish, giving them lectures such as the importance of Spanish grammar. This course is not only for beginners but also for those who already has some Spanish grammars. This course will provide students a basic understanding of Spanish, giving them lectures such as the importance of Spanish grammar. This course is not only for beginners but also for those who already has some Spanish grammars. 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This course will provide students a basic understanding of Spanish, giving them lectures such as the importance of Spanish grammar. This course is not only for beginners but also for those who already has some Spanish grammars. This course will provide students a basic understanding of Spanish, giving them lectures such as the importance of Spanish grammar. This course is not only for beginners but also for those who already has some Spanish grammars.
어떤 생각은 한국사를 전공하는 학생 본이 아니라, 한국사에 대한 기본적인 개념을 습득하는 학생들을 위한 교양강의로서 크게 두 부분으로 이루어진다. 첫째, 고대로부터 현재에 이르기까지 한국사에 이어지는 시차(시기)가 어떻게 바뀌어가는지를 개관하고, 미래의 바람직한 시기를 전망한다. 둘째, 한국사를 이해하는데 필요한 기본적인 역사자료를 소개하는데, 특히 서울대학교 규장각 소장 자료에 대한 소개가 흔치 않게 간략한 것이다. 강의방법은 교수의 구술과 시각자료를 병행한다.

This class is for both Korean history and other majors. It focuses on how Koreans view their history and how their historical view of themselves has changed. Students are encouraged to consider the most desirable way of viewing history. The class will use extant historical materials that have been the basis for studies in Korean history for many years. Students will visit Seoul National University’s Gyu-janggak Archive where they will have access to numerous visual resources.

This course investigates the differences and similarities of the languages of the world while classifying them by genealogy and typology. Students will gain a deeper understanding of universality and idiosyncrasies of the human languages.

This class will offer students a chance to experience various age-old Korean traditions. Students will be shown the costumes, food, and the structure and design of homes from past time periods. Such encounters will provide students with a better grasp of the lifestyles and patterns of Korean ancestors.

This class will provide students with basic knowledge of Japanese history, enabling them to understand the characteristics of regional society, and the exchange between different regions, students can understand Asian history in holistic perspectives. Also, this class examines what kinds of conceptual methods are needed in order to engage in Asian research.

This class offers an overview of the history of Mongol World Empire, including the reign of Genghis Khan and the Mongol Empire. Students will gain a deeper understanding of the Mongol Empire’s impact on world history, as well as the Mongol Empire’s cultural and social influences.
In the beginning of the 13th century Chingghis Khan and his successors, leading about one million nomadic Mongols, conquered most of the Eurasian continent and maintained the world empire at least more than a century and a half. During this age of the Mongols various nations of the continent could widen their world-view through intensive contacts and intercourses, which was finally led to the birth of ‘World History’. This course will explain, first of all, the source of this drive, i.e., the secrets of the Mongol hegemony, and then the principles of management of the world empire. Furthermore, it will deal with the historical legacy of the Mongol rule among several successor states, such as the Muscovy, the Qing, the Mughals and the Ottomans, which inevitably raises the question of the rise of the West and the beginning of the modern age.

This class will provide students with basic knowledge of the pre-modern history and the maritime trade of South-East Asia.

This course aims to answer the question “What is western history and how do we study it?” More specifically, the course will help students understand the historical context of the flow of ideas in the west. It focuses on the content and characteristics of the thought as well as its historical and social background.

This course will focus on the characteristics of Christianity, more specifically on faith, practice, community,
Religion and Religious Studies

 종교의 본질을 학문적으로 탐구할 수 있는 시각을 다양한 방법들을 통해서 체계적으로 개관한다.

What is religion? Through a systematic and academic survey of various points of view, students in this course will explore the essence of religion.

Fundamentals of Aesthetics

본 과목은 미와 예술에 대한 제반 이론을 살펴보고, 미학의 문제와 방법을 신도 있게 검토함으로써 제반 미학이론의 형식적 구조와 한계를 고찰하고자 한다.

How can one explain beauty? In this course we will survey the important problems and methods of historical and contemporary aesthetics.

Philosophy of Art

본 과목은 미학사를 통해서 예술의 본질이 무엇인지 탐구하고자 하였던 여러 이론들을 비교, 검토함으로써 예술의 하나의 인식적 활동으로 이해하려는 예술철학이 지닌 위상과 현대적 관점에서의 한계를 규명해 보는 기회가 될 것이다.

In this course we study Art history and investigate the ever-changing philosophies of art.

History of Aesthetics

본 과목은 미학의 주요 개념들의 발생과 전개 과정 그리고 중요한 논쟁의 맥락을 통사적으로 검토하는 것을 목적으로 한다. 미와 예술에 대한 주장의 역사적 통찰은 현재의 미와 예술 개념의 형성과 이해의 근거가 될 것이다.

This introductory course, along with Advanced Introduction to Archaeology I, attempts to let students be familiar with modern archaeological issues are addressed during the class.

Theory of Arts in Asia

본 과목은 동양의 예술에 대한 미학적 사상과 동양예술에 내재 되어 있는 정신적인 측면들을 고찰해 보는 과목이다. 본 과목에서 는 특히 한국예술이론에서 지식적으로 제시되어 온 문제들을 체계적으로 고찰해 볼 것이다. 아울러 이러한 고찰을 통하여 앞으로의 동양 예술이 어떠한 방향과 그것을 둘러싼 역할이 담긴 것이 무엇인가를 가능한 문제를 모색해 보는 기회가 될 수 있을 것이다.

In this course students will conduct a historical survey of Asian aesthetic theories and investigate the essence of the aesthetic thoughts formed and developed especially in China.
India has developed a characteristic culture from the dawn of history, in interaction with western Asia, Europe, the Middle and Far East. This course intends to give an overview of the various aspects of Indian civilization from the classic age to the present. The course will deal with India’s religions, philosophy, culture and art, providing a deeper understanding of Indian society for students planning to pursue Indian Studies.

100,169* 서아시아문명의 이해 3-3-0

Understanding West Asian Civilization

본 교과목은 서아시아 언어문화 전공에서 다룰 수 있는 여러 가지 문화와 주제를 총망라하여 각 문항을 대표하는 연구 성과와 접근 방법을 연구내용을 통해 살펴보는, 서아시아 관련 제한 학문의 1차적인 갭감이 되는 과목이다. 본 교과목에서 포함하는 문항 분야는 고대 오리엔트 고고학, 종교학, 이슬람 사학, 정부학, 법학, 사회학, 현대 중동의 정치 경제 등을 아우른다. 글로벌 시대를 맞이하여 한국과의 연계가 강해지고 있는 서아시아에 대해 고려에서 현재까지의 긴 만연으로 지역 문화에 대한 이해를 토대시켜 학생들의 학문적 관심을 제고하는 데 목표를 두며, 필요에 따라 해당 분야 전문가를 초빙하여 직접적인 지식 습득이 이루어지게 한다.

This course contains introduction to many fields and topics that can be dealt within the specialization of West Asian studies through assigning reading materials out of major monographs and approaches that represent each field. The fields that can be covered may include archaeology of Ancient Orient, Religious studies, Islamic theology and philosophy, jurisprudence, history, literature, and political economy of the modern Middle East. Its purpose is to whet students interests in diverse fields of study on West Asia whose relations with Korea is becoming closer than ever and to promote the understanding of the regional culture with a long-range perspective. Experts in relevant field may get invited to class.

100,170 동남아시아문명의 이해 3-3-0

Understanding Southeast Asian Civilization

동남아시아는 남아시아와 동아시아의 여러 지역과 활발히 교류하면서 일찍부터 독특한 문명을 발전시켜 왔다. 이 강의는 고대부터 현대에 이르기까지 동남아시아 문명의 다양한 양상을 살펴보는 것을 내용으로 한다. 종교, 사상, 문학, 예술 등 문명의 여러 국면을 살펴보면서 동남아시아 문명에 대한 이해를 높이고 앞으로 동남아시아학을 전공하고자 하는 학생들에게 기초 지식과 전망을 제공한다.

Southeast Asia has developed distinctive cultures from the dawn of history, in interaction with various regional units in South Asia and East Asia. This course provides an overview of the diverse aspects of Southeast Asian civilization from the classic age to the present. The course will treat Southeast Asia’s religions, philosophy, culture and art, thus offering a deeper understanding of its society for students planning to pursue Southeast Asian studies as a major.

100,171* 일본문명의 이해 3-3-0

Understanding Japanese Civilization

일본 문명의 형성과 발전에 영향을 준 핵심 개념을 이해한다. 특히 무사, 소군, 천황제, 신극사상 등 주요 개념을 통해 일본 문명의 다양한 양상을 살펴보는 것을 내용으로 한다. 종교, 사상, 문학, 예술 등 문명의 여러 국면을 살펴보면서 일본 문명에 대한 이해를 높이고 앞으로 일본학을 전공하고자 하는 학생들에게 기초 지식과 전망을 제공한다.
The goal of this class is to understand the major aspects of Japanese civilization, such as Samurai, Shogun, Tenno, Kamikuni (神國思想), which influenced its formation and development. Students will examine how Japanese civilization has developed and changed through contact with the external world from ancient to modern times.

100.177 서양고대철학  3-3-0

Ancient Western Philosophy

This course explores visual arts in particular including films of the contemporary Russian art genres in the light of Russian literature. The course helps students to take different approaches toward literary works and visual art works, thus to be able to have deeper and comprehensive understanding of the Russian culture and lives.
101.21A  한국어음운론 3-3-0
Korean Phonology

This course will survey the general theory of phonology and how it can be applied to the Korean language. First, the course will cover the basic principles of phonology. Methods of establishing a phoneme will be analyzed to understand how it can be applied to the Korean language. First, the course will cover the fundamental concepts of phonology and how they can be applied to Korean phonemes and their organization. In addition, the course will cover the historical development of phonemes.

101.215  한국고전시가강독 3-3-0
Readings in Classical Korean Poetry

This course will teach the students the fundamentals of analyzing and interpreting literary works. Among these, the ability to appreciate and understand, as well as the interpretation of literary works. Students will master the unique methods of reading classical prose forms the foundation. In this course, they will survey parseology, meter, and methods of expression, while learning how to properly read, analyze and interpret works of classical poetry.

101.218  한국현대문학론 3-3-0
Modern Korean Drama

This course provides an overview of the ways in which the Korean language has changed from ancient to modern. Beginning with the history of the Korean language, we will inquire into the genealogy and formation of the Korean language and discuss methods of classifying its historical context in which it was written.

101.221*  한국현대문학사 3-3-0
History of Modern Korean Literature

This course deals with the development of modern Korean literary history, focusing on the critiques, novels, poems, and dramas of each period from the Enlightenment Period until the 1960s. Students will come to comprehend the particular significance of works in relation to modern Korean literary history, which covers the new novels and poetry of the Enlightenment Period, the new literature founded by Yi Gwang-su, Choi Nam-sun, Kim Dong-in, Yeom Sang-seop, and others, the proletarian literature of the 1920s, the realist and modernist literature of the 1930s, the literature of liberation, and post-war literature.

101.301A  한국고전산문강독 3-3-0
Readings in Classical Korean Prose

In this course, students will master the unique methods of reading classical prose forms the foundation. In this course, they will survey parseology, meter, and methods of expression, while learning how to properly read, analyze and interpret works of classical poetry.

101.301A  한국어의 역사 3-3-0
History of Korean Language

This course will investigate the development and classification of different periods in the history of classical Korean literature. The two primary components of this course will include critical analysis of the texts and an investigation of the historical context in which it was written.

학점구조는 "학점수-주당 강의시간-주당 실습시간"을 표시함. 한 학기는 15주로 구성됨. (The first number means "credits"; the second number means "lecture hours" per week; and the final number means "laboratory hours" per week. 15 weeks make one semester.)
Studies in Korean Grammar

한국어 문법론은 한국어 문법론과 함께 우리말의 구조를 다루는 분야이다. 문법론은 자체, 문법, 문법학 등 언어의 구조 특성을 다루뿐만 아니라 구문론, 형태론, 문장론 등 그 자체가 어떤 의미를 동등하고 있는 단위, 큰 문법 단위들을 다룬다. 이 과목은 현대교육을 대상으로 우리말의 다양한 문법 현상과 그 바탕에 거론되는 문법론과 문법을 생각해 나가는 데 그 목적이 있다.

이 그룹은 우리말의 구조와 문법의 관계를 연구한 것으로 들 수 있는데, 문법론은 문법론과 문법학을 다루는 과목이다. 문법론의 핵심적인 부분은 문법의 구조와 문법의 관계를 연구하는 것이다. 고전소설의 미학적 특징과 그에 표현된 한국인의 생활 감정과 사상을 이해하고 작품을 분석하고 해석하는 연구의 방법론을 제공한다. 이를 위하여 첫째, 작품 및 갈래 등에 대한 지금까지의 연구 성과를 정점하고, 둘째, 구체적인 작품이나 갈래를 대상으로 그 작품을 분석하고 해석하나 갈래의 미학적 특성을 규명하는 방법론을 심화한다.

Presupposing a foundation in classical novels, this course seeks to equip students with the methods of analyzing and interpreting the works found in the Korean classic novels. This will enable the students to master the methods of analyzing and interpreting these works. We will first examine the results of research concerning works and genres that have taken place up until now. Then we will practice methods of analyzing and interpreting specific works or genres examining its specific, aesthetic characteristics.

Korean Modern Poetry

한국 현대시의 효과적인 이해를 위해서 시의 개별 요소에 대한 이론들을 일일하고 이론과 실제 창작 사이의 거리를 설명한다. 이를 위하여 첫째, 작품 및 갈래 등에 대한 지금까지의 연구 성과를 정점하고, 둘째, 구체적인 작품이나 갈래 대상으로 그 작품을 분석하고 해석하나 갈래의 미학적 특성을 규명하는 방법론을 심화한다.

This class will use grammar to look at the structure of the Korean language. Phrases - consonants, vowels, syllables, accents, and other sounds of the language - will be studied in terms of how they relate to the language's morphemes, vocabulary, phrases and sentences. The goal of the course is to help students understand the aesthetics as well as the expressions of the emotions and thoughts found in the works. We will first examine the results of research concerned with the modern Korean novel. This will enable the students to master the methods of analyzing and interpreting these works. We will then practice methods of analyzing and interpreting specific works or genres examining its specific, aesthetic characteristics.

Korean Modern Novel

소설의 구조를 분석해 나가는 일반이론을 소개하고 이론 자체의 개개적 특징을 습득한다. 그러하여 한국현대소설에 대한 엄정한 평가를 가능하게 하는 이론적 기반을 마련하고, 내용과 형식의 연관을 통해 총체적으로 의미를 파악하고 상징적으로 평가하는 태도를 기른다. 현대한국소설의 구조와 그 이론적 쟁점을 살펴보고, 현대소설의 전개과정에서 찾아볼 수 있는 문제점을 연구, 강독하는 강좌로서 현대한국소설이 지닌 특성과 시술기법, 구조의 조작, 작가의 작품 분석 방법론을 중심대상으로 한다.

This course develops the ability to do a structural analysis of a novel. This ability will enable students to better understand and critique novels. In class we will read various novels to explore the structure and theory behind the modern Korean novel as a genre. While we will focus on the unique characteristics of the modern Korean novel, its descriptive techniques and construction, we will also review the history of the Korean novel's development as a whole and evaluate problems discovered in the process.

Modern Korean Authors

작가론의 방법에 대한 이해를 토대로 하여 한국 현대 작가의 전반적 특성을 파악한 후 특정 작가의 작품세계를 파악하는 것을 목표로 한다. 현대 한국 작가들 대상으로 작가들에 대한 연구사 검토와 작품 분석을 중심내용으로 하는 연구성과 및 세미나 형식으로 선행 연구진에 의해 수학생들의 한국소설사에 대한 지식과 인식을 형상시키도록 한다.

With the study of writers as a background, this course will help students comprehend the characteristics of the modern Korean authors in general as well as specific authors. The main subject of the course will be an examination of the history of authorial research and the analysis of literary works while focusing on modern Korean authors. It will be a seminar-style course seeking to improve students' knowledge and understanding of the history of Korean novels.
고, 둘째, 구체적인 작품이나 갈래를 대상으로 그 작품을 분석하고 해석하거나 갈래의 미학적 특징을 규명하는 방법을 실습한다.

Presupposing a general understanding of Sino-Korean literature, the goal of this course is to help students understand its aesthetics. Furthermore, we will study the uniquely Korean thoughts and emotions depicted in this literature and master apt methods of analysis and interpretation. In order to accomplish this, we will first examine the research concerning these works. Secondly, we will practice methods of analyzing and interpreting specific works or genres while simultaneously examining the aesthetic characteristics of the respective, specified genre.

101.316 한국고전시가론 3-3-0

Classical Korean Poetry

고대가요에서부터 향가, 고려요, 시조, 가사 등 고전시가 작품에 대한 전반적인 이해를 바탕으로 고전시가의 미학적 특징과 그에 표현된 한국인의 생활 감정과 사상을 이해하고 작품을 분석하고 해석하는 연구의 방법을 체득하도록 한다. 이를 위하여 첫째, 작품 및 작가 등에 대한 지급까지의 연구 성과를 점검하고, 둘째, 구체적인 작품이나 갈래를 대상으로 그 작품을 분석하고 해석하거나 갈래의 미학적 특징을 규명하는 방법을 실습한다.

This course presupposes a foundation in classical poetry. Its goal is to help students understand the aesthetic characteristics of classical poetry and the emotions and thoughts of Koreans that are expressed in it. Various classical forms including gyo, hyangyo, Goryeo gayo, sijo, and gasa will be studied. Also examined are the research as well as practice methods of analysis and interpretation. The class will also emphasize the studying of the aesthetic characteristics of specific works and genres.

101.317 한국어정보의 전산처리 3-3-0

Computational Treatment of Korean Language Information

본 과목의 목표는 학생들이 하여금 컴퓨터를 이용하여 한국어 관련 정보(또는 자료)를 적절히 추출하고 처리할 수 있는 기초적인 능력을 기르게 하는 것이다. 정보 관련 기술과 산업이 발전함에 따라 많은 학문분야의 연구 내용과 방법론과 달라지고 있으며, 이러한 변화에 부응하기 위해서 개설된 과목이다. 본 과목을 통하여 학생들은 말뭉치의 구축, 말뭉치가공, 가공된 말뭉치로부터의 언어정보 추출, 추출된 언어정보의 통계적 분석, 언어정보의 데이터베이스화, 데이터베이스의 운용 및 유지 등에 관한 기초적인 방법론을 익히게 될 것이며, 한국어문학 나아가서는 인문학을 위한 컴퓨터 활용 능력을 키우게 될 것이다.

This subject aims at enhancing students’ ability to extract and process information or data related to the Korean language. Recently, with the development of information technology, academic practices are undergoing considerable changes. Therefore, students are required to keep up with these changes. Topics to be dealt with include the compilation and processing of corpus information, extraction of linguistic information from corpus data, statistical analysis of extracted information, conversion of linguistic information to database, and management of the linguistic database.
This course discusses the lexical structure of Korean. Topics to be dealt with include the internal structure of words, word formation, borrowing of words, word meaning and its change, lexical relations, classification of lexical items, lexical statistics, and lexicography.

101.428 한국영상문학론 3-3-0

Korean Film and Television Drama

본 강좌는 한국 현대 영상예술의 흐름을 조망하고 학생들이 영상예술 작품을 분석하는 능력을 갖출 수 있도록 하여 영상예술 연구의 기초를 닦는 것을 목표로 한다. 이 강좌에서 학생들은 한국 영화 및 텔레비전 드라마 작품을 새로운 각도에서 해석함으로써 영상예술에 대한 심도 있는 이해를 얻을 수 있다. 또한 구체적인 작품에 대한 평가와 그 작품의 상영과 관련된 사회사적 맥락을 아울러 살펴보며 개별 작품과 사회문화적인 맥락에 대한 정합성, 적용가능성 및 한계 등을 검증해 본다. 

This course aims to help students understand the fundamentals of analyzing and interpreting Korean film and television drama. The Students will come to a deeper understanding of Korean film and television drama by analyzing individual texts from a new perspective. Emphasis will be given to a balanced understanding of both individual texts and socio-cultural contexts.

101.477 한국어학자료읽기 3-3-0

Readings in Korean Linguistics

한국어 자료를 표기, 문자, 음운, 문법, 어휘의 면에서 차세히 읽고, 분석함으로써 한국어의 상상에 대한 이해의 폭을 넓힌다. 또한 한국어 자료에 대한 서지, 문헌학적 접근을 통해 역사적 자료를 다루는 방법과 정서를 익히도록 한다.

The course will broaden students’ understanding of Korean by reading and analyzing materials with respect to spelling, letters, phonology, grammar, and vocabulary. With philological and bibliographical approaches, students will learn the methods and procedures for dealing with historical texts in Korean.

M1232.000100 한국 비교문학론 3-3-0

Korean Comparative Literature

한국근대문학은 서양문학을 비롯한 다양한 외국문학의 수용과 영향으로부터 형성되었다. 이 강의는 한국근대문학을 대표하는 작품들에 대한 현재의 여러 연구들을 살펴보고 그 내용과 그들의 한계를 제시한다. 학생들은 비교문학의 학문적 염두를 높이고 앞으로 한국문학의 비교문학적 관점에서 전통과 현대를 해석할 수 있도록 한다. 

Early modern Korean literature was developed by accepting the influences of Western and other foreign literature. This lecture examines the most important writers of early modern period and their works, focusing on the many influences of foreign literature on their literary output. The lecture proposes to broaden the student’s understanding of comparative literature, presenting basic knowledge and prospects of studying Korean literature with a comparative literary method for interested students.
In this age of globalization and the Korean wave, as elements of Korean culture such as K-pop, television dramas, and film spread throughout the world, Korean literature is also gaining in popularity abroad. Thus it is important to examine how Korean literature has been expressed, interpreted, and understood outside Korea. In this context, this class will study works of Korean literature translated into English and how they are understood and interpreted in English-speaking countries, covering everything from classic to contemporary literature. In this way, students will gain a deeper understanding of Korean literature from a new perspective and thus be better equipped to contribute to the globalization of Korean literature in the future.
102.203 한문강독 1 2-3-0

Readings in Classical Chinese 1

한문 자료의 해독 능력은 중국문학 전공자들에게 필수적으로 요구되는 과제이다. 고등학교 과정과 교양과정에서 배운 한문 지식을 바탕으로 체계화하고 직접 한문 자료를 다룰 수 있는 수준으로 고양시키는 동시에 좋은 문장을 보다 풍부하게 접할 기회를 제공하는 것이 이 강의의 목표이다. 이 강의에서는 한문 학습 효과를 극대화시킬 수 있는, 좋은 문장의 전범을 통해 생각하는 대로 선택하여 강독하는 것을 기본적인 과제로 한다. ‘생각’ 강독을 통해 전공자들은 한문에 관한 체계적인 지식을 얻어가는 동시에 한문 자료를 다루는 방법을 배울 수 있을 것이다. <한문강독 2>와 연계하여 두 학기에 걸쳐 ‘생각’의 한문 읽기 목표로 강의를 진행한다.

This course is for students who have basic knowledge of the Chinese language. By being exposed to numerous well-written sentences in texts such as Mencius, students will be able to enhance their reading and interpreting skills.

102.204A 한문강독 2 3-3-0

Readings in Classical Chinese 2

한문 자료의 해독 능력은 중국문학 전공자들에게 필수적으로 요구되는 과제이다. 고등학교 과정과 교양과정에서 배운 한문 지식을 바탕으로 체계화하고 직접 한문 자료를 다룰 수 있는 수준으로 고양시키는 동시에 좋은 문장을 보다 풍부하게 접할 기회를 제공하는 것이 이 강의의 목표이다. 이 강의에서는 한문 학습 효과를 극대화시킬 수 있는, 좋은 문장의 전범을 통해 생각하는 대로 선택하여 강독하는 것을 기본적인 과제로 한다. ‘생각’ 강독을 통해 생각하는 대로 선택하여 강독하는 것을 기본적인 과제로 한다. <한문강독 2>와 연계하여 두 학기에 걸쳐 ‘생각’의 한문 읽기 목표로 강의를 진행한다.

This course is for students who have basic knowledge of the Chinese classical language. By being exposing to numerous well-written sentences in texts such as Mencius, students will be able to enhance their reading and interpreting skills. At the same time, students may understand the thoughts of such famous ancient Chinese philosophers as Confucius, by being exposed to numerous well-written sentences in texts such as Mencius. This course follows Readings in Classical Chinese 1 and handles previous issues in greater depth.

102.215 한국역대시가강독 1 3-3-0

Readings in Traditional Chinese Poetry 1

중국문학 내부의 여러 가지 전통 분야 가운데서도 시는 독특한 특성을 갖는 분야이다. 이 과목은 중국의 시가 작품들을 가운데서 분석을 통해 삼차적으로 감상, 분석함으로써 중국 시가에 대한 이해의 지평을 넓히는 것을 목표로 한다. 다수의 작품의 범위를 고려하여 이 과목은 <중국역대시가강독 2>와 연계하여 강의한다.

Among other Chinese literature courses, this course has special importance. This course aims at extending student’s knowledge of Chinese poetry by analyzing and appreciating depth selected representational poetics. This course will be taught in parallel with Readings in Traditional Chinese Poetry 1 considering the scope of the poetry works.

102.216 한국역대시가강독 2 3-3-0

Readings in Traditional Chinese Poetry 2

중국문학 내부의 여러 가지 전통 분야 가운데서도 시는 독특한 특성을 갖는 분야이다. 이 과목은 중국의 시가 작품들을 가운데서 분석을 통해 삼차적으로 감상, 분석함으로써 중국 시가에 대한 이해의 지평을 넓히는 것을 목표로 한다. 다수의 작품의 범위를 고려하여 이 과목은 <중국역대시가강독 2>와 연계하여 강의한다.

Among other Chinese literature courses, this course has special importance. This course aims at extending student’s knowledge of Chinese poetry by analyzing and appreciating depth selected representational poetics. This course will be taught in parallel with Readings in Traditional Chinese Poetry 1 considering the scope of the poetry works.
102.221 한국문법 3-3-0

Classical Chinese Grammar

한국문법의 학습은 교양과정과 전공과정의 한문 교육을 통해 이어지는 것이며, 종합적이고 체계적인 학습에는 한계가 있다. 본 강좌는 한문 문장을 언어학적인 관점에 입각한 문법적인 분석을 할때, 고급학급의 한국 문장 해독 능력 배양의 바탕을 제공하고자 하는 목표를 갖고 있다. 따라서 본 강좌는 중문학과의 전공 교과목으로 설계되었지만, 학문 해독 능력이 전공에서 중요한 여리 전공자에게 유용한 강좌가 될 것이다.

Major or liberal arts course deals with classical Chinese grammar, but comprehensive and systematic course is required for enhancing capability of understanding Chinese further. This course improves students’ reading skills for high-level classical Chinese by analysing grammar on the foundations of linguistics. This course is opened to all students in the department who need abilities for interpreting classical Chinese.

102.222 현대중국소설 3-3-0

Contemporary Chinese Fiction

현대중국은 개혁개방 30년을 거치는 동안 대단히 역동적인 변화를 보여주고 있다. 인류 역사상 유례를 찾기 어려운 정도의 이러한 변화는 연대적으로도, 특히 그 속성상 인정세대의 변화를 남겨 두고 있게 할 때, 변화는 사회문화적 변화 모양상에 대한 보다 높은 응답을 요구하고 있다. 본 과목은 한국현대소설 작가들에 대한 연구를 통해 현대문학이 갖는 사회문화적 변화에 대한 보다 폭넓은 이해를 돕고 있다. 현대문학은 한국어로 번역된 19세기말에서 최근까지의 다양한 장르 - 중장편 소설들, 희곡, 그리고 연극 -의 변화를 반영해내는 대상으로 제시된다.

Three decades after its opening and reform, China remains the most dynamic place in the world. The massive changes that China has recently undergone, almost unprecedented in all of human history, have affected literature as well. The imprint of these changes has been the most visible and varied in the genre of fiction, given the genre’s tendency to reflect the changes in society and in people’s lives with sharpness and depth.

This course aims to achieve a deep and nuanced understanding of the sociocultural contours of the changes in contemporary China through close readings of Chinese fiction. Course materials will be drawn from a wide range of short stories, novels, and plays from the late-nineteenth century to the present, which will be read in Korean translation. Students will be required to participate actively in class discussions, offer their own analyses of the texts, and make in-class presentations. Knowledge of Chinese language would be helpful but not required.

102.223 중국소설과 문화 3-3-0

Chinese Novels and Culture

중국의 소설은 근대 이전 명청 시기의 작가들에 이르는 근대명문의 작가들로 이어지는 역동적인 변화를 보여주고 있다. 현대중국소설 학문은 교양과정과 전공과정의 한문 교육을 통해 이어지는 것이며, 종합적이고 체계적인 학습에는 한계가 있다. 본 강좌는 한문 문장을 언어학적인 관점에 입각한 문법적인 분석을 할때, 고급학급의 한국 문장 해독 능력 배양의 바탕을 제공하고자 하는 목표를 갖고 있다. 따라서 본 강좌는 중문학과의 전공 교과목으로 설계되었지만, 학문 해독 능력이 전공에서 중요한 여리 전공자에게 유용한 강좌가 될 것이다.

This course enhances students’ ability to understand and appreciate Chinese Modern Literature through an overview of representative texts of the 20th century. Moreover students will gain an in-depth insight in the relationship between literature and society. This course will mostly cover 20th century’s prose, novel and poetry. This course will be taught in parallel with Readings in Modern Chinese Literature.

102.317A 현대중국의 문학과 사회 3-3-0

Literature and Society of Modern China

이 과목은 20세기에 쓰여진 중국현대문학 작품들 가운데 중요한 작품들을 뽑아 번역시켜 장르적 특성, 감성적 특성, 그리고 사회, 문화, 역사적 관계에 대해 깊이 있게 고찰하기 위 해 개설되었다. 주로 20세기의 신문, 소설, 시를 다루게 된다. 이 과목은 ‘중국현대문학강독’과 연계되어 강의가 진행된다.

This course enhances students’ ability to understand and appreciate Chinese Modern Literature through an overview of representative texts of the 20th century. Moreover students will gain an in-depth insight in the relationship between literature and society. This course will mostly cover 20th century’s prose, novel and poetry. This course will be taught in parallel with Readings in Modern Chinese Literature.

102.318A 중국현대문학강독 3-3-0

Readings in Modern Chinese Literature

이 과목은 20세기에 쓰여진 중국현대문학 작품들 가운데 중요한 작품들을 뽑아 번역시켜 장르적 특성, 감성적 특성, 그리고 사회, 문화, 역사적 관계에 대해 깊이 있게 고찰하기 위한 목적으로 개설되었다. 주로 20세기의 신문, 소설, 시를 다루게 된다. 이 과목은 ‘중국현대문학강독’과 연계되어 강의가 진행된다.

This course enhances students’ ability to understand and appreciate Chinese Modern Literature through an overview of representative texts of the 20th century. Moreover students will gain an in-depth insight in the relationship between literature and society. This course will mostly cover 20th century’s prose, novel and poetry. This course will be taught in parallel with Modern Chinese Literature and Society.
고급중국어 3-3-0

Advanced Chinese

고급중국어 3-3-0과 <중급중국어 1·2> 과목을 기 수강한 전공자들을 대상으로 고급 수준의 문법과 작문, 독해 능력을 기르는 것이 이 과목의 학습 목표이다. 또한 다양한 독해를 통해 중국 문화의 심층을 이해함과 동시에 어학사용에 치중한 중국인들의 사고 패턴을 이해함으로써 자연스런 회화 구사 능력의 배양에 비중을 둔다.

물론 이 과목은 <미디어학>, <중국역대산문강독 1·2>, <중국어문법>, <중국어번역연습>과 연계되어 진행된다. 이 과목은 <미디어학>에서 배운 중국의 문화적 이해를 바탕으로 <중국역대산문강독 1·2>와 연결되어 진행된다.

In Chinese literature, prose has taken a co-primary role beside poetry. This course analyzes the characteristics of Chinese prose and its structural aesthetics. This course will be taught in parallel with <Readings in Traditional Chinese Prose 2>.

102.323

중국문학사 1 3-3-0

History of Chinese Literature 1

본 강좌는 중국문학에 대한 수강생들의 기초적인 이해를 전체로, 중국문학 전반을 신도 있게 소개하는 것을 목적으로 개설된 과목이다. 중국 문학사는 결과 양 두 측면에서 세계적으로 그 유래를 찾아볼 수 없는 방대한 자료를 축적하고 있다. 본 강좌를 통해 수강생들은 문학 작품에 대한 신도 있는 분석과 함께 중국문학사에 대한 안목을 넓힐 수 있을 것이다.

이 과목은 <미디어학>, <중국역대산문강독 2> 등과 연계되어 진행된다. 이 과목은 <미디어학>과 <미디어학 2>를 통해 수강생들은 문학 작품에 대한 신도 있는 분석과 함께 중국문학사에 대한 안목을 넓힐 수 있을 것이다.

102.324

중국문학사 2 3-3-0

History of Chinese Literature 2

본 강좌는 중국문학사 1에 이어, 중국문학에 대한 수강생들의 기초적인 이해를 전체로, 중국문학 전반을 신도 있게 소개하는 것을 목적으로 개설된 과목이다. 중국 문학사는 결과 양 두 측면에서 세계적으로 그 유래를 찾아볼 수 없는 방대한 자료를 축적하고 있다. 본 강좌를 통해 수강생들은 문학 작품에 대한 신도 있는 분석과 함께 중국문학사에 대한 안목을 넓힐 수 있을 것이다.

Followed by History of Chinese Literature 1, this course provides and in-depth introduction to general chinese literature, given that students might have a basic understanding of chinese literature. The history of chinese literature contains a huge amount of information in terms of quality and quantity not found elsewhere in the world. Through this course students might be able to extend their insights of the history of chinese literature and also to analyze literary works in depth.

102.325

중국역대산문강독 1 3-3-0

Readings in Traditional Chinese Prose 1

중국문학의 전개 과정에 있어 산문은 시와 더불어 가장 중심적인 위치를 차지한다. 이 과목은 <서경>에서 비롯한 중국의 산문이 제자서와 사전문 등을 거쳐 당송의 고문과 변려문으로 발전해가는 과정을 이해하고 중국산문의 특성과 고유의 미학적 구조를 해명하는 데 그 목표가 있다. 이 강의는 <중국역대산문강독 1>과 연계되어 진행된다.

In Chinese literature, prose has taken a co-primary role beside poetry. This course analyzes the characteristics of Chinese prose and its structural aesthetics. This course will be taught in parallel with <Readings in Traditional Chinese Prose 1>.

102.326

중국역대산문강독 2 3-3-0

Readings in Traditional Chinese Prose 2

중국문학의 전개 과정에 있어 산문은 시와 더불어 가장 중심적인 위치를 차지한다. 이 과목은 <서경>에서 비롯한 중국의 산문이 제자서와 사전문 등을 거쳐 당송의 고문과 변려문으로 발전해가는 과정을 이해하고 중국산문의 특성과 고유의 미학적 구조를 해명하는 데 그 목표가 있다. 이 강의는 <중국역대산문강독 1>과 연계되어 진행된다.

In Chinese literature, prose has taken a co-primary role beside poetry. This course analyzes the characteristics of Chinese prose and its structural aesthetics. This course will be taught in parallel with <Readings in Traditional Chinese Prose 1>.

102.327

중국전통문화의 의미와 현대 중국 3-3-0

Implication of Chinese Traditional Culture and The Contemporary China

중국의 전통 문화에 보이는 여러 특징적인 양상을 살펴본 뒤, 그것이 갖는 의미가 무엇인지를 논제로 하여 강의를 진행한다. 그리고 그 의미가 현대 사회의 사양한 발현을 통하여 중국 전통문화와 현대 사회가 어떠한 상관성을 있는지에 대해 학생들과 토론한다. 중국의 전통 문화를 살펴보기 위하여 문학, 역사, 철학 등과 관련된 텍스트를 검토할 뿐만 아니라, 고고학과 인류학 방면의 기존 성과도 참고하게 될 것이다.

This course aims to introduce the characteristic features of traditional culture of China, and to investigate their significance on the contemporary Chinese society. Specifically, special focus will be given on the relationship between the traditional cultural heritage and the contemporary China.

Besides, we will cover general ideas of the main texts on Chinese literary, history, and philosophy. In addition, some archaeological and anthropological research will be introduced for relevant issues.

102.328

중국어문법 3-3-0

Chinese Grammar

중국어문법은 교양 과정과 전공 기초 과정의 중국어 교육을 통한 이론적 이해가 필요하다. 본 강좌는 중국어문법을 종합, 체계적으로 고찰하고, 한국어와 중국어의 문법적 구조를 비교하여 고급 수준의 중국어 회화 작문 및 독해 능력 구축에 기초를 제공하는 데에 그 목표가 있다.

The course provides a foundation for advanced study of speaking, writing, and reading through a systematic and comprehensive study of Chinese linguistics.

102.329

중국어번역연습 3-3-0

Practicum in Chinese Translation

본 강좌에서는 중국어로 이루어진 다양한 문장을 번역하는 연습을 제공하는 과목이다. 이 과목은 중국어로 이루어진 다양한 문장을 번역하는 연습을 제공하는 과목이다.
102.414 Chinese Ci Poetry

Readings in Chinese Ci Poetry

Chinese Ci poetry is an important literary form that mixes elements of both poetry and prose. The form is characterized by its free verse style and the use of rhyming and alliteration. This course will introduce students to the history and characteristics of Chinese Ci poetry, as well as the works of prominent poets such as Wang Wei and Li Bai. Through translation exercises and analysis of primary texts, students will develop a deeper understanding of the aesthetic qualities of Chinese Ci poetry.
Writing in Chinese

Beyond linguistic proficiency in a narrow sense, Chinese language education at the college level ultimately aims at enhancing students’ ability to engage in the full range of intellectual activities mediated through the Chinese language in the larger Sinophone world. This course targets Chinese majors who have studied three years of Chinese at the college level, and who desire to expand the range of their intellectual participation in the language by improving their ability to write eloquently. Unlike Elementary or Intermediate Composition, which focuses on basic grammar and rudimentary writing exercises, the course is open to Chinese majors who have fulfilled the requirement in Advanced Chinese or the equivalent. The course will be taught by a native Chinese instructor with a proven writing ability.

Presentations and Discussions in Chinese

This course is designed for advanced students seeking to enhance their ability in practical or administrative communications in Chinese. Advanced Chinese is a prerequisite. In addition to a high degree of linguistic proficiency, students will need to have an interest in a diverse set of social and cultural issues confronting China today in the context of rapid social transformations. Upon the successful completion of the course, students can expect to command a deeper understanding of the subject as well as a sharpened sense of what the future holds for China. As with Chinese Composition, the course will be taught by a native Chinese instructor who combines analytical acumen with a deep knowledge of Chinese society.
인문대학(Dept. of English Language & Literature)

103.201A 고급영문법 3-3-0

Advanced English Grammar

영문법 구조에 관한 지식을 실제 언어가 사용되는 다양한 상황이나 맥락 속에서 어떻게 적절히 사용할 수 있을지에 초점을 맞추어 학생들이 영문법을 제대로 활용하는 방법을 익힐 수 있도록 하는 것을 목표로 한다. 코퍼스 자료, 신문기사, 뉴스, 영화, 시트콤, 광고, 스포츠 중계 등 다양한 자료를 활용하여, formality, register, genre 등에 따라 영문법 구조가 어떤 변화를 끼친지를 보여주면서 영문법에 대한 보다 깊은 이해를 할 수 있도록 돕는다.

This is a course to study the structure of English grammar and its correct usage. The course is designed to help students understand and master the principles and rules of the English language.

103.207B 근대영문학개관 3-3-0

English Literature from Restoration to Reform Bills

양정복고(1660)부터 제2차 선거법 개정(1832)까지 약 200년간의 기간을 배경으로 양정복고시대 문학, 오기산시대 문학, 감상의 시대, 낭만기 문학, 빅토리아 시대 문학의 시대 구분에 유의하면서 전체적 흐름을 파악할 수 있도록 해준다. 드라이든에서 브로드웨이까지 주요 시인의 작품을 선별하여 읽고 소설을 포함하여 이 시기의 신문도 접하도록 한다.

This is a historical survey of English literature from Restoration (1660) to the second Reform Bill (1832), covering Restoration literature, Augustan literature, the Age of Sensibility, Romantic literature, and early Victorian literature. The differences between the periods will be noted, while reading the major poems of major poets from Dryden to Browning. At least one novel will be included in addition to a selection of prose.

M1236.000100 중세근세영문학개관 3-3-0

English Literature up to Milton

영글로시은 시대부터 17세기 중엽까지의 영문학을 조망하는 과목. 다양한 장르와 문학을 대표하는 작품을 선별해서 읽으며, 중세에서 근세로의 이행에 특히 주목한다. 개별 텍스트의 의미를 사회문화적 맥락, 시대적 감수성과 연계하여 이해한다.

Survey of English literature from the Anglo-Saxon era up to the mid-seventeenth century. Students will read representative works of various genres and traditions with a special attention to the transition between the medieval and the early modern. The meaning of individual texts will be understood in relation to socio-cultural contexts and the sensibility of the time.

103.214B 19세기 미국소설 3-3-0

19th-Century American Novel

19세기 미국소설을 주요 작가의 대표작을 통하여 집중적으로 연구한다. 다양한 비평사례와 개별 장단편에 대한 비평을 읽으며 주제와 문체, 기호 등을 분석하는 데 참고로 한다. 내용과 형식에서 미국소설의 전통과 특징을 파악하는 것은 작품 자체를 읽기로 해야만 이루어질 수 있으며 비평문은 이처럼한 중요성을 갖게 된 것이 다. 미국소설에 대한 심미적인 접근도 시도한다.

This is a study of the major American novels of the nineteenth century, including works by Hawthorne, Melville, Twain, and James.

103.216A 영어통사론 3-3-0

English Syntax

영어의 문장구조와 관련된 여러 통사 현상을 살펴보고 이를 체계적으로 설명하는데 필요한 기본 개념 및 문법 방법들을 알아 본다. 영어에서 단어들이 구나 문장을 형성하는 원리와 다양한 구문에 대한 합리적 분석 방법을 도모하는 것을 주된 목표로 하며, 다가나 영어 통사구조에 의한 의사 해석이나 응용영어학적 측면에 어떻게 연결될 수 있는지 살펴본다.

This course provides an introduction to the major syntactic phenomena of English and deals with fundamental concepts and ways of analyzing the structure of English sentences. It focuses on understanding the principles of sentence organization as well as analytic methods for diverse syntactic constructions.

103.219 영작문 3-3-0

English Writing

영어문학과 학습으로 필요한 영어글쓰기 능력을 집중적으로 배운다. 쓰기 논리와 문제에 대해서는 문론 이론과 기술적인 면에 대해서도 체계적인 지도를 하며, 적절한 감각과 나이의 영어 문학 및 문화 텍스트를 분석대상으로 활용하여 읽기와 쓰기를 연 결시킨다. 영어 글쓰기 능력에 있어 중·고급 이상의 학생을 대상으로 하는 교과목으로 수준 높은 문장 구사력과 논리적인 논지 척도 능력을 기르는데 주력한다.

Intensive writing course for the students of English Language. The course helps students progress step by step from organizing a paragraph to composing a longer essay. This linear progress will be accompanied in each stage by systematic lessons on basic elements of writing, such as logic, style, grammar, and mechanics. Students are required to integrate reading and writing by responding critically to a wide variety of literary and cultural texts.

M1236.000100 중세근세영문학개관 3-3-0

English Literature up to Milton

영글로시은 시대부터 17세기 중엽까지의 영문학을 조망하는 과목. 다양한 장르와 문학을 대표하는 작품을 선별해서 읽으며, 중세에서 근세로의 이행에 특히 주목한다. 개별 텍스트의 의미를 사회문화적 맥락, 시대적 감수성과 연계하여 이해한다.

Survey of English literature from the Anglo-Saxon era up to the mid-seventeenth century. Students will read representative works of various genres and traditions with a special attention to the transition between the medieval and the early modern. The meaning of individual texts will be understood in relation to socio-cultural contexts and the sensibility of the time.

103.214B 19세기 미국소설 3-3-0

19th-Century American Novel

19세기 미국소설을 주요 작가의 대표작을 통하여 집중적으로 연구한다. 다양한 비평사례와 개별 장단편에 대한 비평을 읽으며 주제와 문체, 기호 등을 분석하는 데 참고로 한다. 내용과 형식에서 미국소설의 전통과 특징을 파악하는 것은 작품 자체를 읽기로 해야만 이루어질 수 있으며 비평문은 이처럼한 중요성을 갖게 된 것이 다. 미국소설에 대한 심미적인 접근도 시도한다.

This is a study of the major American novels of the nineteenth century, including works by Hawthorne, Melville, Twain, and James.

103.216A 영어통사론 3-3-0

English Syntax

영어의 문장구조와 관련된 여러 통사 현상을 살펴보고 이를 체계적으로 설명하는데 필요한 기본 개념 및 문법 방법들을 알아 본다. 영어에서 단어들이 구나 문장을 형성하는 원리와 다양한 구문에 대한 합리적 분석 방법을 도모하는 것을 주된 목표로 하며, 다가나 영어 통사구조에 의한 의사 해석이나 응용영어학적 측면에 어떻게 연결될 수 있는지 살펴본다.

This course provides an introduction to the major syntactic phenomena of English and deals with fundamental concepts and ways of analyzing the structure of English sentences. It focuses on understanding the principles of sentence organization as well as analytic methods for diverse syntactic constructions.

103.219 영작문 3-3-0

English Writing

영어문학과 학습으로 필요한 영어글쓰기 능력을 집중적으로 배운다. 쓰기 논리와 문제에 대해서는 문론 이론과 기술적인 면에 대해서도 체계적인 지도를 하며, 적절한 감각과 나이의 영어 문학 및 문화 텍스트를 분석대상으로 활용하여 읽기와 쓰기를 연 결시킨다. 영어 글쓰기 능력에 있어 중·고급 이상의 학생을 대상 으로 하는 교과목으로 수준 높은 문장 구사력과 논리적인 논지 척도 능력을 기르는데 주력한다.

Intensive writing course for the students of English Language. The course helps students progress step by step from organizing a paragraph to composing a longer essay. This linear progress will be accompanied in each stage by systematic lessons on basic elements of writing, such as logic, style, grammar, and mechanics. Students are required to integrate reading and writing by responding critically to a wide variety of literary and cultural texts.

103.220A 현대영문학개관 3-3-0

20th-Century English Literature

영국이 대제국으로 세계를 제패한 빅토리아시대 후반부터 모더니즘 문화 운동을 거쳐 작품성을 인정받은 최근 문학까지 다룬다. 현대 영국의 사회와 문화에 대해서도 체계적인 지도를 하며, 문학에서의 민권 운동과 여성운동 등에 주목한다.

This is the first survey of English literature for the English major, covering the latter half of the Victorian literature, Modernism movement, and canonical contemporary literature. The survey will provide an opportunity to have glimpses of contemporaneous British society and culture.

103.222 영어음성학 3-3-0

English Phonetics

이 강좌는 영어화자들이 사용하는 음어에의 조음적 특성을 살펴보고 이해하는 것을 주목적으로 한다. 언어음이 발화될 때 이어지는 양조음가와 사용되고 그 기관이 어떻게 도달하는지를 알아보는 것이 조음적 특성을 이해하는 것이다. 영어의 변별적 음의 조음적 특성을 이해한 후, 다수의 음의 인체적으로 발화될 때 음을 상호간에 어떠한 현상이 나타나고 그것이 어떻게 해석하는지를 이 해하는 것도 이 강좌가 추구하는 목적 중의 하나이다.
This course aims at exploring the physiological and articulatory characteristics of speech sounds made by English native speakers. The articulatorily-oriented exploration of speech sounds includes a comprehensive understanding of the physiological aspects of articulators which are employed in making speech sounds. Another goal of this course is to understand a variety of dynamic phenomena which English speakers can find important when producing a sequence of sounds in a natural way.

103.223 영어와 사회 3-3-0

English and Society

This course provides an introduction to contemporary approaches to the study of the varieties of the English language observed across nations, regions, social groups, and contexts. The two major goals of the course are: (a) to illustrate the concepts of sociolinguistics that are essential to understanding the expansion and resulting diversity of English and (b) to examine the social, cultural, and linguistic impact of English in countries where English is taught and used as a second or foreign language.

103.225 영어담화분석 3-3-0

English Discourse Analysis

This course provides an introduction to discourse analysis and various methodologies used in discourse analysis, including conversation analysis, interactional sociolinguistics, and critical discourse analysis. Students will learn how to analyze English discourse in various genres, which will help them to understand language functions and actual uses of English in society.

103.226 낭만주의의 영시 3-3-0

English Romantic Poetry

This course studies selected plays of Shakespeare. Students will closely examine its language, plot and dramatic effects. This is an introduction to the historical development of English language, examining both its intrinsic, such as sounds, vocabulary, grammar, lexicon and extrinsic history, including social, political and intellectual forces that have influenced the language.

103.320 영어발달사 3-3-0

History of English Language

This course studies selected plays of Shakespeare. Students will closely examine its language, plot and dramatic effects. This is an introduction to the historical development of English language, examining both its intrinsic, such as sounds, vocabulary, grammar, lexicon and extrinsic history, including social, political and intellectual forces that have influenced the language.

103.325 세네스피어 3-3-0

Shakespeare

This course studies selected plays of Shakespeare. Students will closely examine its language, plot and dramatic effects. This is an introduction to the historical development of English language, examining both its intrinsic, such as sounds, vocabulary, grammar, lexicon and extrinsic history, including social, political and intellectual forces that have influenced the language.
Topics in English and American Literature

The course will be taught by foreign instructors. The topics dealt with in the course may vary every semester: instructors will select from a wide variety of topics in English and American literature, history, and culture. The discussion will be conducted in English, and likewise, the papers will have to be written in English. Students taking this course will be able to enhance their competence in English as well as to acquire knowledge in their major field.

20th-Century American Novel

Selective reading of the English novels from the beginning of the twentieth century to the present. A comparative understanding of major Modernist and Postmodernist works will be among the main objectives, but the achievements of major dramatic movements and experiments after Henrik Ibsen. A sound understanding of individual works will be emphasized along with the acquisition of broad historical perspectives.

20th-Century American Literature

This is the second half of the survey of American literature and literary history, covering writings from early 1900’s to the present. The focus of this course will be a close reading of representative texts, while examining the historical, social and cultural contexts of the period. Also, in reading selected fiction, prose, drama, and poetry, we will attempt to understand how the canon of American literature has changed in recent times. Selections will include the great classical texts by writers such as Faulkner, Fitzgerald, Williams, Frost as well as works which have recently been incorporated into the canon, including Morrison and Chang-rae Lee.

English Semantics

This course is an introduction to the use of corpora in the English language. Students will learn how to use a corpus of English to study the language and gain a deeper understanding of its structure and use. The course will cover topics such as lexical semantics, propositional meaning, and pragmatic meaning. Students will learn how to extract information from a corpus and use it to make linguistic inferences. The course will also cover the theoretical background, basic methodology, and analytic approaches to English semantics and pragmatics, aiming to provide a deep understanding of the semantic interpretation of English and the cognitive processes involved in linguistic meaning and usage. Topics include lexical meaning, figurative meaning, meaning composition, reference, conversational implicature, presupposition, and Information Structure.

English Corpus Linguistics

This course is an introduction to the use of corpora in the description and analysis of English. It introduces students to the theoretical background, basic methodology, and analytic skills of English corpus linguistics. This course has three objectives: 1) to help students acquire language analysis skills, 2) to help students learn to read academic papers in English (corpus) linguistics based on corpus data, 3) to have students write a research paper meeting the standards of what is called a graduation paper.
This course offers a selective reading of English and European literature from the Anglo-Saxon Period through the end of the fifteenth century. The scope of the course may be expanded to include modern literary and popular adaptations and transformations of medieval texts, genres, themes, and techniques.

17th- and 18th-Century English Poetry

This course covers English poetry from the mid-seventeenth to the late eighteenth century, beginning with Milton and ending with the pre-romantic poetry of the late eighteenth century. Special attention will be given to the development of different poetic genres such as epic and heroic poetry, satire, ballad, and landscape poetry. Writers may include Milton, Dryden, Pope, Swift, Gray, Johnson and Gray.
This course provides intensive study of a selected writer or a school of writers.

103.420 **영어학특강**  
**Topics in English Linguistics**  
<br><text>&lt;영어학특강&gt;은 영어사나 영어 음운론, 통사론, 의미론의 이론 
언어학 분야 또는 영어교육, 제2언어습득, 담화문화와 같은 음용언 
어학 분야 중 특정 분야를 대하며 이를 심도있게 다룬다. 강의 주 
제는 각 분야에서 최근 관심을 모으고 있는 분석 방법론이나 핵심 
تهم이 되고 있는 문제들 중에서 선정되며, 학생들은 이 과목을 
통하여 다양한 영어학 현상들에 대해 체계적으로 접근하고 분석하 
는 방법을 배우게 된다.</text>

This course is an advanced course in English linguistics, designed to help students understand various empirical and theoretical issues in one of the specific areas such as history of English, phonology, syntax, semantics, English teaching and learning, second language acquisition, and discourse analysis.

103.421 **최근 영어권 소설**  
**Contemporary Novels of the English-Speaking World**  
<br><text>20세기 중반 이후 출간된 영어권 소설을 읽는다. 아체베, 앰스트든, 콴스, 해리스 등 영어권 소설 프로페셔널 작가들의 작품을 읽으며 다양한 작품의 문학적, 문화적 배경을 살펴본다.</text>

This course covers contemporary novels in English published since the mid-twentieth century. Writers to be discussed may include Achebe, Atwood, Coetzee, Fowles, Ishiguro, Lessing, Nabokov, Rushdie, and Smith.

103.422 **소설의 이론과 서사 전통**  
**Theories of the Novel and Narrative Tradition**  
<br><text>소설을 중심으로 서사 전통과 서사형식에 대한 역사적, 비평적 
이해를 도모하는 과목이다. 18세기 영국소설 발생기의 서사전통 
 및 작품과 미국의 로맨스장르와 같은 특정한 전통에 대한 논의를 
포함할 수도 있다. 아울러 소설과 인접한 산문 장르의 서사 전통 
도 함께 다룰 수 있다.</text>

This course aims at developing students’ historical and critical awareness of narrative tradition and narrative form, with a particular focus on the novel. The course will also examine specific narrative traditions in British and American literature, such as the eighteenth-century novel of formal realism and the romance tradition in American literature. The course may also cover non-fictional narrative genres and their historical conventions.

103.423 **여성문학의 전통**  
**Women Writers and Literary Tradition**  
<br><text>여성작가들의 문학적 성취를 공부함으로써 영문학 전통의 의미 
를 확장하는 것이 이 수업의 목표이다. 영미권 여성작가의 시, 소 
설, 드라마, 에세이, 비평 등 장르와 시대를 아울러 다양한 작품을 
읽으면서 여성과 문학이라는 주제를 탐구한다.</text>

This course aims to explore the tradition of English literature by examining women writers’ works and their literary achievements. Reading a variety of English writings by women in novels, poetry, drama and criticism, this course studies the theme of women and literature.
104.219B  시청각프랑스어연습 3-3-0

Laboratory Practice in French

<초급프랑스어 1·2> 강과에서 얻은 기본적인 불어문사능력을 바탕으로 하여 대학의 학문연구에 필요한 정도의 사회적, 학술적, 철학적, 정신적 언어로 만드는 것을 목적으로 한다. 프랑스 사회와 전반에 걸친 사회적인 텍스트를 선정하여 사회의 수준을 높이는 것이 학생들의 해석의 능력을 키우는 데 독점적 기회를 제공할 수 있다.

On the basis of the fundamental French-speaking skills practiced in the courses <Elementary French 1, 2>, this course aims at a gradual understanding of French social, philosophical, economic terms necessary in university level research. The study materials are texts which discuss the current issues found in French society. This enables students to reach a higher level of conversation as well as get a wider appreciation of French culture and society.

104.225B  프랑스어권문학강독 3-3-0

Readings in Francophone Literature

프랑스어는 단지 프랑스 문학, 문화, 사상을 이해하기 위한 통로만이 아니다. 오늘날 벨기에 등 유럽 지역, 캐나다 및 홍콩의 카리브해 지역, 그리고 특히 아프리카에서는 프랑스 국민보다 동명의 문화적 영향을 받고 있다. 프랑스어로 표현된 문학은 세계의 거의 모든 지역의 다양한 문화에 접근하는 가능성을 제공하는 것이다. 프랑스어권 문학은 우리의 삶의 거의 모든 지역에 다양한 문학과 문화를 접근하는 가능성을 제공하는 것이다. 프랑스어권 문학은 우리의 삶의 거의 모든 지역에 다양한 문학과 문화를 접근하는 가능성을 제공하는 것이다. 프랑스어권 문학은 우리의 삶의 거의 모든 지역에 다양한 문학과 문화를 접근하는 가능성을 제공하는 것이다.

104.228A* 프랑스어문법과 작문 3-3-2

French Grammar and Composition

프랑스어를 전공하는 학생들에게 요구되는 본 과목에서 학생들은 프랑스어를 작문하고 분석하는 방법을 습득하게 될 것이다. 언어, 문학, 사회학, 자연과학의 여러 텍스트를 읽고 있다. 프랑스어는 학생들로 하여금 불문학적인 의미를 가진 읽기의 능력을 가능하게 하는 것을 목표로 삼는다.

This is a required course for students majoring in French. Students will receive training in analysing and composing French sentences, and will read a wide variety of reading materials from the fields of the humanities, social studies, and natural sciences. The goal of the course is to enable students to communicate effectively in the French language.

104.303B  프랑스어학개론 1 3-3-0

Introduction to French Linguistics 1

중세 이후부터 현재까지의 불어의 음운적, 형태학적, 문법적 발단과 간호물을 중심으로 연구하고, 음성, 단어의 기호체계, 의미, 문법의 기호체계와 과학적 관계를 공식적으로 연구한다. 불어의 정체성과 독자성을 이해하기 위해 학습할 것이다. 또한 본 과목은 프랑스어의 발음과 철자법, 언어의 발달 과정, 전언어학, 문화해석학, 그리고 문화정체성, 언어, 사상과 문학 등의 관계에 대해 개괄하며, 포스트식민주의의 기초 개념들도 생길 수 있다.

French language is not merely a means of understanding the literature, culture and thoughts of France. French language is used in some European regions such as Belgium, Quebec and the northern America, the Caribbean and particularly in the Africa, where more people than the population of France speak and read French. ‘Readings in Francophone Literature’ is an introduction to Francophone literature through selective readings of literary works in relatively foreign languages.

Following ‘Introduction to French Linguistics 1’, through this course we will study the overall structure and characteristics of French in a synchronic perspective, and mainly study such problems as the complementary relations between pronunciation and orthography, the interrelations of meaning and grammatical mechanisms, and the mutual tendencies of such diverse elements and the psychological structure of language.

104.305* 프랑스어학개론 2 3-3-0

Introduction to French Linguistics 2

This is a required course for students majoring in French. Students will receive training in analysing and composing French sentences, and will read a wide variety of reading materials from the fields of the humanities, social studies, and natural sciences. The goal of the course is to enable students to communicate effectively in the French language.
pronunciation and orthography, the interrelations of meaning and grammatical mechanisms, and the mutual tendencies of such diverse elements and the psychological structure of language.

104.315B 18세기 프랑스문학 3-3-0

18th French Literature

18세기 불문학, 특히 계몽주의에 대한 것이 있는 이해를 목표로 하는 본 과목은 이 시대의 전반적인 특징인 계몽주의의 사상의 형성과정과 구체적인 면모를 풍자시키며, 폴레트, 뒤토를 통하여 살피고 그들의 영향과 후세에 미친 영향을 고찰한다.

The course examines the formation and character of the French Enlightenment Special attention will be paid to the French literary history through various literary trends. Students will learn some basic interpretation methods such as "explication de texte" through a close reading of French literature.

104.316A* 프랑스문학개론 1 3-3-2

Introduction to French Literature 1

프랑스문학개론은 중세에서 현대까지의 프랑스 문화를 대상으로 한다. 편찬은 여러 문예사조를 중심으로 문학사적 접근의 중요성과 의미를 배우며, 다른 편찬은 대표적인 텍스트들을 읽고 해석하면서 텍스트 설명이라는 정치한 해석 방식의 기초를 배운다. 이를 통해 학생들은 희곡의 호흡, 문학과 사회의 관계, 개별 텍스트에 대한 이해를 심화할 수 있을 것이다. 특히 프랑스 문학개론 1에서는 프랑스어가 문학의 언어로 사용되기 시작한 중세 텍스트들에서 출발하여, 르네상스 및 16세기의 작품들, 바로크 문학, 고전극으로 대표되는 17세기의 고전극의 문학, 그리고 18세기 계몽주의의 문학 텍스트들을 다룰 것이다. 몽테뉴, 르플레, 라신, 코르네유, 불트로, 무소리함 프랑스 문학과 사회의 묘와 흔한 대가들의 작품을 통하여 우리는 전통 프랑스 문학의 핵심을 잡볼 수 있을 것이다.

A survey of french literature from the Middle ages to the modern era. This course is designed to introduce students to french literary history through various literary trends. Students will learn some basic interpretation methods such as 'explication de texte' through a close reading of french literary masterpieces. In this course 'Introduction to French Literature 1', literary texts of the Middle ages in which the french language has begun to be used as literary language, masterpieces of the Renaissance era and the 16th century, the Baroque literature, classical literature of the 17th century including the classical French drama and literary works of the Enlightenment and the 18th century will be discussed. Students will be introduced to the essence of the cultural tradition of France by some major authors such as Montaigne, Rabelais, Racine, Corneille, Voltaire and Rousseau.

104.321 19세기 프랑스소설 3-3-0

19th French Novel

French Grammar and Text

이 미니하기에 걸쳐 불문과의 전공과목을 수학한 학생들에 게 불어 문화의 다양한 해독 방법을 경험하게 하며, 단순히 외국어 문화의 해독의 차원을 넘어 학생들로 하여금 불어의 원래 뜻에 가장 적합한 우리말 표현을 수학할 수 있는 기회를 제공함은 물론, 실제 번역의 예를 통해 불어 표현과 한국어 표현 사이의 차이가 단순히 언어적 맥락에서의 차이가 아니라 문화적 배경의 차이임을 인식하게 할 것이다.

This course is designed for students who have already completed several major courses in the department of French. The goal of the course is to give students extensive training in translating French into Korean. By studying examples of actual translations, students will explore the differences between French expressions and their relevant Korean expressions.

104.325B 프랑스어 문법과 텍스트 3-3-0

French Grammar and Text

19세기 불문학의 2대 주류인 낭만주의와 상징주의에 대한 이해가 본 과목의 목표이다. <프랑스문학개론>-에서의 개략적인 이해를 바탕으로 하여 랭보, 비나, 워고, 워체 등의 작품을 통하여 낭만주의와 무엇인가를 구체적으로 살펴본다. 특히 낭만주의와 고전주의의 논쟁을 고찰함으로써 양자의 차이점을 연구하고, 상징주의의 세계관의 이해를 바탕으로 하여 보들레르, 밥글렌, 랭보, 말라르메의 시를 분석, 연구한다.

This course examines the two main currents of 19th-century French poetry, Romanticism and Symbolism. We will study the Romanticism of Lamartine, Vigny, Hugo, and Musset. We will especially inquire into the significance of
the Romanticism-Classicism debate. The course will then examine French Symbolism through the works of Baudelaire, Verlaine, Rimbaud, and Mallarmé.

104.327 프랑스문학개론 2 3-3-0

Introduction to French Literature 2

This course aims to introduce French literature in 19th and 20th century. Through various literary tendencies after the French Revolution such as romanticism, realism, symbolism, naturalism, surrealism, structuralism, and postmodernism, the authors have shown their own consciousness concerning the current problematics of the age. This course introduces contemporary French cultural theories, and will learn to analyze the given thematics from various perspectives by utilizing diverse media such as newspapers, TV programs, and literary works. Students should gain an analytic and balanced view of French culture after taking this course.

104.406 현대프랑스문화분석 3-3-0

Analysis of Contemporary French Culture

This course is designed for students with a prior knowledge of French culture and, therefore, students should have preferably already taken French Life and Society and Reading in French Cultural Articles. The primary objective of this course is to gain an in-depth understanding of the main social issues of contemporary French society. Students will be introduced to contemporary French cultural theories, and will learn to analyze the given themes from various perspectives by utilizing diverse media such as newspapers, TV programs, and literary works. Students should gain an analytic and balanced view of French culture after taking this course.

104.414B 프랑스비평 3-3-0

French Literary Criticism

This course covers various literary criticism of 20th century, the ‘era of criticism’. Students will be able to understand important currents in the intellectual history of France while acquiring methods of analyzing literary works with their own critical view. Through selective readings of critical works, students will also enhance their reading skills of French. This course, likewise have three objectives, to wit understanding French culture and thoughts, improving a skill of analyzing literary works, enhancing a reading skill of texts written in advanced French.

104.418A 고급프랑스어외화 3-3-0

Advanced French Conversation

This course covers various literary criticism of 20th century, the ‘era of criticism’. Students will be able to understand important currents in the intellectual history of France while acquiring methods of analyzing literary works with their own critical view. Through selective readings of critical works, students will also enhance their reading skills of French. This course, likewise have three objectives, to wit understanding French culture and thoughts, improving a skill of analyzing literary works, enhancing a reading skill of texts written in advanced French.

104.425B 프랑스문화와 예술 3-3-0

French Culture and Art

This course examines French arts including fine arts and cinemas in relation to French literature itself. Selective readings of art criticisms will enhance students’ understanding of arts works and critical analysis of French visual arts will provide a broader insight into the relation lies between literature and cinema.

104.426 20세기 프랑스시 3-3-0

20th Century French Poetry

This course aims to increase the appreciation of modern
French poetry by comparing various poetic attempts from the eve of the first World War with 19th century French poetry. Through readings Apollinaire, Valéry, Breton and Eliard, we will study the main currents of modern French poetry and its spiritual background.

104.432 중세·로네상스프랑스문학 3-3-0

French Medieval and Renaissance Literature

프랑스어의 역사와 함께 시작한 프랑스 문학은 천 년 이상의 역사를 가지고 있다. 중세 문학은 프랑스 문학사의 원점을 이룬다. 프랑스 르네상스 문학의 특징은 중세의 기독교적 전통에서 벗어나 인간을 모든 것의 중심으로 파악하며, 인간에 대한 질문을 민첩히 시작하는 것이다. 따라서 크레타탕 드 르로아, 장 드 몽졸, 르 비타, 스테판 보아데, 미셸 세르투, 필립 푸어리에 등이 제시하고 있는 불문학 현상과 이론을 고찰할 수 있다.

The French literature has been continued for thousand years, and the medieval literature remains the major source of the French literary history. Characteristics of French Renaissance literature lie in seeing man as the center of the world, breaking away from the Christian tradition of the Middle Ages, and questioning notions of humanity. This course covers works of Medieval authors such as Chretien de Troyes, Jean de Meung, and Renaissance authors such as Rablais, Montaigne as well. Close reading of contemporary literary criticisms and their discussions on the literary works of 16th and 17th century may also be carried through.

104.433 현대프랑스문화현상과 이론 3-3-0

Cultural Phenomenon and Theory of Contemporary France

본 강의는 현대 프랑스 사회의 주요 문화현상 및 문화이론에 대한 사례를 목표로 하는 강의로서 프랑스 사회의 문화 전반에 대해 이미 기초적인 지식을 갖고 있는 학생들에게 대상으로 한다. 인문학의 다양한 영역에 걸쳐 설계된 프랑스 문화현상의 최근 동향을 접하게 함으로써 프랑스를 중심으로 유럽의 문화 현상, 그리고 현재의 다양한 문화현상과 이론을 다루는 학생들의 시각을 보다 예리하게 만드는 것이 본 강의의 기대하는 바이다. 최근의 다양한 문화현상과 이론을 다루는 것이 학생의 성적 성격상 그 구체적인 내용에 있어서 다소 변화가 있는 수 있지만, 본 강의에서 지속적으로 주안점을 두고 하는 데 가치 주제는 각각 1) 문화현상의 사회적 위치, 2) 문화적 생산물의 수용방식, 3) 문화적 생산의 사회적 제한과 영향 4) 예술과 사회이다. 본 강의에서는 문학, 영화, 일상생활문화에서 나타나는 문화현상과 문화적 생산을 분석의 대상으로 삼아 이와 관련하여 피에르 부르디유, 앤디워즈, 빅토리아 라디, 스테판 보아데, 펠릭스 브라이에 등이 제시하고 있는 문화현상을 집중적으로 살펴볼 것이다.

This course aims to provide an in-depth understanding of the principal cultural phenomena and cultural theory of contemporary French society to the students who already have a foundation knowledge of French society and culture. Through introducing current trends of cultural studies in France, this course will furnish students with an acute perspective not only on cultural phenomena of France and Europe, but also on those of Korea as well. Covering various cultural phenomena and cultural theory, details treated in the course may vary, however followings are the key aspects that we will be focusing on along the semester: 1) social hierarchy of cultural practices, 2) diverse usage and reception of cultural products, 3) effects of institutions on the cultural productions, 4) artist and society. We will be mainly focusing on cultural phenomena reflected in literature, cinema and our daily lives, hence works of Pierre Bourdieu, Beatrix Le Wita, Stephane Beaud, Michelle Certeau, Philippe Poirrier will be analysed with an emphasis.

104.429 현대프랑스언어학 3-3-0

Contemporary French Linguistics

이 과목은 언어학 일반에 관심이 있고 프랑스어학을 전공하고자 하는 학생들을 대상으로 개별언어로서의 불어를 더욱 심도 있게 연구하기 위해, 일반 언어학에 대한 기본 이론을 익히고, 음성학, 음운론, 형태론, 사후론, 의미론, 화용론 등 인어학의 제편을 소개하고, 구체적으로 각 언어별 특징을 비교하고 이들 불어학에 적용시키려는 것을 목표로 한다.

This course is designed for students interested in the French language and students interested in majoring in French linguistics. The course will introduce students to general linguistics and the diverse fields of linguistics: phonetics, phonology, morphology, syntax, semantics, and pragmatics. We will apply these linguistic models to French and study the structure of the French language.

104.430 프랑스언어학특강 3-3-0

Topics in French Linguistics

 현대 프랑스언어학에서는 주로 언어 일반에 관한 이론의 소개에 중점을 두었다면, 프랑스어학 특강에서는 이러한 기본 지식을 바탕으로 구체적으로 불어의 역사와 각 연구 영역별 특징들을, 또한 생생한 문법과 최근 이론들을 소개하고 학습하는 것을 목표로 한다.

If ‘Contemporary French Linguistics’ was mainly focused on the general introduction to the French language, ‘Topics in French Linguistics’ will, on the basis of the basic knowledge thus acquired, specifically study the history of French, the characteristics of each field of study, and introduce the current theories, such as Generative Grammar.
Introduction to German Literature

This course is an introductory course to Germanic myths and fairy tales. The course will help students gain basic knowledge on Germanic mythology, including its literary history and its influence on German literature. The course hopes to give students a general knowledge of German and Advancement in students' familiarity with German translation to Korean language.

Translating German Texts 1

This course proceeds and complements the class <Intensive German Conversation 1, 2>. This course is for students who have the intermediate and advanced grammar knowledge of German. With using German texts of elementary and intermediate level, this course aims at the improvement of basic competence in German translation to Korean language.

Translating German Texts 2

This course is for students who have the intermediate and advanced grammar knowledge of German. With using German literary texts and research texts, this course aims at the improvement of students' competence in German translation to Korean language.

German Myths, Folklore and Fairytails

This course is an introductory course to Germanic myths and fairy tales. Germanic myths, legends and fairy tales have distinctive characteristics that are quite different from other European myths. This course will analyze German myths, legends and fairy tales from various perspectives: literature, anthropology, psychology, religion, comparative literature, cultural studies, and gender studies. Main texts include Grimm’s Maerchen and German myth, and fairytales for children in German.
105.424  독일문화이론 3-3-0
Theories of German Culture

- 130 -

105.229  독일어집중회화 1 3-3-0
Intensive German Conversation 1

105.329A  독문학과 공연예술 3-3-0
German Literature and Performing Arts

105.331  독일어의 구조 3-3-0
Structure of German Language

105.228*  독문법 및 작문 3-3-0
German Grammar and Composition

105.323A  독일소설 3-3-0
German Fiction

German modern and contemporary poetry will be read in the original German texts. To understand the poems on a deeper level, the class will emphasize the context of the time period and the literary history in which each poem was written. We will also analyze and interpret certain poems of Goethe and Heine etc. that have been composed into "Lieder". This method will enhance students' understanding of German poetry.

In the course of this lecture, selected notable German novels from the 18th to 20th century will be analyzed intensively in this class. The main focus will be on literary texts that have been developed into stage performances. For example, the issue such as the differences in genre, medium, reader vs. audience reaction etc. will be looked at closely to raise the understanding of German literature and culture in students.
This class will take a general overview of modern German society, culture and history through German films that deal with controversial issues. The following films will be viewed and discussed: <Olympia>, <Stalingrad>, <Nurnberg>, <Der Himmel uber Berlin>, <The Pianist>, <Europa Europa>, <Holocaust>, <Der Blechtrommel>, <Die verlorene Ehre der Katharina Blum>, <Angst fressen Seele auf>, <Lolla rennt>, and <Good bye, Lenin!> These films depict these subject matters in this order: Nazism, the Holocaust, World War II and its implications, yellow journalism, foreign workers, the young generation, reunification, and so on.
neuropsycholinguistics but also how to give the students opportunities to conduct actual experiments. It is expected that students will be able to understand the area of applied german linguistics deeply and specifically through this course.

105.231 독일문학과 1 3-3-0

History of German Literature 1

This course is intended to overview of the main flow in German literature from the age of Enlightenment, Sturm und Drang, Classicism, Romanticism, Realism, Naturalism to the turn of the century before World War I. The mental and cultural histories will be introduced, and the literary works in those historical/cultural contexts will also be introduced and analyzed. With the close reading representative German literary works, the students can understand the development of modern German literature.

M1241.000200 독어독문학특강 3-3-0

Topics in German Literature and Language

In this course students will read texts of German literature and language closely. Through this close reading, students can understand German modern literature in cultural, historical and linguistic contexts.

105.422 독일매체이론의 이해 3-3-0

Understanding German Media Theory

This course will research on German contemporary literature and major artists’ orks intensively.
Readings in Russian Literature

This course aims to introduce beginning students of Russian to Russian poetry and songs. By reciting, singing, and translating poems and songs, students will have opportunities to practice vivid, everyday Russian in small groups.

This course aims for students to understand the history of Russian literature from early chronicles to the 20th century. Students are expected to read some of the masterpieces of Russian literature. They will have an opportunity to read Russian literature. They will have an opportunity to develop their basic pronunciation and conversation skills. A native Russian instructor will help students to acquire accurate Russian pronunciation and accent through individual tutoring and provide them with elementary grammar lessons. Students will be given chances to practice vivid, everyday Russian in small groups.

Introduction to Russian Literary Theory

This course is designed for junior students who are taking Russian as a major. It introduces students to basic concepts of Literary Theory. It will provide perspectives on the major questions: what is literature, how is it produced, how can it be understood, and what is its purpose? Not to study on literary theory itself, but to introduce basic categories for the analysis of literary texts, that is the purpose of this course.
This course explores the features and problems of Russian culture from ancient times to the present from various critical analyses. Students will be exposed to audio-visual materials, media, as well literary texts concerned with religion, mythology, literature, music, paintings, drama, movie, etc, all of which comprise quintessential Russian culture. In this course, students will gain a comprehensive and critical knowledge of the socio-cultural, historical, and spiritual milieu of Russia and its people.
A sequel to Exploration of Russian Writers 1, this course will perform a deeper exploratory survey of the Russian writers.

This course is designed for students who are taking linguistics for the first time. It introduces students to the various fields of linguistics and their practical application to Russian.

This course will aim at a deep and rich understanding of contemporary Russian society, culture and art as well as literature. The course will be conducted by a native speaker instructor and each student will have a chance to be corrected individually in pronunciation and intonation.

This class will perform a deeper exploratory survey of the Russian writers.

This course is designed for students who are taking linguistics for the first time. It introduces students to the various fields of linguistics and their practical application to Russian.

This course will aim at a deep and rich understanding of contemporary Russian society, culture and art as well as literature. The course will be conducted by a native speaker instructor and each student will have a chance to be corrected individually in pronunciation and intonation.
say writing on topics in the areas of culture, history, economics and current events, etc. students can develop their sensitivity to writing and be corrected individual grammatical and stylistic mistakes.

106.413 러시아어와 인지 3-3-0
Russian Language and Cognition

본 강좌는 최근의 인지언어학적 접근을 소개하고 이 포괄적이 고 학제간의 이론적 틀로 러시아어의 여러 의미적, 화용적 현상을 설명하는 것에 그 목표가 있다. 인러의 구조를 인간 인지에 초점 을 두어 문화, 사회, 역사, 진화적 관점에서 설명하려는 시도들을 소개하고 텍스트와 문학과, 합성성론, 언어학과 관련을 소개하면서 언어가 사고, 정신, 문화, 상호주관성 등을 어떤 상관성을 갖는지에 초점을 맞추어 인러 이론들 조명할 것이다.

The course introduces recent cognitive approaches to language and aims to show theoretical explanations for semantic and pragmatic phenomena from this comprehensive and interdisciplinary frame. The course presents attempts to explicate language structure through human cognition, culture, society, history and evolution, and introduces metaphor theory, mental space theory, blending theory, language evolution, construction grammar and illuminates language in general and Russian language in particular through interrelations between language and mind, thought, culture, and intersubjectivity.

106.346 러시아연극 3-3-0
Russian Theaters

본 강좌의 목적이 17세기에서 20세기에 이르기까지 러시아 연극사를 조명하고, 아울러 텍스트로서의 희곡에 대한 분석뿐 아니라 무대에 상연되는 공연예술로서의 연극에 대한 이해를 높이는 것에 있다. 학생들은 면밀한 희곡 분석을 통해 문학 작품으로서 희곡이 갖는 특수성을 이해하고, 학생들이 그를 만들어 작품을 적절 상연하는 과정을 통해 다른 예술 장르와는 차별되는 연극의 특성과 재미를 만끽할 수 있을 것이다. 나아가 세계 연극사에서 러시아 연극이 차지하는 위치 또한 조망할 수 있을 것이다.

This course aims at deepening students’ understanding of the Russian drama through a survey of the history of the Russian theater from the seventeenth to the twentieth century. Students will learn to understand drama in both its written and performed contexts through close readings of dramatic literature; in addition, students will learn the characteristics of drama different from those of other genres by participating in putting plays on the stage. In doing so, students will also have a general view of the Russian theater in the context of the history of world theater.

106.428 러시아문학특강 3-3-0
Topics in Russian Literature

러시아문학의 주요 작가와 작품을 중심으로 수업을 진행한다. 문학테크스트의 바탕으로 이루어지며 텍스트 내재적 장치, 기법, 문법 등의 작가 내재적 문학 및 문학 텍스트 외적의 계열들과 어떤 관계론적 순서를 지나는지 살펴본다.

This course concentrates on important Russian authors and their masterpieces by reading and analyzing their representative works.
Spanish Grammar 1

This course aims to help students with a basic knowledge of Spanish grammar to improve reading skills. Students will read a variety of Spanish articles on Hispanic culture and literature. The focus of this course is to enable students to attend and participate actively in classes conducted in Spanish.

Spanish Grammar 2

The main purpose of this course is to understand advanced Spanish grammar by focusing on learning various practical expressions and authentic grammar.

History of Spanish Literature

This course is an introduction to the development of Spanish literature from the Middle Age to the Contemporary Period. Students will learn the historical roots of Spanish literature and become acquainted with the cultural background of the artistic and literary development of Spain. Students also will be exposed to some of the best writings in Spanish literature and will gain the understanding of the evolution of the Spanish poetry, narrative and drama.

History of Hispanic American Literature

The focus of this course is the history of Spanish-Speaking countries, such as Mexico and Argentina, with an analysis of the close relations between literature and history. In this course, students will compare historical events such as the revolutions in Mexico and Cuba to important currents in literary history. Research on the hegemony of the novel in Latin American will also be conducted.
The main purpose of this course is to provide a comprehensive view, documented through the established texts and authors, of the specific problems, topics and methodologies that characterize Hispanic American cultural studies. The reader of this course presents Roberto Fernandez Retamar’s Calibanism, Angel Rama’s transculturation, Antonio de la Torre’s heterogeneity, Walter Mignolo’s postcolonialism and postocidentalism, Nestor Garcia Canclini’s cultural hybridity, Nelly Richard’s Laitnamericanism, John Beverely’s subaltern studies, and others.

107.306 스페인어학개론 3-3-0
Introduction to Spanish Linguistics

This course introduces the field of Spanish linguistics, covering topics such as phonetics, phonology, morphology, syntax, semantics, and pragmatics. It aims to equip students with a solid foundation in the study of the Spanish language, preparing them for advanced study in linguistics or related fields.

107.329 스페인학과목 3-3-0
Spatial Drama

This course examines the works of Latin American writers such as Isabel Allende and others, focusing on how their works reflect sociocultural contexts in the Americas.

107.333A 고급스페인어학 3-3-0
Advanced Spanish Conversation

This course is designed for advanced Spanish language learners who wish to improve their conversational skills.

107.334 스페인시강독 3-3-0
Readings in Spanish Poetry

This course covers 19th and 20th century Spanish poetry, focusing on the works of important poets.

107.327A 중남미소설 3-3-0
Hispanic-American Novel

This course focuses on the works of Latin American novelists, including Borges, Garcia Marquez, Vargas Llosa, among others.

107.328A 스페인소설 3-3-0
Spanish Novel

This course explores the history of Spanish literature, from the Golden Age to modern times, focusing on key authors and works.

107.306 스페인어학개론 3-3-0
Introduction to Spanish Linguistics

This course introduces the field of Spanish linguistics, covering topics such as phonetics, phonology, morphology, syntax, semantics, and pragmatics. It aims to equip students with a solid foundation in the study of the Spanish language, preparing them for advanced study in linguistics or related fields.

This class is suitable for upper-level Spanish speakers who want to obtain better fluency and delivery of complex ideas.
represented Modern and Contemporary Spanish poets such as Espronceda y Delgado, Adolfo Bequer, Antonio Machado, Juan Ramon Jimenez, Garcia Lorca and others. Through this course students will understand both the unique poetics of each poet and the general characteristics of each generation.

107.335 중남미시연습 3-3-0
Seminar in Hispanic American Poetry

이 과목은 19세기 말의 모데르니스트들로부터 최근의 포스트모더니즘에 이르기까지 중남미에서 문학의 혁신을 선도해온 시 장르의 주된 경향을 볼 때마다 살펴보는 것을 목표로 한다. 구체적으로 루벤 다리오, 폴로, 아르레나, 페루, 콜롬비아, 브라질 등 라틴아메리카의 대서적 시대와 소설을 포함하하여 라틴아메리카 문학의 고유한 문학적 가치와 세계의 싱글의 폭넓은 계층으로 이해할 수 될 하는 역사적 풍을 담는 데 목적이 있다.

This course explores Hispanic American poetry that has played a leading role in revolutionizing Hispanic American literature throughout history. Students will read masterpieces by representative Hispanic American poets such as Ruben Dario, Octavio Paz, Pablo Neruda, Cesar Vallejo, Nicanor Parra and others. In this course students will learn both the unique poetics of each poet and the general characteristics of each generation.

107.413B 스페인어학연습 2 3-3-0
Spanish Linguistics 2

이 과목은 <스페인어문법 1>, <스페인어문법 2>, <스페인어학 개론> 등의 과목을 통해 습득된 기본적인 문법과 어학 지식을 바탕으로 각각의 문법적인 요소와 어학정리가 실제적으로 어떻게 적용되는지를 살펴보면서 스페인어학에 대한 보다 체계적인 이해와 실생활에의 적용을 목표로 한다.

This is a follow-up course to <Spanish Linguistics 1>. Similar topics will be covered, but in greater depth.

107.425A 스페인어번역연습 3-3-0
Seminar in Spanish Translation

스페인과 중남미의 문학작품을 읽고 번역해 볼 수 있는 번역의 중요성을 이해하고 번역에 필요한 기술들을 익힌다.

In this course, students will come to understand the importance of translation and acquire translation skills by reading and translating Spanish and Hispanic-American literary works.

107.427A 스페인문학특강 3-3-0
Topics in Spanish Literature

이 과목은 스페인어문학을 읽고 번역해 볼 수 있는 번역의 중요성을 이해하고 번역에 필요한 기술들을 익힌다.

This course is designed to introduce students to Spanish literary works that are not yet widely known to the general public but are of high literary quality. By reading these works, students will improve their literary skills as well as their general understanding of Spanish culture.
108.208 음운론 3-3-0

Phonology

음성학에 대한 지식을 기초로 하여 음소, 변이음 등 음운론의 기본 단위 및 개념을 습득하며, 이는 사전, 음성체계를 분석할 수 있는 토대를 마련해 주는 데 그 목적이 있다. 이 강좌에는 주로 초기 생성음운론(generative phonology)의 기술적 방법을 바탕으로 개념의 정의와 자료분석을 논의한다. 이 강좌는 <역사비교언어학>, <언어학연구 1> 수강을 위한 기초 과목을 제공한다.

108.223 만주어 3-3-0

Manchu

이 과목은 문어 만주어를 기초부터 시작하여 문어 만주어의 구조를 이해할 수 있도록 돕는다. 이를 위해, 청나라 시기 언어학자들의 문어 연구를 논의하고, 국제적으로 이루어진 만주어 및 통고스어학 연구에 알라인의 연구결과를 개관한다.

Starting with the written Manchu language, this course aims to develop students' reading skills in Manchu and their understanding of the characteristics of Manchu. Readings will include Manchu texts written during the Qing Dynasty and the results of previous research on the Manchu, Tungus, and Altaic languages.

108.225 언어학사 3-3-0

History of Linguistics

이 강좌는 언어학의 연구대상과 연구 방법론을 역사적으로 변천 해온 흐름을 파악하며, 언어학에 대한 기초적인 인식을 가지게 하는 것을 목표로 한다. 언어학은 이미 고대 그리스인, 고대 인도 시대부터 연구되기 시작했으며, 19세기의 비교언어학, 특히 분배이 문법학자들의 연구를 체계화하고 있다. 이러한 흐름과 함께 현대의 구조주의 언어학과 변형형성방법론에 이르기까지 그 이론적 배경과 학과의 특성을 살펴본다.

The aim of this course is to provide a broad understanding of linguistics by examining the historical changes in the object and methods of its research. Linguistics has been studied since the time of ancient Greece and India and was settled as a scientific endeavor by the Junggrammatiker, who developed the study of comparative linguistics in the 19th century. Following this historical path, the course will explore the theoretical background and characteristics of each school, up to European and American structuralism and modern transformational grammar.

108.226 형태론 3-3-0

Morphology

이 강좌는 한 언어에서 단어들이 생성되는 여러 형태들에 대한 연구를 목표로 한다. 형태론이란 단어의 구조를 연구하는 분야이므로, 형태론의 기본 단위인 형태소의 개념과 구조를 논의하며, 이 형태소들이 결합하여 새로운 단어를 만드는 형성법과 파생법, 단어의 형태학적 변화를 설명하는 학문적 의미를 나타내는 음운과 활용의 개념을 습득하고, 다른 이러한 현상들이 실제 자연어에서 어떻게 나타나는가를 살펴본다. 또한 형태론은 음운론이나 통사론과 맺어 관련성이 흐르게 살펴본다.

This course surveys the grammatical and phonological analysis of words, and their significance in linguistic structure. Students will review the analytical techniques developed by various schools of linguistics. Theories of morphological structure and typology will be introduced, including recent studies in generative grammar. Also examined will be the relations between morphology and other levels of structure in the language.

108.311 의미론 3-3-0

Semantics

이미지론 과학적으로 향후어기에 기초적인 훈련을 한다. 의미론으로부터 다져진 중요한 주제들을 다음과 같이 정리한다: (1) 의미론의 전통, 영역, 방법론에 관한 사료, (2) 인간의 언어능력의 의미론, (3) 의미발달의 직선적 의도와 빈도, (4) 이미지의 유지, (5) 수리적 해석과 논리 구조에 관한 논리, (6) 시간, 공간, 양을 의미한다. 이 강좌는 ‘언어와 언어학, ‘동사론’을 기초로 하고 있다.

Dealing with semantics, a scientific study of linguistic meaning, this course focuses on the following topics: (1) history, domain and methodology of semantics, (2) semantic knowledge in human language, (3) semantic types of linguistic expressions and the formal account of their semantic composition, (4) semantics and cognition, (5) inference patterns based on quantification and logical structure, (6) tense, aspect, and modality.

108.312 역사비교언어학 3-3-0

Historical Comparative Linguistics

19세기부터 발전하기 시작한 역사비교언어학의 기본 개념을 다루며 아울러 언어변화의 여러 유형들을 설명하고 역사비교언어학의 도색을 제시한다. 이 강좌는 19세기 과학에 개설되어 있는 알타이언어학과 인도유럽언어학의 이론으로부터 기초 과목이다. 따라서, 이들 분야에서 작용할 수 있는 초보적 방법론에 중점을 두고 강의한다. 또한 강의 후반부에서는 국어에 관련된 자료들을 직접 다루어 토론으로의 연구를 위한 기초를 다진다. 이 강좌를 이수하기 위한 기초 과목은 <음운론>이다.

This course deals with basic concepts of Historical Comparative linguistics back in the 19th century, and also covers the various patterns of language changes and problems. Since this course is prerequisite for Altaic Linguistics and Indo-European Linguistics for senior students, it concentrates mainly on primary methods. In the second half of the course, related Korean data will be dealt with for further study. Students must have finished the course <Phonology> before taking this course.

108.315 통사론 3-3-0

Syntax

단어들의 결합에 의한 문장이나 그 구조, 기능 및 구조를 분석하는 것을 목표로 한다. 이 강좌는 Chomskyan를 중심으로 발전하고 있는 변형생성론의 여러 이론들을 소개하고, 또한 여러 이론의 변화 배경과 과정을 검토 비판한다. 최근에 보이는 통사론은

학점구조는 "학점수-주당 강의시간-주당 실습시간"을 표시하며, 한 학기에는 15주로 구성됨. (The first number means "credits"; the second number means "lecture hours per week"; and the final number means "laboratory hours per week. 15 week make one semester.")
This course provides an introduction to syntax, developed by modern transformational grammar, through its origins in Chomsky’s Syntactic Structures (1957). The students will analyze the structure of sentences, and the function or the structure of elements occurring in the sentence. They will also study the main characteristics of theories that are derived from Chomsky’s Generative Grammar, and research the interface between syntax and semantics.

108.317 Sociolinguistics

Sociolinguistics

Sociolinguistics is the subdivision of linguistics that tries to understand the diversity of language through its sociological change. Accordingly, this course will first examine the background and significance of sociolinguistics, then give an overview of the results of sociolinguistic research up to this point. In addition, students will explore the relationship between the language structure and usage of the speaker and his/her society, and how that relationship might be systematized.

108.319 Field Linguistics

Field Linguistics

Field linguistics attempts to understand the diversity of language through its sociological change. Accordingly, this course will first examine the background and significance of sociolinguistics, then give an overview of the results of sociolinguistic research up to this point. In addition, students will explore the relationship between the language structure and usage of the speaker and his/her society, and how that relationship might be systematized.

108.320 Psycholinguistics

Psycholinguistics

Psycholinguistics is the subdivision of linguistics that tries to solve these problems. This course provides the general information and the introduction to the general research methods of psycholinguistics.
이 강좌에서는 언어학과 컴퓨터과학이 접목된 관계를 깊이 있게 파악하기 위한 기초적이며 전공적인 강의이며, 특히 언어학 연구에 필요한 기술을 배우는 데 도움이 됩니다. 

This course outlines the fundamental notions and theories on computational linguistics and natural language processing, dealing with current issues on corpus linguistics.

이 강좌에서는 음성학적 지식이 어떤 분야에서 응용될 수 있는지 논의합니다. 최근 들어 활발하게 논의되고 있는 한국어와 영어 표준발음 교육과 관련된 연구가 주요영역이 될 것입니다. 또한 음성학적 지식을 바탕으로 말로 전문성을 응용할 수 있는 기술을 배울 수 있습니다.

This course is designed to introduce students to the fundamentals and ideas in phonetic and linguistic information and the underlying computational properties of speech and natural language. Focus is on modern quantitative techniques in speech processing and NLP: using large corpora, statistical models for acquisition, disambiguation, and parsing. Also, it examines and constructs representative systems.

언어학과 언어병리학의 상관관계에 대해서도 생각해 본다. 이런 강의는 каза и разнообразными методами исследования для обнаружения и изучения языковых процессов.

This course introduces students to the structure of Japanese in terms of theoretical linguistics. Through analysis of data, students will deepen their ability to analyze real linguistic data, communicate in Japanese, and more easily understand various branches of linguistics.

언어학과 그 사용 맥락의 상관성을 탐구한다. 의미론이 문장의 의미를 전달하고, 화용론은 문장의 의미와 맥락의 상호 작용을 설명한다. 

This course introduces students to the structure of Japanese in terms of theoretical linguistics. Through analysis of data, students will deepen their ability to analyze real linguistic data, communicate in Japanese, and more easily understand various branches of linguistics.

언어와 정보처리

본 과목에서는 언어학의 정보처리 분야 응용에서 인간과 컴퓨터 사이의 가장 자연스러운 의사소통 수단인 음성대화 인터페이스를 중심으로 배운다. 구체적으로 음성학과 음운론, 형태론, 통사론, 의미론 등의 언어학 세부 분야의 기초론과 음성 대화 시스템과의 관계를 살펴보고, 음성학적 유형과 음성학의 이론적 기반과의 관계로 인해 이러한 주제의 음성 대화 인터페이스 및 소프트웨어 구현 방법을 소개한다.

This course introduces students to how phonetic knowledge can be applied in pronunciation-teaching and speech-tecno gluage. Emphasis will be put on the student’s ability to produce, perceive and transcribe Korean and English pronunciation correctly. Also introduced will be the current trends in speech-processing and the structure of speech synthesizers.

Structure of Japanese Language

일본어의 구조

일반 언어학의 다양한 시각에서 일본어의 구조에 대한 연구를 소개하고, 실제 일본어 자료를 분석합니다. 이는 언어학의 여러 분야 (음성학, 음운론, 형태론, 통사론, 의미론 등)의 이해를 심화시키고, 한국어 및 일본어와의 비교를 통해 언어유형적인 이해를 넓힙니다. 또한 일반 학생들의 고급수준 일본어 학습을 위한 응용한 기초가 될 것이다.

This course introduces students to the structure of Japanese in terms of theoretical linguistics. Through analysis of data, students will deepen their ability to analyze real linguistic data, communicate in Japanese, and more easily understand various branches of linguistics.
해석 등이 화용론의 주요 주제들이다.

This course explores the relationship between the language and its context. Pragmatics accounts for the dynamics of the sentence meaning and speaker’s intended meaning, whereas semantics identifies the sentence meaning as truth conditions.

The pragmatic contexts to be considered include (1) linguistic contexts in the discourse, (2) spatio-temporal contexts, and (3) social and world-knowledge contexts. Among the main topics of pragmatics are (1) inference patterns based on presupposition and implicature, (2) dynamic felicity conditions of speech acts, (3) contextual interpretation of indexical expressions (deixis), (4) conversation/discourse structure, (5) socio-cultural aspects in language, (6) discourse analysis of mass media.
한국고대사상 3-3-0

Modern History of Korea

This class will introduce students to the most recent academic results in the study of Korean history. Subjects and issues under current critical investigation will be emphasized and further studied.

History of Korean Foreign Relations 3-3-0

This class will examine the foreign relationships Koreans have had throughout their history. It will examine several exchanges between the Korean peninsula and other countries, evaluating the political, economic, cultural, and intellectual nature of those exchanges. Students will be able to see how foreign ideologies were introduced and modified to suit the Korean intellectual environment, and how doctrines dealing with the nation's foreign relations have evolved according to the changes in the domestic and foreign factors.

Socio-economic History of Korea 3-3-0

This class will help students to understand the politics, economics, social aspects and cultures of Medieval Korean society. They will learn unique aspects of the Korean medieval society (compared to its ancient societies), in areas such as social stratification, land systems, and administrations as well as customs related to the family units.
### 109.317：Topics in Contemporary History of Korea

**1945년 해방 이후부터 오늘에 이르는 한국의 현대사를 보다 심층적으로 연구 및 흥미롭게 이해하기 위하여 개설하였다. 해방과 한국전쟁으로 인한 남북 분단, 70년대 이후의 경제성장과 혁명적인 정치체제의 변화 급속한 산업화에 따른 사회변동 등을 주제별로 분석함으로써 현대에 대한 역사적 조망을 가능하게 하는 목적이 있다. 본 강의에서는 정치사나 경제사 외에 문화사, 사회사, 지리사 등으로 분야를 확장하거나 주제별(개별) 심화학습을 시도할 것이고, 현대사 연구방법론과 사료분석, 사료관리 방법도 어울리 학습할 것이다.**

This class will study the requirements for a proper historical material when it is to be fully approved. Basically but also widely being used text material samples will be selected, and the bibliographical, philological, historical characteristics of those materials will be close examined, so that the students will have the opportunity to train themselves for future studies, by acquiring proper skills to handle historical materials. The student will be encouraged to concentrate their efforts upon the task of collecting and analyzing historical documents and other materials that reflect various aspects of the Korean modern and contemporary history. In this class, not only the political and economical issues, but also the cultural, social and intellectual issues will be further explored and examined, point by point. Research methodologies regarding venues which would be useful in addressing issues of Korean contemporary history, analysis of historical documents, and methods that should be employed in such analyses, will all be covered in the themes of the class.

### 109.318：Korean Pre-modern Intellectual History

조선시대 신학의 도입과 정착과정을 소개하여 성리학이 정치, 경제, 사회 등에서 지배적인 이념으로 기능하는 측면을 검토한다. 이와 관련하여, 사회 변동기 속에서 성리학이 주제적인 수용과정에서 조선시대에 성리학적 질서로 재편되는 과정, 성리학이 지배 사상으로 한계를 드러내며 새로운 사상을 모색하는 시기 등을 역사적 관점에서 이해하는 목적이 있다.

This class will show students Neo-Confucianism's introduction to the Korean peninsula, and its establishment as the leading political, economic, and social ideology. It will also help students understand how Neo-Confucianism was introduced in the ending days of the Koryo Dynasty, how the ideology was transformed into a ruling philosophy for a nation, and how it was changed and later replaced by other new ideologies.

### 109.319B：Thesis Writing on Subjects of Korean History

한국사 논문의 작성에 필요한 실질적인 방법을 검토한다. 사료의 수집, 이용과 해석, 역사 서술의 방법 및 그 철학적 문제 등을 연구함으로써, 한국사 논문작성을 위한 기본적 소양과 실제적인 기술을 익히는 데 목적이 있다.

This class will introduce students to research methods useful in writing dissertations with a historical subject. The course aims at improving student's ability to use and interpret textual material. Students will also be exposed to philosophical issues related to historical writing. Basic and practical guidelines for writing a dissertation will be suggested.
examined. The commercial and industrial developments, which reflected the hope for strengthening the country and achieving modern developments independently (a hope that was shared by many people at the time in the wake of the public’s asking for the advent of modernization), will be particularly studied, and so will be other similar developments that occurred during the Japanese occupation period. The students will be provided with an opportunity to understand the nature of the historical experiences that were accumulated during those time periods, and will also come to see how such experiences were inherited to the later periods and continued in the form of industrial developments that happened in the post-liberation period.

109.327 Seminar in Korean History 1
Science and Technology in Korean History

This class will provide the students with the opportunity to have a more in-depth understanding of the historic nature of ancient and medieval periods in Korean history. From the formation of ancient states, to the Unified Shilla dynasty period, and to the entire Goryeo dynasty period, specific time periods and relevant issues will be carefully selected and intensely examined. The students of this class will be encouraged to enrich their knowledge regarding the Korean ancient and medieval history, by having documentary records, epitaphs, letter collections, and various treatises at their disposal. Also, other special themes such as science and arts, which had also prevailed throughout the medieval history, by having documentary records, epitaphs, letter collections, and medieval history, will be addressed as valid issues as well.

109.328 Korean Intellectual History of Mediaeval Korea

This class will examine various aspects of the Korean intellectual history of Mediaeval Korea. It will help students understand the specific thought patterns of the people of the Koryo dynasty, which put ongoing efforts into their intellectual cause of ultimately uniting those two leading ideologies to create a single grand belief system.

109.406 Seminar in Korean History 2
Topics in Korean History 2

This class will introduce students to the most recent academic results in the studies of Korean history. Subjects and issues under current critical investigation will be emphasized and further studied.

109.408 History of National Independence Movements

This class will examine various aspects of the Korean National Independence Movement, which sought liberation from Japanese imperial control. It will study the thoughts...
and philosophies of the personnel and resistance bodies involved in the fight against the Japanese forces at the time. It will also examine the resistance activities carried out inside the Chinese and Northeast Asian territories.

### 109.412 한국사학사 - 3-3-0

**Korean Historiography**

한국 역사학의 발전과정을 소개하기 위하여 개설하였다. 고대에서 근대에 이르기까지 각 시대의 역사과 역사학의 전개와 특성을 검토하여 자나간 시대의 역사를 통통히 인식한다.

This class will show the history of Koreans' research of their own history. Students will have the opportunity to learn what kind of historical texts were written during each time period and the basic characteristics of those respective periods' historical research.

### 109.413 한국정치사회사 - 3-3-0

**Korean Politico-Social History**

한국사의 발전과정에서 변화의 구조적인 단위가 되는 사회제도의 여러 부분을 소개하기 위하여 개설하였다. 역사상 존재하는 다양한 수준의 사회제도를 검토, 연구함으로써 역사의 구조적인 이해를 가능하게 하며 그 목적에 달한다.

This class will show the changes Korean social systems have gone through during the course of its history. Through examinations of various kinds of social systems which have existed throughout Korean history, students will also be able to hone their abilities to systematically view general history.

### 109.416 한국현대사 - 3-3-0

**Contemporary Korean History**

해방 이후 한국현대사의 전개과정에 대한 개괄적인 이해를 바탕으로 한국 현대 사회에 대한 구조적이고 체계적인 이해를 시도한다. 특히 남과 북의 역사도 여타 부분을 소개하기 위하여 개설하였다. 역사상 존재하는 다양한 수준의 사회제도를 검토, 연구함으로써 역사의 구조적인 이해를 가능하게 하며 그 목적에 달한다.

In this class, the students will be encouraged to attempt to obtain structural and systemic understanding of the Korean society today, based upon general knowledge regarding the contemporary history of Korea (which began with the liberation in 1945). Students will be introduced to new perspectives which would be effective and appropriate in viewing the history of both South and North Korea. They will also be offered some explanations and evaluations regarding previous historical studies in the area of Korean contemporary history very carefully, and also link them to the intellectual trends and atmosphere of the times which bred such achievements. This class is recommended to students who already joined classes such as Understanding Korean Contemporary History or Korea in the 20th Century.
For an attempt to impartially and factually understand the texture of the modern Middle East, this lecture aims at balanced explorations of themes such as the nineteenth-century reforms and their results, dissolution of the early modern empires and the formation of national states, Middle Eastern nationalisms and Zionism, two world wars, the dimension of oil, education and population, family and women, and last but not least, political Islam.

This course aims at training the students to satisfy fundamental requirements for studying history, that is, reading and understanding historical documents in Chinese. The students of this course will then be able to understand and analyze the recorded historical events in the documents of this course, the students will be encouraged to prepare the lessons thoroughly. This preparation includes not only translations but also analyses and historical evaluations of the texts. This training will help the students to understand the history between the lines in Chinese source materials.
humankind and the principle of the universe. This course will thoroughly read historical materials and catch the writing style and its contents.

111.227A 일본의 무사사회 3-3-0
The Feudal Society of Japan

동아시아에서 유일하게 무사 사회를 경험한 일본의 무사사회를 중심으로, 체제구조, 사회조직 및 엑리와 대중문화에 관한 일편적으로 살펴보는 것을 목표로 한다. 여기에 이란의 사바리 제국, 인도의 무슬림 제국의 역사적 전개에서 나타나는 공동점과 차이점을 살펴보고, 이들 제국이 그 이후의 무슬림 제국의 현대적 구체에 어떤 영향을 미쳤는지를 살펴보기로 한다.

This course focuses on the outline of the Ottoman empire which is considered the most prominent of early modern Muslim empires, while aiming at having students comprehensively understand the political system, the evolution of military institutions, economic structures, social organization, and the nature of elite and mass culture. It will also make comparisons with the history of the Safavid and Mughal empires and explore the legacy of these great empires in the modern remaking of the Muslim world.

111.229 중국문명과 제국의 형성 3-3-0
Formation of civilization and Empire in China

기존에는 黃河文明 또는 江河文明이라고 불리웠던 중국문명이 빛나는 중국문명으로 불리워야 할 이유에 대하여 이해를 도모해 본다. 이러한 고려와 아울러, 일본 전근대 사회가 동아시아국가의 일원으로 가지고 있던 '동아시아적' 측면에 대한 검토도 시도한다.

This course provides students with knowledge of the formation and development of the Chinese civilization and its empires. This class will proceed by specifically investigating the factors behind the reason why the civilization is not called 'Hwang-he' or 'Jiang-he' but rather the 'Chinese Civilization'.

111.230 민족이동과 수당세계제국 3-3-0
Volkerwanderung and Sui-Tang World Empire

위진남북조의 분열기를 거치면서 북방의 유목민족(호족)과 중원 지역의 한족이 서로 융합, 교류하면서 탄생하게 된 수당제국의 역사적 성격을 주로 민족이동과 민족융합이라는 관점을 통해 이해해 본다.

This course provides students with knowledge of the formation and development of the Sui-Tang World Empire by considering the viewpoint of volkerwanderung and surveying the interrelationship between nomads and the Han race.

111.231 전통중국의 사상과 종교 3-3-0
Thought and Religion in Traditional China

제자백가・현학・이학・양명학・고종학 등들, 해당 사회의 구조적인 맥락 속에서 자유롭게, 사상이나 종교가 구체적인 역사적 힘으로 전개되는 과정을 둘러싼다. 또한, 불교와 도교 등의 거대종교 뿐만 아니라, 중국 사상 이해에 필수적인 비밀결사(회당・교문 등)의 이념적 기반이 되었던 다양한 중국 민간신앙에 대한 이해를 통해 중국사회의 또 다른 측면에 대한 이해를 도모한다.

This course provides students with knowledge of the process on how thought and religion were transformed into a historical force in China.
대 사회의 지배 계층이었던 신사(紳士)의 존재양태와 다양한 사회적 기능, 그리고 과거 합격에 의해 주로 형성되었던 신사와는 다른 경로를 통해 엘리트의 지위에 올랐던 다양한 사회계층 혹은 집단에 대한 살펴본다. 

We will investigate the Imperialism in modern South-East Asia by examining the impacts and responses existent between the imperialists and their colonies.

111.329 동남아시아 근대와 제국주의 3-3-0
Modern Southeast Asia and Imperialism
스페인, 네탈란드, 영국 등의 진출과 이에 대응한 동남아시아 제국의 역사를 다양한 측면에서 고찰한다. 특히 제국주의 국가의 정책이 어떻게 달랐는지를 다양한 사례를 통해 비교분석함으로써, 동남아시아 각국의 제국주의에 대한 대응의 다양성과 공통성을 발견할 수 있도록 한다.

111.330 사대부사회의 성립과 신유학 3-3-0
Formation of the Literati Society and Neo-Confucianism
과거제도의 확립과 함께 나타난 사대부계층의 존재양태와 성격을 검토함과 동시에, 사대부가 계층으로서 성립하는 데 결정적인 요소의 하나였던 신유학(=주자학)에 대한 이해를 꾀한다. 신유학에 대한 이해는 비단 송대의 역사적 성격에 대한 이해뿐만 아니라 여말선초의 한국사 이해에도 크게 기여할 것이다.

111.332 동양사세미나 3-3-0
Seminar in Asian History
기존의 강의로는 다루기 힘든 흥미 있는 주제를 선정하여, 심도 깊은 동양사 학습의 기초를 마련하고자 만든 과목이다. 따라서 수업은 주로 해당 주제와 관련된 논지를 발표하고 토론하며, 그 성과를 보고서로 구체화하는 방식이 될 것이다.

111.333 전통중국의 역사인식과 역사서술 3-3-0
The Idea of History and Historiography in Traditional China
문헌 자료를 포함하여 발달한 역사 자료를 남긴 전통 중국의 역사기록을 중심으로 그 당시 역사학자와 역사서술의 특성을 주된 강요내용으로 한다. 전통사대 중국의 역사 서술은 단순히 기록이라는 측면만 있는 것이 아니라, 사상적 이념을 포함하는 수단이었다. 역대 역사서술의 정치 사회적 배경과 사상의 연관성을 강조하며 전통사학의 현대적 의미를 탐색한다. 수강자의 역사관을 정립할 수 있는 기회를 제공하고자 한다.

111.334 동양사회경제사 3-3-0
Socio-economic History of Asia
동양사회의 경제적인 흐름에 대한 이해의 틀을 심화시키는 것을 강의 목적으로 삼고 있다. 따라서 중국 사회경제적인 변모를 토지, 화폐, 농업생산, 인구 등의 다양한 요소를 통해서 살펴보고, 아울러 각 시대의 경제 사상과 그 당시의 경제적인 상황의 연관관계 등을 살펴본다.

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111.344 동양사회경제사 3-3-0
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be its social structure and cultural continuity handed down from the Ming.85

<table>
<thead>
<tr>
<th>Subject</th>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>20세기 일본의 역사</td>
<td>3-3-0</td>
<td>Japan in the 20th Century</td>
</tr>
</tbody>
</table>

The Japanese history in 20th centuries provides us with a plentiful implication about such issues as imperialism, party politics, militarism, Asianism, colonialization and rapid economic growth. We will approach and analysis with a variety of views on the development of Japanese society from around the Russo-Japanese War to the present.
112.206 American History

American History

This course emphasizes the American Constitution and the process of enacting it. It will also deal with various subjects of American history such as the Civil War, reformism, and the American labor movement in order to provide students with wider knowledge of the United States.

112.211 Modern Western History 2: The Long 19th Century

Modern Western History 2: The Long 19th Century

This course covers the period from the second half of the 18th century - in which the Industrial Revolution and the French Revolution occurred - to the period just before World War I. By being offered an understanding of these periods, the students will also gain an essential understanding of how contemporary society is constituted.

112.212A English Readings in Historical Literature 1

English Readings in Historical Literature 1

In this course we will read and discuss historical literature in English. The main objective of the course is to provide sophomores and juniors majoring in western history with basic English reading skills. Through the course, students will enhance their ability to read primary sources and become acquainted with historical literature that may prove helpful in future research.

112.220A English Readings in Historical Literature 2

English Readings in Historical Literature 2

In this course we will read and discuss historical literature in English. The main objective of the course is to provide sophomores and juniors majoring in western history with basic English reading skills. Through the course, students will enhance their ability to read primary sources and become acquainted with historical literature that may prove helpful in future research.

knowledge on early western thoughts and the process of their formation, which have had an enormous impact on our culture and thoughts. In addition, by studying the transition from the collapse of feudalism in Europe to the establishment of absolute states centered on powerful kings, this course acquaints students with the characteristics of modern states and the development of early capitalism.
In this course we will read and discuss historical literature in English. The main objective of the course is to provide sophomores and juniors majoring in western history with basic English reading skills. Through the course, students will enhance their ability to read primary sources and become acquainted with historical literature that may prove helpful in future research.

112.301 European Historiography

This course first surveys the general development of history, and will also examine the new cultural history which has begun in recent times to be regenerated. It covers the period from Greek and Roman times to the present, providing students with knowledge of changes and procedures of historiography.

112.310 History of Germany

This course first surveys the general development of German history. Students will then perform more specific and concentrated explorations of several aspects of German history. Through the course, students will be introduced to the history of Germany, and will explore the structure of women's subjugation and the history of women's movement - this course therefore will also focus on the structure of women's subjugation and the history of women's movement.
This course covers the period from Cretan civilization (the beginning of ancient Greek civilization) to the fall of western Rome. Geographically the course mainly deals with the regions of contemporary Greece and Italy and the ancient civilizations of Europe including the western regions of Europe (Iberian Peninsula, the Gallican region and the Britain islands as well as the regions of Asian Minor, North Africa, and eastern Europe situated at the northeast of Greece).

It is hoped that the student’s improved understanding of ancient Greece and Rome from this course will enable them to gain a stronger grip on European history.

112.322A Medieval Europe

Medieval Europe

The Middle Ages are the ‘Childhood of the Modern Era’ To understand the various features and institutions of modern society one has to go back to the beginning of ancient Greek civilization (5th ∼ 6th century B.C.) to understand the various features and institutions of modern society. By using German historical works and primary sources the student’s improved understanding of the medieval ages will be gained. Medieval History is a very dynamic age and the historical developments are closely connected with the medieval ages and also the later ages. Medieval Europe was not a dark stagnant society but one of dynamic internal change towards the formation of nation-states, the Plague, etc. The Middle Ages is the epochal period from the outbreak of World War I to the close of World War II. Students will gain a deeper understanding of the political, economic, and cultural phenomena that caused events and that are still being acknowledged in the modern world. 

112.323 20세기 전반의 역사 3-3-0

Contemporary Western History 1

20세기 전반의 역사 넘겨서는 서양사전alers 강의에서 제시한 인물의 중요한 사건들이 이 시기 유럽사람 빼고도 주요한 대규모로, 유럽인들에게는 물론이고 그들의 저 phê를 받고 있던 많은 비 유럽인들에게도 20세기 전반의 역사를 그 혼적은 오늘날까지도 남아 있는 것을 수 없는 외상을 심어 주었다. 따라서 이 과목은 이전의 전통과 전통적인 주 영역으로 남아 있는 여러 가지 중요한 정책적, 경제적, 문화적 현상을 역 서적인 패러다임에서 깊이 이해하는데 도움을 줄 수 있다.

This course covers the epochal period from the outbreak of World War I to the close of World War II. Students will gain a deeper understanding of the political, economic, and cultural phenomena that caused events and that are still being acknowledged in the main spheres of politics and journalism.

112.324 20세기 후반의 역사 3-3-0

Contemporary Western History 2

20세기 후반의 역사 제2차 세계대전의 종료 그리고 동서 냉전체제로부터 시작된 오늘날의 역사를 다룬다. 오늘날 우리가 살 아나는 시대를 대상으로 하는 점에서 이 시기의 역사는 자전 제적-국제로기적 관계에 의해 혼동적으로 해석될 위협에 항상 노출되어 있었지만, 다른 한편으로는 그 이유에 따른 많은 변화와 혼란이 대두되어야 할 필요가 있는 역사이다. 전후 군사 반대기 동안 세계 정치는 평화의 시대를 개막한 둘가 유럽의 대표적인 전쟁방식으로 근대사의 주요 문제로 부각된다. 

Beginning with the end of World War II and the resultant Cold War, this course continues on to deal with the current world. Some of the issues that will be covered: the Cold War system that determined international politics after WWII; the dissolution of empires and the emergence of new independent states; the problems of the third world and problems between the north and the south; the formation of post-industrial societies and supernational capital; the deteriorating conditions of the environment and ecosystem; poverty; and the various religious and national struggles resulting from the dissolution of the Cold War system.

112.326 독문사적강독 2-3-0

Readings of Historical Literature in German

독문사적 강독은 독일어로 쓰여진 다양한 문헌들을 직접 읽고 토론하는 과목이다. 이 과목의 일차적인 목적은 서양사를 전반할 2-3학년 수준의 학생들이 기반적인 독일어 독해 실력을 갖추게 하는 데 있다. 독일의 역사연구는 근대 역사학의 기본적인 방법론을 확립하고 그것의 초기 흐름을 완 케히 바탕으로 이어졌는데 정도로 오랜 전통을 가지고 있다. 따라서 이 과목의 목표는 확정된 독학과 그것이 가능하는 효과를 듣임의 이론에서 쓰여진 역사관련 저작들과 사료들을 직접 접하게 함으로써 서양사를 이해할 수 있는 독해의 폭을 넓히고 서양사에 대한 갖춘 향상된 관심을 유발하는 것이다.

In this course we read and discuss German historical literature using the German language. Sophomores and juniors majoring in western history will improve their knowledge, reading ability, and broaden their understanding of western history by using German historical works and primary sources.
112.425 **Topics in Western Regional Studies**

This course challenges the historical perspective which considers Western Europe and America the sole representatives of the West. By doing so, it attempts to promote broader perspectives on world history. This class will provide new historical perspectives on the so-called peripheral regions (eastern and southern Europe, Africa, and South America) which have been neglected in past historical descriptions centered on Europe. Important issues relating to these regions are chosen each semester; students will have a chance to study a specific region with the help of primary and secondary sources.

112.431 **Seminar in Western History**

This course provides seniors with an opportunity to explore major topics in western history. It deals with the latest trends of study in each topic and encourages a deeper understanding of western history. This course will prepare students for the study of history at a graduate level.

112.432 **Maritime Expansion and Modern Times**

This course serves as an introduction to the history of cultural encounters around the world during the period of globalization. It focuses on the impact of sea power on international relations, particularly in the context of European imperialism. Students will examine how maritime expansion shaped the modern world, including the rise of global empires, the development of transatlantic trade, and the spread of Western civilization.
to 1800. The history of Modern World can be perceived as a series of maritime exchanges and conflicts between diverse civilizations which developed in relatively independent ways. After examining what was the main impetus of such encounters and how were those processes, large segments of the course cover various topics concerned as follows: increase of international commerce on a global scale, politico-military conflicts, environmental changes due to ‘Columbian exchange’, diasporas and slave commerce, religious conversions and intellectual influences.
113.226* 한국철학사 3-3-0

History of Korean Philosophy

한국의 역사적 문화와 뿌로부터의 철학을 현재 일어나는 방법론의 모색을 출발점으로 해서 우선 한국철학의 출발점의 문제 및 원시 사상의 근본가정을 살펴본 다음, 불교, 유교, 기독교 등 종교 사상을 근간으로 하는 경향세조가 한국적으로 소화, 합수되어 변한 및 창조적으로 재구성되는 과정을 역사적인 조갑압으로 개괄한다.

이 과정은 주로 고등학교 철학 교과서와 관련된 내용을 실제 분석하고 평가해 철학교육의 기본적인 개념과 기초적인 철학적 연구 방법론을 이해하는 데 도움이 될 것이다. 이 과정은 학문의 토대를 이루는 부류인 철학의 이론구성의 한 모형을 제시한다.

113.227* 기호논리학 3-3-0

Symbolic Logic

현재 기호논리학의 주요인련인 폼제논리, 양화논리, 관계논리 및 집합론 등을 다루며, 일상 언어의 인구공인에 기초논리학의 관계에 가장한 관계 논리학을 포함한다. 그리고 기호논리학계의 적합한 인공언어계체인 등의 여리를 따지는 제타논리학을 소개함으로써 학문의 토대를 이루는 이론구성의 한 모형을 제시한다.

In this course, students will be introduced to propositional logic, quantificational logic, relational logic, and set theory and examine the relationship between ordinary language and artificial language. In symbolic logic, they will discuss meta-logic, which deals with the question of whether systems of symbolic logic are appropriate as artificial languages.

113.300 철학 교육을 위한 논리학 3-3-0

Logic for Teaching Philosophy

고등학교 철학 교육의 주된 목표는 학생들의 논리적으로 비판적인 사고 능력을 증진하는 것이다. 본 과목에서는 이를 위해 고등학교 철학 교육에서 형식 논리학과 비형식 논리학을 효과적으로 활용하는 법을 배운다. 먼저 과목 전반부에서는 형식 논리학과 비형식 논리학의 기본적인 내용을 개괄한다. 과목 후반부에서는 기호논리학 철학 교과서에서 관련 문헌들의 내용을 실제로 분석하고 평가하는데 있어 논리학적 지식을 어떻게 활용할 수 있는지를 검토한다.

The chief aim of teaching philosophy in high school is to enhance students’ ability to think logically and critically. This course investigates various ways to achieve this aim through the use of formal and informal logic in teaching philosophy. The first part of the course is devoted to a survey of formal and informal logic. The second part focuses on the discussion of how to apply logical knowledge to the actual analysis and evaluation of the materials in high school philosophy textbooks and related literature.

113.318 철학교육론 3-3-0

Theories of Teaching Philosophy

고등학교에서의 철학과의 목표는 각 과목교육의 과목과 교육적 사고, 비판적 사고, 반성적 사고 등을 합동으로 함으로써 형성한 성적 도덕감을 갖춘 민주사회의 한 창조적 역량에 되돌아 하는 데에 있다. 이 목표를 위해서 철학교육의 내용은 이해하기 어려웠으며 그 내용을 어떻게 가르치는 것이 효과적인지를 집중적으로 검토, 논의한다.

The purpose of philosophy classes in high school is to cultivate students’ autonomous, critical, and reflective thinking. This class researches and discusses how a high school philosophy education can encourage students to become creative members of a democratic society, with sound common sense and morality.
epistemology are these: What is the nature of knowledge? What conditions should be met for knowledge to obtain? What distinguishes knowing from merely believing? The course examines representative theories that answer those questions.

113.357 Korean Buddhist Philosophy

Korean Buddhist Philosophy

이 과목은 불교 전반에 대한 기본적인 소양을 갖춘 수강생대상으로 한국불교의 역사와 철학을 다룬다. 구체적으로 원효(元曉), 지승(知勝), 의천(義天), 유휘(普愚) 등 대표적 고승들의 사상을 학습하고, 한국 불교의 내재인 삼불교의 철학적 성찰을 시도한다.

This is an above-intermediate course that requires general knowledge of Buddhism. The course deals with history and philosophy of Korean Buddhism. Wonhyo, Jinul, Euicheon, and other major philosophers within the philosophy of Korean Buddhism. The course will deal with the formation and content of rationalism problems of modern times and assess their significance. The course examines representative theories that answer those questions.

113.360 Medieval Western Philosophy

Modern Western Philosophy

In this course, students will study the development and content of rationalism, analytic philosophy, and their impacts on modern Western culture. The course will also cover the formation and content of modern Western culture. Students will understand the philosophical problems of modern times and assess their significance. The course covers the development and context of continental philosophy (Descartes, Spinoza, Leibniz), empiricism (Locke, Berkeley, Hume), critical philosophy (Kant), and German idealism (Fichte, Schelling, Hegel).

113.362 Continental Philosophy

Contemporary French Philosophy

This course will focus on existentialism by examining the work of the philosophers representative of this tradition, such as Kierkegaard, Nietzsche, Jaspers, Heidegger, Sartre, and Camus.

113.363 Phenomenology

Phenomenology

This course is an introduction to the historical development of French Philosophy in the 20th century, which follows five steps: philosophy of science (Bergson, Bachelard, Simondon), Existentialism (Sartre, Merleau-Ponty, Levinas), Structuralism (Lacan, Althusser, Foucault), Post-Structuralism (Derrida, Deleuze, Badiou), and Postmodernism (Lyotard, Baudrillard). Main focus will be placed on the philosophers and after Structuralism such as Foucault, Derrida, and Deleuze, but this emphasis can change according to the circumstances.
issues of phenomenology. It will first deal with the basic issues of phenomenology as presented by E. Husserl, such as the crisis of modern society, the criticism of positivism, the idea of phenomenology as a rigorous science, regional ontology, formal ontology, phenomenological psychology, transcendental phenomenology, intentionality, the noesis-noema correlation, transcendental subjectivity, intersubjectivity, the life-world, the phenomenological reduction, transcendental idealism, qualitative research, etc. Thereafter it will deal with the basic issues of the various kinds of phenomenology subsequently developed by M. Scheler, M. Heidegger, R. Ingarden, J.-P. Sartre, H.-G. Gadamer, M. Merleau-Ponty, E. Levinas, P. Ricoeur, M. Dufrenne, A. Schutz, A. Gurwitsch, etc.

113.369 불교철학특강 3-3-0

Topics in Buddhist Philosophy

In this course, students will inquire into the philosophical issues of the Hundred Schools of Thought. They will, thereby, not only gain a deeper understanding main philosophical currents in contemporary western philosophy, but also be trained in reading philosophical texts. They will, thereby, not only gain a deeper understanding of Neo-Confucianism, as well as its characteristics. The students will read and discuss major texts written by Chinese and Korean Neo-Confucianists.

113.365 송명대신유학 3-3-0

Neo-Confucianism in Song and Ming Dynasties

This course investigates the ways Chinese thinkers - from the bibliographical school of Qing dynasty up to modern new Confucianism - justified the key principles of Chinese philosophy against the onslaught of Western thoughts. The strengths of modern Chinese philosophy will be duly appreciated by focusing on the cultural conservatives who defended the traditional philosophical thoughts after the May Fourth movement.

113.455A 송명대신유학 3-3-0

Neo-Confucianism in Song and Ming Dynasties

This course offers an extensive introduction to philosophical topics in Indian and East Asian Buddhism, examining the various manifestations of Buddhism in India and East Asia as a whole. In approaching the philosophical traditions of thought in Buddhism we will take diachronic and synchronic points of view. Various topics will be introduced depending on the semester, such as Buddhist epistemology and Buddhist ethics.

113.461A 서양고중세철학특강 3-3-0

Topics in Ancient and Medieval Western Philosophy

In this course, students will read classical texts representing the philosophical works through not only analytical but also philological and historical methods. Students will examine the philosophical questions, concepts, and arguments that were formed and implemented in the ancient and medieval period of Western philosophy. It will deal primarily with the works of Plato, Aristotle, Augustine, and Thomas Aquinas. The course will help students understand ancient and medieval Western philosophical works through not only analytical but also philological and historical methods.

113.462A 서양현대철학특강 3-3-0

Topics in Contemporary Western Philosophy

This course will examine the ways Chinese thinkers - from the bibliographical school of Qing dynasty up to modern new Confucianism - justified the key principles of Chinese philosophy against the onslaught of Western thoughts. The strengths of modern Chinese philosophy will be duly appreciated by focusing on the cultural conservatives who defended the traditional philosophical thoughts after the May Fourth movement.
113.463 과학철학 3-3-0

Philosophy of Science

This course is concerned with major theoretical and practical themes or specific problems arising in various realms of ethical inquiry such as normative ethics, applied ethics, metaethics and the history of ethics. Accordingly this course will provide the students an opportunity to investigate the actual practical problems under the ethical perspective or discuss sophisticated academic themes in ethics in an in-depth manner.

113.464 심리철학 3-3-0

Philosophy of Mind

"What is the nature of mind?" is one of the most important questions asked since the ancient times. This course deals with the ontological question concerning the relation between mind and body, the semantic question of the meanings of mental terms, and the epistemological question of how to know one's own mind as well as others'.

113.465 사회철학특강 3-3-0

Topics in Social Philosophy

This course intends to investigate the self-conception of human beings, the interrelations among human beings, and the process of social change. It tries to locate a proper methodology for that investigation and illuminates philosophical issues of social phenomena.

113.466 철학적철학 3-3-0

Metaphysics

This course concerns itself with various metaphysical topics such as the fundamental world-constitutive principle, the existence and properties of God, metaphysical theories of the self, and the interrelation between the world, one's self and God. Students are expected to gain a deeper understanding of metaphysics through this course. The class will consist of lectures on the major topics as well as readings on the related classical texts.

113.467A 윤리학특강 3-3-0

Topics in Ethics

This course intends to deal with major theoretical and practical themes or specific problems arising in various realms of ethical inquiry such as normative ethics, applied ethics, metaethics and the history of ethics. Accordingly this course will provide the students an opportunity to investigate the actual practical problems under the ethical perspective or discuss sophisticated academic themes in ethics in an in-depth manner.

113.470 서양근대철학특강 3-3-0

Studies in Western Modern Philosophy

This course is concerned with various philosophical themes that emerge within the philosophical tradition that arose on the Continent with Descartes, Spinoza, and Leibniz, and the British tradition of Bacon, Hobbes, Locke, Berkeley, and Hume, together with Kant's critical philosophy, and the subsequent development of German Idealism as exemplified by Fichte, Schelling, and Hegel. In particular, we will focus on how the views of these philosophers of this turbulent time period are distinctive and relate to each other with regard to such issues as truth, value, beauty, religion, and peace.

M1252.000100 문화철학 3-3-0

Philosophy of Culture

This course is concerned with various philosophical topics that emerged within the philosophical tradition that arose on the Continent with Descartes, Spinoza, and Leibniz, and the British tradition of Bacon, Hobbes, Locke, Berkeley, and Hume, together with Kant's critical philosophy, and the subsequent development of German Idealism as exemplified by Fichte, Schelling, and Hegel. In particular, we will focus on how the views of these philosophers of this turbulent time period are distinctive and relate to each other with regard to such issues as truth, value, beauty, religion, and peace.

- 160 -
This course aims to present key questions and theories of cultural philosophy and examine the philosophical implication of cultural phenomena and the logical structure of cultural change. It introduces students to principal positions found in modern tradition, from Vico to Hegel, and a range of contemporary ideas, such as the modern French philosophy after structuralism, cultural criticism of the Frankfurt School and psychoanalytic cultural theory. Students will discuss some critical contemporary issues like globalization, the advent of information society, proliferation of moving images, feminism, and ecological problems. The course, ultimately, tries to find a philosophical position that can embrace the Eastern and the Western cultures.

**M1252.000300 역사철학 3-3-0  
Philosophy of History**

While history had long been an object of philosophical interests, since the beginning of modern times, it has been the object of philosophy in a genuine sense and philosophy itself became historicised. Based on this understanding this course aims to illuminate the fundamental historicity of human beings and the world as well through systematizing the philosophical approaches to history and investigating the methodology of different historical understandings. Eastern cultures.
114.203 종교개론 3-3-0
Religions in China

중국역사를 관통하고 있는 천에 대한 신앙은 중국인의 종교현상 안에서 중심적인 위치를 차지한다. 제천의례는 학교사의 주제가 되어 천과 신에 대해 점점 있게 되어 대표적인 국가의례의 하나로서 천과 신이 직접 한반 속에서 만나고 교통하는 상징적인 종교행위이다. 본 과목은 제천의례의 역사적 변천과정을 갖춘적으로 다루고, 제천의례의 체계와 특성을 이해함으로서 유교의 전체적 규모와 성격의 인식을 도모한다. 또한 이와 더불어 한국 전통사회에서 전통과 제천의례와 신의 관계를 파악함으로서 제천의례의 신의 성격과 단일성에 대한 새로운 안목을 지닐 수 있다.

In this course, students study the relationship between human and heaven in Chinese religion by examining the changes of religious rites through history.

114.204 인도종교 3-3-0
Religions in India

본 강의는 인류문화의 한 유산인 인도의 종교상을 역사적으로 살펴보는 과정이다. 구체적으로 인도종교의 기원, 베다시대의 종교, 우니나사의 종교, 불교 및 기타종교의 출현, 자이나교, 힌두교의 출현, 바가바드기타의 등장, 육파철학, 현대의 종교, 아랍사회의 신과 인간관의 영향과 시크교, 새로운 종교사상의 출현, 현대 인도의 종교적 상황 등을 본 강의의 주제로 삼는다. 이를 통해 학생들은 세계관에 대한 새로운 인사이트를 얻을 수 있으며, 나이가 불공의 근원에 대한 심도 깊은 이해도 성취할 수 있을 것이다.

In this course, students will learn about the historical changes of religious rites through history.

114.216 도교개론 3-3-0
Introduction to Taoism

도교의 방생과 사적적 변천양상을 이해하며, 도교사상의 기본적 의미에 따른 문제의 성격을 파악함으로서 도교사상의 기본적 의미를 파악할 수 있다. 또한 도교사상의 발전과정을 이해하는 데는 그 사적적 및 사상적 배경을 해석할 수 있다. 특히 인간관념의 변화와 도교의 인연성 내지 도교사상의 도교적 성격과 관련검은, 당시의 도교의 성격과 도교적 성격을 이해함으로서 도교사상의 기본적 의미를 파악할 수 있다.

In this course, students will take a general approach to the understanding of the birth, historical changes and the issues of Taoism.

114.301 종교현상학 3-3-0
Phenomenology of Religion

종교현상학은 종교문화를 인식하고 해석하기 위한 하나의 방법론적 전통을 일컫는다. 본 강좌는 그러한 전통의 출현과 전개를 소개하고 기존의 개념들을 익히고 그 전통의 가능성과 한계를 파악함으로서 도교사상을 이해하는 데 도움이 된다. 최근 Max Müller, G. van der Leeuw, M. Eliade 등의 기존적인 도교와 이론을 다루면서, 현대의 종교현상학 수학에 대한 소개와 검토를 할 것이다. 또한 종교현상학의 개별 종교현상에 대한 사적적 접근과는 달리 신학, 체계, 상징 등에 대한 해석학적인 접근이 중요한 주제들이다. 그들로 함으로써 다양한 방법이 광범위한 방법과 문제들에 기여할 것이다.

Students in this course explore the origins and development of religion and its significance in the development of phenomenology. Basic concepts of phenomenology and an overview of the limitations in its approach to religion will be examined.
Anthropology of Religion

종교에 대한 인류학적 연구의 원조를 개관하고 대표적인 연구 성과를 선택하여 정리한다. 이론을 통해 종교에 대한 인류학적 연구의 성과를 비판적으로 검토하고 종교연구에 대한 나름의 관점을 가질 수 있도록 한다.

A survey of the history and main issues in the anthropology of religion are conducted in this course.

Sociology of Religion

공동체로서의 종교의 의미를 고전적 이론들과 현대적 재해석들 중심으로 체계적으로 연구한다. 종교사회학적 기본 관점과 의미 및 연구방법, 종교학적, 종교학적, 종교학적, 종교학적, 종교학적 등에 초점을 두어 사회적 맥락의 종교문화들을 시도한다.

This course addresses the meaning of religion in society, as well as basic themes and methodologies to understand religion in a sociological context.

Korean Folk-R eligion

민간에 전승되어 오는 한국 민속종교의 다양한 양상 및 특성을 기존의 연구 성과를 통해 살펴보고, 현장조사 및 시청각 자료를 통해 살아있는 모습을 관찰함으로써 한국 민속 종교의 종교적 성격 및 한국문화 속에서의 위치를 올바르게 이해하고자 한다.

The purpose of this class is to understand the religious characteristics and diverse forms of Korean folk religions which have been practiced as a way of life in Korea.

Psychology of Religion

본 강의는 종교심리학의 일반적인 개괄을 이론적인 측면에서 살펴본다. 특히 종교심리학의 주요 연구 주제로 연구한 사상가들의 이론들을 주제별로 접근한다. 그리고 종교심리학 이론들이 종교심리학 이론을 발견하기 위한 데에 이론 도움을 주는지에 대해서도 고찰한다. 구체적인 학습내용은 다음과 같다.

This course offers a comparison of various religions. The students will examine the structures and rituals found in the different religious traditions, and come to understand their similarities and differences.
114.322 한국종교 3-3-0
Religions in Korea

한국종교사의 전체 흐름을 통일된 안으로 파악하고, 그 개별 전통의 문제들과 각 세대의 특수 종교현상을 한국종교사의 전체적 흐름의 맥락에 근거하여 보다 광범위한 이해를 위한 훈련을 하는데 이 강의의 목적이 있다. 이 과정에서 학습내용은 다음과 같다. 한국종교사의 개찰, 샹도의 종교성상, 삼국시대의 종교, 고려시대의 종교, 조선시대의 종교, 기독교의 진구와 확장, 민족과 종교문화의 파고, 현대 한국의 종교상황.

이 과목은 고대에서 현대에 이르는 종교의론의 다양한 흐름들 탐구한다. 그 과정에서 인간의 신앙(예를 들면 천황숭배)의 발전을 알아보고, 이렇게 인간의 믿음이 구체적인 역사적 맥락 속에서 파여 나갔으며 수세기 동안 제한된 수 없이 살펴본다. 종교의 본질은 인간성과 조직에 대응하는 종교의학이다. 특히 기독교의 신학적 맥락에서 구체적인 주제로 한국종교사의 전체 흐름을 탐구한다.

114.323 한국불교 3-3-0
Buddhism in Korea

불교가 한반도에 전래된 후 삼국, 고려, 조선을 거쳐 어떻게 번영되고 수용되었는가를 살핀다.

그 과정에 한국불교의 대표적인 인물(천황, 지눌, 동명등)의 역할도 검토하지만, 주로 민간불교, 사회적 위치, 제도 등 양상을 통하여 한국불교의 특성을 모색한다.

This course will trace the historical development of Buddhism on the Korean peninsula, and explore how it changed over time. To achieve this, rather than looking at religious history; religions of ancient times, the Three Kingdom period, the Goryeo and Joseon Dynasties; introduction and development of Christianity; destruction of religious culture during the colonial period; and religious situations in contemporary Korean society.

114.324 종교교육론 3-3-0
Religious Education

이 과목은 인간의 믿음을 통해 표현되는 종교신념을 다룬다. 인간의 종교적 삶과 문화를 이해하는 데 있어서, 관념적인 측면이나 사회조직적 측면 등에 있어서 종교 지식의 중요성을 인정한다. 이러한 신념을 반영하는 모델은의식이상, 의미있는 형식, 문화의 구조와 방식을 이해하게 되고, 종교와 사회의 가치가 이상을 확인하게 된다. 종교신념은 복합적인 신념체계로서, 종교신념의 집중이 요강한다. 따라서 본 과목은 종교신념을 성찰할 수 있는 이론과 연구방법론을 중심적으로 이해하며, 나아가 개별 종교신념의 성장을, 구조, 기능, 의미 등을 통찰하고자 한다. 아울러 종교신념의 변동과 존립, 그리고 새로운 창출에 주목함으로써 종교문화의 역동성을 이해한다.

This course deals with the religious dimension or, in other words, practical aspect of religion. “Ritual” includes all the various expressions of religious experiences via human body. It is an important topic of religious studies together with theoretical or sociological/institutional aspects of religion. Ritual reflects reality as the status quo and also implies human ideals. Ritual studies aim at finding out how socio-cultural structures and ethos are reflected in rituals and what the implied ideals are like. Religious rituals are complex systems of practices and thus need to be approached systematically. In this course, students will learn various methods and theories of ritual studies. They will also practice analyzing symbols, structures, functions and meanings of various religious rituals. This course will also deal with transformations, interactions and creation of rituals so as to understand the dynamics of ritual culture.

114.325 종교교육론 3-3-0
Religions in Japan

이 과목은 고대에서 현대에 이르는 일본종교의 다양한 흐름들을 탐구한다. 그 과정에서 일본인의 신앙(예를 들어 천황숭배)의 발전을 알아보고, 이렇게 인간의 믿음이 구체적인 역사적 맥락 속에서 파여 나갔으며 수세기 동안 제한된 수 없이 살펴본다. 종교의 본질은 인간성과 조직에 대응하는 종교의학이다. 특히 기독교의 신학적 맥락에서 구체적인 주제로 한국종교사의 전체 흐름을 탐구한다.

114.326 종교교육론 3-3-0
Theories of Religious Education

중·고등학교에서의 종교교육의 목표는 다양한 전통 종교 및 종교 현상에 대해 종교의 지식을 전달하고 종교정신을 함양하기 위한 것이다. 이를 통해 대중 종교사에서 종교의 소통이 가능한 교육을 얻을 수 있다. 종교교육은 인간의 신앙을 통해 표현되는 종교신념의 성장, 구조, 기능, 의미 등을 통찰하고자 한다. 아울러 종교신념의 변동과 존립, 그리고 새로운 창출에 주목함으로써 종교문화의 역동성을 이해한다.

This course explores proper contents and efficient ways of teaching for such educational programs.

114.327 종교교육의학론 3-3-0
Materials and Methods in Religious Education

중고등학교 종교교육의 현장에서 다룰 수 있는 종교교육 교재와 수단이론과의 교제를 통해, 문제와 이의 활용방안 및 지도방안을 중심적으로 다룬다. 세부적으로는 교재의 선정방법, 종교교육 활용방법, 교수법, 학생 평가방법을 중심적으로 다루며, 상황에 따라 각 방법의 적용례를 비교분석함으로써 다양한 상황에서 효율적 종교 교육 연구 및 지도에 대해 다룬다.

This course focuses on figuring out efficient ways of
teaching and utilizing teaching materials for religious education in middle and high schools by classifying and analyzing contents of current educational. Methods of selecting teaching materials, utilizing referential materials, conveying information, and of student evaluation will be dealt with in detail. Examples of application of these various methods will also be comparatively analyzed in order to secure their efficiency in diverse situations.

114.328A Logic and Essay Writing in Religious Education

The human quest for meaning of their existence and the world around them, and human desire to understand such fundamental issue as death, suffering, the good and evil, and freedom—these are all central parts of what characterizes religion. The purpose of this course is to survey various texts that express religious ideas or world views answering those human quests and desires. Students will read narratives such as canons, epics, novels, etc. that contain religious ideas and world views, as useful resources for the study of religion.

114.408A† Guidance on Senior Thesis Writing

Contemporary Religions

This course explores the central themes in contemporary religions such as secularization, religious liberty movement, pluralism and new religions.

114.412 Ancient Religions

Monotheistic religions like Judaism, Christianity, Islam had been shaped under the influence of old religions originated in the Middle East, Greece and Rome. On the whole, this course examines religions of Ancient Mesopotamia Sumerian and Babylonian religions, ancient Egyptian religion, Canaanite Baalism, ancient Persian Mazdaism and Zoroastrianism, and ancient Greece and Rome pagan religions by careful reading of their myths and canons. It also researches how the old religions of Ancient Greece and Rome have been shaped under the influence of old religions originated in the Middle East, Greece and Rome.
본 강좌는 아시아, 아프리카, 오세아니아, 아메리카, 남태평양지역에서 확인되는 종교문화의 원초적 형태뿐만 아니라 토착의 종교문화와 외래 현대문화의 만남을 통해 새롭게 분출된 다양한 종교문화운동의 실상과 특성을 이해하고자 한다. 따라서 본 강좌에서는 애니미즘, 마나이즘, 주술, 사마니즘, 위치크라프트, 조상숭배, 토테미즘, 희생의례 등의 원시종교론의 주제뿐만 아니라 현대적으로 변용된 천년왕국운동, 고스트 댄스, 카고 컬트, 네오사마니즘 등의 종교문화를 동시에 이해할 것이다.

This course intends not only to check primitive forms of religious culture in Asia, Africa, Oceania, America, and the South Pacific, but also to understand realities and properties of various religious and cultural movements that occurred when the native religious culture met the imported modern ones. So this course deals with theories of primitive religion like animism, manaism, magic, shamanism, witchcraft, ancestor worship, totemism, sacrifice rite, etc. At the same time, it examines transformed religious cultures in the modern age like Millenarian Movements, Ghost Dance, Cargo Cult, Neo-shamanism, etc.
115.206  Aesthetics of Music  3-3-0

Aesthetics of Music

본 과목은 여러 예술현상 가운데에서도 특별 음악이라는 예술 현상에서 제기되는 미학적인 문제들을 심도 있게 다루며 음악에 대한 이해를 심화시킨다. 재미 음악이론을 비롯, 비교, 검토함으로써 음악이론에 대한 폭넓은 시각을 제시하고자 한다.

This course will increase the understanding of music through intensive study of musical aesthetics, broadening the student's knowledge of music theory through a comparative approach.

115.215A  Aesthetics of Plastic Arts  3-3-0

Aesthetics of Plastic Arts

이 과목은 이른바 '조형예술'이라고 통칭되는 예술현상이 하나의 예술장르로 형성되게 된 역사적인 인문적 배경을 살펴보고 이를 조형예술이 지난 미학적인 문제를 고찰함으로써 조형예술이론에 대한 전반적인 이해를 갖출 수 있도록 한다.

This course examines the theoretical background of the historical formation of plastic arts as a field of art and investigates its aesthetic problems.

115.301  Aesthetics of Dance  3-3-0

Aesthetics of Dance

무용은 예술의 일부분에 의해서 미적 형상과 정의하는 예술로서 다른 장르의 예술들과 구별되는 무용의 독특한 본질과 예술적 특성은 존재한다. 따라서 본 과목은 이러한 특성을 중심으로 무용의 음악적, 춤적, 조형적, 인문적 성질을 발생적, 역사적, 사회적 관점에서 살펴보고, 의상, 물리적 구조와 미적 기능, 효과 및 철학적 의의 등 여러 문제에 관해서 고찰하고자 한다.

Considering the unique intrinsic nature and artistic quality of dance, this lecture examines the musical, literary, plastic, and dramatic elements from a generic historical, social point of view. In addition, it will conduct an inquiry into the psychological and physical structure as well as the philosophical significance of dance.

115.303  Psychology of Art  3-3-0

Psychology of Art

본 과목은 예술현상을 이해하는 방법으로 심리학적 접근 방식이 도입된 Fechner 이후, 예술심리학이 등장하게 되어 역사적 철학적 배경을 설명하고, 아울러 정신분석학, 형태심리학 그리고 최근의 심리학적 이론과 예술심리학적 성과를 고찰함으로써, 예술의 문제에 대한 심리학적 접근방식이 지난 의학적 관점과 급격하고자 한다.

In this lecture, students will examine the historical and philosophical background of the emergence of psychology in the art form of "Fechner". They will also investigate the significance and limitation of the psychological approach to art offered by Psychoanalysis, Gestalt Psychology, and current achievements in Art-Psychology.

115.309  Sociology of Art  3-3-0

Sociology of Art

본 과목은 예술현상을 이해하는 방법으로 사회학적 접근방식이 도입된 이래, 예술사회학이 등장하게 된 역사적, 철학적 배경을 설명할 것이다. 아울러 본 과목은 예술현상이 문화학의 한 영역으로서 인간의 사회적 삶 속에서 차지하는 위치가 역할이 무엇이며, 랜단 아니라 예술이 사회에 미치는 영향이나 사회가 예술현상에 미치는 영향이 무엇인지 살펴봄으로써 예술현상을 사회학 및 사회철학적 관점에서 이해할 수 있는 기회를 제공하고자 한다.

This course helps students examine the historical and philosophical background related to the emergence of Sociology of Art. It will also assist the students to further understand the art-phenomenon from both Sociological and Social-Philosophical viewpoints.
Beauty and the Theory of Taste

In this course, students will gain a deeper understanding of Anglo-American aesthetics by studying its principal points. We will trace back the history of issues developed since the modern Anglo-American aesthetics to understand its general development as well as its relation to Anglo-American philosophy.

Contemporary German Aesthetics

In this course, students will gain a deeper understanding of German aesthetics by studying the principal points of contemporary German aesthetics. A special consideration will be given to the traces of issues that have developed since modern German aesthetics. Thus, the student will gain a general understanding on the development of German aesthetics and be able to discuss it in relation to German Philosophy.

Aesthetics of Film

In this course, students will further investigate into the principal aesthetic problem within film. They will also study the appearance and development of the film within the contemporary art.

Aesthetics of Theatre

In this course, the concepts of theatre aesthetics as well as its aesthetic thoughts and its relation to human nature will be surveyed. This will enable the students to gain a deeper understanding of the important, founding problems and methods in the aesthetics of theatre.
This course investigates the fundamental concepts in the thoughts of Chinese art and its influences on the thoughts found in Korean art. They will also examine various art theories as well as their developments in Buddhism, Confucianism, and Taoism.

This course offers a survey on the history of the art genre and various critical arguments beginning from the Ancients. Students will examine various definitions of aesthetics, the essence of art criticism, and its developments.

This course offers a survey on critical viewpoints of musicians and their works. In addition, it provides to the students a deeper inquiry into the foundations of various critical theories in music.

This course focuses on specific problems and/or important figures in modern and contemporary French Aesthetics. Potential topics include the development of one or more specifically ‘French’ Aesthetics, the hierarchy of the arts and its philosophical underpinnings, art and its publics, theories of genius of creativity, and the relation of art to politics. Major figures can include Diderot, Baudelaire, Artaud, Sartre, Beauvoir, Fanon, Merleau-Ponty, Cixous, Kristeva, Derrida, Lyotard, and Ranciere.

This course is designed to help graduates to decide the topic of their graduation papers and to develop creative thoughts on the topics. Every faculty member of department will participate in tutoring the students.
이 과목은 한국에서 국가가 형성되는 시점으로부터 시작하여 삼국시대 전반에 걸친 고고학에 대해 살핀다. 고고학 자료를 이용하여 이 시기 문화자료의 한계를 극복할 수 있는 방법을 찾기 위해, 삼국통일의 고고학적 맥락이 주로 다루어진다, 이 시기 중국과의 교류도 논의된다.

이 과목은 청동기시대가 본격화되는 시점으로부터 초기철기시대와 원삼국시대까지의 한국 고구려, 백제, 신라의 형성 및 국가체제의 성립 과정을 개관함을 목적으로 한다. 또한, 이 시기 중국의 경제, 사회구조 등을 고찰할 수 있는 안정동위원소 분석 등 각종 과학적 방법론을 접하게 될 것이다.

교수는 수강생으로 하여금 유적 지표조사 및 발굴조사 참여 방법을 배우게 하며, 이를 바탕으로 고구려, 백제, 신라의 형성 및 국가체제의 성립, 사회구조, 경제를 고찰할 수 있는 학습을 제공한다.

This course explores archaeologies of Unified Silla, Goguryeo, and Joseon Periods. Recent increase in archaeological data of Unified Silla, Goguryeo and Joseon Periods is explosive, providing valuable information hardly detected in historical records. Students are expected to understand how to examine material culture and everyday life using archaeological data of historical periods.

116.204 고고학사 3-3-0

History of Archaeology

이 과목은 고고학 자료를 토대로 통일신라, 고구려시대 조선시대 사회의 성장과정을 고찰함으로써 수강생들은 비판적 관점과 사고를 개발하게 될 것이다.

이 과목에서는 주요한 고고학 자료 가운데 하나인 인골을 연구하는 다양한 접근법에 대해 접하게 될 것이다. 수장생은 강의와 실험을 통해 인골의 특성을 가고 과거 인물과 사회를 연구하는 방법론, 디자인 연구를 통해 과거 사회의 생태계, 매장문화, 사회구조 등을 고찰할 수 있는 안정동위원소 분석, 고 DNA 분석 등 각종 과학적 방법론을 접하게 될 것이다.

This course aims at examining various approaches of interpreting human remains as a major source of archaeological information. Lectures and laboratory works will cover physical anthropological methodology as well as modern methods and techniques, such as stable isotope and ancient DNA analysis which are important tools to understand subsistence economy, mortuary practice, and/or social structure of the past.

116.221 고고학 조사방법론 3-1-4

Archaeological Fieldwork 1
이 과목은 신라와 가야 사회의 문화적 양상을 고고학 자료를 통해 살펴보고 그 의미를 검토함으로 한다. 수업에서는 특히, 토기, 철기, 장신구, 무기 등을 고고학 자료로 반영된 신라 양식과 가야 양식의 문화적 변화에 대해 당시의 사회, 경제 및 정치적 상황을 살펴보고, 이러한 문화적 변화가 신라시대와 동일 신라기에 걸쳐서, 신라와 가야의 문화적 상호작용을 통해 변모하였음을 보여준다.

This course attempts to examine major characteristics of the culture and society and during the Bronze and the Early Iron Periods. The period under consideration is marked by increased social complexity with the spread of rice cultivation and metallurgy which was sustained by the expansion of Silla culture sphere from the 1st to the 9th century CE.

Students are expected to understand the general nature of culture change during the period. There will also be made theoretical discussions on diffusion and adoption as cultural process.
이 과목은 고고학 전공생들이 실제 고고학 자료를 분석하여 논문을 작성하는 과정에 대해 기본적인 훈련을 받게 한다. 수강생들은 각각 연구 주제를 정하고, 자료를 조사하고 분석하여 보고서를 작성하여 필요에 반영한 후, 그 결과를 논문 형식으로 제출함으로써 논문 작성을 위한 학문적인 훈련을 받게 될 것이다.

The course is prepared for students to develop a skill for writing academic paper. Students are expected to choose a specific topic for his/her own thesis, make presentations in the class, and submit the final write-up.

116.422A 동아시아의 선사시대  3-3-0
Prehistory of East Asia

이 과목은 선사시대부터 한반도와 밀접한 관계를 맺고 있는 시베리아, 몽골, 중국, 연해주, 일본 열도 등 한반도 주변 동아시아 지역의 고고학적 지식을 습득하는 것을 목적으로 한다. 동아시아 지역에서 선사시대 이래 다양한 문화가 전개된 과정과 그 특성 및 상호연관성을 논의하며, 한반도와의 관련성을 살펴보게 될 것이다.

As an introduction to archaeology of areas neighboring Korea, the class will discuss research conclusions from Siberia, Mongolia, China, Russian Maritime Region and Japan. Overall process of culture change and its characteristics in each of the areas will be reviewed with special reference to Korean evidence.

116.430A 고고학방법론  3-3-0
Archaeological Methodology

이 과목은 수강생에게 고고학 연구의 주요 방법론에 대해 그 중심 내용과 학자적 의미를 이해시킴으로써 이를 활용할 수 있는 능력을 배양함을 목적으로 한다. 형식분류, 양식분류, 판관, 공간분석을 비롯한 기초학적 연구방법론을 비롯해 과거 문헌을 위한 현대고고학 연구의 각종 용용 방법론의 다양한 내용이 다루어질 것이며, 이를 실제 자료에 적용하는 연습도 하게 될 것이다.

This course discusses a broad range of topics in archaeological methodology ranging from basic methods such as chronology, typology and stylistic analysis to advanced, applied methods of contemporary archaeology. Emphasis will be on not only introduction to principles of various methods but also critical reviews of their archaeological and historical implications. The students will also practice applications of selected methods to archaeological data.
Topics in world archaeology

This course examines the most recent archaeological achievements drawn from various regions around the world. The main topics addressed in this course range from the Palaeolithic to the period of state formation, covering Africa, Europe, the USA and Central and South America. Specific periods and regions covered in the course are carefully considered and properly chosen. This course provides more specific and deepened intrinsic knowledge sets on pre- and ancient civilizations and also an opportunity for students to extend their areas of interest.
Chinese Art

This course is an introduction to the arts of China from the prehistoric period to the present day. It addresses major periods and themes of Chinese art: the Indus civilization and the origin of Indian art, the worship of stupas, the creation of Buddha images, the flourishing of Buddhist imagery, the rise of Hindu temple architecture, the miniature painting and architecture of Islamic period, and the reception of the European style. It will explore various cultural aspects of visual arts as well as their stylistic changes and iconographic meanings.

Japanese Art

This course surveys the history of Japanese Art from the prehistoric period to the present day. It addresses major works of painting, sculpture, architecture, ceramics, and prints with an emphasis on art historical and socio-political contexts of each period. The primary focus will be on the relationship between artistic production and cultural development in pre-modern Japan.

Indian Art

This course will examine the development of visual arts in the Indian subcontinent. It will treat diverse subjects such as the Indus civilization and the origin of Indian art, the worship of stupas, the creation of Buddha images, the flourishing of Buddhist imagery, the rise of Hindu temple architecture, the miniature painting and architecture of Islamic period, and the reception of the European style. It will explore various cultural aspects of visual arts as well as their stylistic changes and iconographic meanings.

Western Art : Ancient and Medieval

This course will examine the development of visual arts in the Indian subcontinent. It will treat diverse subjects such as the Indus civilization and the origin of Indian art, the worship of stupas, the creation of Buddha images, the flourishing of Buddhist imagery, the rise of Hindu temple architecture, the miniature painting and architecture of Islamic period, and the reception of the European style. It will explore various cultural aspects of visual arts as well as their stylistic changes and iconographic meanings.

Western Art : Renaissance and Baroque

This course surveys the history of Western Art from the Renaissance to the late Baroque period. It addresses major themes in European art: the culture of the Renaissance and that of the Baroque. The focus of this course will be on the major works of painting, sculpture, and architecture.
broad historical context of East Asian ceramics.

116.324 미술사실습 3-3-0
Training in Art Handling and Management

미술 전문 인력으로 현장에서 일하는 데에는 많은 설계적 지식이 필요하다. 이 수업은 박물관이나 화랑 등 현장에서 미술 작품을 다루는 데 필요한 설계적인 지식을 습득할 수 있도록 학생들을 돕는 데 특적이 있다. 작품 다루기, 설치, 기록, 정리, 촬영 등에 대한 기본적인 훈련이 이루어진다. 교육은 대학박물관이나 그 밖의 기관과 연계하여 일일미 인턴쉽 프로그램으로 진행된다.

This course is designed for students to enhance their practical knowledge and work experience in handling of works of art. The primary goal of this course is to instruct students how to understand the physical dimensions of a work of art through measuring, describing, and cataloging activities.

116.405A 한국의 회화 3-3-0
Korean Painting

이 수업은 선사시대부터 조선시대까지 한국 회화의 역사적 전개를 살펴본다. 시대별 양상, 화풍, 대표적 화가, 화풍, 회화, 도상, 사회문화적 맥락과 의미 등이 주요한 탐구대상이 된다. 한국 회화 주요 작품의 역사적 중요성을 이해함과 동시에 동시에 동아시아 회화에서 한국 회화의 위치를 이해하는 데 초점을 맞출 것이다.

This course provides a survey of Korean painting from the ancient times to the present. It will examine the historical development and thematic patterns, relationship to textual traditions, religious functions and ecclesiastic significance, and socio-political significance.

116.420A 미술사연습 3-3-0
Undergraduate Seminar in Art History

이 수업은 미술사를 전공하는 학생들에게 종합논문 준비와 작 성 작업을 훈련하는 데 주요한 세미나다. 논문의 주제를 어떻게 선택하고, 그 주제의 해결을 위해 작품과 문헌을 어떻게 조사하며, 그 결과를 어떻게 정리한 학술적 글로 읽기는가에 대한 훈련이 이루어진다. 미술사 학식과 경험을 바탕으로 하는 필수과목이다.

This course is designed to instruct students how to conduct individual research and how to write a senior thesis. This seminar aims to enhance students’ research abilities and presentation skills. Through this course, students will get a sense of academic writing on work of art.
Modern and Contemporary Art of Korea

Korean art went through a drastic change with the transmission of Western art tradition in the end of the nineteenth century. Since then, visual arts in Korea took a radically different course in terms of ideal, practice and institution. This course explores the origins and developments of modern and contemporary art in Korea. Its diverse trends will be examined in relation to visual art activities overseas and socio-cultural contexts.

Contemporary Art and Visual Culture

This course is a survey of visual art in Europe and America in the twentieth century. It will explore the relationship between visual modernity and art within the context of the intellectual and cultural transformation and social change in the formation of modern society and culture both in Europe and America. Such issues as avant-gardism, modernism, and modernity will be explored in lectures.
### 1003.111 Indian Myth and Art

Indian Myth and Art

In the final exam, the student is expected to understand the basic concepts but also has a lasting impact on the Indian people, as well as Vishnu mythology and Shiva mythology. This course explores various genres of Japanese literature. Students will understand characteristics of Japanese literature by reading poems, novels, journals, essays, and plays. This class covers Japanese literature from the ancient to the modern period.

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Lecture Hours</th>
<th>Laboratory Hours</th>
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<tbody>
<tr>
<td>M2751.000300</td>
<td>Understanding Southeast Asian Literature</td>
<td>3-3-0</td>
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<tr>
<td>1003.131</td>
<td>Literature and Society in Modern West Asia</td>
<td>3-3-0</td>
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<tr>
<td>1003.212</td>
<td>Understanding Japanese Literature</td>
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<td>1003.211</td>
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<td>Understanding Southeast Asian Literature</td>
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<tr>
<td>1003.111</td>
<td>Indian Myth and Art</td>
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This provides an introduction to the history of literatures and literary cultures in Southeast Asia. It compares literary developments in different parts of the region, and the extent to which they reflected the political, economic, social, and cultural contexts and transformations in this region. It examines the transition from oral and manuscript-based traditions to print and other new technologies of literary production. It also explores the interactions between different literary cultures within the region, and with other parts of the world.
1003.213 History of India 2

This course reviews in depth the history of Islamic invasion to the establishment of the Republic of India in 1948 and contemporary India. Ancient Indian civilization was severely challenged by the Islamic invasion. This experience led the Hindu society to change its politics and culture, due to Islam's monotheistic background, which was incompatible with Hindu cultural features. A clue to understanding the formation of "Orientalism" can be found in this process. Furthermore, the course explores how India experienced the change and formation of Indian civilization and identity by taking a closer look at Indian philosophy, literature, poetry, architecture and sculpture.

1003.221 Modern and Contemporary Indian Literature

This course deals with modern Indian literature from the 19th century to contemporary India in the 20th century. Even though Indian literature of the 19th century is characterized by the decline of Sanskrit poetry and the immaturity of Hindi literature, novels in the 20th century developed dramatically, highly influenced by the English style. At the same time, literature in Bengal after the modern period advanced so rapidly that a number of excellent epics and novels were produced. In this course, students read and translate the poems and novels of Tagore, a major writer from Bengal.

1003.231 Origin and Development of Islamic Civilization

This course reviews in depth the history of Islamic civilization from the 7th century to the 13th and focuses the early development of religious thoughts, political movements, and state institutions. Given that today's Islamdom still places great importance on religion and has salient nostalgia for Islamic political principles, it is useful to understand the unfolding of historical development of Islamic civilization and different early religious communities' mentality and thoughts that originated from that process. Unique concepts to Islamic civilization such as the "caliph", "ulama", "sultan", and "sharia" and the historical background against which they originated will be carefully studied.
1003.233 **Myth and Literature in Ancient West Asia**

This course focuses on the study of ancient Near Eastern mythology and literature, covering the religious and cultural traditions of Mesopotamia, Egypt, Hittite, Israel, and Persia. The course examines the formation and persistence of these traditions through local and regional economic, political, and cultural contexts and connections. It also explores the connections between art/architecture and the politics, economy, and culture of different sub-regions of Southeast Asia.

**Course Offerings**

- M2751.000400: Traditional Arts and Popular Culture in Southeast Asia
- 1003.255: Southeast Asian Literatures: Special Topics
- 1003.254: Southeast Asian Literatures: Special Topics
- 1003.234: Intensive Persian 1
- 1003.235: Intensive Persian 2
- 1003.232: Intensive Thai 1

**Course Descriptions**

- **Myth and Literature in Ancient West Asia**: This course impinges on the grammar knowledge acquired in Intensive Persian 1 and starts from there to teach more of these traditions through local and regional economic, political, and cultural contexts and connections. It examines the formation of these traditions through local and regional economic, political, and socio-cultural developments, and cross-cultural interactions, both within the region and outside. It also examines the relations between art/architecture and the politics, economy, and culture of different sub-regions of Southeast Asia.

1003.255 (3-3-0)

**Traditional Arts and Popular Culture in Southeast Asia**

This course examines diverse traditional arts in Southeast Asia, tracing their development in different historical and geographical contexts, and evaluating their relevance to popular culture in Southeast Asia. The traditional arts to be discussed in the course include shadow puppetry, dance, drama/opera, traditional music, painting, architecture, etc. Each of these forms would be understood in terms of their organization, content, and context, especially with respect to heritage and identity issues. It shall also examine how these art forms negotiate notions of tradition and modernity in their production and consumption, and how they are linked to popular culture in Southeast Asia.

1003.254 (3-3-0)

**Southeast Asian Literatures: Special Topics**

This course focuses on selected topics in the study of Southeast Asian literatures. A topic based on language, country, genre or theme. It provides a more in-depth study of Southeast Asian literature, with the possibility of a comparative approach.

1003.255 (3-3-0)

**Intensive Thai 1**

This course is designed for those students who have not learned Thai before, in order for them to understand the genealogy and history of the Thai language properly and learn the basics of Thai grammar so that they will be able to understand and produce simple sentences. It is designed for fast and systematic acquisition of the language in a short amount of time.
Intensive Thai 2

This course impinges on the grammar knowledge acquired in Intensive Thai 1 and starts from there to teach more advanced level of grammar which will enable the student to read, understand, and correctly produce complex sentences in Thai.

Intensive Japanese 1

Japanese 1. Students will gain a secure knowledge in basic sentence structures and grammar. Lessons in ‘listening, reading, speaking and writing’ will help students understand and correctly produce simple daily expressions with basic sentences in practical use of Japanese. After this course, students will develop basic sentence structures and grammar. Lessons in ‘listening, reading, speaking and writing’ will help students understand and correctly produce complex sentences in Japanese through intermediate sentences and grammar.

Intensive Japanese 2

Japanese 2. Students will use the pronunciation and Japanese letters, students will study basic sentence structures, and grammar. Lessons in ‘listening, reading, speaking and writing’ will help students understand and correctly produce complex sentences in Japanese at a more advanced level.

Introduction to Japanese 2

Intensive Japanese 2 is an introductory course in Japanese for students who have no background in the language. After first learning the pronunciation and Japanese letters, students will study basic sentence structures and grammar. Lessons in ‘listening, reading, speaking and writing’ will help students understand and correctly produce simple daily expressions with basic sentences and grammar.

Art and Culture in Modern and Contemporary Japan

This class explores modern and contemporary Japanese art and culture by examining films, animation, comics (Manga), etc. Students will analyze how modern and contemporary Japanese culture has developed with the necessary periodical background and discussion on aesthetic features. Furthermore, students will study the impact of Japanese popular art on Asian civilization.

Art and Culture in Traditional Japan

This class aims to understand Japanese traditional art, examining the social and periodical background, its characteristics, and further, how it influenced Western civilization. In addition, students will examine how Japanese art was transformed in modern times, and thus understand the artistic link between Japan’s past and present.

Reading Japanese of Japanese Texts 1

The goal of this class is to understand Japanese traditional art and culture by examining films, animation, comics (Manga), etc. Students will analyze how modern and contemporary Japanese culture has developed with the necessary periodical background and discussion on aesthetic features. Furthermore, students will study the impact of Japanese popular art on Asian civilization.
This class is an overview of the history of Japanese literature from ancient (上代) to pre-modern times. The goal of this class is to understand traditional Japanese literature deeply by examining certain representative works from each period, genre by genre. Students will learn about the background and analyze the content of each work, i.e. Heian Court literature, medieval military literature, pre-modern Chonin (町人) literature, in order to gain a broad understanding of traditional Japanese society.

1003.311
Indian Pre-modern Literatures 3-3-0

Classical Indian Literature

This course explores Indian literature in the classical period. The classical period covers up to the 10th century, and genres such as the epic, lyric, and drama were developed in this period. Representative works are the two epics Mahabharata and Ramayana, Purana, Buddhacarita by Ashvaghosa, and Kālidāsa’s lyrics and drama. They demonstrate the essential attitude of Indian culture: for example, the “Bhagavadgītā” from the Mahābhārata, as well as Ramayana and Buddhacarita, has greatly influenced the life-style of Indians. Among the poems written by Kālidāsa, a major poet in India, some focus on only psychological analysis of human emotion, but others reflect the contemporary socio-political atmosphere, which gives us a glimpse at Indian civilization in the Gupta period.

1003.312
Indian Modern and Contemporary Literature 3-3-0

Philosophical and Religious Thought of India

This course examines the architecture and sculpture, painting, photography, film and popular culture in South Asia (including India, Pakistan, Bangladesh and surrounding countries). From the Buddhist sculptures of Gandhara and Mathura, South Asia possesses various traditions of art; we aim to understand the ways in which such traditions have been transformed under British colonial rule to the present. We will focus on the rise of new concepts, stylistic development and patronage in South Asian modern and contemporary art, as well as the rise of Indian film (including art films and Bollywood films). This course not only explores diversity in Indian art but also theoretically analyzes the relationships between them.

1003.313
South Asian Languages

This is a class for students who have already learned one of the major languages of South Asia: Hindi, Punjabi, Bengali or Marathi. The course will cover the basic grammar, vocabulary and reading of these languages through practical exercises. The course will also introduce the history and culture of the region through various readings and discussions.
1003.315

Readings in Hindi

This course introduces students who have successfully passed the first elementary Hindi courses to a higher level of Hindi grammar and vocabulary, and has the aim of applying elementary knowledge of Hindi to more difficult and complex sentences of verses and prose. Also, the course provides students with the opportunities to experience the high form of Hindi literature. The course level is designed to match that of foreign universities, so that students who attain it can pick up his/her studies in other academic centers without much difficulty in the Hindi language. This course is strongly encouraged for those who are planning to major in Modern Indian studies.

1003.321

History of the Interaction of Civilizations in Asia

This course provides a basic knowledge of the dynamic interaction between various cultural units in Asia. Students are expected to develop a historical and comparative viewpoint for Asian Studies through a variety of approaches and perspectives.

M2752.001200

Understanding Arts of the Islamic World

This course examines Islamic arts and architecture from the rise of Islam to the present. "Islamic Arts", however, not only includes arts produced for the religion of Islam, but also arts produced by Muslims as well as non-Muslims of societies in which Islam has played a significant role.

M2752.001000

West Asian Languages

This course is designed for those who have finished elementary level Arabic, who have learned basics of Arabic expressions commanding knowledge of Arabic vocabulary and simple sentences. Students are expected to develop their grammar and vocabulary skills so as to understand and produce short passages and conversation in which simple and complex sentences are used. At the end of this course they
are expected to maintain basic conversation with a native speaker of Arabic and to read and comprehend simple literary works, official documents, and scholarly writings.

1003.336 아랍어강독 2 3-3-0

Readings in Arabic 2

This course is designed for those who have intermediate level of knowledge in Arabic. They can practice reading diverse texts provided by this course and develop their ability to properly read Arabic materials. Materials are selected with a concentration on journalism, academics, and literary works in modern Arabic that are useful for understanding humanities and Arab society, with some classical texts that introduce the essence of early and medieval Arab culture.

1003.337 집중히브리어 1 3-3-0

Intensive Hebrew 1

The purpose of this year-long course is provide the student with a working knowledge of Classical Hebrew including biblical Hebrew; by the end of the course, the student will be able to read any passage of narrative in the Hebrew Bible with the aid of a lexicon (dictionary). The ability to reach this goal is dependent upon three primary areas of comprehension: 1) Knowledge of the Hebrew writing system (consonants and vowel points), 2) Knowledge of Hebrew grammar and basic syntax, and 3) Knowledge of Hebrew vocabulary.

1003.338 집중히브리어 2 3-3-0

Intensive Hebrew 2

The purpose of this year-long course is provide the student with a working knowledge of Classical Hebrew including biblical Hebrew; by the end of the course, the student will be able to read any passage of narrative in the Hebrew Bible with the aid of a lexicon (dictionary). The ability to reach this goal is dependent upon three primary areas of comprehension: 1) Knowledge of the Hebrew writing system (consonants and vowel points), 2) Knowledge of Hebrew grammar and basic syntax, and 3) Knowledge of Hebrew vocabulary.

1003.351 세계사 측의 동남아시아 3-3-0

Southeast Asia in Global History

This course examines the Southeast Asia in the context of world history and the changing world-systems of global interactions. It explores the roles of exchange and cross-cultural encounters in the shaping of regional civilizational complexes, and vice versa, from the early history of the region to the present. It approaches these exchanges from different dimensions, and seeks to provide more holistic ways of understanding Southeast Asian history from a global perspective, as well as Southeast Asia’s contribution to world history. It explores the long-term history of the region’s responses to the challenges and opportunities provided by modernity and globalization.

1003.352 동남아시아 디아스포라의 과거와 현재-지역과 세계 3-3-0

Southeast Asian Diasporas Past and Present: The Region and the World

This course examines the history of Southeast Asian migration both within the region and beyond, from the earliest records, to the early modern and colonial period, and up to the present. It examines the strategies and fortunes of diasporic networks from Southeast Asia, the factors and contexts of emigration, as well as the changing and complex identities of migrant networks overseas.

1003.353 말레이-인도네시아어 강독 1 3-3-0

Readings in Malay-Indonesian 1

This course is designed for those who have finished Elementary level Malay-Indonesian. Students are expected to develop their grammar and vocabulary skills so as to understand and produce short passages and conversation in which simple and complex sentences are used. At the end of this course they are expected to maintain basic conversation with
a native speaker and to read and comprehend simple literary works, official documents, and scholarly writings.

1003.354  
Readings in Malay-Indonesian 2

1003.371A  
Modern Japanese Literature

1003.373A  
Thought and Civilization in Japan

1003.411  
Readings in Sanskrit 1

1003.412  
Contemporary Art and Visual Culture

examines the historical development of Japanese thought in view of adopting and managing foreign ideas, and further handles contemporary philosophy.
This course discusses characteristic features of Indian philosophy, linguistics, psychology, and cosmology. Discussions include topics such as Buddhism and Jainism, which deny the authority of the Veda. These topics range from a school that supports the Vedic tradition to Buddhism and form a preoccupation with other centers without much difficulty in the Sanskrit language. The course is strongly recommended for those who are planning to major in Classical Sanskrit literature.

In this class, students who major in Indian studies will carry out an in-depth discussion of India's socio-cultural structure. The main concept is intellectual and the relationships with their social, cultural realizations. This course aims at an understanding of Caste and Jati as fundamental structures of Indian culture, and also the traditional customs based on Code of Manu. The course will help to build a comprehensive relationship between cognitive structures and the ideological base of the Indian system.

Indo-European languages are the basis of modern European languages. The Indo-European family is one of the oldest language families, and its study is an important aspect of the historical and cultural study of the British Empire. This course focuses on the grammar knowledge the students have learned from the elementary level and introduces Persian literature. It teaches its application using various texts and listening materials. Learning through texts that include diverse issues relevant to Iranian society and culture not only helps language skills but elevates the understanding of the Iranian language and culture.

Indo-European languages are the basis of modern European languages. The Indo-European family is one of the oldest language families, and its study is an important aspect of the historical and cultural study of the British Empire. This course focuses on the grammar knowledge the students have learned from the elementary level and introduces Persian literature. It teaches its application using various texts and listening materials. Learning through texts that include diverse issues relevant to Iranian society and culture not only helps language skills but elevates the understanding of the Iranian language and culture.

This course briefly introduces the ideas of Orientalism and colonial methodology, investigating the ideological perspectives of Asian studies and leading to meaningful considerations on the dialogue of cultures.

This course character is to attain knowledge in depth while focusing on specific themes in the turbulent historical process of the 20th century leading up to the present. It can include topics such as nationalism, mandates, military dictatorship, and the rise and evolution of political Islam. The course may be restructured for different purposes, so that students may attain it can pick up his/her studies in other academic centers without much difficulty in the Sanskrit language. The course is strongly recommended for those who are planning to major in Classical Sanskrit literature.
This course aims at elevating the practical ability to read Persian. It is designed for students who have learned grammar and expression up to the intermediate level and provides diverse texts from literary works, newspapers, and academic writings. Noteworthy traits of Persian vocabulary, idioms, and grammar structure together with traps in translations will be given emphasis.

This course is intended as an introduction to Rabbinic Judaism Hebrew texts such as Talmud, Midrash and Mishnah.

This course shall examine one or more select themes pertaining to Southeast Asian civilizations and language, and provide an in-depth introduction and discussion of issues pertaining to these selected themes.

This course bases itself on the grammar knowledge the students would have learned from the elementary level and teaches its application using various texts of intermediate level. It focuses on intermediate-level vocabulary, grammar, expressions and sentence structures and introduces reading materials selected from simple literary works, official documents, and academic writings.

This course is a continuation of Readings in Vietnamese 1. It maximizes the use of previously acquired knowledge and completes the intermediate command of the language. It makes the students get used to abstract vocabulary, complex grammar and various sentence patterns so that they can explore higher-level reading materials of diverse types.
Topics in Japanese Civilization

This course explores ‘discourses on Japan,’ which discusses the relations between Japan, Japanese people and culture. It will provide a detailed overview of the formation and development of the Sunni and Shi’a communities in their historical contexts and explore their relations, covering a period from the 7th century, to which both communities trace their origin, to the 20th century. It will introduce students to the commonalities and differences in the doctrinal, ritual and legal dimensions of Sunnism and Shi’ism. It will also review the major sects within Shi’ism, such as Twelver Shi’ism, Ismailism and Zaytundism, and their religious beliefs and practices. Through the exploration of these topics, the course will provide a foundation for understanding the relations between the Sunni and Shi’a communities in the contemporary world.

Supervised Research in Asian Studies

This course is for the thesis writing of students majoring in Asian studies. It teaches the detailed crafts of the field in the process of deciding on one’s research subject, collecting materials, and developing arguments. The research subject can be selected from the vast scope of Asian languages and civilizations, and it is strongly advised that the student meet with experts other than the instructor outside of the class.
The climate is a major factor in the development of Southeast Asian societies in a broader temporal and spatial context. This course will examine the various aspects of Indian civilization from the advent of Islam in the 12th century to the early modern period. The course will focus on the changes in religion, philosophy, education, arts, and architecture throughout the period of modernization in Indian subcontinent.

M2751.000100 Environment and Civilization in Southeast Asia

This course is prepared for those students who have finished Advanced Arabic 1. This course further develops from Advanced Arabic 1 to reach the advanced level of educated Arabic. Students who have acquired general knowledge of grammar, reading comprehension, expression and communication can further their command of the language to advanced level or higher. This course is provided for students who have taken Readings in Arabic 1 and 2. Those who have acquired general knowledge of grammar, reading comprehension, expression and communication can further their command of the language to reach the advanced level of educated Arab people. More concretely, students can learn how to read and discuss Arabic materials in specific fields, and how to compose complex sentences and essays.

M2752.000400 Understanding West Asian Literature

This course is provided for students who have taken Topics in West Asian Civilization and the study of the selected themes. The themes of the course may change each time it is offered.
Advanced Arabic 1 to have students practically use the language in academic activities or business practices. Students who have acquired communicative abilities will read and discuss academic materials, literary criticism, news analyses, and official documents. More concretely, they will be able to learn how to read and comprehend Arabic materials in specialized fields, discuss select topics, and write papers.

**Advanced Turkish 1**

본 교과목은 터키어 강독 1과 2를 수강한 학습자들을 위해 기획되었다. 터키어의 전반적인 문법 지식과 텍스트 이해, 표현, 의사소통 능력을 구비한 학습자는 본 교과목을 통해 터키 교양인 수준의 언어 구사력을 향상시킬 수 있다. 구체적으로는 터키어로 특정 분야의 자료 강독과 주제 토론, 고급 문장 구사, 에세이 작성법을 익힐 수 있다.

This course is provided for students who have taken Readings in Turkish 1 and 2. Those who have acquired general knowledge of grammar, reading comprehension, expression and communication can further their command of the language to reach the advanced level of educated Turkish people. More concretely, students can learn how to read and discuss Turkish materials in specific fields, and how to compose complex sentences and essays.

**Advanced Turkish 2**

본 교과목은 고급 아랍어 1 단계를 마친 학습자들을 위해 기획되었다. 본 교과목은 고급 아랍어 1의 심화 과정에 해당하여 학습활동이나 업무 현장에서 이론이 실질적으로 활용될 수 있도록 했다. 이론적 및 실용적 능력을 구비한 학습들은 본 교과목을 통해 학술, 의학, 참조문헌, 공식문서 등에 토론하는 연설을 할 수 있었다. 구체적으로는 이론적 전문 분야의 자료 강독과 주제 토론, 논문 작성법을 익힐 수 있다.

This course is prepared for those students who have finished Advanced Turkish 1. This course further develops from Advanced Turkish 1 to have students practically use the language in academic activities or business practices. Students who have acquired communicative abilities will read and discuss academic materials, literary criticism, news analyses, and official documents. More concretely, they will be able to learn how to read and comprehend Turkish materials in specialized fields, discuss select topics, and write papers.

**M2752.000800 고급 터키어 1 3-3-0**

**Topics in Islamic Thought**

This is a special topics course for the students of upper divisions of undergraduate program. Each year it will explore a new theme related to Islamic thought [Intellectual history], focusing either on Islamic thought of particular historical periods and regions or on specific areas of intellectual activity (e.g. Quranic exegesis) and intellectual trends (e.g. traditionalism and rationalism in Islamic thought). The course will offer students an opportunity to study these themes in depth through examination of the contributions made by prominent Muslim thinkers, analysis of their writings, and critical engagement with relevant scholarship.
동아시아비교문학론은 동아시아비교인문학 연합전공에 관심을 가진 학생들이 해당전공의 범위와 성격을 비교문학적 관점에서 조명하고 이해하는 데 도움을 주기 위해 개설되는 교과목이다. 비교 문학적 접근을 통해 동아시아를 구성하는 여러 사회들, 한국 중국 일본 및 북한, 동남, 매란 등 동아시아의 범주에 속하는 여러 지역과 전극의다는 공통의 역사적 도전에 맞서는 과정에서 나무들의 특유한 역사발전 경험 및 사회문화구조를 형성하던 과정을 비교문학적 관점으로 다루는 데 추천점을 드린다.

The goal of this class is to help students, who are interested in the Comparative East Asian Literature major, survey and understand the scale and characteristics of related majors from a comparative literature perspective. By means of a comparative literature approach, the many societies which form East Asia, including Korea, China, Japan, North Korea, Mongolia, Taiwan, etc, will be examined, and students will learn about each country’s individual and historical development. In particular, using a mutual comparative literature method, we will focus on various regions’ modernization and globalization, emphasizing common historical challenges which opposed the established processes.

한국 문화의 세계적인 확산으로 인해 한국어와 한국문화에 대한 관심이 높아진 현 시대에서 한국어의 특성 및 위상, 한국어 해석과 발전 방향, 한국어와 관련한 한국문화에 대한 지식의 습득은 한국의 언어와 문화에 대한 이해를 깊게 하는 중요한 기반이 된다. 또한 한국의 언어와 문화에 대한 이해가 바탕으로 학생들은 한국어와 동아시아 지역 다른 언어와의 관계, 한국문화와 동아시아 지역 다른 문화와의 관계에 대한 연구를 독자적으로 진행할 수 있는 향상을 할당할 수 있다.

Thanks to the international diffusion of Korean culture, the interest for Korean language and culture has increased. In order to understand in depth Korean language and culture, it is important to acquire knowledge related to the character and status of Korean language, the current situation and development of its teaching and the Korean culture connected to language. Moreover, by means of this deep understanding of Korean language and culture, students will be stimulated to research autonomously about the relation between Korean and other Eastern Asian languages and the connection between Korean culture and Eastern Asian cultures.

동아시아의 근대는 서양과의 만남이라는 계기가 중요한 역할을 담당하고 있다. 동아시아가 서양을 만나는 과정은 근대의 지식, 정보, 인적 교류 등을 포함하고 있으며, 이러한 접촉과 교류를 모색하는 중요한 요소가 된다. 동아시아의 근대는 서양의 텍스트를 적정적으로 번역하면서 서양의 사상과 문화, 사회와 국가를 이해하고 이를 토대로 새로운 정치체제와 사회를 구상하고자 했다.

번역은 단순한 언어의 교환을 넘어서는 문화적 행위이며 번역하는 주체와 번역주는 대상 사이의 관계 속에서 성립한다. 동아시아 지식인은 서양의 텍스트를 받아들여서 혹은 그 내용을 혼합하여 새로운 정치체제와 사회를 구상하고자 했다. 번역의 기저는 접촉과 교류의 개발이 아닌, 문화적 통합을 통해 새로운 사회와 국가를 구상하게 되었다.

Encounter with the West was a major facet of the East Asian modern era. The encounter involved exchanges in knowledge, information, and also personnel, and a key factor in all these was translation. East Asian intellectuals attempted to understand Western culture and ideology through translating Western texts, and develop new political systems and social structures through their newly gained knowledge. Translation is more than simple transliteration in a different language; it is a formation of cultural interrelationships between the translator and the translated. The East Asian region has been a cultural nexus of various cultural elements such as Buddhism and Taoism. The encounter set upon a foundation of Confucian social order. Translating Western cultural and ideological concepts, both from Western to Eastern and among East Asian languages, thus meant reconstructing the West based on each East Asian culture. This course focuses on the problems involved with translations, and the implications of these findings to modern histories of Korea, China, and Japan, through the scope and viewpoint of Comparative Humanities.

Students who complete the East Asian Comparative Humanities interdisciplinary major are required to compose a graduation thesis as part of their completion. This course aims to provide the methodological foundation necessary for developing the graduation thesis. More specifically, the course will assist student identify potential thesis topics, choose a research method, and set up formative and conceptual frameworks for presenting their argument. Designed in a seminar format, the course calls upon participating students to present their graduate theses in both verbal and written forms. This course guides students to a better understanding of not only East Asian Comparative Humanities, but also particular subjects that they may be interested in. Students will be able to gain both general insights and fundamental research skills through this course.
The objective of this course is to develop proper knowledge and perspective for resolving various historical conflicts in East Asia, focusing on the three topics of Mourning and Space, Territory and Borders, and Memorialization and Education. This course shall first investigate one of the most hotly debated issues in Korea, the Dokdo issue, in light of territorial disputes in East Asia and other areas of the World. Following that, the course shall study the tools and spaces for mourning the losses and scars of war and colonial rule. Lastly, this course shall compare and analyse how different states memorialize their history and educate their citizens. The course will involve lectures by the professor and various guest speakers, student presentations, field trips, and other varied learning methods.

### Topics in Comparative East Asian Humanities

The three countries in East Asia not only fostered and exchanged their culture and art with one another from the pre-modern era, but also influenced the development of Western art and culture. In the modern age, the visual arts of the three countries in East Asia, and especially the movies and television dramas, are significantly influencing Western culture. At the same time, the status of East Asia’s popular arts in the history of world cultures is improving day by day with active cultural exchanges among the three countries in East Asia. The purpose of this course is to foster students’ liberal arts knowledge of the arts and cultures of three countries in East Asia through intensive study on the influence of popular arts and aspects of cultural exchanges among these three East Asian countries.
Readings in East Asian Classics

This course aims to read East Asia sinological classics in the original to acquire ideological and cultural features in them. Classical Chinese is the written language which is indispensable to understand the ideology and culture included in East Asia including Korea, China, Japan. The course will thoroughly read various traditional classics made in East Asia and catch the writing style and contents in them.

Greek Grammar and Composition

This course aims at offering students an opportunity to learn Attic Greek grammar from diverse angles. In large measure, real Greek sentences are selected for the lecture. For securing as large a vocabulary as possible, it is strongly recommended that many of the sentences be learned by heart. The vocabularies contain words and expressions which are of great enough frequency in Plato and Xenophon. Throughout the course, the chief rules of Greek syntax will be offered for the participants to acquire a higher level capacity to comprehend Attic Greek texts. Furthermore, this course will provide students with practical experiences in Greek prose composition, which will help them to learn the classical Latin grammar, students will study in depth the principles of word-formations and all kinds of morphological inflections and declensions of the Latin. They will learn the proper features of the classical Latin as an inflected language and synthetic rules of the Latin sentence formation. Finally students are expected to acquire a higher level capacity to decipher ancient Latin texts. Furthermore, this course will provides students with practical experiences in Latin composition, which will help them to learn the basic Latin sentence formats.

Latin Grammar and Composition

This course aims at offering students an opportunity to learn the classical Latin grammar from diverse angles. With the basic knowledge of the classical Latin grammar, students will study in depth the principles of word-formations and all kinds of morphological inflections and declensions of the Latin. They will learn the proper features of the classical Latin as an inflected language and synthetic rules of the
commentaries of classical texts. They will choose a text of an appropriate length, produce a Korean translation of it, and justify his/her own reading by providing a suitable commentary. Final outputs will be presented and discussed in a workshop session at the end of the semester.

M2910.000700 서양고전문헌학입문 3-3-0

Introduction to Western Classical Philology

This course aims at providing a general introduction to the students in the Combined Minor in Classics and Philology. Students will learn about basic tasks and study areas of Western Classical Philology, focusing on its history and the basic concepts and methods used in it. With concrete case studies, students will learn about the concept of the critical edition, the reason why such an edition is needed, and the problem of tradition. At the later stage of the course, students will learn about contributions, limits, and possible new research areas of Western classical philology, by comparing it with the achievements of Classical Chinese Philology or Western Modern Philology.

M2910.000800 그리스고전강독 1 3-3-0

Readings in Greek Classics 1

This course aims at increasing the reading skill of Latin proses. With paradigmatic sentences of classical Latin as Caesar’s, students will deepen the knowledge of latin grammar and enhance the capacity to interpretate latin prosaic sentences. In addition, they will learn how to appreciate the style, how to analyze argument structure and rhetorical skills of latin proses.

M2169.004800 그리스고전강독 2 3-3-0

Readings in Greek Classics 2

This course aims at deeper understanding of archaic Greek Epics, especially Homer’s Iliad. After learning Homeric preliminaries, participants are required to recite and translate a selected book of the Iliad, verse by verse.
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<thead>
<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
<th>Lecture Hours</th>
<th>Laboratory Hours</th>
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<td>1031.301</td>
<td>Introduction to American Studies</td>
<td>3-3-0</td>
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<td>0</td>
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<tr>
<td>1031.302</td>
<td>Reading American Popular Culture and Society</td>
<td>3-3-0</td>
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Introduction to American Studies

This course is designed to help students understand what American Studies is about. The students will read a diversity of representative and exemplary American Studies texts with focus on their method and familiarize themselves with interdisciplinary studies.

Reading American Popular Culture and Society

This course aims at exploring the theme “What is America?” by reading American pop culture. Students will read and discuss SF, fantasy, detective stories, graphic novels, animations, pop art, pop music, and a variety of Hollywood movies.
Readings of Historical Literature in Russian

본 강좌는 러시아어로 쓰여진 역사 문헌을 독해하며 토론하는 것을 내용으로 한다. 본 강좌의 일차적인 목적은 서양사학 전공, 노어노문학 전공, 러시아학 연계전공 2∼3학년 수준의 학생들이 기본적인 러시아어 문헌 독해능력을 갖추게 하는 데 있다. 러시아어는 방대한 사료를 소장한 문서고를 갖추고 있으며 풍부한 역사서 숲의 전통을 자랑하는 나라이다. 따라서 이 과목은 수강생들이 러시아어권에서 쓰여진 역사관련 저작들과 사료들을 직접 접하게 함으로써 서양사-러시아사를 보는 이해의 폭을 넓히고 그 문화적, 정신적 전통에 대해 한층 향상된 관심을 가질 수 있게, 지적 자극을 제공하고자 한다.

In this course students read, interpret and discuss historical literature written in Russian. The main object of the course is to provide sophomores and juniors majoring in Western history/Russian language and literature/Russian studies with basic Russian reading abilities. Through the course students are expected to broaden their understandings of the history of the Russophone world and to have an enhanced interest in its cultural traditions.
1071.201 라틴아메리카학 개론 3-3-0

Introduction to Latin American Studies

This course is designed to provide students with an overview of Latin American political, economic, and social thoughts from the independence to the present. Various intellectual movements and influential discourses dealing with independence, identity, race, nationalism and subaltern subjects will be discussed in the context of the historical conditions that produced them.

1071.204 라틴아메리카 지성사 3-3-0

Intellectual history of Latin America

This course is designed to explore the evolution of Latin American political, economic, and social thoughts from the independence to the present. Various intellectual movements and influential discourses dealing with independence, identity, race, nationalism and subaltern subjects will be discussed in the context of the historical conditions that produced them.

1071.202 현대 라틴아메리카 3-3-0

Modern Latin America

This course is designed to provide students with an overview of Modern Latin America. The course intends to examine Latin American countries in terms of their social, economic, and political trajectories in the prevailing international conditions. It aims to trace patterns and trends that help us to understand the complexities and variations in Latin America’s paths to the present.

1071.205 브라질 사회와 문화 3-3-0

Brazilian Society and Culture

This course will provide an introduction to Brazilian Studies by surveying some of the major historical, political and cultural issues that the region has faced during the past five hundred years. This course will explore major topics like discovery and rediscovery of Brazil, colonial period, independence, modernization, Estado Novo, military regime, democratization, urbanization, race, immigration, and regional inequality. It will also examine Brazil’s cultural formation and increasingly diverse regional cultures in the nation.

1071.203 라티노 사회와 문화 3-3-0

Latino society and culture

This course deals with scholarly works that include theoretical models, literary strategies, and analytical approaches to learning about US Latinos—be they Mexican Americans, Puerto Ricans, Cubans, or other groups of Latin American origin. The course will offer a rubric for understanding not only the interconnections between diverse Latino communities but also the differences that sometimes divide them. It will also develop an awareness of the social and historical contexts in which manifestations of popular culture have been developed in various communities of US Latinos.
Introduction to Data Science for the Humanities

The goal of this course is to teach students fundamental concepts related to the data science for the humanities. A variety of data will be considered from each subdiscipline relating to the humanities, with students learning basic concepts in the scientific analysis and processing of data. Students affiliated with the humanities and social sciences that want to learn more about data science will also have an opportunity to learn key concepts in the field that make up a crucial component of the overall tools and methodologies used within computer science. This includes specialized knowledge in computing, digital humanities, and basic elements of programming.

Quantitative Analysis in the Humanities

Disciplines traditionally used in the humanities employ qualitative approaches, however, recently the application of quantitative analysis has been increasing rapidly for fields related to the Humanities. This course provides students majoring in the Humanities with the fundamentals of quantitative analysis on humanistic data. Students will learn concepts related to probability and statistical inference, and the associated analytical methods.
**Introduction to Philosophy, Politics, and Economics**

이 강의는 학생들에게 정치, 경제, 철학을 통합적 사고의 틀에서 접근할 수 있도록 정치학, 경제학, 철학의 기본적인 개념과 분석을 소개한다. 수업은 정치, 경제, 철학의 기초개념들을 중심으로 이러한 개념들을 소화하기에 적당한 주요 교과들을 읽고 토론하는 세미나 형식이 될 것이다.

This course introduces fundamental concepts, ideas, and analyses through reading core classics in politics, economics, and philosophy. It aims that students could read these classics and discuss each theme in a interdisciplinary way. Students will learn how issues and thoughts in politics, economics and philosophy are integrated and be asked to develop comprehensive understanding on problems in modern society. It is designed as a seminar course where students are expected to participate actively in every discussion.

**The Ethics of Markets**

이 수업은 사회 제도로서의 시장의 의의와 그 한계를 다룬다. 시장들을 통해 재화 및 용역 분배의 장점, 시장과 재산권, 공정, 불평등의 관계, 시장에서 소비자, 기업, 정부의 역할, 시장에서 판매하는 안 되는 것이 되면 그 이유는 무엇인지(장기 매매, 대리모 계약, 성매매 등을 사례로) 등을 검토한다.

This course is designed to examine the value and limits of market as a social institution. Topics discussed include the value of market distribution of goods and services, the relation of markets with property rights, fairness and inequality, the role of consumers, corporations and the government in the markets, and whether and why some things should not be for sale (Such as organ trade, surrogacy, and prostitution).
사회과학대학

College of Social Sciences
Social Sciences and A Future Career

This course is open to freshmen and purports to introduce the first-year students to a variety of perspectives in social sciences. By exploring how diverse approaches to social sciences enable them to search for career options and build career aptitude in this freshman seminar program, freshmen can expand their respective field of concentration to prepare themselves with the kind of job skills for future career.

200.103 Principles of Political Science

This introductory course for freshmen in the College of Social Sciences. It helps students develop a systematic and logical understanding of politics. It surveys the major fields of Political Science including Political Philosophy, Political Theory and Methodology, Political Process, and Comparative Politics, as well as Korean Politics and International Relations.

200.104 Introduction to International Politics

This course is designed to give prospective students of International Relations a basic understanding of world politics in the 21st century. It analyzes the complexity of the issues and players of the 21st century world politics, examining various strategies for survival and prosperity.

200.105 Principles of Economics 1

This course is designed to give prospective students of International Relations a basic understanding of world politics in the 21st century. It analyzes the complexity of the issues and players of the 21st century world politics, examining various strategies for survival and prosperity.
ferring a more complete world view. Using student’s daily experience as examples, the class will illustrate how our behaviour is influenced and constrained by societal ‘structures’ and factors, such as family, education, social class, and gender discrimination.

200.108 인류학의 이해 3-3-0
Understanding of Anthropology

본 과목에서는 인류학의 기본적인 관점과 연구영역들을 체계적으로 소개함으로써 인류학이 추구하는 학문적 목표와 성격을 제시한다. 인간과 문화의 관계, 문화의 다양성과 유사성, 문화 간 상호 이해의 문제를 비교 문화적 시각에서 접근하여, 현재 사회에서의 인류학적 지식의 적용 가능성을 도색한다.

Through the introduction of basic, anthropological perspectives and branches of its study, this course presents the primary objectives of Anthropology. It addresses the relationship between man and culture, cultural diversity and uniformity as well as the challenges of cross-cultural understanding and communication. It also explains how anthropological knowledge can be applied to understanding modern society.

045.012 심리학개론 3-3-0
Introduction to Psychology

인간의 행동을 이해하는데 사용되는 심리학적 지식과 방법론을 소개함으로써 수강생들이 인간행동에 대한 깊은 이해를 갖도록 한다.

This course offers a comprehensive survey of psychological research and methodologies, helping students to possess a profound and objective understanding of human behavior.

200.111 지리학입문 3-3-0
Fundamentals of Geography

지리학은 오랜 역사를 가진 학문이며 인간의 일상생활과 밀접한 관계가 있는 학문이다. 본 과목에서는 지리학의 주요 주제와 내용을 우리 인간생활이나 뉴스 등에서 경험하는 사례와 연결시켜 설명함으로써 수강생들의 지리적 사고력을 증진 하도한다. 주요 내용으로는 인간과 환경의 관계, 공간구조의 형성과 변화, 지역의 특성, 경상의 역사성, 경관은 해석, 그리고 현지탐사 방법 등을 들 수 있다.

The science of Geography has a long history lending more insight into everyday events than one might assume. Thus, this course will expand the critical thinking skills of students by investigating the events of everyday life from a geographical perspective. Major themes of study will include the relationship between human beings and the environment, the formation and change of spatial structures, the specificity and universality of regional features, the historicity of places and the interpretation of landscape, as well as the methodology of fieldwork.

200.114 복지국가의 사회과학적 이해 3-3-0
Social Scientific Understanding of the Welfare State

이 과목은 현대사회에서 복지국가전략의 필요성에 관한 사회과학적 이해를 도모하는 목적을 둔다. 현대의 복지국가에서 나타나는 사회복지제도는 크게 거시적 차원의 정책적 개입, 서비스 전달 체계와 관련된 중시적 접근 및 일선에서 특수 욕구가 있는 사람들에게 서비스를 전달하는 미시적 접근으로 대별된다. 이 과목에서는 이러한 세 가지의 복지국가전략을 차례로 소개하고, 미래 한국 사회의 복지적 발전을 위한 학생들의 견해를 증진하기를 계획하고자 한다.

The objective of this course is to facilitate a better understanding of the need of a “strategic welfare state” in the contemporary society to students studying social science. The general classification of social welfare systems in the modern welfare state is threefold; policy intervention in the macro level, proximal approach to service delivery systems and a micro-level approach to delivering services to those with special needs. This course introduces the three levels of social welfare strategies and attempts to equip students in creating their own perspectives on the positive development of the future Korean society.

200.113A 커뮤니케이션의 이해 3-3-0
Understanding Communication

본 과목에서는 인간커뮤니케이션을 이해하는데 필요한 기본 개념들을 소개하고, 특히 언론정보학과 전공탐색과목으로서 커뮤니케이션 학문의 특성과 역사 및 다양한 이론분야들을 소개하여 언론정보학에 대한 기초적인 이해를 돕고자 한다.

This course introduces the field of communication through the study of its basic concepts, theories, history, and specific, relevant issues. Furthermore, it acquaints the students to various forms of communication including journalism, visual communication, interpersonal and telecommunication.
Comparative Politics

This course introduces students to the comparative study of politics and government. It will examine several, specific aspects including political regime, its institutions, cultures, processes, political behaviors and public policies. It also discusses both methodological and substantive issues in seeking empirical, political knowledge by comparing diverse countries.

Western Political Thoughts 1

This course examines the political theories of ancient philosophers who sought the ideal human community and motivation for the common good. Through this study, students will come to understand the ideas that form the basis of modern political behavior as well as evaluate the philosophical foundation of our own society.

Western Political Thoughts 2

This is a follow up course to <Western Political Thoughts 1>. It will delve deeper into the issues and topics covered in the previous course.

Government and Politics of Western Europe

This course studies the development of European Philosophy and Economics, with regard to individual countries, since the modern democratic revolution. The course progresses with a study of the history and major issues of European democracy. Through this study, students will receive a more comprehensive understanding of European politics.

Issues of Contemporary Democracy

This course discusses the dynamics of democratization and deepening of democracy. Major topics are: 1) various explanations about political changes, transition to democracy in particular, 2) political dynamics and implications of neoliberal economic reform, 3) implications of globalization and information society, 4) institutional limitations and reforms of representative democracy, and 5) governance issues in contemporary democracies.

Introduction to Public Administration

20세기 들어 사회가 발전하고 문화사회로 국가의 무게중심은 정치의 개념과 관리를 의미하는 행정의 개념으로 이동하고 있다. 이 과목에서는 행정학의 기본원리와 발전역사를 이론적으로 소개하고 보다 발전된 세부 행정학 분야의 연구를 위한 단초를 제공한다.

With the development and specialization of our world in the 20th century, the political center of gravity is moving from the concept of ‘ruling’ to that of ‘administration’ or ‘management’. This class introduces the basic principles of public administration and how it has evolved over time. It also prepares students for future research in the various sub-fields of public administration.
216A.214A 한국정치사과문 3-3-0

Introduction to the History of Korean Politics

이 과목은 한국정치사에 대한 기본적인 사실과 과정, 특징 등을 정치학 전공 학생들에게 교육하는 것을 목적으로 한다. 구체적으로, 조선조의 정치사회와 근대(국가)화의 설계 원인, 일제 식민화의 특성과 식민통치의 특성, 독립운동, 분단과 전쟁, 제과제국의 후속 현대 한정정치와의 관련성, 민주주의의 계문격, 민족주의의 전개과정 등의 내용들을 역사적 배경과 정치적 맥락에 초점을 맞추어 강의한다. 정치사 교육의 최초화는 학생들이 한국정치의 역사와 정치사의 맥락, 역사적 윤리의 이론적, 경험적, 공호화, 국제관계와의 정책과 견해, 각 문화에서의 현대화의 경로를 복합하고 이해하도록 하는 목표를 달성한다.

이 과정을 통해 학생들은 정치사와 국제관계의 기본적인 역사와 이론을 이해하는 데 필요한 기본적인 지식을 배울 수 있으며, 이는 그들이 미래의 정치학자로서 독자적인 연구를 수행할 수 있는 기초를 제공한다.

216A.216 북한의 정치와 사회 3-3-0

Politics and Society of North Korea

북한의 정치사, 이데올로기, 정치제도와 과정, 그리고 발전의 경로를 고찰하는 입문 강좌, 남북관계와 동북아시아의 안보 문제도 검토한다.

이 과정을 통해 학생들은 북한의 정치사회 구성요소와 그 이해를 위한 기본적인 지식을 배울 수 있으며, 이는 그들이 future의 정치학자로서 독자적인 연구를 수행할 수 있는 기초를 제공한다.

216A.217 자치화시대의 정치 3-3-0

The Politics of Globalization

이 과목은 탈냉전과 지구화 시대의 국제관계에 대한 입문과목이다. 따라서 국제관계의 기본적인 이론과 이론을 통해, 달 냉전시대 국제관계와 국가정치의 관계, 국내정치에 대한 국제관계의 영향 및 국제관계의 중요성을 이해하는데 목적으로 한다. 특히 이들도의 정치사의 변화과정을 역사적으로 추적한다. 이들에 대한 이해를 통해 그들이 future에 대한 다양한 사고를 이론과 개념을 이해하고 비교한다.

이 과정을 통해 학생들은 정치사의 변화과정을 역사적으로 이해하는 데 필요한 기본적인 지식을 배울 수 있으며, 이는 그들이 future의 정치학자로서 독자적인 연구를 수행할 수 있는 기초를 제공한다.
This course is an introduction to East Asian political thought. Rather than surveying the long history of East Asian political thought, this course focuses on the major schools that originated in China: Confucianism, Daoism, Legalism, Neo-Confucianism, and Maoism. Readings include the writings of some of the most influential thinkers in East Asian history: Confucius, Mozi, Mencius, Laozi, Zhuangzi, Xunzi, Han Feizi, Zhu Xi, Wang Yangming, and Mao Zedong.

In addition to introducing the major features of each school's political thought, we will pay special attention to developing skills in three areas: reading, writing and reasoning. This course has no prerequisites, and assumes no background in foreign languages.

Government and Politics of Korea

Government and Politics of China

The formation of modern society involved dynamic changes in almost all aspects of human life. As the feudal system started to lose its power, the establishment of a new order became a turning point in the political sphere. Modern political thought has evolved from this effort to strive for a democratic political order in societies experiencing secularization of values, turbulent processes of nation-state building, civil and industrial revolutions, and ambivalence to modern progress. This course is designed to help students understand general trends and features of modern political thought by discussing the major figures and works from the Renaissance to the 19th century. In addition, a special focus will be placed upon the idea and history of liberal democracy.
216A.314 Adminitrative Organization

Administrative Organization

The dramatic development of administrative organizations over the last three decades has been a subject of much debate and controversy. The role of government in an increasingly complex and interconnected world is a challenge for both academic and practical researchers. This course provides a specialized study in the field of administrative organizations. Topics will include the nature and functions of modern administrative organizations, the role of the public sector in society, and the challenges and opportunities facing administrative organizations in the 21st century.

216A.315 재무행정 3-3-0

Public Finance Administration

Modern public finance is a dynamic and rapidly evolving field. This course will provide an introduction to the principles of public finance, with a focus on the role of government in the economy, the management of public debt, and the role of taxation in the allocation of public resources. Students will learn about the budgeting process, public debt management, and public financial management. The course will also cover the role of international organizations in providing financial assistance to developing countries.

216A.320 러시아동구정치론 3-3-0

Government and Politics of Russia and Eastern Europe

This course provides an introduction to the political and economic systems of Russia and Eastern Europe, with a focus on the challenges facing these countries as they transition from centrally planned economies to market economies. Students will learn about the history of these countries, the role of the state in economic development, and the political processes that have shaped modern Russia and Eastern Europe. The course will also cover the role of international organizations in providing assistance to these countries.

216A.321 의회정치론 3-3-0

Theory of Parliamentary Politics

This course provides an introduction to the theory of parliamentary politics, with a focus on the role of the parliament in the political process. Students will learn about the history of parliamentary systems, the structure and functioning of parliaments, and the role of the parliament in democratic government. The course will also cover the role of international organizations in promoting parliamentary democracy.

216A.323 미국정치론 3-3-0

Governments and Politics of America

This course provides an introduction to the political and economic systems of the United States, with a focus on the challenges facing these countries as they transition from centrally planned economies to market economies. Students will learn about the history of these countries, the role of the state in economic development, and the political processes that have shaped modern Russia and Eastern Europe. The course will also cover the role of international organizations in providing assistance to these countries.
This course intends to provide understanding of dynamics in development and underdevelopment of East Asian region, as one of growth axes in world economy. The growth and crisis of East Asian countries could be analyzed by looking at dynamic interactions of countries within regional economy of East Asia and interaction with external environments. In the first half of this seminar, we will explore various theoretical perspectives of political economy. In the latter, we will discuss issues such as changes in international political economy, growth and crisis of East Asia, and responses of East Asian countries in the globalization era.

This course introduces new trends in political science, dealing with specific issues that haven’t been adequately addressed in the previous courses. Topics will vary from semester to semester at the discretion of the instructor.
Game Theory and Politics

This course introduces game theory, a relatively new method for studying politics. Students will be encouraged to apply game-theoretic ways of thinking to diverse political phenomena. Game theory is a study of how actors make decisions and what collective outcomes result from strategic and interdependent decision making situations. In particular, this course will approach traditional topics of political science such as elections, political institutions, collective action, and international relations from game theoretic perspectives.

M1320.001100 인권 3-3-0

Human Rights

A critical examination of the politics and history of human rights, their current legal and institutional content, and their normative justifiability.

M1320.001300 정치 체제와 변동 3-3-0

Political Systems and Changes

This course introduces types and institutional principles of political systems and discusses dynamics and consequences of political changes such as revolution, democratization and post-authoritarian transformation. It aims to expand students' theoretical and comparative horizon in understanding the features and paths of various dictatorial and democratic systems.

M1320.001400 중국의 부상과 아시아의 미래 3-3-0

China's Rise and Asia' Future

This course examines China's global and regional impact, and key governance challenges in the areas of security, economy, energy, environment, culture, human rights and internet.

M1320.000600 법과 민주주의 3-3-0

Law and Democracy

This course examines key conceptual and substantive issues of China's rise in the Asian context. The course begins with exploring what and where China is in a new global and regional context. It then examines China's global and regional impact, and key governance challenges in the areas of security, economy, energy, environment, culture, human rights and internet.
가지 중심의 외교사적 분석을 지양하며 근대 이원 유럽과 아시아 및 기타 지역을 중심으로 뻗어진 국가 간 관계의 역사를 다룬다.

This course examines the history of international relations between Korea and modern Europe, Asia and other regions.

216B.214 중국외교정책론 3-3-0

Chinese Foreign Policy

이 과목은 중국외교정책에 대한 기본적 이해를 위한 개론적 과목으로 다음과 같이 나누어진다. 첫째, 기존의 외교사적 입장의 개괄적 조명을 통해 중국외교정책의 무언에 이르기 까지의 전개과정을 이해한다. 둘째, 중국외교정책을 군사안보적 측면과 경제적분야의 두 가지 영역으로 나누어 살펴보고, 다섯째로는 중국과 주요국가들과의 관계를 조명해보는 것으로 종미, 중-소-미, 중-일, 중-3세계, 중국의 확대, 한-중관계 그리고 마지막으로 미국과 중국 사이에서의 한국의 타당에 대해 논의해본다.

This course is comprised of the following five elements: a survey of basic theories in foreign policy; discussions of key determinants of Chinese foreign policy; an examination of Chinese foreign policy since 1949; a comparison of security and economic issues in Chinese foreign policy; and overviews of bilateral relations between China and the US, Russia, Japan, the Third World, Taiwan and South Korea.

216B.219A 세계지역연구개론 3-3-0

Introduction to World Studies

타당성 이후 가속화되고 있는 세계화 현상이 점차增大하고 있는 지구적 조건은 우리에게 무한한 도전으로의 전환을 함께 전 세계로 뻗어나갈 수 있는 기회를 통한 의존도를 높이는 것이다. 다른 말로, 다른 국가와 함께 공존하며 평화와 번영을 추구하는 기조 하여 세계의 새로운 도전에 대처해 나가야 할 보편적 인식으로 전개하여 간다. 이렇게 해서 지역연구의 지속적인 발전이 요구되고 있다. 하지만 기존의 국제정치학 교육이 이론적인 분야에 대한 경도로 인하여 경제학과 역사학의 기초를 갖춘 학생들을 실제 국제정치문제를 조명하는 데 도움이 되지 않기 때문에 이 과목은 학문적 탐구의 대상으로서 미국의 외교정책과 대외관계에 대한 이해를 그 과정으로 한다. 강의의 전반부에서는 20세기 미국의 세계전략을 전반하게 고찰하고, 21세기 미국의 세계전략은 다음과 같이 나눠진다.

This course scrutinizes the US foreign policies leading today’s international politics. It covers the country’s history since the second World War and its policy-making process.

216B.223 국제정치경제론 3-3-0

International Political Economy

21세기 세계정치경제는 어느 방향으로 흘러가고 있는가? 과연 세계화 시대에 주로는 업황되었고 국가는 존재의 의미를 잃었는가? 탈냉전시대에 국제협력은 가능하며 어떤 모습으로 전개될 것인가? 본 강좌는 이러한 문제의식을 가지고 선진자본주의 국가들 간의 정세적 관계론을 중심으로 21세기 세계정치의 성격을 규명해보고자 한다. 강의의 첫부분은 국제정치경제 관계에 대한 중요 이론적 관점을 살펴본 후, 21세기 세계정치에 향후, 미국과 판도라의 문론을 다루는 것이다.

How is the 21st century international political economy working? Is sovereignty weakening? Is the nation state losing its meaning in the era of globalization? This course critically examines the world order of the 21st century focusing on the political and economic relations among developed nations. It covers the theoretical perspectives of international political economy and practical issues such as international trade, fiscal policy, and investment.
국제 정치외교학부

1) 안보론 3-3-0

Security Studies

본 강의는 전통적인 군사 및 경제안보에 대한 이론적, 실질적 접근과 함께 자연, 환경, 문화 등 현대적 의미의 새로운 안보개념에 대한 고찰을 진행하고자 한다.

With the emphasis on the traditional security concept, this class introduces new ‘security’ concept in terms of resources, environment, and culture.

2) 탈근대세계정치론 3-3-0

Postmodern World Politics

본 강의는 냉전 이후 더욱 복잡하게 변해가는 세계관계를 기존의 전통적인 국제정치이론을 넘어선 새로운 분석의 틀로 접근한다. 이를 위해 우선 탈근대 세계정치 이론들을 정리한 다음, 이를 통해 21세기의 세계질서를 새롭게 조망하고자 한다.

This course tries to go beyond the traditional theory of international politics, taking a new approach to the analysis of international relations. It examines the issues in international politics in light of new postmodern international theories.

3) 한반도와 국제정치 3-3-0

The Korean Peninsula and International Politics

본 강좌는 앞으로 국제정치를 전공하게 될 학생들이 한반도가 처한 국제정치의 환경과 역사를 이해하는데 도움이 되고자 한다. 또한 수강생들이 단순한 지식의 습득이 아닌 스스로의 문제제기와 문제해결 과정을 경험할 수 있도록 하는 탈고교화의 목적을 가지고 있다. 수업은 강의와 토론으로 나뉘며, 토론 시간은 수업조교의 지도하에 이루어진다.

This course is designed as an introductory course for international students who wish to understand the interactions between the international community and the Korean peninsula. The course is conducted through lectures and small group discussions.

4) 외교정책론 3-3-0

Foreign Policy Analysis

이 과목은 외교정책의 결정과정과 수행의 분석을 위한 개념적 틀과 이론적 시각을 고찰한다. 개별정책결정자, 정책결정 집단, 국내정치, 국제정치 등 다양한 분석수준의 논의를 살펴보고, 그러한 분석의 통합 가능성을 검토할 것이다. 그리고 이러한 논의의 개별적, 비교적 사례화의 적용 문제가 다루어질 것이다.

This course examines conceptual frameworks and theoretical perspectives for the analysis of foreign policy decision-making and execution. Various levels of analysis, such as individual decision-maker, decision-making group, domestic politics, national attributes and systemic influences, will be discussed, and the possibility of integrating those levels will be considered. Lastly, the course will deal with the matter of application to specific or comparative case studies.

5) 개발과 협력의 국제정치경제 3-3-0

International Political Economy of Development and Cooperation


Why are poor countries always poor and rich countries always rich? What are effective ways to solve problems faced by developing countries? This course examines theoretical and analytical frameworks to understand and evaluate programs of international cooperation and development from the view of political economy.

6) 국제정치이론 3-3-0

Theory of International Politics

이 과목은 한반도에서 오늘을 살아가는 우리들의 삶에 커다란 영향을 미치고 있는 국제정치를 체계적으로 분석하기 위하여 첫째, 기존의 국내외 국제정치학연구를 비판적으로 검토하고, 둘째, 한반도 국제정치의 기본구조와 역동성을 비롯한 다음, 셋째, 이러한 한반도 국제정치의 역학관계를 우리가 한반도의 보다 나은 삶을 위해 어떻게 활용할 것인가를 검토하게 될 것이다.

Aiming at a systematic examination of international politics, this course critically reviews existing studies of international politics, analyzing the structure and dynamics of international politics as well as discussing how Korea can take advantage of the dynamics of international politics surrounding the peninsula.

7) 국제기구론 3-3-0

International Organization

본 강의는 오늘날 국제정치에서 점점 중요성을 더해가고 있는 국제기구들에 대한 강의이다. 특히 담당교수의 강의와 함께 실제 해당 국제기구에서 실무를 담당했던 사람들의 특강을 같이 실시하여 국제기구가 실질적으로 어떻게 운영되는가를 간접적으로나마 경험하고자 한다.

This class examines international organizations whose importance has been increasing in recent years. Especially, it opens special lectures presented by specialists from various international organizations.

8) 정보세계정치론 3-3-0

The Global Politics of Information

본 과목은 정보기술의 발달로 인해 야기되는 국제정치의 변화 또는 연속성을 국제정치의 이론적 경험적 시각에서 검토한다. 관련 주제의 보다 심층적인 이해를 위해 과학기술에 대한 개념적, 역사적, 학계간 논의를 다루며, 군사안보, 정치경제, 지식문화 등의 분야에서 제기되는 정보사회세대 세계정치의 구체적인 사례들 을 살펴볼 것이다.

This class surveys the changing (or continuing) nature of world politics caused by the development of Information Technology from the theoretical and empirical perspectives of international relations. To understand these issues in more thorough ways, this course relies on various conceptual, historical,
and inter-disciplinary resources accumulated in the tradition of social science, and examines specific cases in the fields of military and security affairs, political economic affairs, and knowledge and cultural politics in international relations.

**216B.335A**  
United States Decision-Making Process in US Politics

In the United States, a variety of committees are charged with making specific decisions. The process is often complex and involves many stakeholders. This course focuses on these processes and how they shape public policy. It includes discussions on the role of Congress, the presidency, and interest groups in the decision-making process.

**216B.336**  
Diplomacy and Security Studies: Korean Foreign Policy

This course covers the development of Korean foreign policy since the 1940s. It begins with an overview of the post-war period, followed by detailed analysis of key events and figures. Students will learn about the evolution of Korean foreign policy and its impact on the region.

**216B.337A**  
Korean Political and Diplomatic Thought

This course examines the political and diplomatic thought of Korea. It covers the periods of the Joseon Dynasty, the Korean Empire, and modern Korea, focusing on major figures and their ideas. Students will gain a deeper understanding of Korea's political history and its impact on contemporary politics.

**216B.338A**  
Russia in World Politics

This course explores the political and economic history of Russia, focusing on its role in the global system. It covers the periods of tsarism, the Soviet Union, and modern Russia, examining major events, leaders, and policies. Students will gain a comprehensive understanding of Russia's place in the world.
Eurasia in World Politics

This course is designed to help students understand the dynamics and implications of international relations in Eurasia (Central Asia and Caucasus region) after the collapse of the Soviet Union, focusing on the great powers rivalry in this region and the responses of regional newly independent states to the changing structure of regional politics.

Comparative Federalism and Federation

This class examines the concept and history of diplomatic institutions, analyzing negotiations among states through theoretical approaches and case studies. Each group consists of 3-4 people who will choose and investigate a specific case in terms of its process and results.

Environments and Global Politics

This class examines the global and political aspects of international disputes and international cooperation caused by the degradation of global environment. In particular, this class pays special attention to various solutions on environmental problems proposed by inter-governmental networks and other transnational networks of multinational corporations and non-governmental actors.

International Political Economy of Finance and Development

This course introduces students to the theory and practice of federalism. Specifically, we focus on the allocation of power across multiple tiers of government and its consequences for policy outcomes. We begin by building political and economic theories of federalism during the first half of the semester. During the second half of the term, we examine cases of advanced federal states with a special attention on constitutional structure and/or political institutions and processes in US, Canada, Australia, Austria, Belgium, Germany, and Switzerland.
making? What explained South Korea’s rapid economic growth? To answer these questions, this course surveys literature on the history of the international monetary system, the development of financial industry, and the role of finance in economic development from the perspective of political economy.

Course Code: 216B.415

Course Title: Culture and Ideology in International Relations

This course examines new factors in international relations such as culture, ideology, and communication.

Course Code: 216B.420

Course Title: Seminar in International Politics

This course reviews the international relations of Northeast Asian nation states. It discusses their pending issues and challenges, as well as possible solutions.

Course Code: 216B.423

Course Title: International Relations in East Asia

This course aims at enhancing the understanding of politics and foreign policies in Southeast Asian countries. ASEAN region plays an important role in East Asian economic development and regionalism, bearing considerable implications for Korean diplomacy and East Asian international relations. This lecture explores how ASEAN states’ politics and foreign policies work in intra-regional and inter-regional relations.

Course Code: 216B.428

Course Title: International Thought in East Asia

This course provides basic knowledge about East Asian thinking of international relations for understanding contemporary East Asian countries’ foreign relations and policy.

Course Code: 216B.429

Course Title: Guide to International Relations

This course provides an introduction to the field of international relations. Students will learn areas and issues in international relations. Students will survey the past, present and future of international relations throughout the course.
international issues. The course deals with the following topics: global justice, democracy and sovereignty of border, human right and international intervention, desecularization and terrorism, international inequality and world poverty, and global migration and citizenship.

M1321.000900 글로벌 리더십 연습 3-3-0

Seminar in Global Leadership

본 수업은 정치외교학부 학생들에게 사회과학, 특히 정치외교학 논문작성 능력을 향상하는 것을 목적으로 한다. 학생들의 자율 연구와 교수님들의 담당 지역을 통한 연구연 구, 그룹연구의 학부세미나를 통해 사회과학적 근거, 연구방법, 그리고 좋은 논문의 구성요소와 특징에 대해 학습하고, 직접 사례연구를 진행한다. 본 수업은 학생들이 자신만의 연구주제를 선정하고 밝혀서 좋은논문 을 체계적으로 준비할 수 있도록 주제별 소규모 세미나 강좌로 나누어 진행한다. 또한 주제와 연계하여 필드리서치, 종간발표, 기말 발표를 진행하고 우수과제들을 모아서 시상 및 출판을 할 것이다.

The aim of the course is to help students learn how to write social science research papers with a focus on topics of political science and international relations. With small group undergraduate seminar, professors and students will discuss scientific writing skills, research design, and components of good research papers by examining important works in the field of political science and international relations. Also the course expects students to discover and develop their own topics for a thesis during the course. In order to accomplish the goal, small group seminars will be administered according to specific topic. Each seminar groups will have field research, midterm presentation, final presentation. Excellent papers will be awarded and will be given a chance to publish.

M1321.000900 글로벌 냉전의 이해 3-3-0

Understanding the Global Cold War

냉전의 종이 이후 냉전에 대한 연구는 더욱 활발해졌으며, 단순히 냉전을 미국과 소련의 이념적/군사적 대립의 경쟁으로 보는 것 을 넘어서 다양한 방법론과 의제, 그리고 분석수준의 연구가 이루어지고 있다. 본 강좌는 이러한 학문적 추세를 반영하여 글로벌 냉전의 주제를 학래적으로 이해하고, 지역의 주제에서의 냉전을 비교적적으로 검토하는 것을 그 내용으로 한다. 강좌는 냉전 연구의 방법론을 살펴보고 각 지역에서의 냉전의 특성을 비교하는 방식으로 진행될 것이며, 담당교수 이외에 국내외 관련학자들의 초빙 강의가 이루어질 것이다.

Since the end of the Cold War, the field of Cold War Studies has grown to include a variety of methodologies, agendas and levels of analysis that did not exist in prior research on the event as an ideological/strategic confrontation between the US and the USSR. In recognition of this, this course tries to understand the subject of the ‘Global Cold War’ through an interdisciplinary approach and examines regional Cold Wars from a comparative perspective. An added feature of this course is that lectures are not only be conducted by two professors, but also by other scholars from both Korea and abroad.

M1321.010100 국제법과 국제관계 3-3-0

International Relations and International Law

근대 국제관계에서 국제법의 본질과 이론, 국제정치학의 관계를 연구한다. 특히 21세기 국제정치가 다양한 분야에서 제도화되며, 즉 국제법의 역할과 비중이 증가하고 있음을 고려하여, 현재의 국제관계에서 국제법이 차지하는 역할과 기능을 검토할 것이다.

This course explores the nature, function, and the relationship of international law with international relations. Especially with the rising importance of international institutions in international relations, this course focuses on the modern role of international law in the 21st century.

M1321.010200 유럽지역연구 3-3-0

Europe in World Politics

이 강좌는 유럽의 지역통합 이론과 실제를 둘 부분으로 나누어 검토한다. 1) 지역통합을 논리에 관한 정치학적 접근과 경제학적 접근방식을 대조한다. 2) 현 유럽연합국들의 성향에 관해 비교한다. 3) 유럽통합을 분석하는 이론적 접근법을 검토한다. 4) 유럽 내 지역통합의 결과로 유럽연합 내 정치적 갈등이 사라지고, 정당, 집단 을 통해 어떻게 표출되는지 살펴본다.

To examine theories and practices of regional integration in Europe, we will divide this course into 4 parts: 1) contrast political and economic approaches to regional integration, 2) compare the member states of EU, 3) review European integration theories, and 4) discuss models of political conflict in the EU among citizens, political parties, and groups.

M1321.010400 현대동북아국제정치경제 3-3-0

International Political Economy of the Contemporary Northeast Asia

국제정치경제적 제약과 기회 속에서 고도성장의 경험을 공유하 고 있는 한국・중국・일본의 동북아 지역은 현재 국제정치경제의 구조를 창출하는 주요 합작자로 발전하였다. 현재 전세계적 국제정치경제의 변화를 이해하기 위해서도 동북아 지역에서 최근 인하되고 있는 국제정치경제적 통찰을 살펴보는 것이 필요하다. 이 강좌의 주요 학습 내용은 1990년대 이후 생산, 무역, 통화・금융, 투자, 자원, 에너지 등 국제정치경제의 각 영역에서 동북아를 중심으로 진행되어 온 전과 협력이다. 외교학을 전공하는 학생 들을 주요 대상으로 하여, 현대 동북아 지역에서의 국제정치경제적 변화를 보다 밀도 있게 검토하고 이를 국제정치경제이론과 접목하는 기회를 제공한다.

The Northeast Asian countries, experiencing rapid economic growth under international constraints and opportunities, had currently become significant architects of international political economic structure itself. In order to understand global transformation of international political economy, it is necessary to examine international political economic dynamics in the Northeast Asian region. This course covers up the Northeast Asian countries’ cooperation and conflicts in production, trade, finance, investment, resources, and energy after the 1990s. This course targets students of International Relations Major, Department of Political Science and International Relations to synthesize international political economic theories and their realities in the Northeast Asian region.
본 과목은 경제학부 전공필수과목으로서, 중세부터 2차대전 직후까지의 서양의 경제발전을 개관한다. 서양의 경제적 환경과 물질적 생활수준의 장기적인 상승폭을 이해하고 경제발전의 역 사적인 시각으로 분석하는 능력을 기르는 것이 이 과목의 목적이다. 경제성장이론도 강의의 내용이 된다.

이 과목은 국가경제 전체의 운행원리를 이해하는 데 도움을 준다. 국민소득, 물가, 고용, 환율, 이자율 등과 같은 주요 경제변수들의 결정 및 운행원리를 탐구하고 이들 변수들에 대한 주요 재정 및 금융정책의 효율을 살펴본다. 기본적인 경제성장이론도 강의의 내용이 된다.

이 과목은 현대 경제사회에서 가장 중요한 문제 가운데 하나인 노동문제를 경제학적으로 이해할 수 있도록 하는 기초적인 이론 및 실증결과를 검토한다. 노동시장에서 발생하는 고용, 임금 및 실업 등의 문제 등을 개인의 최적화 선택에 기초한 시장균형관점에서 조명한다. 한편 이러한 경제적 성격을 결정하는 요인들로서 교육, 노동시장정책, 노동조합, 사회복지정책 등의 제도적 분야와 고 루된다. 본 과목은 이러한 논의를 통해 각종 노동문제의 근본에 대한 이해를 돕고, 노동문제 해결을 위한 올바른 시각과 접근방식을 유지해주는 그 목적이 있다.

이 과목은 현대 경제학수학은 수학적 기법을 이용한 분석이 많다. 경제학사에서 마르크스 경제학의 독특한 이론적, 실천적 의미가 부각될 것이다. 경제의 세계화가 중요한 문제로 부각되고 있는 현실에서, 한 국가는 국제적 역량을 부양하게 이해할 수 있다. 이 과목은 국제경제를 구성하는 여러 요인들인 국제무역과 국제수지 그리고 국제기구 등을 이해한 결과로 살펴본다.

이 과목은 현대 경제학은 수학적 기법을 이용한 분야이다. 이 과목에서는 경제학을 학습하는 데 필요한 기본적인 수학적 기법을 얻기시켜주는 배경과목이다. 이 과목은 현대 경제학은 수학적 기법을 이용한 분야이다. 이 과목에서는 경제학을 학습하는 데 필요한 기본적인 수학적 기법을 얻기시켜주는 배경과목이다.
include elementary algebra, linear algebra, differentiation, differential equations, and the basics of the optimization programs.

212.215 정책경제학입문 3-3-0
Introduction to the Political Economy
주류경제학의 문제점을 부각시키면서 대한적인 경제학 제제가 무엇인지를 강조한다. 특히 현실의 경제문제에 대한 주류적인 시각과 대한적인 시각을 제시하면서 다양한 사고를 개발한다.

This course contrasts mainstream economics with its alternatives, with special emphasis on alternative approaches to current economic problems.

212.216 시장경제의 이해 3-3-0
Introduction to Market Economy
이 과목은 한국형 자본주의가 어떻게 시장경제로 정착되기 시작하였으며, 그 발전 전망에 대해 수학적모형의 이해를 높이기 위한 과목으로 강의내용은 시장경제에 참여하는 소비자, 생산자 정부의 인식을 갖는다는 시장경제에 대한 이해를 분석하여 전달하고 이를 효과적으로 이해시키기 위하여 대기업, 중소기업 및 국내외 건설한 행외기업과 정부 및 소비자보호단체의 대표를 강사로 초청할 예정이다.

The course is to promote students’ understanding of how Korean capitalism had been evolved and what is its prospects for future development. The contents of team lectures are to introduce and analyze the roles of three major participants in the market economy: Firms, Consumers and Government. In order to give students the “feel” of how market economy is operated and how economic agents interact among themselves, lectures on different topics will be invited from domestic and research institutions.

212.301 재정학 3-3-0
Public Finance
이 과목은 응용이리경제학의 한 분야로서, 합리적인 경제행위가 정부의 행위에는 어떻게 적용될 것인가를 알아보는 것을 목표로 한다. 공공재, 중앙은행, 테이터, 외부성 문제, 소득분배, 소득공급, 분배, 비용편익 분석, 비용편익 분석, 조세이론, 정부 및 지방 재정 등이 이 과목의 주요 주제가 된다.

As a course in applied microeconomics, this lecture focuses on government policy decision in terms of rational economic behavior. Main topics include: public goods, Public Choice Theory, externality, Income Distribution Theory, Government Spending Analysis, Cost-Benefit Analysis, Tax Theory, and Municipal financing.

212.302 수리경제학 3-3-0
Mathematical Economics
경제학을 수학적 학문을 위한 고급교수이다. 수학수학에서 배워낸 여러 분석도구를 보다 깊이 있게 다룬다. 최적화문제의 부등식 제약을 다루는 쿤-타커 정리, 투입수출조절과 관련된 선형계획법의 정리등, 최적화분석에서 등장하는 라그랑지 슈스의 경제적 의미 등을 다룬다.

This is an advanced course for those majoring in economic mathematics. The course will help students gain a comprehensive understanding of the Kuhn-Tucker theorem, theorems of linear algebra for the Input-Output model, and the economic meaning of the LaGrange multiplier.

212.303 화폐금융론 3-3-0
Money and Finance
이 과목의 목표는 현대화폐금융이론을 꾀범위하게 습득함으로써 금융시장, 중앙은행, 금융정책 등이 어떻게 이루어지는지를 이해하는 것이다. 이를 위해 금융시장, 일반상환은행, 중앙은행, 화폐공급, 화폐수요, 금융정책, 이자이론 등과 관련된 여러 가지 이론적 분석과 그 현실적 의미를 살펴본다.

This course equips students with modern theories of money and finance so as to gain a basic understanding of financial markets, central banking, and financial policies. We also examine various theoretical views monetary supply and demand, theories of interest rate, and their relevance to the actual world.

212.307 국제무역론 3-3-0
International Trade
이 과목에서는 국제무역의 기초이론을 공부한다. 구체적으로 무역의 이익, 규모의 경제와 다양한 형식화된 제품의 소비, 상대적 생산기술의 차이에 근거한 비용편익방식, 요소부문비율과 요소값의 역할에 대한 이해를 위한 비교적 분석방식, 요소결합방식의 식별 및 계수추정 등에 관한 이론을 소개한다.

This course will cover the following topics: fundamental theories of international trade; the benefits of trade; economies of scale; consumption of discriminated products; the doctrine of production costs based on the difference of relative production technology; the doctrine of comparative costs based on the difference of factor-endowment ratio and factor intensity; the possible improvement of people’s welfare by idealistic income redistribution; the determination of trade conditions; protective tariffs and change of the factor income distribution; the benefits of free trade and factor income equalization; increase of factor supply; effect of technical progress on the production-trade structure; the trade conditions and the factor income; protective trade and welfare; theory of optimal tariffs; arguments for the protection of infant industry;
International Monetary Economics

This course introduces students to the development of economics, with special emphasis on the history of economics at the turn of the 20th century. Students also examine the relation between theoretical features and environment and the foundation of a scientific world-view.

History of Economic Theory

This course deals with the economic development of the East Asian countries, their aspect within the world economy, and their economic growth. It focuses on the economic theories and policies of East Asian countries, their aspect within the world economy, and their economic growth. It covers topics such as the economic development of East Asian countries, their aspect within the world economy, and their economic growth. It also examines the economic theories and policies of East Asian countries, their aspect within the world economy, and their economic growth.

Oriental Economic History

This course surveys Marxian economics after Marx’s death. It covers the Second International, theories of monopoly, capital, and imperialism, the socialist system of the USSR, Althusserian Marxism, problems of the Third World, and the globalization of capital.

Modern Marxian Economics

This course surveys Marxian economics after Marx’s death. It covers the Second International, theories of monopoly, capital, and imperialism, the socialist system of the USSR, Althusserian Marxism, problems of the Third World, and the globalization of capital.

Industrial Relations

This course surveys Marxian economics after Marx’s death. It covers the Second International, theories of monopoly, capital, and imperialism, the socialist system of the USSR, Althusserian Marxism, problems of the Third World, and the globalization of capital.

Korean Economic History

This course surveys Marxian economics after Marx’s death. It covers the Second International, theories of monopoly, capital, and imperialism, the socialist system of the USSR, Althusserian Marxism, problems of the Third World, and the globalization of capital.

International Monetary Economics

This course surveys Marxian economics after Marx’s death. It covers the Second International, theories of monopoly, capital, and imperialism, the socialist system of the USSR, Althusserian Marxism, problems of the Third World, and the globalization of capital.

Oriental Economic History

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Korean Economic History

This course surveys Marxian economics after Marx’s death. It covers the Second International, theories of monopoly, capital, and imperialism, the socialist system of the USSR, Althusserian Marxism, problems of the Third World, and the globalization of capital.

Industrial Relations

This course surveys Marxian economics after Marx’s death. It covers the Second International, theories of monopoly, capital, and imperialism, the socialist system of the USSR, Althusserian Marxism, problems of the Third World, and the globalization of capital.

Korean Economic History

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Industrial Relations

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물은 사장관리에 기초한 접근방식이며, 이와 함께 사례분석 및 실제 분석을 통해 근로계약과 노사관계에 대한 이해를 넓혀나가야 한다.

The issues concerning individual contracts and unionism are addressed in this course Pros and cons of various types of contracts and their components as well as their efficiency implications are discussed Unionism, Trade Union Acts, and collective actions are also examined.

이 과목은 경제학과 3·4학년 학생들을 대상으로 한국 자본시장의 구조 및 현황을 가르치는 것을 목적으로 한다. 본 교과목은 2학기 개설 교과목인 이론과 연계된 강의로서 자본시장 제도 실체에 초점을 두고 있다.

Targeted for junior and senior students of economics, the aim of this course is to teach the structure and status quo of the Korean capital market. This subject is connected with “Stocks, Bonds and Financial Derivatives 1: Theory” which is opened for the second semester and is focused on explaining the institution of capital markets.

이 과목은 경제학과 3·4학년 학생들을 대상으로 한국 자본시장의 구조 및 현황을 가르치는 것을 목적으로 한다. 본 교과목은 2학기 개설 교과목인 이론과 연계된 강의로서 자본시장 제도 실체에 초점을 두고 있다.

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212.345 Seminar on Industrial Economy

This course invites speakers, every week, from industries and firms so that students may learn their on-site and practical knowledge and skills about industries and firms.

212.346 Seminar on Financial Economy

This course invites speakers, every week, from financial markets so that students may learn their on-site and practical knowledge and skills about financial markets and sectors.

212.347 Economic Growth & Development

2차대전 이후 자본주의 세계체제가 확립되면서 각 국민경제가 당면하는 가장 중요한 문제는 어떻게 경제의 장기적이고 안정적인 성장을 이루느냐는 것이었다. 그것은 새로운 특성과 발전도상국에 대한 여러 관점에서 직접 강조되어 왔다. 이러한 관점들은 이를 통해 한국경제성장론의 특성을 강조하였다. 이러한 관점들은 그사회과학대학(College of Social Sciences)에 노력하게 되었다. 한국경제의 특성과 성장 및 발전과정을 최근의 이론과 분석틀에 대해 분석한다. 또한 경제의 투자정책의 기존은 제시하고 이를 고려해야하는 사안에 대해 분석한다.

이 과목은 고급 계량경제학의 연속강의로서 계량경제학에서 간단히 다루었던 회귀모형에서의 통계적 검정방법에 대해 자세히 검토하고, 

212.348 Advanced Econometrics

Regressions Econometrics. Topics include further analysis of multivariate regression, choice of functional form, heteroskedasticity, serial correlation, two-stage least squares, qualitative choice models, limited dependent variables, panel models, time series models, and forecasting. Theory and application of time series methods in econometrics, including spectral analysis, estimation with stationary and non-stationary processes, VARs, factor models, unit roots, co-integration.

212.349 Theory of Microfinance

본 과목은 경제학부 3학년생을 대상으로 기업의 자본조달 및 투자정책에 대한 기존 및 증권적지를 강화한다. 경제학부의 ‘사회경제와 금융’이라는 기간성과직적으로는 금융시장을 분석하는데 초점을 두는 데 반해 본 과목은 미시경제학에 주안점을 두었다. 구체적으로 기업의 자본조달 방법에의 종류와 상대적 장단점을 최적 자본조달 방법론에 대해 분석한다. 그동안 기업의 투자정책의 기존은 제시하고 이를 고려해야하는 사안에 대해 분석한다.

Targeting for the junior students majoring in economics, the course is to deliver fundamental and intermediate knowledge about corporate finance. This course centers upon the macroeconomic analysis of the financial market, whereas ‘Money and Finance’ focuses on the macroeconomic analysis. Specifically, this course covers various financial structures, pros and cons of the alternative financing methods and the optimal financial structure. This course also provides alternative criteria for assessing the firms’ investment decision and corresponding risk management.

212.350 Understanding Political Economy

정치경제는 경제적 제도와 정치적 제도의 상호관계를 연구한다. 이 과목은 경제제도, 그리고 경제적 이해관계가 어떻게 경제적 행위 및 제도와 관련되어 있는지에 대하여 고찰할 것이다. 제도와 정책결 정에 대한 규범을 이해하고, 정책결정 및 집행 과정과 개별 의사결정자들의 경제적 행위가 그 결과에 대한 분석을 다루는 것이다. 수강생들은 정치경제 분석의 철학적 기초, 선거, 의회정치분 석, 이익집단, 정치적 의사결정의 유인이, 투표 등에 대하여 배 우게 될 것이다.

This course is a study of the interrelationships between political and economic institutions. It studies how laws, political institutions, and policies are related with economic behavior and institutions. The course covers normative theories, the process of public policy formulation and implementation, and the economic behavior of individuals in policy making. Students will study philosophical foundations for public policies, electoral competition, legislative politics, interest group politics, the incentive structure of government decision making, and voting behavior.

212.412 Korean Economy

한국경제에 대한 정책과 성장 및 발전과정을 최근의 이론과 분석을 통해 검토하고, 다른 나라와 비교하여 분석하며 한국경제론에 관한 국내외 경제전문가들의 최근의 연구결과를 소개하고 이를 토대로 한국경제의 주요 문제점을 체계적으로 검토할 수 있게 한다.

Our purpose in this course is to examine the Korean economy and its development by applying recent theories and analytic methods. We will compare the Korean economy with its counterparts, and enable students to examine the Korean economy using recent research by foreign and domestic economic specialists.
Korea, China, Taiwan and other countries and their firms. It covers experiences of late-comers and countries. It focuses on economic change since the 1978 national reform and address aspects of the resulting socio-economic changes. This course applies natural sciences, sociology, and economics to understand the problems of environmental friendliness and sustainable economic development. The student learns how to research the role and impact of economics on the environment.

이 강좌의 목적인 학부 3, 4년 학생을 대상으로 이 범위 경제이론을 심화시키는 한편, 경제학의 여러 주제에 대해 자신의 생각한 바를 직접 발표하고 토론하는 기회를 갖게 함으로써 경제 이론을 현실에 응용하는 능력을 배치 봉사래 주는 것이다. 학생들이 직접 논리적 논문 발표에 대한 기 본소양을 쌓게 하는 것도 강의의 한 중요한 측면이다.

The aim of this course is to deepen what they have learned. Students will learn to discuss and present their ideas on various topics of Economics. This course will also serve as a writing practice session for those who are preparing their graduation thesis by requiring every student to write a short paper which will be reviewed by the instructor.

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The aim of this course is to deepen what they have learned. Students will learn to discuss and present their ideas on various topics of Economics. This course will also serve as a writing practice session for those who are preparing their graduation thesis by requiring every student to write a short paper which will be reviewed by the instructor.
This course provides an introduction to dynamic general equilibrium models, a major tool of modern macroeconomics. Based on dynamic macro models, major macro issues will be discussed including economic growth, business cycles, inflation, financial & currency crises, and monetary & fiscal policy.

212.472 
Economic Forecasting and Time Series Analysis

This course examines one of the greatest events in the late 20th century, that is, the economics of the collapse of European socialist economies and their transition to market economies. In this course, we will address the following questions: what were the causes of the collapse of Centrally Planned Economies?; what are the economic problems which transitional economies have faced; what can be learned from European socialist economies and their transition to market economies. In this course, we will introduce the following. Probability theory: single and multivariate probability distributions; convergences in probability, in distribution, and in mean-squared sense. Stochastic process: stationarity; binomial process; random walks; Markov process; Brownian motion; Poisson process. Martingale theory: martingale game; variations; martingale representation theorem. Ito integral: stochastic integral; Ito lemma. Stochastic differential equation: Black-Scholes process; Brownian bridge; Vasicek process; Cox-Ingersoll-Ross process. Black-Scholes partial differential equation and Black-Scholes formula. Greeks. Equivalent martingale and Girsanov theorem.

212.476 
Financial Intermediation and Regulation

This is an upper level course for undergraduate students and the various concepts of stochastic dominance will be introduced as undergraduate level. For this purpose, micro-analysis about the concept of certainty in elementary microeconomics, and the microeconomic foundation about how to evaluate the value of information. For this purpose, we will study the consumers’ decision making under uncertainty which they inevitably are faced with in real economy. In this lecture, we will introduce the following. Probability theory: single and multivariate probability distribution, and in mean-squared sense. Stochastic process: stability distributions; convergences in probability, in distribution, and in mean-squared sense. Martingale theory: binomial process; random walks; Markov process; Brownian motion; Poisson process. Equivalent martingale and Girsanov theorem.

212.478 
Information Economics

This course will introduce the following. Probability theory: single and multivariate probability distribution, and in mean-squared sense. Martingale theory: binomial process; random walks; Markov process; Brownian motion; Poisson process. Equivalent martingale and Girsanov theorem.
한국경제학
3-3-0

북한경제론
3-3-0

한국경제

북한경제에 대한 이해를 증진하는 데 목표를 둔다. 이를 위해 북한경제의 현황을 살펴보고 이를 남한경제의 현황과 비교해 보으며 북한경제의 특성에 관해서 이해를 구한 다. 이를 통해 확인되는 것은 남한과 북한경제가 거의 모든 측면에서 본질적으로 상이하다는 사실이다. 경제의 핵심은 당초 비슷한 처지에 놓여 있던 남북한 경제가 분단이후 급격히 작용을 예측하고 이를 바탕으로 북한경제가 특성적인 성장 방식의 길로 나아갈 수 있는 방안이 무엇인지 알아보고자 한다. 이러한 작업을 통해 북한 경제에 대한 이해를 증진시키고 향후에 남북한 경제를 융합할 필요성이 생길 때 우리 학생들이 그에 대해 능동적이고 효과적으로 대처할 수 있는 능력을 배양한다.

The goal is to enhance our understanding of North Korean economy. We will first find out how the North Korean economy has been changing since 1953 and where the North Korean economy stands now. Inevitably we will compare the performance of North Korean economy with that of the South. We will find that the North and South Korean economies, though they were twin-like in 1953, are very much disparate: They are totally different in almost all aspects. We will try to understand the reasons why the two have diverged so much in the last 60 years or so. Through this we want to deepen our understanding of the North Korean economy and in particular we are going to find out effective means to help the North Korean economy to escape from the perennial stagnation and grow to a prosperous country. Students would be able to more effectively cope with the foreseeable economic integration of two Koreas.

Experimental Economies

 최근 관심이 고조되고 있는 인과추론과 행동주의적 고려를 반영해서, 인간 행동에 대한 연구의 정책 변화의 효과를 평가하기 위한 실험 방법들이 경제학에서 광범위하게 사용되고 있다. 이 기근을 통해 학생들은 적절한 인과추론을 위한 실험 디자인과 결과 해석에 대해 배울 것이다. 최근 연구의 흐름을 바탕으로 실험경제학 분야에서 중요한 결과들을 살펴볼 것이다.

Given the recent growth of interests in causal inference and behavioral considerations, experiments are increasingly used in economics to study human behavior and evaluate potential effects of policy changes. Students will learn how to design experiments and interpret their results and will also
overview some of the most important existing results.

M1314.000800 보건의료경제학 3-3-0

Health Economics

보건의료경제학은 건강과 의료의 생산과 소비 행위의 효율성, 효과성, 가치 등을 경제학적 관점에서 연구하는 학문이다. 본 강좌에서는 다음과의 주제들을 다룬다. 첫째, 건강의 사회경제적 결정요인들을 파악하고, 의료서비스 이용이 건강을 생산하는 경제학 모형을 이해한다. 둘째, 의료서비스 수요와 공급의 특성을 설명하고, 의료서비스 시장이 다른 시장과 어떻게 구별되는지를 이해한다. 세째, 건강 및 의료시장에 내재한 불확실성과 위험을 회피하기 위해 의료보험의 역할을 하는지를 이해하며, 의료보험은 의료서비스 수요, 공급 및 가격에 미치는 영향을 살펴본다. 넷째, 국민 의료보험, 규제, 법률체계 등에 있어 정부의 역할과 의료의 무상 증가에 어떤 영향을 미칠 수 있는지를 검토한다.

Health economics is a filed of economics that studies the efficiency, effectiveness and value in the production and consumption of health and healthcare. This course aims to understand the following topics: 1) socioeconomic determinants of health, 2) economic model of health production function, 3) distinguishing features of healthcare market, 4) role of health insurance in avoiding uncertainty and risk intrinsic in health and healthcare, 5) effect of health insurance on the demand, supply and price in healthcare market, and 6) role of government in improving population health and welfare in the aspects of national health insurance, regulation and legislation.

M1314.000900 실증금융경제학 3-3-0

Empirical Financial Economics

경제현실에서 금융과 관련된 문제들의 비증과 중요도가 날로 증가하고 있으며 오늘날의 추세이며, 금융 관련 수업에 대한 학생들의 수요가 매우 높은 것이 현실이다. 현재 경제학부, 경영학과, 수학과 등에서 독립적으로 각기 다른 초점을 가지고 금융관련 교과목을 개설하고 있는데, 이들 교과목들은 그 수업내용이 대부분 이론중심이며 금융경제문제에 대한 실증분석을 주 내용으로 하는 교과목은 실체 없는 실이다. 본 과목에서는 금융경제문제에 대한 실증적 이슈들과 그 실증분석을 위한 방법론을 공부할 것이다. 또한, lab meeting 등의 실습을 통한 실습분석의 산학협동을 가질 예정이며, 또한 금융관련 국내외의 자료를 파악하고 그 용도를 학습할 기회도 가질 예정이다.

Finance related issues is increasingly important in the modern economic life, and demand for courses in finance and financial economics is very high in Seoul National University. While most undergraduate courses in finance and financial economics are theory oriented, courses in these areas with empirical topics as main contents are rare. Our course fills this important gap in undergraduate program in SNU. Our course provide lectures on empirical topics and methodologies for the analysis of them. Furthermore, students will have opportunities for analyzing the topics in lab meetings by practicing on the methodologies and real data.

M1314.001100 행태경제학 3-3-0

Behavioral Economics

이 강좌는 경제학과 심리학 분야에 종사하고 있는 이슈들에 대한 경제학적 분석을 다루고자 한다. 행태경제학의 주요 기질들과 이를 검증하는 실험 증거들에 대해 이해를 도모하려 하며, 행태 경제학의 근본 동향에 대해 알아보고자 한다.

This course intends to cover economic analyses of issues overlapping Economics and Psychology. The aims of the course are to give students an understanding of main hypotheses in behavioral economics and empirical evidence in their support. Evidence will be provided from both field and laboratory environments.

M1314.001200 수치계산법 개론 3-3-0

Introduction to Numerical Methods

이 강좌는 비선형 함수를 극소화 (또는 극대화) 하는 것이 비 선형 방정식을 풀는 이론을 소개하고 컴퓨터를 이용하여 풀는 것을 익히고자 한다. 이러한 비선형 함수와 방정식 문제는 경제학에서 자주 등장하는 것으로 가령 최우도 함수들을 극대화 하거나, 그리고 유한차 계수를 포함하는 구조적 경제학 모델의 이들에서 발생한다. 이를 위해, 본 강좌에서는 컴퓨터 프로그래밍 언어로 컴퓨터를 이용하여 수치적 근사해를 구하는 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성을 이해하기 위한 기본 함수를 설명하고, 이 기술을 이해하기 위한 수치적 근사해의 근본적 가능성
서울대학교 (College of Social Sciences)

도덕학부 (Dept. of Economics)

- 224 -

가능하도록 학생들을 준비시키는 것이 과목의 목표이다. 따라서 과목은 중점적으로 실변수 함수에 관한 이론들을 개략적으로 살펴보고 그 이론 자체의 세부 사항에 머물지 않도록 함과목은 특히 경제학 전공으로 대학원에 전학하고자 하는 학생들에게 적합하다.

목적: 이 수업은 두 가지 목적이 있다. 하나는 학생들에게 엄밀한 정의에 익숙하게 만드는 것이고 다른 하나는 경제학에서 주로 사용하는 수학적 기술들을 자아케지기 위해서다. 이 수업은 학생들에게 여러 방면으로 유효할 것으로 생각한다. 경제학의 논문이나 기술적인 책을 읽는 것을 준비시키거나, 수학과 수업을 더 듣고자 하는 학생들의 첫 걸음이 되거나, 경제학적 연구 준비의 첫 걸음이 될 것이다.

This is a proof-based course in mathematics that are used widely in economics, particularly analysis in the euclidean space \( \mathbb{R}^n \). Key concepts are continuity, fixed point, contraction, partial derivative, the implicit function theorem, and extremum problems with and without constraints. The course does not emphasize economic applications, but rather the mathematical underpinnings of much of economics. However, the end goal is to enable students to make practical use of these techniques to answer economic questions. Therefore the emphasis is on arriving at an overview of the theory of functions of several real variables, and especially the areas that are important for economists, rather than dwelling on details for the sake of the theory in itself. The course is particularly suitable for students who plan to do graduate studies in economics.

Purpose: This course serves a double purpose: to make

students familiar with formal proofs, and to teach mathematical techniques that are widely used in economics. The course can serve students in a variety of ways: as preparation for reading technical books or articles in economics, as a first step to take further proof-based courses in a mathematics department, or as preparation for doing research in economics.

M1314.001600 산업의 혁신과 경제 3-3-0

Economics of Innovations in Industries

산업의 혁신들이 경제에 심대한 변화를 초래하고 있다. 새로운 산업을 태동시키고, 거의 모든 산업을 뿌리에서부터 혼들고 갈라서 생각하고 있다. 이 과목에서는 최근 산업 혁신에 대한 이해를 제고하고, 이를 경제학적 관점에서 조명한다. 주요 내용은 다음과 같다. 1) 실제 사례들을 통해 혁신이 산업과 시장을 어떻게 바뀌었는지를 살펴보고, 2) 현재 진행 중인 주요 혁신들로 인해 경제가 어떤 변화를 겪을 것인지 전망해 본 다음, 3) 개인, 기업, 정부 등 경제주체들의 대응을 생각해 본다.

Recent innovations in industries have made huge impact on economy. New industries were born and most industries being reshaped. And, it is not over yet. This course aims to enhance the understanding of innovations in industries and to investigate its implications from economic perspectives. The course deals with the following subjects. 1) How recent innovations have reshaped industries and related markets (case studies) 2) Prospect of major ongoing innovations and its impacts on economy 3) How individuals, firms and government to prepare for the new and ever changing economy.
**205.201** 社会学概论 3-3-0

**History of Sociology**

This course provides a critical overview of classic social theories. Some of the theorists include A. Comte, H. Spencer, K. Marx, M. Weber, E. Durkheim, G. Simmel, K. Mannheim, and T. Parsons. It will highlight the connections between theories and modern social analyses, while attempting to apply their concepts to contemporary society.

**205.202** 社会統計 3-3-0

**Social Statistics**

This course introduces the quantitative analysis of sociological data including the use of tables and graphs, the methods of summarizing and describing univariate distributions, and examining relationships between two or more variables, as well as statistical inference and hypothesis testing.

**205.203** 社会調査方法 3-3-0

**Methods in Social Research**

This course explores social stratification and its process. Special attention is paid to the development of artistic careers, the forces and its influences on society. Topics include violence, censorship, corporate influence, bias, advertising, and modes of media consumption.

**205.218B** 影像社会学 3-3-0

**Visual Sociology**

This course explores the social settings within which culture—literature, painting, theatre, fashion, popular magazines, and television—are produced and consumed. Special attention is paid to the development of artistic careers, the forces shaping markets for artistic objects and performances, the effects of censorship, and class differences in the consumption of culture.
본 강의는 한국의 사회사와 핵심적 특성을 설명한다. 특히 개항기와 식민지 시기 한국의 사회, 정치적 변화와 사회운동 등을 포함한다.

이 강의의 특징은, 사회사의 핵심적 특성을 설명하는 동시에, 사회사의 핵심적 특성과의 관련성을 분석하는 면도 있다. 본 강의는, 사회사의 핵심적 특성을 설명하고 동시에, 사회사의 핵심적 특성과의 관련성을 분석하는 면도 있다.

205.237A 한국사회사 3-3-0
Social History of Korea

205.238A 사회발전론 3-3-0
Societal Development

205.239A 사회조직론 3-3-0
Social Organization

205.240A 환경의 성태와 사회학 3-3-0
Sociology of Environment and Ecology

205.241A 사회정책론 3-3-0
Social Policy

205.242A 인구변동과 고령화사회 3-3-0
Population Change and Aging Society

205.243A 사회운동론 3-3-0
Social Movement

이 강의의 특징은, 사회사의 핵심적 특성을 설명하고 동시에, 사회사의 핵심적 특성과의 관련성을 분석하는 면도 있다. 본 강의는, 사회사의 핵심적 특성을 설명하고 동시에, 사회사의 핵심적 특성과의 관련성을 분석하는 면도 있다.
resources, ideologies, behavioral patterns, and social outcomes are discussed in addition to the presentation and evaluation of major theoretical models.

205.244A  과학기술사회학  3-3-0

**Sociology of Science and Technology**

This course examines the relationship between technology and society with a focus on their historical interaction as well as the ethical, political, economic, and cultural issues that are raised by technological development in the modern world. We will evaluate the extent to which technology has brought about changes in social institutions, social relations, norms and values. Also explored are the organizational and society-level determinants of technological advancement and implementation.

205.245A  정치사회학  3-3-0

**Political Sociology**

This course analyzes the social bases of political power, and the origin, course of development, and duration of social movements. Special attention is paid to the role of propaganda, communications, and public opinion in political behavior and the structure of political organizations.

205.246  역사사회학  3-3-0

**Historical Sociology**

This course assists students to understand social institutions and ideologies by combining historical analysis with sociological theory.

205.247  문화사회학  3-3-0

**Cultural Sociology**

This course attempts to do sociological researches on the domain of culture and find current cultural phenomenon. The areas of the study would be focused on the concept and origin of culture; cultural production, distribution, consumption; cultural spaces, performers, collective consciousness, ceremony; and cultural grammar.

205.301*  현대사회학이론  3-3-0

**Contemporary Sociological Theories**

This course leads students to a critical understanding of selected contemporary sociological theories while exploring the relative merits of these theories.

205.302  사회연구실무  3-2-2

**Social Research Practicum**

This course attempts to do sociological researches on the family and the origin, course of development, and duration of social movements. Special attention is paid to the role of propaganda, communications, and public opinion in political behavior and the structure of political organizations.

205.322C  가족, 생애, 현대사회  3-3-0

**Family and Life Course in Modern Society**

This course focuses on the relative merits of these theories. Students are given a chance to obtain first-hand experience on how to conduct proper sociological research.

205.325C  산업노동사회학  3-3-0

**Sociology in Industry and Labor**

This course examines the relationship between technology and society with a focus on their historical interaction as well as the ethical, political, economic, and cultural issues that are raised by technological development in the modern world. We will evaluate the extent to which technology has brought about changes in social institutions, social relations, norms and values. Also explored are the organizational and society-level determinants of technological advancement and implementation.
This course explores the nature and meaning of labor for the individual and the society. Students survey inequalities related to occupations, firms, gender, and age by observing career patterns and the role of power in the workplace.

**205.334** Information Society and Cyber Society

*Information Society and Cyber Society*

This course explores the relationship between market developments and patterns of industrial organization. Main themes include the emergence of capitalist market systems and their implications for the organization of labor, as well as the relationship between markets and production systems.

**205.336** Economic Sociology

*Economic Sociology*

Economic Sociology

- Focuses on the relationship between market developments and patterns of industrial organization.
- Examines the emergence of capitalist market systems and their implications for the organization of labor.
- Explores the relationship between markets and production systems.

**205.338** Online Social Network

*Online Social Network*

Online Social Network

- Focuses on the relationship between market developments and patterns of industrial organization.
- Examines the emergence of capitalist market systems and their implications for the organization of labor.
- Explores the relationship between markets and production systems.

**205.339A** Sociology of Knowledge

*Sociology of Knowledge*

Sociology of Knowledge

- Focuses on the relationship between market developments and patterns of industrial organization.
- Examines the emergence of capitalist market systems and their implications for the organization of labor.
- Explores the relationship between markets and production systems.
People and Society in China

This course analyzes nation-related phenomena in contemporary China’s social order and change. Particular empirical and theoretical attention will be paid to social systemic transformations accruing to China’s transition from socialism to a new complex system involving markets since reform. Specifically, lectures and discussions cover the state, peasant society, urban enterprise, laboring class, entrepreneurs, intellectuals, women, ethnic minorities, inequalities, welfare system, population, education, etc.

Sociology of National Identity and North Korean Issues

This course studies social behavior in relation to religion. This course focuses on the research process, beginning with the formulation of the research problem to its design, data collection and analysis, ending finally with the presentation of the results. The main emphasis will be on both quantitative and qualitative logic and the procedures involved.

Contemporary Sociological Methodology

This course examines nation-related phenomena in contemporary world with special reference to the globalization and informatization. Main theoretical issues in the class will include, but not limited to, national identity formation, and informatization. Main theoretical issues in the class would include, but not limited to, national identity formation, nation-state and nationalism, post-colonialism and multiculturalism, citizenship and nationality, etc. North Korean society and the issue of the two Korea’s unification are also

Sociology of International NGOs: Understanding and Participation

This course analyzes major aspects of contemporary China’s social order and change. Particular empirical and theoretical attention will be paid to social systemic transformations accruing to China’s transition from socialism to a new complex system involving markets since reform. Specifically, lectures and discussions cover the state, peasant society, urban enterprise, laboring class, entrepreneurs, intellectuals, women, ethnic minorities, inequalities, welfare system, population, education, etc.
Sociology of Health and Illness

This course introduces various civil societies in a globalized world such as East Asia, Middle & Middle East Asia, Europe, North and South America etc. From a comparative perspective, it helps shape global mind at the 21st century. In each year it focuses on some themes related to civil society in various countries such as gender and family, regional communities and city communities, religion and culture, corporate culture etc.

M1304.001200 소설 빅데이터 조사분석 3-3-0

Social Big Data Analytics

This course introduces various methods for gathering and analyzing 'social big data'. With the advent of 'hyper-connected society', more and more of our social behavior and interaction records are stored in a digital big data. This 'social big data' poses new challenges to conventional research methodology, which has been normally based on sample research, questionnaire, structured data, inferential multivariate statistics. To mention the least, data gathering based on open API, contents analysis of text data, social network analysis, machine learning, script programming that can control analysis process those are needed additionally to existing research methodology. With proper combination of preliminary conceptual introduction and live experience of gathering and analyzing real big data, normal sociological students, without any serious mathematical and computer programming background, should be able to deal with 'social big data' without any fear, after this course is completed successfully.

M1304.001300 동아시아 사회 3-3-0

East Asian Societies

This course explores the social context of health, illness and the health care system in Korean society. Issues related to the experience of illness, the healing professions, health policy, relations between providers and patients, and the effects of social inequality on health will be examined.

M1304.000200 유토피아/디스토피아 3-3-0

Utopia and Dystopia

This course introduces various methods for gathering and analyzing 'social big data'. With the advent of 'hyper-connected society', more and more of our social behavior and interaction records are stored in a digital big data. This 'social big data' poses new challenges to conventional research methodology, which has been normally based on sample research, questionnaire, structured data, inferential multivariate statistics. To mention the least, data gathering based on open API, contents analysis of text data, social network analysis, machine learning, script programming that can control analysis process those are needed additionally to existing research methodology. With proper combination of preliminary conceptual introduction and live experience of gathering and analyzing real big data, normal sociological students, without any serious mathematical and computer programming background, should be able to deal with 'social big data' without any fear, after this course is completed successfully.

M1304.000600 동아시아 사회변동 현장연구 3-3-0

Field Study on Social Changes in East Asia

This course explores the social context of health, illness and the health care system in Korean society. Issues related to the experience of illness, the healing professions, health policy, relations between providers and patients, and the effects of social inequality on health will be examined.

M1304.000900 글로벌라이제이션과 시민사회 3-3-0

Globalization and Civil Society

Field Study on Social Changes in East Asia

This course explores the social context of health, illness and the health care system in Korean society. Issues related to the experience of illness, the healing professions, health policy, relations between providers and patients, and the effects of social inequality on health will be examined.

M1304.001300 동아시아 사회 3-3-0

East Asian Societies

This course explores the social context of health, illness and the health care system in Korean society. Issues related to the experience of illness, the healing professions, health policy, relations between providers and patients, and the effects of social inequality on health will be examined.
University and Taiwan National University. This course aims to develop joint topics regarding the societies of Korea, Japan, and Taiwan and to assist the students in systematic understanding of the topics. As a joint lecture course with Kyoto University and Taiwan National University, it focuses on the Cold War, peace, youth culture, population, aging, post-colonialism, social movement, labor, and inequality in East Asia. The topics will vary depending on the hosting university. Students can visit a foreign university for the EAJW. Likewise, students of foreign universities can visit our university.
206.204A 문화한과 가족  3-3-0
Marriage and Family

이 과목은 인류학 연구의 기초이자 가장 중요한 분야로, 가족이 천천히 변화하고 있는 가족과 천천히 연구 대상으로 되는 과목이다. 구체적으로는 첫째, 다양한 사회와 문화에서 나타나는 가족과 통증을 살펴보고, 둘째, 종교, 결혼 및 단일, 종교적 사회 체제를 수상한 가족과 통증을 건국하고, 셋째, 가족과 통증연구와 다른 인류학 하위분야들의 관계를 검토함으로써 수상생들을 하나의 가족과 통증제도을 이해하고 실제 생활에서 가족과 통증을 객관적으로 바라볼 수 있는 시각을 기르도록 한다.

이 과목은 민속학과 민속문화에 대해 이론적이고 객관적으로 바라볼 수 있는 시각을 갖게 한다. 이 과목에서는 민속학의 발달 과정을 우선 검토하며 다양한 이론들을 친숙하게 한 뒤, 한국과 다른 문화의 가족과 통증과는 어떻게 문화적 과정에 기여하는가 하는 질문을 중심으로 조사하고자 한다.

This course covers the most important subfield of Anthropology, Family and Kinship. The main objects of study are the institutions of various societies and tribes, the basic theories for investigating kinship such as principles of descent and marriage. It will also examine the relationship of this study to other subfields of Anthropology. This class will help students understand the institutions of kinship and family as they exist in real-life while gaining a more objective and broadened perspective.

206.211 민속학  3-3-0
Folklore

이 과목은 민속학에 대해 개설적으로 다룬다. 이 과목에서는 민속학의 발달 과정을 우선 검토하고 다양한 이론들을 친숙하게 한다. 아울러 일상생활 문화나 문학이나 설화에서 나타나는 민속문화에 대해 소개 뿐만 아니라, 역사적 및 문헌에서 검증할 수 있는 전통적인 문화와 생활양식을 검토한다. 또한, 실험하는 유산과 유토를 통해 민속 전통을 고증함으로써 수상생들이 하나의 민속학과 민속문화에 대해 이론적으로 객관적으로 바라볼 수 있는 시각을 갖게 한다.

This course deals with the introduction of the folklore or folkloristics. It offers an introductory overview of theories and development of folkloristics. It focuses generally on the culture of everyday life. In addition, it deals with the traditional culture and lifestyle as they are represented in historical documents, literature and folktales. Students will investigate folk tradition through existing heritages, past artifacts and remains. They will also be comparing the Korean cultures with the counterparts of the other cultures, thus, gaining a more objective and theoretical viewpoint of the folkloristics and folk cultures.

206.211A 문화와 심리  3-3-0
Introduction to Psychological Anthropology

이 강좌는 문화와 개인의 심리에 영향을 주며, 인간 심리는 어떻게 문화적, 생활적 영향을 받는지에 대해 친숙하게 알아가는 과정이다. 문화와 심리 연구는 문화현상과 인간행동을 통한 인간사회의 심리학적 분석을 제안한다. 이 강좌는 문화와 심리 연구의 기초의 핵심적인 주제에 대해 다루며, 주요 학자들의 업적에 대해 다루고 있다.

As an introduction to psychological anthropology, this course is centered on the nature of the dynamic relationship between culture and psyche, which concerns the focal question of the field. The course approaches the question by examining diverse ethnographic case studies, focusing on ethnopsychology, affective socialization, psychodynamics, culture and cognition, and commodification of affect.

206.219B 일본문화의 이해  3-3-0
Understanding Japanese Culture

일본의 사회와 문화를 개설적으로 소개하는 과목이다. 이는 수강생들에 힘써 일본문화가 우리의 것에는 어렵게 다르고 또 하나의 차이가 나타나는지에 대한 비교문화학적인 시각을 갖기위해 대안 목적을 두고 있다. 가족과, 사회조직, 경제생활, 종교생활, 경제생활 및 종교생활, 경제생활 및 종교생활 등 다양한 일본의 의 문화적 영향에 대한 이해를 바탕으로 독일 가족과 통증제도을 이해하고 실제 생활에서 가족과 통증을 객관적으로 바라볼 수 있는 시각을 기르도록 한다.

This course covers Japanese society and its culture. It will help students develop cross-cultural perspectives in understanding its culture in relation to Korean culture. Topics include Japanese family and kinship, social organization, economic system, religion, ways of child-rearing, occupation and general attitudes towards work. Some questions we will try to answer will be how has Japan succeeded in achieving the status of 'highly developed nation', will this development continue, and how will Japanese culture change with the development of information technology.

206.222 성과문화  3-3-0
Gender, Sexuality and Culture

성과 문화는 두 가지 의미를 갖는다. 여성과 남성이 각각의 성(sex)과 성격은 두 가지 주제가 되어 비교문화적, 사회학적 분야를 통한 그들의 성(sexual)적 자료들로 맡아진 인간사회의 성에 대한 조사와 유사하다. 이러한 성과 문화를 통해 여성과 남성의 성차이, 성과 정체성, 성과 사랑을 논할 때 사용하는 성(sexuality)이를 위해 첫째, 여성과 남성의 성(sex)을 수집하고, 둘째, 인류학에서 이루어진 성과 문화의 연구들을 고찰하고, 셋째, 특히 문화학의 요소들의 성과 문화에 관해의 원반적인 접근을 시도하고자 한다.

This course explores the concept of gender and sexuality through the examination of various cross-cultural data. Students explore in-depth anthropological theories concerning gender and sexuality, as well as examine ‘sex’ within its cultural context of a particular society. Through this class, students will gain a broader perspective on sex in the modem society.

206.224* 인류학사  3-3-0
History of Anthropology

이 과목은 인류학의 다양한 학문들이 발전해 나온 과정에 대한 검토를 통해 인류학이라는 학문이 지난 고대와 근대의 주요 개발 과정을, 그리고 방법들에 대한 학문들의 전반적인 이해를 높이 능력의 목표로 한다. 이를 위해 이 과목에서는 사구 학문에서 인류학이 하나의 문화학으로서도 등장하게 된 역사적 배경을 살펴보고, 이로써 19세기 후반의 현대화의 이해로 20세기 말까지의 계회 전반의 인류학계의 발전에 대한 이해를 통해 각각의 주요 문제를 해결하는 학문의 문제를 통해 조리고도한 특성과 특성을 파악한다.

This course enhances the students’ understanding of major
concepts, theories, and anthropological methods, through a review of the historical process as well as the development of anthropology. Special attention will be placed on particular characteristics of anthropology as a discipline. For this purpose, we will first examine the historical background in the rise of the discipline of anthropology within Western Humanities and the Social Sciences. We will then examine the main proponents and arguments of the various theoretical paradigms within anthropology. We will begin with the evolutionism of the 19th century through functionalism and historical particularism of the early 20th century, leading up to diversification of paradigms in the latter half of the 20th century.

206.226 도시생활과 문화 3-3-0
Urban Life and Culture

This course examines ethnographic documentary film as an important means of anthropological research. It teaches the use of visual techniques such as cameras, videos and films. It reviews important ethnographic films and discusses the merits and limits of visual technique in anthropological fieldwork.

206.230 전지구화와 문화변동 3-3-0
Globalization and Culture Change

This course examines ethnographic documentary film as an important means of anthropological research. It teaches the use of visual techniques such as cameras, videos and films. It reviews important ethnographic films and discusses the merits and limits of visual technique in anthropological fieldwork.

206.228A 인체골격인류학실습 3-3-2
Anthropological Studies of Human Bones

This course considers ethnographic documentary films as important objects of anthropological research. Also covered will be the use of visual techniques such as camera, video and film. Students will also review important ethnographic films, discussing the merits and limitations of visual technique in anthropological fieldwork.
activity patterns and nutritional status; and the recovery of
skeletalized remains. This course also focuses on theory and
method for understanding variation in prehistoric skeletal
populations.

206.234 Food and Culture

This course is an introduction to linguistic anthropology,
which focuses on the study of language and its relationship
to other aspects of human culture. Students will learn methods
used in anthropological fieldwork, including theoretical and
methodological fieldwork, including theoretical and
methodological issues and techniques. Students will review contemporary
literature by leading anthropologists regarding fieldwork ex-
perience. This course also offers the opportunity for students
to design, implement, and write their own research projects
and lab experiences. This course will attempt to understand the idea of
"power" from an anthropological perspective. It will discuss
such topics as the use of cultural means utilized by the state
and ethnic groups to affect power and control, as well as
the power relations found within cultural phenomena.

206.307 Language and Culture

This course is an introduction to linguistic anthropology,
one of the four sub-fields of anthropology. It will introduce
students to many important aspects of language from the
viewpoint of man and culture. Its purpose is a basic under-
standing of interrelationships among language, society and
culture.

206.309C Understanding Russian Culture

This course aims at understanding, in comparative per-
ceptual, the cultural characteristics of Russia. Topics covered
include: ethnic and linguistic composition, everyday patterns
of life including religious beliefs and rituals, family and kin-
ship systems, and social stratification, and sociocultural
changes following acculturation and modernization. Special
attention is paid to the relationship with Korea and problems
after collapse of Soviet Union.

206.320 Culture and Power

This course will attempt to understand the idea of
"power" from an anthropological perspective. It will discuss
such topics as the use of cultural means utilized by the state
and ethnic groups to affect power and control, as well as
the power relations found within cultural phenomena.

206.322A* Introduction to Biological Anthropology and Lab

This course is an introduction to biological anthropology,
which focuses on the study of human biology and its relationship
to human culture. Students will learn methods used in anthropological
fieldwork, including theoretical and methodological
issues and techniques. Students will review contemporary
literature by leading anthropologists regarding fieldwork ex-
perience. This course also offers the opportunity for students
to design, implement, and write their own research projects
in anthropological fieldwork.
evolutionary process by comparing human beings and primates. The second is comparing and analyzing the biological traits of human beings which vary according to race or ethnic group. The third is to understand the relationship between human biological traits and cultural elements.

206.330A 生态人类学 3-3-0

Ecological Anthropology

This course, through the use of historical and cross-cultural perspectives, attempts to understand the sociocultural changes resulting from the encounter between Western Colonial powers and the affected colonized non-Western civilizations. For this purpose, we will examine the colonizer process from a macro-historial point of view, as well as examine the diverse ways in which the colonized perceived and responded to such processes. Discussion topics will include: cultural imperialism, change and continuity of local culture and cultural resistance movements.

206.331 文化与经济 3-3-0

Economy in Culture

Man’s economic activity is the basis of human existence in every society. This course covers diverse economic activities from cross-cultural perspectives. In addition, the course will examine economic activities within socio-cultural contexts. It will also seek alternative explanations of economic behaviors that differ from conventional ‘Western’ theories.

206.332A 人类学博物馆实习 3-3-2

Practices in Anthropological Museums

This course, students will learn, in depth, about anthropological museums, including their traits, history, and the different methods of collecting, preserving and exhibiting various cultures. Class discussions will include national policies regarding culture and minority cultures, as well as problems related to exhibitions. Students of this course will gain a more objective understanding of the museums. Course work will also include weekly visits to anthropological museums.

206.333A 中國的社會與文化 3-3-0

Chinese Society and Culture

This course aims at understanding Chinese folk culture and its originality, variety, and changes. It offers, through critical review of works of Chinese anthropologists, an academic basis studying folklore. Students will grasp the unique structure, function, and meanings of Chinese folk culture, which is based on the knowledge about various folk phenomena.

206.336 文化與戲劇 3-3-0

Culture and Communication

This course, we will attempt to understand cultural dimensions of language use. Through examining cultural patterns of communication in social context and various levels of communication competence, we will understand systematic interrelationships between language and social life.

206.340 스포츠, 여가, 문화 3-3-0

Sport, Leisure and Culture

Students of this course will learn, in depth, about anthropological museums, including their traits, history, and the different methods of collecting, preserving and exhibiting various cultures. Class discussions will include national policies regarding culture and minority cultures, as well as problems related to exhibitions. Students of this course will gain a more objective understanding of the museums. Course work will also include weekly visits to anthropological museums.
It is an universal feature of human societies that people spend their leisure time doing ‘sport’ in the sense of bodily play. But specific forms and contents of sport and leisure activities are not only quite diverse according to the socio-cultural contexts but they also have been undergoing tremendous historical changes over time. Especially in the context of contemporary postindustrial society, sport and leisure has become one of the most important domains of everyday life. This course, therefore, aims at enhanced understanding of sport and leisure cultures and their sociocultural contexts in the anthropological comparative perspective.

206.424A 마음의 진화와 문화 3-3-0
Evolutionary Psychology and Human Culture

- This course will help to illuminate how culture affects human biological traits by trying to understand the links between culture and biology. We will focus on the correlation between culture and biology. We will focus on the correlation between culture and biology.
Ethnicity and Culture in Latin America

206.430

This course mainly focuses on the area study about the Latin America. The other two areas concern Caribe and Amazon. These four consecutive areas will cover the indigenous peoples and cultures. Furthermore, this course guides the issues of colonialism and dependency theory in the contemporary Latin America. The ideas of colonialism and dependency theory are still active in a sense in the realm of political economy. The importance of the arts and literatures in the contemporary Latin America should never be neglected in the course.

206.453

This course examines the interplay between language and identities from the perspectives of sociolinguistics and linguistic anthropology. Language is a very important tool by which people portray their ‘selves’ and ‘others’. At the same time, they negotiate social relations between them and others through the use of language. Then, how do people use language in order to construct and represent their identities in their interactions with others? In this course, students will be able to understand language as a form of social practices in which people can construct and perform their identities in various social settings. More specifically, this course examines the following issues; language and social classes; language and self; language; ethnicity, and nationalities; language and social class; language and reproduction of social class; language and gender identity; language and transnationality.

Language and Emotion

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This course examines the interplay between language and identities from the perspectives of sociolinguistics and linguistic anthropology. Language is a very important tool by which people portray their ‘selves’ and ‘others’. At the same time, they negotiate social relations between them and others through the use of language. Then, how do people use language in order to construct and represent their identities in their interactions with others? In this course, students will be able to understand language as a form of social practices in which people can construct and perform their identities in various social settings. More specifically, this course examines the following issues; language and social classes; language and self; language; ethnicity, and nationalities; language and social class; language and reproduction of social class; language and gender identity; language and transnationality.

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This course examines the interplay between language and identities from the perspectives of sociolinguistics and linguistic anthropology. Language is a very important tool by which people portray their ‘selves’ and ‘others’. At the same time, they negotiate social relations between them and others through the use of language. Then, how do people use language in order to construct and represent their identities in their interactions with others? In this course, students will be able to understand language as a form of social practices in which people can construct and perform their identities in various social settings. More specifically, this course examines the following issues; language and social classes; language and self; language; ethnicity, and nationalities; language and social class; language and reproduction of social class; language and gender identity; language and transnationality.

This course examines how South Korea has been enmeshed in transnational flows of peoples and cultures since the 1980s. We will turn an ethnographic lens on global processes to analyze some of their meanings and implications for people’s everyday lives and, in particular, explore Korea’s specific experience of globalisation. Topics to be covered include promises and pitfalls of in- and out-migration; national and transnational consumption; intersections of love and profit in marriage migration and in entertainment work; migrant labor; nationalism and transnationalism of Korean sports; politics of race, identity and multiculturalism in Korea itself and toward Koreans internationally; transnational adoption; and “Korean wave.” Our guiding questions will be: How does Koreanness get defined and redefined in the face of out-flow of Koreans and in-flow of immigrants to Korea? What are the responses within Korean society to the emergence of ethnic outsiders in its midst? What happens to Korean culture in the age of globalisation?
한국의 과학기술은 문화적인 지식체계와 성립방식으로 파악하는 과학기술인류학의 관점에서 과학기술과 관련된 문제와 경향들을 민족학적 방법론에 의해서 탐구한다. 민족학 연구의 핵심 주제인 인간의 삶(생명, 생활, 생존)이 과학기술과 사회문화 간의 상호작용을 통해 구성되고 재구성되는 과학기술이 과학기술학과 사회문
the course discussion by analyzing key characteristics of the three countries’ traditional culture, focusing on how their traditionality affected the initial interpretation and responses of the common people in the three countries. Later, this course focuses on the following three dimensions of globalization—(i) consumption; (ii) production; and (iii) politics of memories and nationalism. Discussion topics include McDonaldization of society, localization of “global” consumption cultures, Special Economic Zones (SEZs) and global capitalism, socialist globalization/modernization and its capitalist metamorphosis in China, neoliberalism and its local transformation, and so forth. Especially, students analyze the processes of globalization / trans-nationalism among the three East Asian countries, particularly related to multinational corporations, consumption of cultural commodities such as “anime” and “Korean Wave,” and politics of nationalism and memories of war such as “sexual slaves.”

Anthropology of North Korea

North Korea is nearby and unavoidable, and simultaneously, it is not another foreign country. In human culture and in the human being’s universal and concrete existence, North Korea is an unavoidable object. North Korea is highly politicalized, making it difficult to discuss beyond its political dimension. However, such political dimension does not exist by itself. In this course, ‘North Korea’ is to examine the sociocultural world experienced by North Koreans themselves. It is intended that students develop a perspective to understand cultural characteristics of the North Korean society as well as to situate North Korea in the broader context of East Asia.
Psychological Statistics

Experiments will be conducted in psychology. There will also be discussion on the experimental design, descriptive statistics, correlation, regression, and analysis of variance. There will also be discussion on the experimental design for psychological research.

Introduction to Experimental Psychology & Lab

This course is an introductory course in statistics for undergraduates majoring in psychology. The course covers random variables, statistical and computational techniques of descriptive statistics, correlation, regression, and analysis of variance. There will also be discussion on the experimental design for psychological research.

Psychology of Personality

The course covers important neuro-biological concepts unique to brain and behavior. This course is open to all undergraduate and beginning graduate students in psychology, who do not have previous exposure to biological sciences.

Abnormal Psychology

This lecture will deepen the student's understanding of various abnormal behaviors and mental disorders. The first part of this lecture will introduce the major psychological theories (i.e., Psychodynamic Theory, Learning Theory, Cognitive-Behavioral Theory) as well as the biological and socio-cultural theories which explain the phenomena, causes, and treatment of abnormal behaviors and mental disorders. In the second part, various phenomena and classification systems of mental disorders will be presented. The main focus will be on the psychological causes of various types of mental disorders: disorders related to anxiety, mood, and personality, somatoform disorders, dissociative disorders, schizophrenia, sex-related disorders, eating disorders, sleep disorders, alcoholism, mental disorders in childhood or adolescence. In addition, we will consider the proper treatments for mental disorders as well as how to improve mental health in general.
Applied issues in Developmental Psychology Cognitive development
such as intelligence, language and perception as well as
the emotional, moral and social aspects of Developmental
Psychology are surveyed.

207.230

Social Psychology and Lab.

The course covers the cognitive processes, such as how
people think, feel, and behave in social settings. This class offers a comprehensive survey of social psychological topics, including
social cognition, attitude and persuasion, group behavior, and
aggression.

207.232

Psychology of Learning and Memory & Lab.

This course introduces undergraduate students to the ex-
periential learning and memory research. It covers classical and operant conditioning, models of memory, experimental findings of learning and memory research. It covers such
concepts as color, form, depth, and dynamic, about appreci-
ators’ psychological traits, such as, experience, attention,
intention, and sympathy. For that purpose, perception theories
on art are introduced, and critical psychological and neuro-
scientific findings are reviewed. This class is expected to
provide students with basic knowledge on art appreciation in
terms of visual perception.

207.233

Perception of Visual Art

Artistic activities are unique behaviors that differentiate
human beings from the other animals. With the recent meth-
ological development of psychology and neuroscience, psy-
chologists can understand art more objectively that have been
known as a subjective world of artists. In this class, we
learn about the perception of major features of visual art,
such as color, form, depth, and dynamic, also about appreci-
ators’ psychological traits, such as, experience, attention,
intention, and sympathy. For that purpose, perception theories
on art are introduced, and critical psychological and neuro-
scientific findings are reviewed. This class is expected to
provide students with basic knowledge on art appreciation in
terms of visual perception.

207.234

Cognitive Process and Lab.

This course covers the cognitive processes, such as how we
represent the world and transform it into world knowledge,
and how we apply that knowledge in adapting to new
environments. On this basis, we will explore several phe-
nomena, theories, and experiments, to gain a deeper under-
standing of such processes.

207.303

Psychology of Perception and Lab.

This course reviews major perceptual phenomena in the
perception of surface, form, object, color, and motion, and
how they are uncovered in major experiments. It will also
survey the pertinent theoretical frameworks on the assumption
that humans are the measuring devices in collecting and
measuring a variety of physical information for intelligent
adaptation. Students discuss experiments that have explored
major perceptual processes and representations and their im-
lications for future research. Particular emphasis will be
placed on Gibson’s Ecological View of Perception, especially
the concept of Affordance. They will be expected to conduct perceptual experiments to gain a deeper understanding of the
given perceptual phenomenon and further practice in applying
these concepts.

207.304

The Language and Lab.

This course covers the cognitive processes, such as how we
represent the world and transform it into world knowledge,
and how we apply that knowledge in adapting to new
environments. On this basis, we will explore several phe-
nomena, theories, and experiments, to gain a deeper under-
standing of such processes.

207.313

Psychology of Language and Lab.

In this course, students will examine a variety of language
comprehension processes, including speech perception, lexical
access, syntactic processing, discourse processing, and
inferences. From a basic understanding of these concepts, students will advance their understanding of language comprehen-
sion models and approaches.

Artistic activities are unique behaviors that differentiate
human beings from the other animals. With the recent meth-
ological development of psychology and neuroscience, psy-
chologists can understand art more objectively that have been
known as a subjective world of artists. In this class, we
learn about the perception of major features of visual art,
such as color, form, depth, and dynamic, also about appreci-
ators’ psychological traits, such as, experience, attention,
intention, and sympathy. For that purpose, perception theories
on art are introduced, and critical psychological and neuro-
scientific findings are reviewed. This class is expected to
provide students with basic knowledge on art appreciation in
terms of visual perception.

Artistic activities are unique behaviors that differentiate
human beings from the other animals. With the recent meth-
ological development of psychology and neuroscience, psy-
chologists can understand art more objectively that have been
known as a subjective world of artists. In this class, we
learn about the perception of major features of visual art,
such as color, form, depth, and dynamic, also about appreci-
ators’ psychological traits, such as, experience, attention,
intention, and sympathy. For that purpose, perception theories
on art are introduced, and critical psychological and neuro-
scientific findings are reviewed. This class is expected to
provide students with basic knowledge on art appreciation in
terms of visual perception.
Counseling Psychology

207.315  Counseling Psychology  3-3-0

Counseling Psychology is a course that introduces students to the field of Psychotherapy. Major Psychotherapy techniques that are pertinent to the study of human neuropsychological functions, especially focusing on attention, memory, executive function, and emotion. Part 3 involves presentations on neurodevelopmental disorders and neuropsychological bases of abnormal human behavior, including the biological bases of abnormal behavior, as well as the study of abnormal behavior in children and adolescents. The course focuses on the development of skills in identifying, assessing, and treating psychological problems, as well as in conducting research in the field of psychology. Students are expected to participate in readings, case analyses, class discussions, experimental exercises, projects, and examinations.

Clinical Neuropsychology and Experiment

207.316A  Clinical Neuropsychology and Experiment  3-2-2

This course introduces students to the role and training of practitioners in the field of Clinical Neuropsychology and Health Psychology. It covers the scientific and practical aspects of the application of psychological assessment and treatment to the study and treatment of psychopathology. The focus will be on how research-based approaches to the study and treatment of psychopathology can translate into high quality ethical care for patients with major psychiatric problems. Students will be introduced to various theories of psychology, as well as Forensic Psychology.

Organizational Psychology

207.320A  Organizational Psychology  3-3-0

This course is designed to meet three objectives:

1. Provide an overview of the basic principles, theories, and practices of behavior in organizational situations.
2. Develop the students' ability to apply behavioral theories and skills to actual organizational situations.
3. Provide students an opportunity to gain a more in-depth knowledge of topics that are of specific interest to them.

Students are expected to participate in readings, case analyses, class discussions, experimental exercises, projects, and examinations.
This is an advanced course for students to enhance psychological thinking about how the theory and research of developmental psychology. Developmental psychology can be applied to various field work and settings. Based on research accomplished in Korea, this course is going to teach students about children’s education, production of children’s TV programs, children products, and it will discuss how these programs are applicable to children and adolescent’s real life. In this course, students will analyze theories and the production of programs through the school violence programs that were already accomplished in Korea. Therefore, this course will try to help the students’ creative and active thinking, not just theoretical psychology, but applicative developmental psychology.

**207.422 응용실험심리학 3-3-0**
**Applied Experimental Psychology**

This course is designed to introduce students to the ways of applying experimental psychological facts to real worlds. We will examine the applications of experimental and cognitive psychological theory and research, and we will also discuss how to solve real world problems using experimental methods. Topics covered will include a variety of vision, perception, cognition, psycholinguistics, problem solving, and decision making areas of research that relate to experimental and cognitive theory and practice.

**207.423 공동심리학 입문 3-3-0**
**Introduction to Positive Clinical Psychology**

Traditional clinical psychology has focused on diagnosis and treatment of psychopathology and significant problems experienced by individuals, couples, families, and groups, such as schizophrenia, depressive disorders, personality disorders, child abuse, violence, and so forth. Positive clinical psychology focuses on topics such as hope, love, ethics, optimism, resilience, happiness, spirituality, forgiveness, and other noble aspects of human behavior. And Positive Clinical psychologist concerns about these positive human qualities and ways that we can maximize human mental and physical

health. This course introduces the main topics of positive psychology and their applications for the clinical psychology and positive psychotherapy.

**207.424 인지신경과학 실험 3-2-2**
**Cognitive Neuroscience Lab.**

In this course, students will learn about the basic theories and methods in the field of Cognitive Neuroscience, (2) review recent important findings in Cognitive Neuroscience, and (3) replicate those findings or execute modified versions of them in a laboratory.

**207.425 지각적 자아와 행동 3-3-0**
**Perceptual Self & Action**

Perceptual self is based on the sensory input of the body, and distinguished from abstract or conceptual self that is discussed ingenerally. Especially, body schema and body image are crucial factors for perceptual self. On the other hand, perceptual self directly guides one’s own action. We learn about perceptual self in the first half of this class and action in the second half. More specifically, we will consider sensory-motor system, visual system, consciousness, free will, joint action, wishful perception and empathy. It is purposed that we understand our selves and actions in more concrete and detailed contexts to which we are belong.
우리의 삶은 판단과 결정의 연속이다. 판단과 결정을 잘 하려면 어떻게 해야 할까? 규범적으로 볼 때 더 좋은 절차가 있는 경우에도 사람들의 실제 판단과 의사결정은 그 절차와 거리가 있다. 판단과 의사결정에서 관찰되는 행동을 설명하고, 이 행동이 규범적 절차에 가깝게 할 수 있는 방법을 찾아야 하는데 이는 인지심리학, 사회심리학, 그리고 수리심리학 등의 학문에서 활발히 연구되어 왔다. 본 강의는 심리학의 여러 하위 영역에서 이루어진 판단과 의사결정에 대한 연구를 개관하고, 판단을 개선할 수 있는 방법을 소개하고자 한다.

Our lives are filled with making judgments and decisions. How can we judge a situation accurately and make good decisions? Even when normative analysis produces a best solution, people often make judgments and decisions in real life that are far from that solution. There have been a great deal of research in the fields of cognitive psychology, social psychology, and quantitative psychology, on describing the actual behavior of judgment and decision making and seeking methods which would allow these behaviors to approximate normative models. This course will review research on judgment and decision making in various sub-fields of psychology and introduce ways which can improve judgment and decision making.

 인간공학의 심리학은 인간의 감각적, 인지적, 행동적인 특성을 이해하고, 인간중심의 관점을 환경과 기계의 디자인에 적용하는 융합적인 학문이다. 이 강의는 (1) 약물중독 및 행동중독과 관련된 인지생물학적 기제 및 위약성에 대한 이해를 증진할 수 있고, (2) 중독이 지각행동에 미치는 다양한 영향을 살펴보고, (3) 도박중독계 같은 인지부상적 접근법을 포함한 인지생물학적인 접근법들이 어떻게 중독의 평가와 치료를 발전시키는데 쓰일 수 있는지 배울 수 있다.

Addictive disorders including substance use disorders (e.g., alcohol, tobacco, marijuana) and behavioral addictions (e.g., gambling disorder) are major social problems with immense social and economic costs. The objectives of this course are to help students (1) understand neurobiological systems in the brain and vulnerabilities that are associated with drug and behavioral addictions, (2) understand the diverse effects of drugs of abuse on the brain and behavior, and (3) learn the overview of the cognitive neuroscience of addictive disorders and how we can use cognitive neuroscience (including neuroimaging tools) to advance the assessment and/or treatment of addiction.
Economic Geography

In this course students will learn and analyze the principles and processes of changes in location, spatial organization, interaction and the flow of economic activities performed in both regional and global dimensions. The following themes will be discussed in the course: 1) Issues and changes in global economic orders and problems of resources and environments in the world 2) Spatial aspects of price, cost, production and decision-making economy 3) Spatial organization and locational decisions in agriculture, manufacturing, high-tech industry, information communication industry, and services 4) Theories and practices of international trade and foreign direct investments 5) Investigating directions for sustainable development.

Analytical Methods for Spatial Information

This course covers some of the fundamental theories and methods adopted in quantitative spatial analyses. The emphasis is placed on statistical methodologies and quantitative summary indices that explain and model the spatial ordering of geographic phenomena. Real world problems and datasets are explored by quantitative techniques involving ANOVA, correlation and regression analysis. The potential and pitfalls of empirical quantitative analysis are also discussed. Hands-on practice with computational tools such as statistical packages and GIS is essential to the completion of the class exercises and term project.

Geography of Europe

This course outlines Geomorphology as it relates to the physical development of the Earth's surface and the different landscapes such as mountains and valleys, in order to understand the processes that contribute to the breakdown of the Earth's materials, the different vegetation zones, and the different landscapes such as mountains and valleys, coastal environments, deserts, and substrate features. The course also covers the fundamentals of geographical knowledge through a detailed understanding of theories concerning all the various landforms created by volcanism, running water, waves, and winds. This course, however, will deal with Morphodynamics with a new approach. Students will learn about the processes that contribute to the breakdown of the Earth's materials, the different vegetation zones, and the different landscapes such as mountains and valleys, coastal environments, deserts, and substrate features. The laboratory work will also introduce landform and landscape characteristics through a series of practical laboratory and field exercises which utilize maps and aerial photographs.

Essentials of land and housing

This course explores Geomorphology as it relates to the integrated view of economical, social, and cultural environments as well as the natural environment. Conventional Geography will provide the students with basic geographical knowledge through a detailed understanding of theories concerning all the various landforms created by volcanism, running water, waves, and winds. This course, however, will deal with Morphodynamics with a new approach. Students will learn about the processes that contribute to the breakdown of the Earth's materials, the different vegetation zones, and the different landscapes such as mountains and valleys, coastal environments, deserts, and substrate features. The laboratory work will also introduce landform and landscape characteristics through a series of practical laboratory and field exercises which utilize maps and aerial photographs.
주요 학습내용은 지대론을 포함하여 토지이용의 경제적 원리를 살펴보고, 이러한 기본적인 원리에 입각하여 다양한 토지이용 정책 수단의 효과를 검토한다. 그리고 지역정책의 기본적 수단으로서 토지정책의 의미와 관련성을 이해하고, 토지이용의 대표적인 분야로 주거용 토지이용을 살펴본다. 주거용 토지이용은 주거입지, 주거지분화, 택지개발정책, 지역정책과 주택정책의 관계에 대한 통합적 이해를 추구한다. 수강생들은 토지이용의 유형, 특성, 차이, 형성과정과 그 원리에 대하여 학습하고 지역정보사회에 바람직한 국토환경의 개발과 이용방안을 포착하는 기초지를 습득한다.

This course is an introductory level on land use and housing issues. The main objective of the course is to provide students with fundamental concepts, policy instruments and methods in the analysis of land use patterns and housing problems including land rent theory. Especially this course will stress the importance of understanding the ways in which land use patterns are affected by regional policy and vice versa. Also this course provides an integrated approach on housing location, land development, residential segregation and regional policy. In order to facilitate students’ understanding of conceptual issues, current policy issues in Korea will be addressed. This course will also tackle emerging challenges in land use planning such as new planning tools and regional policy. In order to facilitate students’ understanding and directions in the knowledge-based society.

208.226A 아시아지리 3-3-0

Geography of Asia

이 과목은 아시아지리에 대한 이해를 목적으로 한다. 아시아 지역을 이해하기 위해서 자연환경을 고찰하고 이를 바탕으로 역사적인 발전과정과 각 지역의 문화적 특성들을 파악한다.

This course is designed to provide students with basic understanding of the Asian regions. The natural environment is explained, and the historical changes as well as the characteristics of different areas are reviewed on the basis of their natural environmental conditions.

208.228A 인구변동과 이동의 지리학 3-3-0

Population Change and the Geography of Mobility

이 과목의 목표는 학생들이 지리적 관점에서 인구변동을 이해하도록 하는 것이다. 출생, 사망, 이동이 가지는 인구변동과 그 결과에 중점을 둔다. 지역별 인구의 파악하는 것이 계통과 통계의 핵심을 파악하도록 한다. 인구학적 지리(특히 인구 분류)의 사회적 구성과 그 지리적 이동의 간접을 살릴 것이다. 이 과목의 특허, 근대 학계와 정책 분야에서 크게 주목받고 있는 인구의 공간적 이동을 중점을 둔다.

This course focuses on the causes and consequences of population change. It aims to help students understand demographic dynamics brought about by birth, death, and mobility. To aid in understanding counting and controlling, the course looks at the tension between how demographic knowledge (and in particular, demographic categories) has been constructed and how such categories are used. The course pays special attention to the spatial mobility of human beings as the increase in human mobility receives increasing attention from both academia and policy-making.
see the regional structure and characteristics from the viewpoint of Regional Geography. Through research on cultural characteristics and environment of various regions as well as the analysis of regional structure, students will further discuss Korea’s prospects.

208.311 Social Geography

This course analyzes economic and social development. The relationship between social and geographical mobility, the graphical as well as economic processes. Mainly focusing on social structures and the influence of various groups on geo-society and space by examining the spatial organization within the setting of GIS. Some of the major theories and formation, analysis, and output of geographic information Lectures cover input, transformation, and output of geographic information in the field of information science will be explored.

208.316 Geography of Metropolitan Seoul

This course explores the dialectical relationship between society and space by examining the spatial organization of social structures and the influence of various groups on geographical as well as economic processes. Mainly focusing on the relationship between social and geographical mobility, the course analyzes economic and social development.

208.317 Geographical Information System

This course introduces the principles and practice of digital geographic information Lectures cover input, transformation, analysis, and output of geographic information within the setting of GIS. Some of the major theories and techniques involving GIS components, data model/structure, spatial analysis and decision support are also addressed. Hands on training using GIS software with lab exercises are accompanied with class lectures. The case studies involving the geographic problems of various domains and datasets of various types are provided each week, and the students are encouraged to tackle problems in an integrated way by utilizing GIS functionalities. The influence of GIS on geographic research is discussed, and the scope of GIS as a field of information science will be explored.

208.318A Geography of America

This course will acquaint students with the human and physical geography of America, and help them study the similarities and differences among the major sub-regions. The students become familiar with the geographer’s perspective and their concern with spatial patterns and processes. They will be equipped with skills to interpret the major issues confronting the region.

208.320 Biogeography and Laboratory

This course will acquaint students with the human and physical geography of America, and help them study the similarities and differences among the major sub-regions. The students become familiar with the geographer’s perspective and their concern with spatial patterns and processes. They will be equipped with skills to interpret the major issues confronting the region.

208.322 Field Study in Geography

This course will acquaint students with the human and physical geography of America, and help them study the similarities and differences among the major sub-regions. The students become familiar with the geographer’s perspective and their concern with spatial patterns and processes. They will be equipped with skills to interpret the major issues confronting the region.
한국과 외국의 문화지리학사를 고찰해 보고 문화지리학의 중심 개념을 살펴본다. 이 과목은 세계 여러 나라 사람들의 다양한 삶의 방식을 설명하고 그들의 삶이 어떻게 형성되었는지 알아보는 데 중점을 둔다. 각 지역의 문화는 현대 역사에 걸친 주민의 환경과 상호작용과 다른 지역의 접촉, 또는 기술의 발명이나 전과 동기이는 바 크다. 그리고 이러한 인간과 환경의 상호작용은 오늘날 우리들에게도 항상 적용되고 있는 것이므로 우리는 문화의 형성과 변화, 그리고 삶과 조화의 프로세스에 어떻게 반응하고 있는지 살펴본다. 또한 우리 주위의 여러가지 변화를 관찰하여 그러한 가시적인 변화를 설명하고, 경관에서 발생있는 변화의 단서를 토대로 우리 사회, 또는 다른 사회의 특성이나 앞으로의 변화를 분석하고 예측하는 훈련을 해본다.

문화지리학과의 관찰과 해석은 오늘날 우리에게도 항상 적용되고 있는 것이므로 우리 주변 사회적, 경제적, 문화적 변화와 기업의 공간조직, 기업과 산업의 관계를 이해하고 예측하는 훈련을 해본다.

This course emphasizes the explanation of the diversity of people’s lives around the world. The cultural landscape is viewed as the text of observation and interpretation in relation to cultural change.

### 208.323A 산업입지와 정책 3-3-0

#### Industrial Location and Policy

산업의 입지요인, 입지선택과정, 지역적 발전과정을 분석하고 이에 대한 제안 이론을 이해하고 응용하는 과목이다. 산업입지와 그 변화에 대한 요인과 영향을 지역, 국가 및 세계적인 차원에서 분석하고 비합리적 산업입지정책을 검토한다. 지리학적 학습내용은 다음과 같다. 첫째, 공장과 기업, 기업과 산업, 산업과 지역의 관계에서 산업의 입지문제를 이해하고 분석한다. 둘째, 기업의 변화와 기업조직의 변화에 따른 산업질의 변화를 분석하고 이해한다. 셋째, 산업입지와 지역개발 및 정책의 관계를 이해하고 지속가능한 지역산업발전 전략을 검토한다. 넷째, 한국산업의 입지변화, 산업정책, 지방화와 세계화 사례연구를 통해 이해한다.

This course analyzes the location factors, locational decision-making processes, and regional development processes of industries. Students will study and apply related theories as well as analyze factors and impacts of industrial location and its changes in regional, national, and global dimensions. Appropriate locational policies will also be analyzed. Major themes studied in this class are: 1) understanding and analyzing industrial location problems in the context of the relationships of plant and firm, firm and industry, and industry and region; 2) analyzing and understanding changes of industrial regions, resulting from the technological changes and changes in industrial organization; 3) understanding relationships between industrial location and regional development, policy and investigating sustainable industrial development; 4) understanding locational changes, industrial policy, localization and globalization of Korean industries through case studies.

### 208.322 문화지리학 3-3-0

#### Cultural Geography

환경과 지역연구에 관심이 있는 학생들에게 생태계와 인문활동 관찰하여 그러한 가시적인 변화를 설명하고 그 변화에 대한 요인과 영향을 지역, 국가 및 세계적인 차원에서 분석하고 이해한다. 

This course analyzes the location factors, locational decision-making processes, and regional development processes of industries. Students will study and apply related theories as well as analyze factors and impacts of industrial location and its changes in regional, national, and global dimensions. Appropriate locational policies will also be analyzed. Major themes studied in this class are: 1) understanding and analyzing industrial location problems in the context of the relationships of plant and firm, firm and industry, and industry and region; 2) analyzing and understanding changes of industrial regions, resulting from the technological changes and changes in industrial organization; 3) understanding relationships between industrial location and regional development, policy and investigating sustainable industrial development; 4) understanding locational changes, industrial policy, localization and globalization of Korean industries through case studies.

### 208.326 토양환경론과 실험 3-2-2

#### Soil Environment and Laboratory

환경과 지역연구에 관심이 있는 학생들에게 생태계와 인문활동 관찰하여 그러한 가시적인 변화를 설명하고 그 변화에 대한 요인과 영향을 지역, 국가 및 세계적인 차원에서 분석하고 이해한다.

This course analyzes the location factors, locational decision-making processes, and regional development processes of industries. Students will study and apply related theories as well as analyze factors and impacts of industrial location and its changes in regional, national, and global dimensions. Appropriate locational policies will also be analyzed. Major themes studied in this class are: 1) understanding and analyzing industrial location problems in the context of the relationships of plant and firm, firm and industry, and industry and region; 2) analyzing and understanding changes of industrial regions, resulting from the technological changes and changes in industrial organization; 3) understanding relationships between industrial location and regional development, policy and investigating sustainable industrial development; 4) understanding locational changes, industrial policy, localization and globalization of Korean industries through case studies.
Urban and regional policy is strongly influenced by law and institution. Law and institution, judicial decision and administrative act constitute spatial structure through urban and regional policy, and inversely practical problems of space influence the legal decision making mediated by geography of opportunity. The legal geography investigates the interplay between law and geography(space) that is considered as the spatial turn of law. This course focuses on spatial justice, space and democracy, eminent domain of private property, public-private takings in urban development, legal systems and instruments for spatial policy, alternative paradigms for urban and regional policy.

208.407A Geopolitics and Geo-politics

The Politics of Space and Geo-politics

This course aims to help students understand the politics of development at various geographical scales (urban, national, and international). It also strives to provide insight into how partnerships and negotiations work among various participants who have conflicted, competed, and cooperated throughout the modern history of space/place making. Once armed with such insight, students will be equipped with the skills to critically analyse the power relations that exist among different actors involved in development. The course asks “Who governs?” and “Who makes decisions or influences decision-making that leads to the formation of space?” Regarding the influence of decision-making, the course focuses on the politics of policy narratives and environmental discourses.

208.408 Conservation Ecology

Conservation Ecology

Geography of Resources

This course helps students understand the use and limits of resources and analyze various problems of resource development at both the regional and global levels. It focuses on the limits of resources, along with various resource problems and management. Specific themes are: 1) understanding the relationships between resources, the environment, and population along with present status of resource development at a global level; 2) understanding development and problems related to food, forestry, energy, and water resources; 3) examining ways of harmonizing resource development and environmental conservation for sustainable development; 4) examining and discussing development of human resources and resource management policy; 5) in synthesis, analyzing and discussing resource problems in Korea.

Understanding Satellite Imagery Information and Applications

This course aims at learning the concepts and principles of satellite imagery information used to a variety of fields of spatial analysis, and examining how satellite imagery information can be utilized in individual applications. The former part of the class will cover overview of satellite imagery, basic components of remote sensing systems, multispectral images, characteristics of major satellites and sensors, and so on. The latter part of the class will emphasize a satellite image process and applications including land use, environmental monitoring, and urban analysis. Particularly, students will be required to practice satellite image processing software, such as Erdas Imagine.

Geographies of Transportation and Information and Communication Technology

Geography of Resources

This course helps students understand the use and limits of resources and analyze various problems of resource development at both the regional and global levels. It focuses on the limits of resources, along with various resource problems and management. Specific themes are: 1) understanding the relationships between resources, the environment, and population along with present status of resource development at a global level; 2) understanding development and problems related to food, forestry, energy, and water resources; 3) examining ways of harmonizing resource development and environmental conservation for sustainable development; 4) examining and discussing development of human resources and resource management policy; 5) in synthesis, analyzing and discussing resource problems in Korea.
이 강의는 학생들이 해외지역에 대해 사전(현장) 조사를 통해 그 지역을 이해하고 그 결과를 정리하여 발표하는 능력을 높이는 것이 목표이다. 강의는 크게 1) 지역조사의 이론적 토대, 2) 자연환경조사법, 3) 인문환경조사법, 4) 조사자료의 활용 등의 4개 분야로 나누어 진행한다. 학생들의 강의에 대한 이해도와 학습성적을 높이기 위해, 강의 전 선정된 연구대상지역에 대해 주제를 정하고, 조별로 나누어 보고서를 작성하도록 지도한다. 그리고 강의 중 모두 5회에 걸쳐 대상지역에 대한 지역전문가와의 대화토론을 실시할 예정이다. 이 과목은 지리학과가 주관하는 해외학습과 합쳐진다는 희망이 학생들에게 제시되고, 외국사의 초청을 통해 보다 폭넓은 이해의 장을 마련한다. 학생들은 주요 전론들에 대해 적극적인 토론을 통해 나름대로의 이해와 심화를 즐긴다.

South Korea occupies a unique position in world-wide development debates. The uniqueness of Korea's economic and political development is well exemplified by its shift from a recipient to a donor nation for international development aid programs. With the increasing globalization of the world economy and the growing importance of global environmental issues, developed countries are obliged to support less-developed countries for humanitarian and socio-economic reasons. Considering the fact that the rapid development of the Korean economy has mainly been export-driven, promoting economic growth in neighboring countries certainly helps foster economic and political stability and expands trade and investment opportunities for Korea. This is especially imperative considering the fact that a large portion of the world's poverty is actually located in the Asia-Pacific regions.

This lecture aims to provide basic knowledge and understandings on 1) history of development studies; 2) main theories of development studies; 3) available methodological frameworks; and 4) current issues in development research communities. Students will be exposed various examples from the lecturer’s experience in African and Asian countries. Experts outside the University will be also invited to encourage students’ understanding on these issues. Students will be encouraged to develop their own knowledge and methodologies based on intensive discussions during the course.
기존 도시와 급격한 도시화 과정에서 발생하는 도시문제 해결과 도시 인프라 구축, 그리고 미래 도시의 모델 및 전략으로서 스마트도시에 대한 관심이 급증하고 있다. 국가 차원의 스마트도시 전략과 개발은 향후 국토균형의 변화를 주도할 것이며, 세계적인 스마트도시 개발은 도시네트워크 및 세계 공간구조에 영향을 줄 것이다. 본 수업에서는 정보통신기술의 발달과 함께 스마트도시가 주요 공간 전략으로 등장하게 되는 배경과 이해관계자 등을 이해하고 전 세계 다양한 스마트도시의 추진 사례를 살펴본다. 또한, 재난, 안전, 교통 등을 포함한 다양한 도시 영역에 활용되고 있는 기초적인 정보통신기술을 이해하고 스마트도시 개발로 나타나게 될 지역주민의 생활양식과 생활공간의 변화 등을 포함한 지리적 변화를 살펴보고자 한다.

Facing rapid urbanization and dealing with urban problems existed, smart cities are now emerging as an attractive strategy as well as futuristic urban planning model. For both in national and global scale, the development of smart cities would be resulted in changes of spatial network and structure, including mode of people's spatial behaviour. This course intends to give an overview of the various aspects of Smart Cities; backgrounds and history of emerging smart cities and worldwide references, components and potential collaboration with ICT(Information and Communication Technology) and the role of key stakeholder. The course also will focus and deal with possible geographical changes followed smart cities development and expansion including in its lifestyle changes to pursue geographical insight for future smart cities.

앞으로 다가올 남북통일에 대응하기 위하여, 북한의 공간환경에 대한 이해는 필수적이다. 또한 최근 한반도의 정세변화에 따라 북한의 공간문제와 지역문제에 대한 관심이 증대되고 있다. 하지만 북한에 대한 공간정보 및 지역정보는 양적·질적으로 부족한 실정이다. 이를 보충하기 위해, 이 강의는 북한의 공간환경을 현장에서 직접 경험한 전문가, 실무자, 세터민 등의 강연을 구성한다. 이 강의를 통해 학생들은 이론적이고 분과학문적인 기존 지식에서 벗어나, 현장 중심적이고 통섭형의 북한 공간환경정보에 대한 지식을 배울 수 있다.

In order to prepare reunification with North Korea, it is necessary to understand geographical characteristic of North Korea. Moreover, with the change of the state of affairs in the Korean Peninsula and its surrounding areas, the importance of spatial information of North Korea is being emphasized. However, the spatial information and knowledge about North Korea is inadequate both quantitatively and qualitatively. In this sense, this lecture will invite spatialist or practitioners who have been experienced in Inter-Korean cooperation or who is North Korean defector, in order to overcome lack of this information. Through this invited speaker, this lecture will be able to provide the realistic spatial information and knowledge about North Korea to student.
Introduction to Social Welfare

This course introduces students majoring in Social Welfare to a general foundation in the social sciences. It offers practice in social welfare, guiding the students to understand the connection between Social Welfare and other majors. The study of Social Welfare is divided into the following major topics: the concepts, values, ideologies, and development history; the macro-and micro-subfields; the practical methodologies, policies and institutions; and its practical applications.

Social Welfare Research

This course focuses on the research methodologies used to improve them. Students learn to identify the flaws of certain policy measures and ways to improve them.

Human Behavior and Social Environment

This course analyzes how social problems can be approached through social policy and welfare organizations. It will focus on problems that are endemic to Korea and devise possible solutions.

Social Problems

This course will explore the history of social welfare policies from the Middle Ages to the present. Specific topics include Poor Law, the advent of social insurance, and the development of the welfare state. Also explored will be the pre-modern and modern history of the Korean social welfare system.

Ethics and Philosophy in Social Welfare

This course examines various theories on the causes of poverty. Students learn to identify the flaws of certain policy measures and ways to improve them.

Studies on Poverty

This course will acquire a basic understanding of ways in confronting poverty, the core problem of Social Welfare. In order to address this purpose, students examine previous researches on poverty, poverty measurements, and
의 이념적 토대에 대한 이해를 제공한다.

This course is designed to clarify the ethical and philosophical foundation of the social work profession. It encourages students to evaluate the values of social welfare and to understand its moral framework.

209.231 사회보험론 3-3-0
Social Security

산업화된 현대사회에서 대표적인 사회복지제도인 사회보장제도의 기본개념과 이의 및 본질을 고찰하고, 우리나라와 복지선진국의 실제 경험과 현황 그리고 문제점을 전방 등에 이수 중심으로 학습, 연구한다.

In this course we study the basic meaning of social security policies, the representative social welfare policies in industrialized society. This course treats the experience, present situation, problems, and prospects of Korea and a developed welfare state.

209.232 복지국가원론 3-3-0
Theories of Welfare State

본 과목에서는 복지국가의 성격과 기원, 복지국가 발전의 역사, 복지국가 발전에 관한 이론, 복지국가 유형의 논의, 복지국가의 위기와 대응 등 복지국가와 관련된 제기한에 대해 학습한다. 또한 중요한 선진 복지국가의 복지제도 확대과정 및 특징 등을 구체적으로 살펴보고, 한국의 복지국가 성격을 분석하는 안목을 기른다. 복지국가의 전제과정 및 복지국가의 발달의 제도인들을 살펴본 후, 미국, 스웨덴 등 주요 선진복지국가를 대상으로 하여 각 국가의 발달과정에서 나타나는 특징들을 비교, 연구한다.

This course will cover various aspects of welfare state, that is, welfare state characteristics and its origins, welfare state development history, theories on welfare state development, welfare state typology, criticism and response of welfare state. Also, student will review welfare state characteristics of highly advanced countries specifically, and develop an eye for analyzing Korean welfare state.

209.304* 사회복지정책 3-3-0
Social Welfare Policy

본 과목은 사회복지정책에 대한 포괄적인 이해를 목적으로 한다. 그러하여 사회복지정책연구의 세 가지 분야인 정책형성과정, 정책의 내용, 정책의 효과에 대해 개괄적으로 살펴본다.

This course provides a general understanding of social welfare policies. The three facets of social welfare policy, which are introduced in this course, are process, product, and performance.

209.311 노인복지론 3-3-0
Welfare for the Aged

본 과목은 노화현상을 생물학적, 심리적 및 사회학적인 측면에서 이해하고 노인문제의 구체적인 양상을 검토하여, 이에 대한 사회복지적 개입방법을 개괄적으로 연구하는 것을 목적으로 한다.

This course seeks to understand the phenomenon of aging from biological, psychological and sociological perspectives. The goal is to conduct research and find ways to solve the problems experienced by the elderly using intervention and other such social welfare methods.

209.312 지역사회복지론 3-3-0
Community Welfare and Development

한때의 각종 지역사회가 당면하고 있는 문제들을 진단하고, 해결하는 전문적인 과정을 이해하고, 실험하는 역량을 배양하는데 강의의 목표를 두었다. 본 과목에서는 지역사회복지와 관련된 제개념들, 실습을 삼보려고, 지역사회복지의 기조에 있어서 사회사업의 역할을, 지역사회복지와 관련된 다양한 모델들을 중심적으로 다룬다.

This course identifies problems which modern communities face and encourages students to devise practical solutions. Students will study various models of social welfare, the role of the social worker, and other concepts associated with community welfare.

209.314 장애인복지론 3-3-0
Welfare for the Disabled

본 과목은 장애인 개인의 심리적·신체적 특성과 적용이론 및 장애인을 둘러싼 체계적·개체적·사회적 관계에 대한 이해를 높이며 각 차원에서의 사회복지개념방법론을 이해한다. 이에 이어지기 전문적 정책수단들을 개괄적으로 살펴본다.

In this course students will come to understand the challenges that are confronted by the physically disabled. They will study the disabled as individuals and through larger social systems such as family and community. In addition, this class will provide opportunities to learn methods in social work and to create appropriate social policies.

209.319* 사회복지현장실습 3-2-2
Field Work in Social Welfare

강의를 통해 습득한 사회사업의 방법에 관한 이론과 자료를 기초로 하여, 학생들은 사회적 기호와 사회사업 전반에서 직접 시비를 제공하는 실습을 경험하게 하여, 사회사업 전문로서로서의 기초를 닦고, 이론의 적용 가능성을 스스로 검토, 평가해 보도록 하는 것이 이 과목의 목표이다.

This course provides opportunities for students to integrate classroom knowledge with supervised social work practice. They will gain experience through fieldwork at various social welfare centers and human service agencies. Students will gain experience working as social workers and applying principles from social work theory.

209.320* 사회복지실천론 3-3-0
Social Welfare Practice Theories

이 과목에서는 사회복지 실천을 위한 개인, 집단, 가족에게 초점을 맞추고, 이들의 사회 기능을 향상시키기 위한 사회복지실천에 대해 살펴본다. 구체적으로, 사회복지실천을 위한 가치, 기초지식, 사회복지 대상자와 관계 형성, 사회사업주체, 사회복지 실천 과정, 실천 대상에 따른 기초적 개입기술과 기법, 사회사업기법 등을 검토한다. 특히 사회 연구와 역량양성을 통해 실제에 개입하고 평가하는 능력을 강조한다.

This course focuses on methods of improving the social relationships between individuals and their larger social groups, such as family or community. It reviews previous study in values, relationships, social work interviewing techniques, practice processes, intervention techniques, and record keeping. Students will engage in multiple case studies and role plays in class.
이 과목은 아동복지와 가족복지에 대한 이해를 높일 수 있는 이론적 배경과 실천방법을 학습하여 아동복지 분야에서 활동할 사회복지사의 능력을 향상시킨다. 이를 위하여 아동복지의 개념과 가치에 대한 이해, 아동복지의 역사, 정책과 제도, 실천대상과 관련 서비스, 실천방법과 기술 등에 대한 이해를 도모한다.

This course cultivates, through theoretical study, the necessary skills for working in child welfare. It covers fundamental concepts and values, history, policies, organizations, services and skills required in the field of child welfare.

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This course is designed to examine the key concepts and applications of program development and evaluation approaches. Specifically, the course is designed to examine: (1) various approaches of program development and evaluation, (2) the processes involved in program development and evaluation, (3) concepts, tools, and skills in program development and evaluation, (4) appropriate measures to collect and analyze data in order to make informed decisions in program planning and evaluation. Through this course, the students will learn not only the theoretical backgrounds of program development and evaluation but also how to apply various concepts, tools, and skills in the process of actual program planning and evaluation.
includes basic theories of descriptive and inferential statistics. It also introduces the theories of ANOVA and multiple regression model including their application methods.

209.420 산업복지론 3-3-0

Industrial Social Welfare

산업화 과정에서 나타나는 노동문제와 직장 내의 새로운 사회적 관계 등의 현실적 분석을 기초로 하여 근로자를 대상으로 시행되는 국가복지, 기업복지, 근로자 자기복지 및 산업사회사업의 방법론 등을 학습한다.

This course investigates state welfare, benefits, worker’s self-managed welfare and industrial social work method. Labor problems created during industrialization and the newly-established social relationships in the workplace are analysed.

M0000.000700 의료사회복지 3-3-0

Health and Social Welfare: An International Perspective

본 과목은 사회복지학 전공 학부과정생에게 개인의 신체적-정신적 건강상태에 사회적 요인들이 어떻게 영향을 미치고 있는지, 이를 미국과 유럽에서 발달된 다양한 이론적 및 방법론을 이용하여 이해하도록 하는 것으로 목표이다. 본 과목은 미시적, 중시적, 거시적 유인들이 개인의 건강에 어떻게 영향을 미치고 있는지 분석해 본다. 특히, 건강불평등에 관한 서구 사회의 연구들을 분석해보고 이론들을 한국사회에 적용할 수 있는지 그 방법론을 논의하고 한국에서 사회복지정책과 실천에 어떠한 함의를 줄 수 있는지를 논의해 본다.

The aim of the course is to provide student with an understanding of how social factors contribute to individual physical and mental health, outcomes using multiple theoretical frameworks developed in the U.S. and Europe. This course examines how micro-, meso-, and macro-level factors influence individual’s health. Particularly, we will evaluate the health disparities research from Western Societies and discuss how these findings apply to Korea. We will also discuss what the implications of these findings are to social welfare policies and social work practice in Korea.
Understanding Journalism

본 강좌는 매스 미디어 가운데 오랜 역사를 가진 신문매체의 특성 및 본질과, 기록, 발전과정, 신문의 역할과 사명, 그리고 사회적 책임과 윤리 등의 기본 개념을 살펴봄으로써 저널리즘의 기본적인 임무와를 정립하고 계기적으로 이해하고, 나아가 신문이 우리사회에 갖는 정치, 경제, 사회, 문화적 힘의 의미를 이해하는 데 그 목적이 있다.

The course examines the historical development and characteristics of newspaper journalism. Also reviews the basics of newspaper journalism including newspaper’s social function, freedom and responsibility, ethical issues and so on.

Persuasive Communication

실력을 키워내는 사회적 및 개인적 기능과 효과 등과 그에 관한 지금까지의 여러 이론들과 연구 결과 및 연구방법 등을 학습한다. 또한 패널, 패널, 개인사 요인, 재치 요인, 상황 등 설득판론 주요 연구 대상에 대한 학습과 과제를 담당하고 기존 연구의 방법론적 문제점과 개선 방향에 대해 논의한다.

This course presents an overview of social and individual processes of persuasion in various contexts. Students will learn the developments in theories and methodologies of persuasion studies and the implications for practical applications. Theoretical issues concerning attitudes, behavior, individual differences, message factors and contexts are examined. Methodological considerations about measurement, experimentation, message construction, modeling, and analysis are also discussed.
course students also consider the conditions and ways in which communication contributes to social movement and democratic political change.

**211.228 커뮤니케이션학사 3-3-0**

**History of Communication Studies**

본 과목의 목표는 언론정보학과의 학문적 정체성에 대한 학생들의 이해를 돕기 위해 커뮤니케이션학문의 기원과 역사적 발전 과정을 소개하는데 있다. 미국을 비롯하여 세계적으로 커뮤니케이션 학문이 어떤 재학과 과정을 거쳐 독립적 학문으로 성장하기앞에 있는지를 학습하게 되는데, 특히 한국에서 언론정보학이 발전해 온 과정을 구체적으로 다루게 된다. 수시로 다는 내용은 커뮤니케이션 학문의 제도화 과정과 패러다임의 변화, 커뮤니케이션학문 선구자들의 생애와 학예 등이다.

This course is designed to introduce the origin and development of communication studies to help students understand the disciplinary identity of communication studies. Students will learn how communication studies has been institution- alized as an independent discipline in Korea and globally as well. Main topics include process of institutionalization of communication studies, change of research paradigms, biographies of founding fathers in communication studies, and so on.

**211.230* 언론정보문화 특강 1-1-0**

**Special Topics in Communication, Technology, & Culture**

본 과목에서는 언론정보, 정보문화과 관련된 헌법과 인권 양식에서 최근 두각을 나타내고 있는 영역의 핵심인물의 초청강의를 통해 현장에서 일어나고 있는 커뮤니케이션 현상에 대한 발전 과정을 수업 2시간으로 다양한 분야의 전문가를 초빙하여 강의와 점의 응답 시간을 갖는다. 현장에서 일어나고 있는 커뮤니케이션 현상이나 관련된 윤리분야와 직접 접함으로써 강의의 실용협용 내용에 관해 다시 생각하고 나아가서 자신의 커리어 설계에도 도움이 되고자 한다. 특히 정규 커리큘럼을 통해 사려하지 않고 독자적 훈련을 하는데 있다.

The objective of this course is to provide students with the current understanding of the variety of communication and information technology-related fields. By inviting outside communication professionals or researchers students have chance to learn what happens in the field and also to apply the knowledge earned through regular classes to the real-world problems. Students will eventually obtain problem-solving skills and get tips on career planning as well. The speakers will be invited in the fields of broadcasting, film, newspaper, internet contents providers, media service firms, software, game, sound, interaction design, communication strategy, PR & advertising, and the like.

**211.301* 커뮤니케이션의론 3-3-0**

**Communication Theories**

본 강의는 언론정보학과 전공필수 과목 중 하나이다. 학생들은 주요 커뮤니케이션 이론에 관한 포괄적이면서도 신도 있는 이해를 목표로 삼는다. 강의내용은 경험주의적 이론진보를 중심으로 하되, 양적 연구와 질적 연구 정통을 비교하고 통합하고자 한다.

This course is one of the compulsory courses for students majoring in communication. Students aim at gaining a comprehensive and profound understanding of the major communication theories. The class tries to compare and integrate both the quantitative and the qualitative research traditions while the main focus is on the empirical side.

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*211.303 비판커뮤니케이션론 3-3-0**

**Critical Studies of Communication**

이 과목의 목표는 현대사회 커뮤니케이션을 비판적으로 이해, 설명하는 이론과 개념들을 학습하고, 이를 한국사회의 역학에서 새롭게 성찰하는 용량을 하게 하는 목표이다. 강의의 주요 주제는 기호학과 철학의 중심 그리고 인터넷 공간에서 주제를 주제로 조사한다. 수강생들은 단순히 외국의 이론과 개념을 이해하기보다 한국사회의 매스커뮤니케이션현상에 대한 비판적 이해를 높이기 위한 독자와 사회의 협원을 받도록 한다.

In this course we study the theories and concepts to understand as well as explain the communication phenomena in contemporary society, especially within the context of Korean society. Course work will include lectures, question - and - answer time, and group e-discussions. Students will have chances to learn how to critically reflect critical theories in the context of concrete realities where they live in.

**211.311 정치커뮤니케이션 3-3-0**

**Political Communication**

이 강의의 목표는 현대 민주주의 정치에서 언론과 매체가 수행하는 역할과 이론적, 실용적 역할을 체계적으로 검토함으로써, 시민의 정치적 인식, 학습, 참여를 활성화하기 위한 민주주의의 행정적이며, 제도적 기초를 탐색하는 데 있다. 제도적으로 뉴스의 생산과 정치적 현실의 구성, 언론과 여론의 관계, 선거과정에서 미디어가 수행하는 역할, 한국의 민주화와 언론의 변화, 커뮤니케이션 테크놀로지의 발달에 따른 새로운 민주주의의 가능성 등을 이론적으로 설명하고, 실천적 훈련을 도출한다.

In this course, students explore behavioral and institutional foundations of the process of democratization for enhancing citizen's political learning and participation by examining the role of political journalism and media in modern democratic societies. Students learn to critically examine the issues concerning news production and consumption, formation of public opinion, role of media in political campaign, democratization in Korea, and development of new media and their impacts on democratization.

**211.313 대인커뮤니케이션 3-3-0**

**Interpersonal Communication**

본 과목은 스피치 커뮤니케이션을 포함한 대인 커뮤니케이션 전반의 기초 이론을 체계하고 근본 연구상황을 소개하는 데 목적을 두었다. 보다 구체적으로는 커뮤니케이션 능력, 인간관계의 형성, 말 및 청취, 메시지 전달, 언어적 비언어적 커뮤니케이션, 문화 간 커뮤니케이션 등의 주제를 논의할 것이다. 이와여야 의사소통적 상호작용, 자기 노출, 기안, 유머 등 대인 커뮤니케이션과 관련된 다양한 토픽을 다룬다.

This course aims to introduce foundational theories and recent research trends in interpersonal communication. Topics include, but are not limited to: communicative competence, formation and maintenance of relationships, verbal and nonverbal communication, cross-cultural communication, self-disclosure, deception, humor, and the like.
This course examines the relationship between communication technology and social change. Beyond the dichotomy of positivism and pessimism, students will consider various aspects of communication technology and focus on three topics: emergence of communication technologies in the cultural and social contexts, characteristics of communication technology in each historic periods, and the social consequences of communication technology on human lives.

This course aims to:
- analyzing the economic, technical and consumer forces shaping broadcasting media
- analyzing different theoretical justifications of broadcasting media study
- understanding theoretical backgrounds of program production and programming practices
- analyzing the impact of various new technologies recently introduced in broadcasting
- predicting the future of broadcasting media based on the previous analysis

This class reviews the legal aspects of newspaper, broadcasting media, programming practices, content and ownership regulations, etc. This course helps students learn how to plan, write and edit newspaper articles and to understand the production processes of a newspaper. Students are expected to participate in writing and production projects in class and visit various newspaper organizations to gain an understanding on news communication and ownership regulations.
This course is designed to provide a social scientific understanding of Internet media, Internet related issues and its social implications. Topics include: concept and nature of Internet, origins and developments of Internet, basic principles of Internet technologies, Internet and online life, Internet and virtual community, Internet culture, political economy of Internet, and so on.

This course aims to introduce students to a wide range of communication technologies, especially the Internet, have changed the ways in which people consume mass-oriented communication technologies, especially the Internet, have changed the ways in which people consume mass-oriented information, such as news and entertainment.

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211.408A 커뮤니케이션학 3-3-0

**Topics in Communication**

이 수업의 목표는 커뮤니케이션 분야의 최신 개념, 이론, 접근 방법, 방법론 등을 소개함으로써 변화하는 커뮤니케이션과 미디어 현상을 이론적으로 포괄하고 그에 대한 새로운 연구 프로그램을 모색하는 데 있다. 수업의 구체적 내용은 담당 교수의 재량에 따라 달라질 수 있다.

The aim of this seminar is to provide students with an overview of recent developments of concepts, theories, approaches, methods, and applications in media and communication studies in order for them to advance theoretical understanding of media and communication and to develop a new research topic.

211.412A 현대 저널리즘 이론과 분석 3-3-0

**Modern Journalism Theory and Analysis**

본 과목은 저널리즘 분야의 기초 이론들을 학습하고, 한국의 현실에서 발견할 수 있는 저널리즘 문제들에 이론적, 정책적 해석을 주축으로 하여 한국적 맥락에 적용할 수 있는 연구주제를 선정해 보고서를 완성하고 발표하는 형식으로 진행된다.

The course reviews basic theories in the field of journalism and discusses various journalistic issues in the light of recent developments of concepts, theories, approaches, methods, and applications in media and communication studies in order for them to advance theoretical understanding of media and communication and to develop a new research topic.

211.414A 커뮤니케이션 효과연구 3-3-0

**Studies in Communication Effect**

본 강좌는 사회를 구성하고 유지하는 핵심인 커뮤니케이션의 효과에 관한 다양한 이론 및 실증적 연구결과들을 소개하는 데 그 목적이 있다. 다섯가지 주제로는 섹스와 폭력물, 미디어의 의제 설정, 문화 개발 효과, 효과 및 충돌 모델, 미디어 이용을 통한 감정 조절 등이 있다. 또한 인터넷 커뮤니케이션과 미스테리 커뮤니케이션의 상호작용, 통적 미디어와 구별되는 새로운 커뮤니케이션 테크크래트리의 효과 등에 대한 논의도 진행될 것이다.

This course is designed to introduce students to theory and research on the processes and effects of mass mediated messages on people’s knowledge, attitudes, and behaviors. We will examine topics such as: media sex and violence, agenda-setting, mood management, and so on. We will also discuss the interaction between interpersonal and mass communication as well as the impact of new communication technologies.

211.417 광고론 3-3-0

**Communication and Advertising**

이 과목은 광고의 기초개념 및 광고관리의 기초에 대한 안내를 제공해주는 강의로서, 광고에 관련된 각종 문제에 접근하여 해결책을 제시할 수 있는 기본 틀을 이해시키고자 한다. 현대사회에 있어 광고는 새로운 상품의 소비자와 연결시켜주는 역할을 담당하고 있는 만큼, 신상품의 소개와 판매에 중요한 역할을 담당하고 있다고 하겠다. 이 강좌에서는 광고에 대한 기본개념 및 광고작성, 광고관리의 기초를 학습한다. 또한 그 중요성을 인지하게 하기 위해 제공되는 광고의 문제점들, 즉 허위광고, 과장광고, 광고비의 과다지출 등의 문제에 해결책을 제시할 수 있는 기본틀을 학습한다.

Advertising is in the pivotal position in introducing and selling new commodities as it connects them to consumers in the current society. This course offers basic and managing concepts in advertising, equipping the students with abilities to solve its various problems. It will also deal with related problems such as false and puffery advertising.

211.418A PR론 3-3-0

**Public Relation**

본 강좌에서는 PR의 성격, 역할과 다양한 유형에 대한 이해를 넘어서한다. 또한 기업, 정부, 사회단체 등 각종 영리/비영리 조직 및 개인이 다양한 이해관계자집단과 어떻게 효과적인 인공 관계를 수립할 수 있는지에 대하여 통합적 커뮤니케이션 관점에서 이해하고 탐구하는데 목적이 있다.

This course broadens the understanding of properties, roles, and various types of PR. In addition, students will explore the viewpoint of integrated communication about the way such commercial/noncommercial organizations as corporations, social groups and individuals establish effective public relations with various interested parties.

211.419A 미디어 산업과 정책 3-3-0

**Media Industry and Policy**

최근 들어 종래의 신문과 방송은 물론 다채널 방송 플랫폼, 인터넷, 그리고 개인화의 스마트 미디어 등은 하루가 다르게 기술적 및 산업적으로 급속한 변화를 보이고 있다. 특히 한국사회는 전세계적인 퀄런 미디어서비스의 테스트베드에 비유할 수 있으며 뉴미디어의 발전 성과를 보이고 있다. 이 강좌는 우리 사회 주요 미디어의 기본적인 발전 방향과 이에 밀접하게 관련된 주요 미디어 정책 현안들을 살펴본다.

Recently, newspaper, broadcasting, multi-channel platforms, internet, and personalized smart media reveal remarkable advancement day by day. Particularly Korean society shows outstanding performance in media development that it can be compared to the global test bed of state-of-the-art media services. This class reviews the basic directions of crucial media development and closely related major policy issues in Korean society.

211.420 컴퓨터매개커뮤니케이션 3-3-0

**Computer-Mediated Communication**

본 과목은 컴퓨터 매개 커뮤니케이션 현상과 관련된 다양한 이론과 연구를 검토하고, 이를 기반으로 수강생들이 주제별로 연구문제를 도출, 실험적으로 검증하는 기회를 제공하는 것을 목표로 한다. 이 때 사람들이 테크놀로지의 발달로 동정한 새로운 현상에 대한 인터넷 커뮤니케이션 방식을 이해하게 하며, 다양한 매체의 속성에 따라 커뮤니케이션의 제한 과정 및 결과에 어떻게 달라지는지에 집중적으로 살펴볼 것이다. 구체적으로 온라인 상의 자아 정체성, 인터넷 커뮤니케이션을 통한 인간관계의 형성 및 유지, 사회적 네트워크 사이트, 컴퓨터 매개 커뮤니케이션 환경에서의 집단 압박, 컴퓨터 네트워크를 통한 협업 등과 관련된 주제들을 다루게 될 것이다.

This course is designed to provide an overview of scholarly research and theories on computer-mediated communica-
이 수업의 목표는 미디어 현장의 최신 동향 및 그 안에서 생산되는 미디어 시리즈 제작과 관련된 체계적 지식을 전수함으로써 급변하는 커뮤니케이션과 미디어 현실에 대한 이해와 미디어 시리즈의 기획 및 제작에 대한 전문성을 제공하는 데 있다. 수업의 구체적인 내용은 담당 교수의 재량에 따라 정한다.

The aim of this seminar is to provide students with an overview of the recent trends in media industry fields and the know-how on media service production in order for them to enhance the understanding of the current situations of media fields and the expertise in planning and producing media services. The specifics of the seminar may vary depending on the instructors.

이 수업에서는 풍부한 현장경험을 가진 전·현역 언론인이 신문기사작성 및 방송뉴스 제작을 위한 실무위주의 교육을 실시한다. 기본적인 뉴스취재와 오디언스에게 유용한 방식의 기사작성 및 뉴스재작 요령 등에 대해 배운다.

This course covers basic fundamentals of how to gather and report news events for the mass media in such a way as to be meaningful to the public. Stress is on the need for developing writing skills, learning technical terms, writing feature stories, and other materials for print and broadcast news.

이 수업에서는 선거 후보자들이 어떻게 캠페인을 전개하며 유권자들은 어떠한 과정을 거쳐 의사결정을 내리는지 탐구해 본다. 구체적으로 후보자들이 출마를 결정하고 선거전략을 수립하며 선거승리를 도달하는 과정 등에 관한 연구들을 중심적으로 살펴본다. 또한 다양한 매체를 통한 캠페인 전개과정에 대해서도 알아본다. 이 수업은 인론과 실습을 접목하여 약 3-4회에 걸쳐 실제 선거캠페인을 운영해 본 경험자들로 연구를 수행하고 지도 교수는 이를 감독하고 지도하는 형식으로 진행될 예정이다.

This course examines how candidates conduct their campaigns for office and how voters make their choices. We will study how candidates decide to run, how they plan their campaigns for office and how voters make their choices. We will then move to exploring the strategies, how they raise money, and how they employ political professionals. We will then move to exploring the means by which candidates communicate with voters, whether "over the air" or "on the ground." This course will integrate theory with practice. We will invite campaign practitioners as guest lecturers, and student will be asked to design their own campaigns.

이 수업에서는 학생들이 커뮤니케이션학에서 출판된 최신의 논문이나 저지를 읽고 지금까지 배운 이론들과 연구 방법론을 활용하여 실제로 리서치를 수행하도록 하며 그 목적이 있다. 이를 통해 학생들은 커뮤니케이션 연구 맥락을 기르고자 하는 것이다.

This course does not consist of lectures. Instead, students will read the most recent articles or books published in communication. Moreover, students are required to conduct their own research project using their knowledge of theories and methods they learn during their undergraduate days.

Data Journalism

데이터 저널리즘은 �지털 사회에서 정보의 생산과 확산 과정에서 전자 정보요소, 데이터의 역할을 다루는 학문 분야이다. 본 수업에서는 파이썬 프로그래밍 언어를 사용하여 데이터 분석 기법을 학습하고 이를 데이터 저널리즘에 활용하는 방법을 학습한다.

Data journalism reflects the increased role of digital data in the information production and distribution. In this class, students learn how to analyze data and use data as the source of data journalism using python programming language.
Different qualitative research methods as well as practices on how to design an efficient and feasible research project using the communication studies. Students will be headed to learn to introduce the qualitative research methods, useful and used in discourse analysis and semiotic analysis, this lecture in-  

corporating measurement, sampling, continuing with, "how to analyze data" of communication research. Students will also learn and apply different research methods such as that for analyze data of communication research. This course will equip students with the ability to conduct independent research. They will learn first 'a purpose and an object', then 'procedure and design', and 'collecting data(including measurement, sampling)'.

This course seeks to develop student's ability of critical analysis about visual culture in the 21st century. Specifically it aims to provide an advanced forum for critical analysis of key theoretical and methodological ideas about the form, content, meaning and effects of visual media in society. Students will have the opportunity to pursue specific interests related to the central themes.

The course seeks to develop student’s ability of critical analysis about visual culture in the 21st century. Specifically, it aims to provide an advanced forum for critical analysis of key theoretical and methodological ideas about the form, content, meaning and effects of visual media in society. Students will have the opportunity to pursue specific interests related to the central themes.

Qualitative communication research methods

Film theories

Films

Films are one of the most important interfaces of the contemporary visual culture, even though the development of TV, Games and the Internet. As the center of the cultural industry complex and the political and aesthetic cultural practices, films have the primary importance in order to understand the socio-cultural and the political influence of images in the contemporary society. This lecture will treat the following subjects: the history of cinema; the History of Movies; the Films in the 21st Century.
theoretical development.

In the first part of the lecture, the representation system of the television fiction series (format, content, genre, reception, etc.) will be treated, students will acquire analytical concepts derived from cultural theories: social representation, hegemonic process, gender, class, race, cultural practice, active audience and fandom, etc. The lecture series feature case studies involving Korean drama, American drama series, European television fiction, and web series, in order to develop a comparative sociological standpoint on the television storytelling.

The second part of the lecture will address the questions on the recent development of visual services in the Internet and its co-evolution with the television. Concepts and theoretical frames covering the new storytelling practices will also be introduced.

2114.304* 정보문화기술이론 3-2-2
Introduction to Information-Culture Technology

본 과목은 연합전공 과정을 밟고 있는 학생들의 기초필수과목이다. 정보문화기술에 기반을 둔 컴퓨터에 대한 이해도 높이 고자 컴퓨터 구조, 운영체제, 통신, 인터넷 등 전반적인 컴퓨터 이론을 소개한다. 또한 본 과목에서는 JAVA 언어를 통해 프로그래밍 언어의 기초를 학습한다.

This course is compulsory subject for students in this major. In this course, general theories about computer, computer structure, operating system, computer communication, and internet will be instructed. Also, students will learn the fundamental of computer programming by using JAVA language.

2114.408A HCI이론 및 실습 3-3-0
HCI Theory and Practice

디지털환경으로의 변화를 이해하고 그 산업적 가능성을 모색할 수 있는 개인적 권리이자 민주주의를 정당화하는 원리이다. 디지털매체를 매개로 새로운 디지털기술과 인공지능의 상호작용을 이해하는 것이 본 과목의 목표이다.

In understanding the social and industrial implications of digital communication technologies, the starting point becomes to explore the basic nature of the human-computer interface and computer mediated human communication. This course introduces major theories and research findings of Human Computer Interface and Computer Mediated Communication.

M0000.016500 언론의 자유와 통상의 예절 3-3-0
Freedom of Speech and Civility

언론의 자유는 개인적 권리이자 민주주의를 정당화하는 원리이다. 그러나 언론의 자유는 동시에 다른 개인적 권리, 집단적 규범, 정치적 원리들에 갈등하기도 한다. 이 강좌의 목표는 정황에 따라 법적으로 보장하고 시민사회가 자기형성의 원리로 삼는 언론의 자유가 다른 개인적 권리와 사회적 형식의 원리와 갈등하는 조건을 탐색하고 민주주의 이론과 소통의 윤리의 관점에서 그런 갈등을 해결하기 위한 전망을 모색한다. 특히 언론 자유를 정당화하는 이론, 법적 원리와 원칙, 그리고 언론 자유를 통한 소통의 윤리와 규범을 다각적으로 검토함으로써 언론학을 전공하는 학생들에게 기초 지식을 제공한다.

While freedom of speech is an indispensable individual right and a principle that justifies a democratic polity, it often conflicts with other individual rights, group norms, and political principles. This course explores conditions under which freedom of speech conflicts with other rights, norms, and principles and provides a theory of communicative democracy that attempts to resolve the conflicts within the boundary of democratic principles and civil society norms. The course covers various theories of freedom of speech, legal principles and doctrines related to freedom of speech, and communication ethics and norms that students of communication should learn to further their knowledge in the areas of social, political, and legal theories.

M1312.001400 저널리즘 실습 글쓰기
Advanced Journalism Writing

이 강좌의 목표는 탐사보도에 요구되는 심층적인 저널리즘 글쓰기 능력을 배양하는 것이다. 기획 기사 및 시사보도 프로그램 제작 방식을 학습하고, 문장의 형식 및 구성을 핵심으로 습득을 초점으로 맞춘 내러티브 글쓰기 기법을 훈련한다. 이를 위해 탐사보도에 대한 이론적 기초 지식을 탐색하고, 토대적 탐사보도 사례를 분석하며, 탐사보도 기사 작성에 실험한다.

The main goal of this course is to cultivate advanced journalism writing skills required for investigative journalists. Students will learn how to plan, conduct research for, and produce investigative reports. To this end, students will (1) learn about basics of investigative journalism, (2) read exemplary investigative reports, and (3) write a piece of investigative report.

M1312.001500 미래뉴스실습 I
Future News Practice I

미래뉴스실습 I은 탐사보도와 관련된 기사 제작 및 게재 방식에 관하여 탐사보도를 다룬다. 미래의 사회에서 탐사보도는 공중의 알권리를 보장하고 언론의 진실 조명 차원에서 핵심적인 저널리즘 양식이다. 이 강좌에서는 탐사보도 저널리즘 기초를 학습하고 심층적인 취재 및 기사 작성 기법을 훈련한다. 구체적으로 저널리즘 실습 과정을 통해 팀별 취재 실습 및 뉴스 제작 경험을 향상함으로써 탐사보도 저널리즘의 기술을 갖추어야 함 실무적 능력과 윤리적 사명감을 배양한다.

Future News Practice I deals with investigative journalism. In a democratic society, investigative journalism is one of the most critical forms of journalism because it helps protect the public’s right to know. In this course students will practice reporting and writing a piece of investigative journalism. To be more specific, students will actually go through the entire process of investigative journalism by participating in a series of group activities, thereby cultivating practical skills and a sense of responsibility as an investigative journalist.

M1312.001600 미래뉴스실습 II
Future News Practice II

미래뉴스실습II는 다각화된 데이터 저널리즘을 다룬다. 데이터 저널리즘은 디지털 사회에서 정보의 생산과 확산과정에서 점차 중요
Future News Practice II deals with advanced data journalism. Data journalism is a journalism specialty that focuses on the increased role that numerical data play in the production and distribution of information in the digital era. This course is intended to teach students methodologies for data journalists to find important pieces of information and relay those to the public in an effective and efficient manner. To this end, students will conduct a team project related to data journalism. In doing so, students will have an in-depth understanding of data journalism.
2114.301A 인터페이스 프로그래밍 3-3-0

Programming Usable Interfaces

다양한 정보기술의 출현으로 인해 정보화상호작용하기 위한 다양한 인터페이스가 개발되고 있다. 모바일, 다이바이의 출현은
과거 WIMP(Window, Icon, Mouse, Pointer)를 사용한 인터페이스
방법에서 멀티터치를 사용한 인터랙션으로 진화하는 등, 구준히
발전하고 있다. 이 과목에서는 널리 사용되는 사용자 인터페이스
를 프로그래밍 관점에서 접근함으로써 사용자 인터페이스와 관련
된 기술 기술에 대한 이해를 도모하고 새로운 인터페이스 개발에
필요한 지식을 습득한다.

Various form of user interfaces are being developed as
various information devices are emerging. For example, the
arrival of mobile devices has changed the traditional
WIMP(Window, Icon, Mouse, Pointer) paradigm of the user
interface to the multi-touch interaction. In this course, stu-
dents will explore user interface technologies in the program-
ning point of view, so that they can understand underlying
technologies that enable the user interfaces. Also, students
will acquire knowledge to develop usable user interfaces.

2114.303B 디지털영상실습 1 3-2-2

Digital Video Workshop 1

방송 스튜디오를 활용하여 동영상의 제작, 편집, 후기 작업 등
을 실습하고 텍스트, 다큐멘터리, 3D 영상, 상호작용적 텍스트 등
동영상뿐만 아니라 주요 장르의 작품 제작을 수행한다. 본 과목에서는
정보문화기술의 배제로서 미디어를 개방하는 전통적인 관점을 물론,
미디어를 새로운 표현언어로 설정하고 음영상을 습득, 영상글쓰
기를 학습하도록 한다.

Students will make moving pictures and edit them by
themselves in a studio and also make programs such as
documentaries, 3D images, interactive text, etc. This course
will cover the traditional perspective on mass media as a
medium of information conveyance and explore a new per-
pective, which considers mass media as a new expressive
language. On this basis, students will learn visual language
and practice visual writings.

2114.304* 정보문화기술입문 3-2-2

Introduction to Information-Culture Technology

본 과목은 인적정진 과정을 받고 있는 학생들의 기초필수과목
이다. 정보문화기술에 기반을 둔 인터페이스의 이해도 높이
고자 컴퓨터 구조, 운영체제, 통신, 인터넷 등 전반적인 컴퓨터 이
론을 소개한다. 또한 본 과목에서는 JAVA 언어를 통해 프로그래
밍 언어의 기초를 학습한다.

This course is compulsory subject for students in this major.
In this course, general theories about computer, computer
structure, operating system, computer communication, and inter-
net will be instructed. Also, students will learn the funda-
mental of computer programming by using JAVA language.

2114.305* 문화컨텐츠의 이해 3-3-0

Understanding Culture Contents

본 강좌는 정보문화학의 두 축 중 하나인 문화기술에 대한 기초과
정이다. 대중문화와 문화산업에 대한 소개와, 이를 통해 유통되는 다
양한 문화 컨텐츠를 분석하고 이의 속성을 살펴본다. 또한 문화컨텐
츠를 미디어기술, 미디어표현, 미디어문화의 측면에서 고찰해 본다.

This course provides the basic understanding of culture
contents, one of the two fundamentals of Information and
Culture Technology Studies, and takes a look at a variety of
aspects, such as the culture contents industry and its academ-
ically related aspects of mass culture, as well as the culture
industry and the creation of culture contents. Moreover, it
looks at culture contents as media technology, media ex-
pression, media culture, and their social significance.

2114.307A 컨텐츠산업과 정책 3-3-0

Issues on Contents Business and Policy

디지털 컨텐츠는 생산영역에 몰두하지만 유용성의 역할이 중요하
며, 다양한 소비계층이 적극적으로 컨텐츠 생산과 유통에 참여하
기에 이에 따른 사회문화적 영향을 조정하는 사회적 정책의 기능
도 중요하다. 따라서 본 강좌는 컨텐츠 마케팅의 기반 이론과 사
례를 살펴본 뒤 컨텐츠 마케팅 모형을 제작하며, 또한 컨텐츠 요
등을 관련한 다양한 제도, 법규, 지침서 및 사회윤리적 측면에 대
해 살펴본다.

Marketing and Distribution of Digital Contents become an
critical part of the business as new media industry settled its
ground. This course covers about understanding diverse yet
dynamic consumer groups, how they pick and consume con-
tents, and balancing between commercial and ethical function
of digital contents. The government policy on digital culture
will be discussed as well.

2114.309 게임의 이해 3-3-0

Understanding Game

본 강좌는 놀이란 무엇인가(ludology), 비디오 게임의 역사, 게
임의 정의 등 게임과 관련된 기초적 지식을 습득하게 하여 수업
중반 부터 게임을 구성하는 요소들에 대한 이해와 게임 기획 방
법론을 통해 학생들이 게임 시나리오를 제작하기 위한 디지털 컨텐
츠의 주요 장르 중 하나인 게임의 구성적 요소에 대해 살펴볼
수 있는 기회를 마련한다.

This course provides the basic understanding of video
game or online game, the beginning of the class will cover
Ludology, history of video game, game genres and other ba-
sic game theories. Middle half of the class will cover on
game design and the elements of games in general. Later,
students will build their own game scenarios and it will be
reviewed with professional game designers and planners.

2114.402A 멀티미디어발상연습 3-2-2

Multimedia Ideation

본 강좌에서는, 실제 멀티미디어 컨텐츠의 제작을 통하여 이에
관련된 다양한 현실적인 조건들을 탐구한다. 핵심적으로는 게임
및 그레픽, 음향 부분을 중심으로 다루는데, 이는 멀티미디어 기
술의 가장 대중적인 산물로 이들이 제작하는 기술적인 방식들을
팀 단위로 직접 실습할 수 있도록 함. 실습과 더불어 디자인의
가능성이 가능한 멀티미디어 기술의 사회적, 문화적 함의를 살
펴본다.

In this course, students will make actual multi-media con-
tents, exploring various materialistic conditions of making
contents. Game and graphic, sounds will be the focus in
making contents. This course will examine the social, cul-
tural implications of multi-media technology in this age of
digitalization.
Students will learn about a new type of art, providing a story through computer interaction. The structural characteristic of a meta-linear narrative (not a linear narrative) used to experience a story through computer interaction. The structural characteristics of this type of narrative will be part of this course.

Languages of softwares, including writing tool, narrative, editor engine, and the usage will be studied. In addition, various media forms, and computer games etc. and the establishment of the meta-linear narrative will be introduced. Students will also practice VRML (Virtual Reality Markup Language), the basis of Virtual Reality.

In this course students will apply virtual reality systems to various CT industries after understanding the kinds of virtual realities. Students will also practice VRML (Virtual Reality Markup Language) as a virtual reality development tool. The course will run with a project which may develop with various researches and technical play-outs. Students are expected to work in general presentation programs and the interaction will be the theme of the final project. The explicit focus of the class is to experience visual data and text. The visual focus of the class is to experience visual communication and its conversion on various media. Throughout the semester students will experience visualization and exercises with data and text. Their interaction will be the theme of the final project. Students are expected to work in general presentation programs and basic Flash technology, although non-technological solutions may also exist. A workshop for applying Flash is provided in the early stage of the class.
스에 대한 요구는 놀라지지 않지만 전통적인 커뮤니티 과목으로는 이를 지원하기가 부족하다. W3C의 주요하게 개발 중인 시멘틱웹 (Semantic Web) 기술은 웹상의 정보를 표현하고 교환하기 위한 규칙을 정의하는데 필요한 기술들을 말한다. 시멘틱웹은 사람과 응용프로그램 사이에 의미에 기반한 정보교환을 함으로써 자동화된 서비스를 제공하는 환경을 만드는 것으로 이를 위해서는 정보를 형식화하는 과정 및 개념화 과정을 통해 음용 프로그램이 자동으로 상호작용을 일으킬 수 있는 방법을 고안할 필요가 있다. 음용프로그램은 지식 도메인의 개념 및 그들과의 의미적 연관성을 형식적으로 정의함으로써 지식 검색 등의 서비스를 가능하게 한다. 그들 사이의 의미적 연관성을 형식적으로 정의함으로써 지식 검색 등의 서비스를 가능하게 한다.

Internet and World Wide Web provide technological environment to communicate information among people and software applications. The improvement of the techniques has lead into a situation where enormous data resources are available on the internet. Efficient use of the resources, however, is very difficult because there are not well defined rules about the way information should be presented and communicated among software applications. Semantic Web technologies, which are developing under World Wide Web Consortium (W3C), support the creation of presenting and communicating information on the web. Semantic Web is environment to enable software applications (i.e. agents) to communicate based on understanding of the intended meaning of shared terms. An ontology defines formally the concepts and their relationships used to represent the intended meaning of shared terms to provide automated services. Ontologies are used to represent the intended meaning of shared terms. An ontology defines formally the concepts and their relationships in an knowledge domain. This course enables students to understand how Semantic Web technologies are used to present and communicate semantically on the web. The topics covered in the course include the structure of Semantic Web, metadata, ontology modeling, ontology language and ontology construction.

2114.413A 디지털영상실습 2 3-2-2

Digital Video Workshop 2

본 과목은 <디지털영상실습 1>과 연계하여 이루어지는 디지털 영상 제작 심화 코스이다. 다양한 디지털 미디어를 통한 영상콘텐츠의 제작 및 표현 기법에 대해 학습한다. This course is an advanced course of <Digital Video Workshop 1> and explores in-depth level of making moving pictures. Students will learn the process of video contents creation and the presentation techniques throughout the course by dealing with various digital media.

2114.414 시리어스 게임 3-3-0

Serious Games

 seriious game' (computer/video) games has won their present position beyond an entertainment in contemporary society with the development of computer technology and the advent of network society. There are perennial controversies about the negative effect of video games on game players and societies, and efforts to make some benefit to society by video gaming in other direction. This course investigates effects of computer/video games and gaming on their players and societies, social intervention of games by new technologies and its cultural developments, and an area of the 'serious game' that is a specific form of harnessing games to make social benefits.

2114.415 디지털음향의 이해 3-3-0

Understanding Digital Acoustics

본 과목에서는 디지털 사운드와 관련된 기초를 배우고, 디지털 사운드의 생성, 인지과정 등에 대해 다룬다. 또한, 사용자 인터페이스 혹은 디지털 콘텐츠의 제작 과정에서 디자인 음향의 역할과 효과에 대해 학습한다.

This course introduces the fundamentals of digital acoustics, creations of sound and related cognition processes. Students will also acquire the roles and effects of digital acoustics when used in user interfaces or digital contents creation.

2114.416 사운드인터렉션 3-3-0

Sound Interaction

Sound is used in many area especially in contents creation and user interfaces. In this course, students learn how users are benefited from sound technology while interacting with information and how sound can be utilized in the various user interfaces. During the class, students will experience the sound creation process and the various interaction methods using sound technologies.

2114.417 인터랙티브미디어 3-2-2

Interactive Media

Interactive Media is a specific form of harnessing games to make social benefits. This course provides the overall understanding of digital media and the foundation technologies that enable interactive digital media creation. Students will learn basic programming fundamentals and electronics and apply the technologies to develop interactive media prototyping. In this course, various prototyping tools such as Processing, Arduino or Lego Mindstorm will be used to create prototypes.
Understanding Digital Animation

This course introduces the basis of animation which is widely using in movies, commercial films, design and multimedia products. Students will learn the role and effect of animations in the digital contents industry that has rapidly changed by the advance of computer technologies. In this course, students are introduced various techniques and tools using in the digital animation production these days and will conduct projects to create digital animations.

User-Centered Design

User-centered design is a new design approach. Unlike feature-centered design, it focuses on the user's needs and the context of user where a system is being used. In this feature-centered design, it focuses on the user's needs and standing of social phenomenon. This course will provide distant changes of information culture area, students will need topics in the information culture technology for better understanding. This course will introduce the concurrent various technologies have greatly changed our daily life. In the emergence of mobile devices and the convergence of information and contents, the role of traditional mass media is rapidly replaced by internet and social network media. The role of traditional mass media is rapidly replaced by internet and social network media. In this class, students have to understand digital animation production these days and will conduct projects to create digital animations.

Information Structure

This course introduces concepts of data structure and algorithms use to develop effective programming. In this course, students will learn abstract data type concepts and the implementation methods of data structures. Recursive function, algorithm efficiency, sorting and search will be discussed. Students will be exposed to linear data structures such as linked lists, stack and queue.

Seminar in Information-Culture Technology

The course introduces concept of data structure and algorithms use to develop effective programming. In this course, students will learn abstract data type concepts and the implementation methods of data structures. Recursive function, algorithm efficiency, sorting and search will be discussed. Students will be exposed to linear data structures such as linked lists, stack and queue.

Introduction to Media Interface

Digital Ethnography

Digital Ethnography
With the increase in embedded digital technology in everyday life, it has become fundamental to understand Human-Computer Interaction as contextually embedded actions. Ethnographic approaches to digital technology have been useful to elucidate the dynamics of user experiences and to newly develop user-oriented designs. This course aims to provide basic knowledge in ethnography and qualitative approaches in general, with specific emphasis on digital technology uses. Students will learn to approach users’ everyday lives and analyze their culturally and socially embedded experiences.

M1313.000700 정보기술 실습 3-3-0

Practice in Information Science

This course is designed to provide hands-on experience in information science and technology. Students will learn to approach users’ everyday lives and analyze their culturally and socially embedded experiences.

M1317.000400 고급 인터페이스 프로그래밍 3-3-0

Advanced Interface Programming

This course offers undergraduate-level of seminar on special topics related to information science. Potential topics may include digital contents and media, HCI methods, and information technologies, for example.

M1317.000500 디자인 사고와 커뮤니케이션 3-2-2

Design Thinking and Communication

In this course, students will explore conceptual and visual solutions, and on the creative process of organizing, visualizing and communicating information. Specifically, this course emphasizes the use of various design tools and computational media to organize and communicate complex data in forms such as infographics, animated visualizations, large-scale displays in public spaces. In addition to studio-based projects, this course will include discussions of readings and projects from the fields of art, design, human-computer interaction, and science and technology studies.
<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Lecture Hours</th>
<th>Laboratory Hours</th>
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</thead>
<tbody>
<tr>
<td>2021.301</td>
<td>Introduction to European Studies 1</td>
<td>3-3-0</td>
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This course surveys both theoretical and policy perspectives in approaching Europe and its multifarious dimensions.

<table>
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<tbody>
<tr>
<td>2021.401</td>
<td>Regional Integration in Europe</td>
<td>3-3-0</td>
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</table>

This course first examines theories and historical development of regional integration in Europe, and then discusses its applicability beyond Europe.
Globalization and Culture

As an introductory course for ‘Globalization and Culture’ major, this course examines diverse perspectives on globalization and key global issues. Team teaching by faculty members with different disciplinary background.

화점구조는 "학점수-주당 강의시간-주당 실습시간"을 표시함. 한 학기는 15 주로 구성됨. (The first number means "credits"; the second number means "lecture hours" per week; and the final number means "laboratory hours" per week. 15 week make one semester.)
뇌-마음-행동 연계전공(Brain-Mind-Behavior program)

학점구조는 '학점수-주당 강의시간-주당 실습시간'을 표시함. 한 학기는 15주로 구성됨. (The first number means 'credits'; the second number means 'lecture hours' per week; and the final number means 'laboratory hours' per week. 15 week make one semester.)

2071.301 뇌-마음-행동 3-3-0

Brain-Mind-Behavior

뇌-마음-행동 연계전공의 필수 과목으로서, 세분화된 학문 체계에서 다룰 수 없는 통합적인 인간 이해에 대한 소개를 제공하는 곳이 목표. 신경과학에서 이루어지는 뇌의 이해, 인지과학에서 이루어지는 마음의 이해, 심리학에서 이루어지는 행동의 이해와 이들的关系을 포함하여 인간의 이해에 대한 다양한 주제의 소개. 참여 교수 및 외부 초빙 연사들에 의한 주별 강의로 이루어짐.

This is a required introductory course for the Brain-Mind-Behavior program option. This course aims to provide through lectures of participating faculty a broad spectrum of understanding of the brain, mind, and behavior, from the fields of neuroscience, cognitive and psychological sciences.

2071.302 뇌-마음-행동 세미나 1-1-0

Brain-Mind-Behavior Seminar

뇌-마음-행동 연계전공의 필수 과목으로서, 관련 분야 전문가의 세미나를 통해서 최근 연구에 대한 이해를 제공. 수강생은 세미나에 참여하고 보고서를 제출.

This is a required introductory course for the Brain-Mind-Behavior program option. This course aims to provide recent developments in understanding of the brain, mind, and behavior. Students are required to attend to seminars and write reports.

2071.401 뇌-마음-행동 개별연구 2-0-4

BMB Individual Study

뇌-마음-행동 연계전공의 필수 과목으로서, 참여 교수의 지도 하에 스타트做起으로 참여하여 개별 보고서를 작성하거나, 혹은 참여 교수 연구실에 일정 기간 소속되어 연구 경험을 한 후 연구보고서를 작성, 연구보고서를 발전시켜 국내외 학술대회에 발표하는 것을 권장.

This course aims to provide senior students with first-hand experience of conducting review or experiments in the fields of neuroscience, cognitive and psychological sciences under supervision of a participating faculty.

2071.402 뇌와 계산 3-3-0

Brain and Computation

이 과목은 뇌를 연구하는데 필요한 수학적 및 계산학적 도구를 제공한다. 정보처리 관점에서 뇌를 이해하기 위한 정보이론과 신경과학 모델에 대하여 공부한다. 뇌의 기능 구조와 학습 원리를 모방한 새로운 정보처리 구조와 알고리즘을 소개하고 이를 이용하여 인간과 동물 및 기계의 지각, 인지, 행동을 모델링하는 응용 사례에 살펴본다.

This course offers the mathematical and computational tools for studying the brain. The students learn the basics of information theory and neural computation for understanding the brain in terms of information processing. Students also learn the novel architectures and algorithms that are inspired by the principles and mechanisms of learning and memory in the brain, and their applications to modeling perception, cognition, and action in humans and animals as well as in machines.

M1309.000100 뇌-마음-행동 개별연구Ⅱ 3-0-6

Individual Study in Brain-Mind-Behavior Ⅱ

뇌-마음-행동 연계전공의 선택과목으로서, 뇌-마음-행동 개별연구 (2071.401)를 이미 수강한 학생에 한하여 참여 교수의 지도 하에 심화연구를 수행할 수 있는 기회를 제공함. 지도 교수 연구실에 일정 기간 소속되어 연구 경험을 한 후 학기 말 공개 발표와 연구보고서를 제출, 연구보고서를 발전시켜 국내외 학술대회에 발표하는 것을 권장.

This is an advanced Individual Study in Brain-Mind-Behavior, providing the opportunity that undergraduate students can have further research experience under supervision of faculty. For registration, students are required to have taken Individual Study in Brain-Mind-Behavior (2071.401) and acquire permission from participating faculty for lab activity and from program director. At the end of semester, students are required to give an open presentation and submit reports.
College of Natural Sciences
300.301A 과학혁명과 근대과학의 탄생 3-3-0

The Scientific Revolution

고대 자연관의 출현으로부터 16~7세기 과학혁명을 통해 근대 과학의 성립에 이르기까지 과학의 변천을 과학적 사상적 사회적 요소를 모두 포함하여 역사적으로 살펴본다. 주된 내용으로 과학의 자연관, 중세의 과학, 뉴턴상의 과학혁명기의 과학을 포함하며, 전통과학의 근대과학으로의 전환이라는 면을 특히 주목한다.

This course examines the scientific changes in historical contexts from the emergence of ancient views of nature to the establishment of modern science through the 16th and 17th century Scientific Revolution. Dealing with ancient views of nature, sciences in the Middle Ages, and the sciences in the Renaissance and the Scientific Revolution, the course pays attention to the transition from traditional to modern science.

300.302 과학과 근대사회 3-3-0

Science and Modern Society

과학혁명 이후의 근대과학의 본질을 이상적, 사상적, 사학적, 제도적 요소들의 영향을 다룬다. 주된 내용으로 과학 사회 형성에 있어서의 과학의 역할, 과학사상과 과학의 전문적화, 과학과 기술, 과학과 종교, 현대 과학화운동의 출현, 현대 과학화 과학적 구성요소의 출현, 과학과 현대 사회 등을 포함하며, 과학이 현대사회에서 중요하게 되게 되어진 과정을 특히 주목한다.

This course deals with the development of modern sciences since the Scientific Revolution and its intellectual, social, and institutional effects. Topics include the role of science in the construction of modern society, scientific institutions, professionalization of science, the relationship between science and religion, the emergence of 20th century sciences, and the relationship between science and contemporary society. The course pays special attention to the process by which science has come to play an important role in modern society.

300.306 테크노사이언스의 역사와 전략 3-3-0

History and Philosophy of Technoscience

이 수업은 과학에서 20세기에 이르는 기술 및 공학의 역사 및 그와 관련한 철학적 쟁점들을 살펴본다. 현재 사회에서 과학과 기술의 중요한 역할을 담당하고 있는 기술의 발전 과정과 그에 영향을 미치는 다양한 기술 및, 외적 요소를 살펴봄으로써 기술과 과학, 문화, 산업, 경제, 사회 구성원 사이의 다양한 상호작용을 폭넓게 이해할 수 있는 목적으로 한다. 최근에 nanotechnology, biotechnology는 많이 널리 사용되는 예에서도 보듯이, 과학을 전통하는 학생들에게 기술에 대한 이해는 필수적이다.

This course examines the history of technoscience from antiquity to the 20th century and the related philosophical issues. The aim of this course is to explore the nature of technoscience, and discuss the interaction between technology and science, technology and culture, technology and industry, and technology and management. The course provides an in-depth knowledge of technology to the students who major in natural science, social science, and the humanities.
생물학을 공통하거나 관련과학을 전공하는 학생들을 위한 유전학 기반연구를 고전적, 현대적 수준에서 강의한다. 특히 현대 유전학의 발전과정을 상세하게 강의하여 우리 삶에 유전학의 기여에 대한 중심적 역할을 강조한다. 이에 더하여 분자유전학의 기초를 정립시키고, 나아가 유전학의 응용에 관한 유전공학, 생명공학적 측면에서도 강의하여 우리 지구상의 생명체생존에 있어서 유전학의 중요성을 강조한다.

이 과정은 고전적 유전학의 기본 개념과 현대 유전학을 핵심으로 하는 분자유전학의 기초를 배우도록 한다. 

This course is designed for students who major in biological sciences or similar fields, and teaches basic knowledge in genetics from a classical and modern view. In addition to establishing basic knowledge in genetics, applications such as genetic engineering and biotechnology are studied so as to understand the importance of genetics to the existence of human life.

생명현상을 분자 수준에서 연구하는 학문으로 생체에서 일어나는 다양한 기능을 화학적 방법으로 이해하고 규명한다. 생체 분자인 단백질과 핵산의 구조, 생체 촉매인 효소의 구조와 작용기구, 유전정보의 작용기구, 그리고 각종 생체분자의 합성과 분해대사 등을 배우며 생명현상의 근본원리를 배움과 동시에 실험에 직접된 영향을 반영한다.

Biochemistry is a research field which explores life phenomena at the molecular level. It tries to understand and characterize the diversity of chemical changes and functions using chemical approaches. Students learn about biological macromolecules such as proteins and nucleic acids, the structure and catalytic mechanism of enzymes, the mechanism of the flow of genetic information, and biosynthesis and degradation of various biomolecules. By providing the basic principles of biochemistry, this course helps students apply their knowledge to such practical issues as nutrition, the environment, health, etc.

생명과학의 급속한 발전은 분자생물학을 통하여 이루어진다고 할 만큼, 분자생물학은 전문 생명과학에 기여하는 영향이 크다. 본 과목에서는 여러 생명현상 중 원핵과 진핵생물의 유전자 및 염색체의 구성, 유전자 발현, 유전자 복제, recombination 및 repair 등 유전자 관련 현상의 기작과 조절에 참여하는 분자와 그 상호작용의 관점을 심도 있게 살펴본다.

Modern biology has advanced dramatically through the application of molecular biology. This course helps students understand the mechanism of life phenomena related to genes in terms of participating molecules and their interactions, at the advanced level. These phenomena include the structure of genes and chromosomes, gene expression (transcription and translation), DNA replication, recombination and repair, as well as regulation of all these processes.

선형대수학의 기본 개념을 배운다. 가우스 소거법과 행렬소 단순화에서 시작하여, 행렬과 행렬소수를 학습하고, 행렬소수를 정의한다. 또한 기저와 차원 등 그에 필요한 벡터공간의 기본 개념을 배운다. 기저의 변화에 따른 행렬소수의 행렬표현법의 변화와 행렬의 특성다항식과 대각화, 삼각화 등을 배운다. 나아가 내적 공간은 긍정적으로 평 항행렬의 주어진 공간을 다루고, 특수군을 정의하기 위해 초보적인 귀납법을 시작한다. 2차원과 3차원의 특수군과 그 구조를 이해한다. 또한 quotient space의 개념을 도입하여 차원에 관한 귀납법의 사용이 가능하도록 한다.

We learn basic concepts of linear algebra. Beginning with Gauss elimination and row-reduced echelon form, we study matrices and linear maps and define determinants. We also learn basic notions of vector spaces such as basis and dimension. We understand the matrix of a linear map corresponding to a basis change, and learn characteristic polynomial, diagonalization and triangularization. Moreover, we deal with inner product spaces and, more generally, spaces with bilinear forms, and then we begin studying elementary group theory in order to define orthogonal groups. We un-
Differential Equations

In this course, we study the basic methods of solving fundamental differential equations. Therefore, studying solutions of various differential equations is very important to almost all sciences. Therefore, studying solutions of various differential equations is very important to almost all sciences. Hence, we introduce the second decomposition theorem (Jordan normal form) briefly. Moreover, we select and study some interesting problems such as gravitational lenses and cosmology. Gravitational lenses and cosmology. Gravitational lenses and cosmology. Therefore, it is recommended that the students take this course in sequence or concurrently with Analytical Chemistry Laboratory. Sampling, pretreatment, statistics for data processing, basic theories of chemical equilibria, and quantitative chemical reactions for chemical and/or biological analysis are covered in the first stage. Then the lectures introduce the fundamental principles, instrumental operation, and applications of electrochemistry and spectroscopy.

Analytical Chemistry I

This course is designed for science, agriculture, pharmaceutical, and engineering students to study basic analytical sciences. Therefore it is recommended that the students take this course in sequence or concurrently with Analytical Chemistry Laboratory. Sampling, pretreatment, statistics for data processing, basic theories of chemical equilibria, and quantitative chemical reactions for chemical and/or biological analysis are covered in the first stage. Then the lectures introduce the fundamental principles, instrumental operation, and applications of electrochemistry and spectroscopy.

Elementary Fluid Mechanics

Elementary Fluid Mechanics

In this course we will examine the future applications, the range of usage and the limitations of fluid mechanics and establish an understanding of the fundamental concepts of the area. Topics include mass continuity, momentum con-
servation, and energy conservation. From the conservation equations we will derive the governing equations for fluid-motion. We will then apply these equations to the ideal fluid and the buoyancy driven fluid, and work out solutions based on the methods studied in this course.

M2173.002400 Environmental Oceanography and Lab.

Oceanography is the study of the sea, but it is much more than that. It is the study of the ocean as a part of the Earth system. It involves the study of the physical, chemical, and biological processes that shape the ocean and its environment. Oceanographers study the ocean in order to understand its role in the Earth system and to predict how it will respond to changes in the Earth system.

In this course, we will study the climatology and the possible changes to it. Topics such as global energy equilibrium, radiative transfer in the atmosphere, energy budget at the surface, climate related with ocean circulation, heat transport by water and atmosphere, and the climatological thermodynamics will be discussed. We will also study the water-air system and the thermodynamic process in the atmosphere.

300.235 지구시스템진화 3-3-0

Evolution of the Earth System

The Earth system is composed of the atmosphere, hydrosphere, biosphere and solid earth, which have been studied separately in different disciplines in the past. The solid earth, or traditional "geology", is only a part of the Earth system. The solid earth, atmosphere, hydrophere, biosphere and solid earth, which have been studied separately in different disciplines in the past. The solid earth, or traditional "geology", is only a part of the Earth system.

In this course, we will study the climatology and the possible changes to it. Topics such as global energy equilibrium, radiative transfer in the atmosphere, energy budget at the surface, climate related with ocean circulation, heat transport by water and atmosphere, and the climatological thermodynamics will be discussed. We will also study the water-air system and the thermodynamic process in the atmosphere.

300.236A 판구조론 및 실험 3-2-2

Plate Tectonics & Lab.

In this course, we will study the climatology and the possible changes to it. Topics such as global energy equilibrium, radiative transfer in the atmosphere, energy budget at the surface, climate related with ocean circulation, heat transport by water and atmosphere, and the climatological thermodynamics will be discussed. We will also study the water-air system and the thermodynamic process in the atmosphere.
Introduction to Marine Drugs and Lab.

The course deals with a topic of growing importance in marine biotechnology, especially innovative marine drugs. This course will focus on the entire process of drug discovery and development which often includes noise. Basics of programming languages will be covered. We shall also do extensive hands on programming using packages such as MATLAB. Important numerical schemes will be covered. Our understanding is advanced by making a model which is often used in predicting the effects of environmental factors on the behavior of marine systems.

Scientific Computing & Programming in Earth Sciences

Earth sciences like many other sciences inherently involve observation and experiment from which data are generated. Our understanding is advanced by making a model which explains the measured data. In this course, we study how model parameters are estimated from discretely sampled data which often include noise. Basics of programming languages will be reviewed using FORTRAN and C as examples. Important numerical schemes will be covered. We shall also look at how the data are visualized. Students are required to do extensive hands on programming using packages such as MATLAB.
mental science issues although it will touch examples from chemistry and biology.

M2173.0000400 융합자연과학 II 3-3-0

Integrated Science II

Natural Science today achieved a bird’s-eye view of the history of life in the universe. This course covers chemical and biological principles behind life in an integrative approach using the DNA structure as a launch pad. Such topics as the big bang cosmology, nucleosynthesis of elements, and atomic structure will be introduced to emphasize the physical basis of life. Original texts including Watson and Crick’s paper on the DNA double helix, Penzias’ Nobel Lecture on the origin of elements, and Haber’s Nobel Lecture on the synthesis of ammonia will be used to engage students in in-depth study of modern science. The unique features of life such as metabolism, heredity, and response to stimuli will be discussed. Finally the variety of species in the ecosystem as a result of biological evolution will be covered.
This course deals with definitions and examples of groups, rings, modules and fields, their sub-structures, quotient-structures, and homomorphisms. Students are introduced to important theorems and applications.

This course covers Gauss elimination, Cholesky decomposition, Householder and Gram-Schmidt methods, data fitting, nonlinear least squares problems, simplex methods, decomposition of matrices, Jacobi and Seidel iteration, relaxation methods, finite differences, ADI method, and conjugate gradient methods.

This course exposes students to several topics such as elementary set theory, construction of natural numbers, integers, rationals, reals, and ordinals, and methods of proofs.
course in algebraic geometry, it covers the following topics: affine and projective space; projective geometry on the plane; projective Nullstellensatz and dimension theorem; extrinsic properties of projective varieties; Riemann-Roch theorem for algebraic curves; and resolution of singularities of projective algebraic curves.

881.423 편미분방정식 3-3-0
Partial Differential Equations

The course introduces students to the basic theories of partial differential equations. In addition, first order quasilinear PDE, local existence, uniqueness, Cauchy-Kovalevsky theorem, Laplace equation, maximum principle, Harnack’s inequality, Hilbert space methods, and variational principle are discussed.

881.424 응용편미분방정식 3-3-0
Applications of Partial Differential Equations

The course introduces students to the basic theories of partial differential equations. In addition, first order quasilinear PDE, local existence, uniqueness, Cauchy-Kovalevsky theorem, Laplace equation, maximum principle, Harnack’s inequality, Hilbert space methods, and variational principle are discussed.

881.425 실변수함수론 3-3-0
Real Analysis

The course introduces students to the basic theories of partial differential equations. In addition, first order quasilinear PDE, local existence, uniqueness, Cauchy-Kovalevsky theorem, Laplace equation, maximum principle, Harnack’s inequality, Hilbert space methods, and variational principle are discussed.

881.427 대수적 코딩이론 3-3-0
Algebraic Coding Theory

The course introduces students to the notion of entropy and Shannon theory and the basic properties and error-correcting functions of various codes (linear codes, cyclic codes, Hamming codes, and Reed-Muller codes).
We also learn the definitions and properties of Ext and Tor, chain complexes and its homology, and exact sequences. We learn with the definitions and examples of modules, projective modules, injective modules, and tensor products. We learn the definitions and properties of Ext and Tor.

Introduction to Mathematical Analysis 1

We begin with the definitions and examples of modules, projective modules, injective modules, and tensor products. We learn chain complexes and its homology, and exact sequences. We also learn the definitions and properties of Ext and Tor.

Introduction to Mathematical Analysis 2

As a sequel to ‘Complex Function Theory 1’, some deeper results as well as various applications of the theory are introduced. The following topics are studied: proof of the prime number theorem by using the Riemann zeta function, conformal mappings, Riemann mapping theorem, Schwarz-Christoffel integrals, elliptic functions, Weierstrass functions, the Jacobi theta functions and their applications.

Functions of Several Variables

Differential and integration of vector-valued functions are treated in this course. Topics include differentiation of multi-variable functions, the implicit function theorem, maxima and minima of multi-variable functions, multiple integrations, the Fubini theorem, change of variables in integrations, Green’s theorem, Stokes’ theorem, and Gauss’ divergence theorems.
The methods of applied mathematics are necessary to understand the Scientific Computing. So, in this course, we introduce the Hilbert space and Sobolev space to understand the applied mathematics and analysis the integral-differential equations on the those spaces using a mathematical theory. Courses include Functional space, integral-differential equation, Fredholm Alternative, Variational principle, Fourier and Laplace Transforms and asymptotic analysis.

### 3341.362 Efficient Programming and Practice

This is a course intended for students without any previous programming experience, and will emphasize the efficiency of the written program. The course will start as a basic programming language course and will lead into skills for writing programs that are memory efficient and of high speed.

### 3341.445 Topics in Mathematics 1

This course presupposes the prior knowledge of Financial Mathematics 2 or its equivalents. The topics covered in this course are replication portfolio; arbitrage pricing theory; introduction to the probability theory based on the measure theory; martingale measure and its application to the derivative pricing; Brownian motion; Itô integral; Itô formula; Black-Scholes market; Black-Scholes formula; numerical solution of partial differential equations.

### 3341.446 Topics in Mathematics 2

This course presupposes the prior knowledge of Financial Mathematics 1 or its equivalents. The topics covered in this course are selected from: American option; exotic option; interest rate models; risk management; other topics of interest.

### 3341.451 Financial Mathematics 1

This course is designed to introduce the basic theoretical frameworks and methodologies of financial mathematics and then the Black-Scholes model. In particular, the following topics are covered: replicating portfolio; arbitrage pricing theory; introduction to the probability theory based on the measure theory; martingale measure and its application to the derivative pricing; Brownian motion; Itô integral; Itô formula; Black-Scholes market; Black-Scholes formula; numerical solution of partial differential equations.

### 3341.452 Financial Mathematics 2

This course presupposes the prior knowledge of Financial Mathematics 1 or its equivalents. The topics covered in this course are selected from: American option; exotic option; interest rate models; risk management; other topics of interest.
chosen by the instructor.

3341.453 수학적 모델링 및 전산실험 3-2-2
Mathematical Modeling and Simulation

실제 물리적, 생명 현상, 의학, 경제학 등에서 일어나는 다양한 과학적 현상들은 수학적 방정식으로 변환시키고, 이에 대한 해의 존재성 및 유일성, 안정성 등을 수학적 분석과 이를 기반으로 한 과학계산을 강의하고자 한다. 본 과목에서는 다양한 모델 주제별로 수학적 모델링, 계산방법론, 전산실험들을 강의한다.

Introduce the modeling equation arising from physics, biology, medical applications and economics. Each governing equations are mathematically analyzed by investigating equi-

3341.454 최적화의 수학적 이론 및 계산 3-3-0
Mathematical and Numerical Optimization

최적화 방법 및 이의 계산은 과학, 공학, 산업에서 매우 중요하

3341.455 확률분산방정식임론 3-3-0
Introduction to Stochastic Differential Equations

이 과목에서는 다음과 같은 기본 토픽들을 우선 공부한다.

- 측도론(Measure theory)에 입각한 확률론
- 램프모로프이론에 기반한 브라운 운동
- 마팅게일 이론
- 이토의 확률적분과 이토 공식

그리고 이를 기반으로 브라운 운동을 불확실성의 소스로 하는 연속 공간에서의 확률이론방정식의 해의 존재성과 유일성을 공부 한다. 그리고 추가로 마코프 과정과 극소생성자(infinitesimal generator), 파인만-카지스 공식 등도 가능한 주제이다.

As a basic material, we first cover the following topics:
- Probability theory based on Measure theory
- Kolmogorov construction of Brownian motion
- Martingale theory
- Ito’s stochastic integral and Ito formula

Utilizing these tools, we cover the existence and the uniqueness of the solution of the stochastic differential equations driven by the Brownian motion. If time permits, we may also cover some topics related to Markov process, infinitesimal generator and the Feynman-Kac formula.

M1407.000100 수리과학졸업논문지도 3-3-0
Guidance on Senior Thesis Writing

본 수업은 수리과학부 전공 학부생들의 논문작성 능력을 함양 하는 것을 목적으로 한다. 학년 혹은 이상으로 논문을 작성할 때 필 요한 논리적 구성, 논문형태에 대한 이해, 다른 연구자의 연구결 과를 인정하는 방법, 표절 등을 내용으로 한 강좌를 구성한다.

The purpose of this lecture is to develop an ability to write a thesis for students who major in mathematical sciences. It is about logical construction, understanding of a thesis form, how to quote the results of other researchers, plagiarism, etc. which are necessary when students write a thesis in Korean or English.

M1407.000600 해석개론 및 연습 1 4-3-2
Introduction to Mathematical Analysis with practice 1

- 라미안 곡선을 비롯한 실수계의 기본 성질과 수열의 극한, 상극
- 비약한, 좌표공간의 조보적 성질, 코시 수열, 브라운
- 간립한 점근점, 함수의 극한 및 연속의 이론적 정의 및 성
- 극한, 극한연속함수, 단조함수의 성질, 리만 적분 및 리만-스털레스 적분, 유계변동함수의 성질, 미분의 기본정리 등을 공부한다.

Basic properties of real number field including completeness axiom, limits of sequences, elementary topological properties of coordinate spaces, Cauchy sequences, compact and connected sets, precise definitions of limit and continuity, uniformly continuous functions, properties of monotone functions, Riemann integral, Riemann-Stieltjes integral, properties of functions of bounded variations, fundamental theorem of calculus are studied.

M1407.000700 해석개론 및 연습 2 4-3-2
Introduction to Mathematical Analysis with practice 2

이 해석개론 1의 연속강의로서 함수열의 고른 수렴, 함수열의

연속함수의 성질과 수면적의 극한, 상극
- 라미안 곡선, 좌표공간의 조보적 성질, 코시 수열, 브라운
- 간립한 점근점, 함수의 극한 및 연속의 이론적 정의 및 성
- 극한, 극한연속함수, 단조함수의 성질, 리만 적분 및 리만-스털레스 적분, 유계변동함수의 성질, 미분의 기본정리 등을 공부한다.

As a sequel to Mathematical Analysis 1, uniform convergence of sequence of functions, differentiation and integration of sequence of functions, power series and analytic functions, trigonometric series, Weierstrass approximation theorem, Arzela-Ascoli theorem, space of sequences, improper integral, functions defined by integrals, gamma function, integral transforms, basic properties of Fourier series, Fourier series of continuous and differentiable functions, Lebesgue integral and Fourier series are studied.
타전공 및 타학과 학생을 위한 과목
(Courses for Non-major Students)

881.001 응용해석 1 3-3-0
Applied Mathematics 1

임계상미분방정식, 선형상미분방정식, 미분방정식의 급수해법, Sturm-Liouville정리, Laplace변환, 벡터미분과 적분 등을 배운다.
First order ODE, Linear ODE, power series solution of ODE, Sturm-Liouville theorem, Laplace transform, vector calculus are studied.

881.003 미분방정식 3-3-0
Differential Equations

상미분방정식의 기본적인 해법, 급수해법, Laplace 변환에 의한 해법, 해의 존재 정리 및 해의 유일성에 관한 정리 등을 배운다.
Methods of solving ordinary differential equations, series methods, Laplace transform methods, Theorems on existence and uniqueness theorems are discussed.

881.004 복소변수함수론 3-3-0
Complex Variables

Cauchy-Riemann 방정식, 해석함수, 조화함수, Taylor급수, Moebius변환, 선적분, Cauchy적분공식, 최대최소차정리, Laurent 급수, 실적분, 등각사상, Poisson적분공식, Dirichlet경계 문제, Riemann 제타함수 등을 다룬다.
The following topics will be covered: Cauchy-Riemann equations, Harmonic functions, Taylor series, Moebius transformations, Line integrals, Cauchy integral formula, maximum principle, Laurent series, real integrals by means of residue calculus, conformal mapping, Poisson integral formula, Dirichlet problem, Riemann’s zeta function, etc.

881.006 응용해석 3-3-0
Applied Mathematics

선형 상미분방정식, 상미분방정식의 급수해법, 복소해석함수의 성질, 유수정리 등을 배운다.
Linear ODE, Power series solution of ODE, Fourier series, complex analytic functions, residue theorem are studied.

881.007 선형대수학 3-3-0
Introduction to Linear Algebra

벡터공간, 선형사상, 기저와 차원, 행렬과 행렬식, 고유치와 Hamilton-Cayley정리, 행렬의 대각화, 내적공간, Gram-Schmidt 방법, 최소차승법 등을 배운다.
Vector spaces, linear transformations, bases and dimensions, matrices and determinants, eigenvalues and Hamilton-Cayley theorem, diagonalization of matrices, inner product spaces, Gram-Schmidt method, least square method are discussed.

881.008 해석개론 3-3-0
Mathematical Analysis

연속함수 및 미분가능한 함수열의 극한, 함수열의 극한 수렴, Arzela-Ascoli 정리, Weierstrass 정리, 미분학, 해석학, 삼각급수, Fourier 급수 등을 배운다.
Sequence of continuous and differentiable functions, uniform convergence, Arzela-Ascoli theorem, Weierstrass theorem, power series, analytic functions, trigonometric series, Fourier series are studied.

3341.001 현대대수학 3-3-0
Modern Algebra

대수학(추상대수학)의 기본개념을 배운다. 균, 환, 가군, 체의 정의와 간단한 보리들에서 시작하여, 이들의 부분구조와 상(quotient)구조를 배운다. 또한 이들의 준동형사상과 동형사상정리를 다루고, 이를 이용해 Sylow정리, 아이디얼 이론, 다항식 환, 체의 확장, 유한체와 Galois이론을 학습한다. 마지막으로 이러한 추상적인 개념들이 3차 작도불능 문제와 ‘5차방정식의 근의 공식 없음’과 같은 고전적인 문제를 해결하는데 중요한 도구가 되는 것을 보인다.
We learn basic concepts of abstract algebra. Beginning with definitions and examples of groups, rings, modules and fields, we study their substructures and quotient structures. We also deal with their homomorphisms and isomorphism theorems. Using these concepts, we learn Sylow theorem, ideal theory, polynomial rings, field extensions, finite fields and Galois theory. Moreover, we show this abstract language plays an important role, when we solve some classical problems such as ‘construction by ruler and compass’ and ‘integrability of the quintic’.
Mathematical Statistics 1

This course deals with both the theory and application of regression analysis covering simple, multiple, and nonlinear regression analysis, dummy variables, response surface analysis, selection of variables and diagnostics. Students will be required to perform statistical analysis using SAS.

Experimental Design and Lab,

This course introduces categorical data analysis based on log-linear model, selection of models, goodness-of-fit test, maximum likelihood estimation of expected frequencies in the contingency table, analysis of incomplete contingency tables, logit models, and linear logistic regression models.

Concepts and Applications in Probability

This course is designed to introduce basic probability concepts, theories and their applications to related fields such as natural science, engineering, and social science.

Sampling Design and Survey Practice

This course focuses on conditional probability, stochastic independence and the distributions of random variables such as Normal, Binomial, Multinomial, Gamma, Chi-square, Poisson, and Multivariate Normal variables.

Discrete Data Analysis and Lab,

This advanced course provides a deeper understanding of limit distributions, including the central limit theorem, statistical estimation, testing statistical hypotheses, nonparametric tests, sufficient statistics, statistical inferences and normal theory. This course has a prerequisite of <Mathematical statistics 1>.

Elective Courses

This course introduces the methods of using the S-plus language which is useful for the simulation of statistical theory. We will examine various statistical analysis methods provided by Excel, a spread sheet program. We will also study the elementary concepts of database and Java which is used as an important language in web programming.

Statistical Computing and Lab,

This course treats the theory and practice of sampling. It introduces categorical data analysis based on log-linear model, selection of models, goodness-of-fit test, maximum likelihood estimation of expected frequencies in the contingency table, analysis of incomplete contingency tables, logit models, and linear logistic regression models.

Mathematical Statistics 2

This course focuses on the theory and practice of sampling. It introduces the methods of using the S-plus language which is useful for the simulation of statistical theory. We will examine various statistical analysis methods provided by Excel, a spread sheet program. We will also study the elementary concepts of database and Java which is used as an important language in web programming.

Regression Analysis and Lab,

This course introduces the methods of using the S-plus language which is useful for the simulation of statistical theory. We will examine various statistical analysis methods provided by Excel, a spread sheet program. We will also study the elementary concepts of database and Java which is used as an important language in web programming.

This course focuses on conditional probability, stochastic independence and the distributions of random variables such as Normal, Binomial, Multinomial, Gamma, Chi-square, Poisson, and Multivariate Normal variables.

Experimental Design and Lab,

This course introduces the methods of using the S-plus language which is useful for the simulation of statistical theory. We will examine various statistical analysis methods provided by Excel, a spread sheet program. We will also study the elementary concepts of database and Java which is used as an important language in web programming.

This course focuses on conditional probability, stochastic independence and the distributions of random variables such as Normal, Binomial, Multinomial, Gamma, Chi-square, Poisson, and Multivariate Normal variables.
다변량자료분석 및 실습 3-2-2

Multivariate Data Analysis and Lab.

다변량의 평균에 관한 추정과 검정, 주성분 분석, 요인분석, 관
범 분석, 균질분석 등을 다루며 선수과목으로는 <수리통계 1 ⋅ 2> 와 〈생활변수〉가 요구된다.

The focal point of this course is on multivariate data and its
analysis. The class will estimate and test the means of
multivariate data, perform principal component analysis along
with factor analysis and cluster as well as discriminant analysis.
The course has prerequisites of 〈Mathematical sta-
tistics 1, 2〉, and 〈Linear algebra〉.

Bayesian Statistics and Lab,

주관적 확률, 선도도의 정량화, 배이지안 결정이론, 공역정의론
포, 극한 사후분포, 배이지안 추정과 검정, 이차결정이론 등을 다
룬다.

This course deals with subjective probability, preferences
quantification, Bayesian decision theory, conjugate prior dis-
tribution, limit posterior distribution, Bayesian estimation and
test, and secondary decision theory.

생존자료분석 및 실습 3-2-2

Survival Data Analysis and Lab.

생존시간(survival time)에 관한 추정과 검정을 하거나 생존시
간에 관한 회귀모형을 사용하여 생존시간에 영향을 미치는 위험인
자를 찾아내는 통계기법을 공부한다. 개체가 생존할 확률을 나타
내는 생존함수(survival function)를 추정하기 위한 생명표(life ta-
ble)법과 카플란-마이어(Kaplan-Meyer) 추정방법을 소개하고 여러
처리(treatment) 그룹을 비교하기 위한 검정방법을 다룬다. 또한 회
귀모형에 관한 대표적인 모형인 Cox의 비례위험모형(proportional
hazard model)과 가속화된 회귀모형(accelerated regression model)
에 관한 공부한다.

In this course, students will study the estimation and testing
of survival time and be introduced to the life table method
and Kaplan-Meyer estimation to model survival functions.
Topics will include various test methods for the comparison
of three or more groups as well as regression models such as Cox
proportional hazard models and accelerated regression models
for the selection of risk factors that affect survival time.

데이터마이닝방법 및 실습 3-3-0

Data Mining Methods and Lab.

데이터마이닝의 기본 개념 및 방법들을 다양한 응용사례를 중
심으로 배운다. 대용량자료의 분석을 위한 자료의 전처리과정(자료
의 범주화, 자료의 선택)을 배우고 회귀분석을 시작으로 하여
로지스틱회귀, 의사결정나무, 신경망모형, 군집분석, 요인분석
등에 대한 개념 및 컴퓨터를 이용한 모형구축 방법에 대하여 배운
다. 코스 중반에 팀을 구성하여 실제 자료를 분석하여 결과를 발
표한다. R, SPSS, SAS 등의 다양한 통계프로그램을 이용한다.

This course covers basic methodologies and concepts of
data mining on various real problems. Preprocessing pro-
ducts including categorization, sampling, and etc are taught
and various data mining methods including linear regression,
logistic regression, decision trees, neural networks, clustering
and association are covered. Also, evaluation methods such as
lift and prediction errors are taught. Finally, as a term
project, students are participated in one real project. In this
course, various statistical packages such as R, SPSS, SAS
are extensively used.

비모수통계 및 실습 3-2-2

Nonparametric Statistics and Lab.

비모수적 방법과 분포무관 통계량의 기초 이론으로서의 순서통
계량과 순위통계량의 분포를 다룬다. 비모수적 신뢰구간 검정방법
을 다루며, 모수의 모수와 비교하고, 부호순위방법의 위험모수의
검정방법, 부호순위모형의 회귀와 위험모수의 검정방법을 다루고
분포함수에 대한 비모수적 검정방법을 다룬다.

This elementary course introduces basic nonparametric
methods and distribution-free statistics. It also deals with distri-
butions of order and rank statistics. Some of the specific
issues that are dealt with include nonparametric estimation of
point and confidence intervals with comparison of parametric
methods, location parameter estimation of one sample, loca-
tion and scale parameter estimation of two samples, and
nonparametric testing problem of distribution functions.

시계열분석 및 실습 3-2-2

Time Series Analysis and Lab.

시계열자료의 분석법 및 여러 가지 종류의 시계열자료 분석용
패키지를 사용하여 그 영역에서 공부한다. 주로 다루어지는 내용은 예측
기법으로 많이 이용되는 이동평균법, 지수평활법 및 ARIMA모형
외에 라인바이라인, X-11 등과 같은 분야에 기초한 계절조정
법의 기분개념들임을 다룬다.

This course introduces the different laws and uses of vari-
ous statistical packages. Topics include the moving average,
exponential smoothing, the ARIMA models and the basic
concepts of seasonal effects.

통계적 품질관리 및 실습 3-2-2

Statistical Quality Control and Lab.

통계학과(Dept. of Statistics)
This course deals with nonparametric estimation methods for functions in various statistical models and is mainly focused on methodologies and applications rather than on theories. Topics that we will examine in this course include the following: nonparametric estimation methods such as Kernel estimation, local polynomial method, wavelet estimation and spline estimation; estimation methods of density function, regression function, survival function and quantile function. We will also observe the ways in which these methods can be applied to classification and discriminant analysis, generalized linear model, censored regression model, and proportional hazard model.

In this course, discrete and continuous Markov chain and renewal process are covered. In the Markov chain, recurrence, Ergodic theorem, reversibility, and their applications are main subject. In the renewal process, several renewal theorem and their applications are covered.

This course offers basics of statistical computing methods for parametric and Bayesian statistics. For parametric statistics, we study optimization methods such as the Newton-Raphson method, for maximizing likelihood functions. For Bayesian statistics, we study Markov-chain Monte Carlo methods such as Gibbs Sampling and the Metropolis algorithm. Besides theory, we also perform real data analysis using these methods. We also introduce data structures and matrix algorithms useful for computational statistics.
Foundation of Modern Physics

This course is the standard course on undergraduate classical mechanics, which constitutes the main theme of modern physics, is an enterprise that began only after the development of relativity and quantum concepts in the early 20th century. This course takes an approach to modern physics in a somewhat qualitative manner, as a preliminary course prior to more systematic studies at later stages. Based on simple thermodynamics and a little bit of statistical mechanics, order-of-magnitude analysis, elementary quantum notions, special relativity, and basic conservation laws, we will seek an explanation on the possible states of matter, their microscopic constituents, and related conspicuous physical phenomena. This course is expected to help students know about major concerns and future directions of modern physics. (※ Prior knowledge of physics on the level of <Physics 1, 2> is required).

**Mechanics 1**

300.211* Mechanics 1

This is the standard course on undergraduate classical mechanics for students who have taken <Mechanics 1, 2> and <Physics Lab 1, 2>. Major topics to be discussed are: Vectors, Newton's laws of motion, conservative force and potential energy, simple harmonic motion, nonlinear oscillations, central force motion (including the Kepler problem and Rutherford scattering), and dynamics of many particle systems.

**Mechanics 2**

300.212 Mechanics 2

This course is a sequel to <Mechanics 1>. Major topics to be discussed are: gravitational field, continuum mechanics, motion in non-inertial reference frames, calculus of variations, generalized coordinates and Lagrange's equations, general theory of small oscillations, rigid body dynamics, and basic Hamiltonian mechanics.
Electronics and Measurement Techniques for Science and Engineering Students

Electronics and Measurement Techniques for Science and Engineering Students

This course is to introduce the electronics and measurement techniques widely used in experiments to science and engineering students. The operation principles and the characteristics of diode, transistor, and op amp together with their applications are covered. Furthermore, digital devices, interfacing card, control of Light Emitting Diode (LED), PROM/FPGA, etc. will also be studied. This course consists of one hour class lecture and 4 hour experiment in the lab per week and can be useful to both undergraduate and graduate students.
For the purpose of boosting the understanding of materials taught in <884.303 Quantum Physics 1> and also the student’s ability to apply involved concepts, training instructions are given toward finding solutions to some explicit problems pertaining to <Quantum Physics 1>.

884.304* 양자물리 2 3-3-0
Quantum Physics 2

이는 <양자물리 1>의 연속으로 양자역학의 주요 응용과 이론에 대한 방법론을 다룬다. 주요 내용은 회전 대칭성과 각운동량, 3차원 문제, 수소원자, 스피나파울리원리, 입자량, 둔사법방정식, 1차원문제 등이다.

This continuation of the course <Quantum Physics 1> will cover applications of quantum mechanics and approximation methods. Topics will include rotational symmetry, angular momentum, 3-dimensional problem, hydrogen atom, spin and Pauli’s principle, perturbation theory, approximation method, and scattering theory.

3348.311* 양자물리 2 연습 3-3-0
Exercises in Quantum Physics 2

이 과목은 <양자물리 1>과 과목에서는 배운 내용에 이해를 중시시켜 학생들의 응용능력을 배양하기 위해 <양자물리 2>에 관련된 구체적 문제들에 대해 그 풀이과정을 공부하는 것을 목적으로 한다.

For the purpose of boosting the understanding of materials taught in <884.304 Quantum Physics 2> and also the student’s ability to apply involved concepts, training instructions are given toward finding solutions to some explicit problems pertaining to <Quantum Physics 2>.

884.306 물리수학 3-3-0
Mathematical Methods of Physics

이 과목은 물리현상을 기술하는 언어로 사용되는 수학적 도구 중에 중점 내지 고급 수학 수준에 해당되는 내용을 배우고, 그것이 물리학에 응용되는 방법론을 습득함을 목적으로 한다. 여기서 다루는 주요 내용은 스칼라함수론, 특수함수, 함수공간, 선형연산자 이론, 근사변환, 기존 기존, 벡터함수, 벡터방정식 등과 관련된 수학적 방법론이 이들과 관련된 훈련이 병행된다. (※ 수강을 원하는 학생은 <수학철학 1, 2> 및 <기본물리수학>의 내용에 대한 사전 지식이 필요하다.)

In this course, students will study some useful mathematical tools in analyzing physical problems at the intermediate-to-advanced level and learn the methodology accompanied by training. Topics include Sturm-Liouville theory, special functions, function space, linear operators, integral transforms, basic group theory, theory of analytic functions, and partial differential equations related to physical problems. (※ Prior knowledge of mathematics on the level of <Calculus 1, 2> and <Rudimentary Mathematical Methods of Physics> is required).

884.307A* 중급물리실험 1 3-0-6
Intermediate Physics Laboratory 1

이 과목은 광학, 음성학, 전기기, 양자역학 등을 포함한 현재 물리학 주제와 관련된 구체적 문제의 실험을 수행하여 학생 스스로 직접 경험하게 하는 것을 목적으로 한다. 물리 인구에 사용되는 실험의 개념과 관련 장비의 각도 원리를 배운다. 무엇보다도 학생들은 물리 실험을 해석하거나 임의할 수 있고, 실험 결과를 분석하며, 그 결과를 동료 학생들과 토론하고, 최적화할 수 있는 실험 공학적 기본소양을 기르는데 중점을 두는다. (※ 수강을 원하는 학생은 <자연과학실험 및 계측론>을 먼저 수행해야하거나 다른 과목 담당교수의 허락을 받는 것)

The course will introduce various intermediate topics in modern experimental physics (including optics, thermal physics, electromagnetism, and quantum physics) with an emphasis on a hands-on experience. The course will introduce concepts in experimental design as well as instrumentation in physics. The emphasis will be on developing students’ ability to test and demonstrate various concepts in physics. Also important in this course is to learn how to analyze the experimental results and to communicate such results to their peers. (※ Prerequisite: 3342.202 <Electronics and Measurement Techniques for Science and Engineering Students> or a permission from the instructor)

884.308A 중급물리실험 2 3-0-6
Intermediate Physics Laboratory 2

이 과목은 < 중급물리실험 1 >에 이어 현대 물리학의 전기기, 양자역학, 음직물리학과 같은 고급 과목의 실험을 수행하게 함으로써 학생들은 실험 수행 능력을 향상시킨다. 실험을 진행하면서 학생들은 직접 실험에 관한 물리학 원리를 이해하고, 장비를 조작하여 실험 결과를 얻는 법을 배우며, 결과에 대한 공학적 평가를 근거로 실험 보고서를 작성하는 능력을 배양한다. (※ 수강을 원하는 학생은 <중급물리실험 1>을 먼저 수행해야하거나 과목 담당교수의 허락을 받는 것)

The course is a sequel to 884.307A <Intermediate Physics Laboratory 1>. In this course a more independent approach by the students, in their completion of experimental topics and individual project (related to electromagnetism, quantum physics, and condensed matter physics), is expected. Each topic/project requires students to understand the underlying physics of the experiment and to optimize the instrumentation. Also emphasized is the ability to analyze and communicate the experimental results and to prepare a report. (※ Prerequisite: 884.307A <Intermediate Physics Laboratory 1> or a permission from the instructor)

884.310 전산물리 3-2-2
Computational Physics

물리학의 연구를 수행하는데 필요한 컴퓨터 사용 능력을 배양하기 위한 과목으로 기초적인 수치해석의 방법론들을 비롯하여 현재 컴퓨터과학, 데이터 분석의 기본방법 등을 다루며, 병렬처리와 신 경 골등방체 방법 등의 최신 방법들의 입문을 포함한다. 또한 컴퓨터 관련 장치의 기본 개념들도 다룬다.

Through this course, students will improve their ability to use the computer for physics research. Topics will include basic numerical analysis, Monte-Carlo method, elementary methods of data analysis, parallel processing, neural network method, and basic concepts of computer devices.
Relativity and Spacetime

This course will cover the basics of Special Relativity and its applications, gravitation and space-time geometry as understood by General Relativity, and related physical consequences. Topics include space-time in Special Relativity, general relativistic mechanics and covariant electrodynamics, historical backgrounds of General Relativity, curved space-time, geodesic deviations, semiconductors, and superconducting phenomena. It will deal with the lattice structure of solids, lattice vibrations, semiconductors, electromagnetic and optical properties of solids, surface phenomena, and superconducting phenomena.

Nuclei and Particles

This course will cover the composition of atomic nuclei, their interaction, symmetry, and symmetry breaking. Topics will include the basic language of nuclear particle physics, experimental apparatus, nuclear models and nuclear interactions, interactions of leptons and hadrons, and recent issues in unification theories. It aims for providing students with opportunity to contemplate on how physical principles are utilized in modern technology and how physical discovery can lead to a new technology. Accordingly the bulk of this course is centered on topics related to the application of materials physics, solid-state physics, and quantum electronics. Topics may include physics underlying electronic and optical devices, optical characteristics of materials (including biomaterials), microelectronics, superconductors, magnetic materials, semiconductors, and dielectric materials, spintronics, surface physics, Bose-Einstein condensates, carbon nanotubes, laser diagnostics, etc.

Senior Physics Laboratory

This course is for seniors majoring in physics. Students will select an experiment topic under consultation with a supervisor and carry out projects on the level of research experiments.
이 과목에서는 물리기초 과학을 학생들에게 기초에 배운
역학, 전기기학, 열 및 통계물리 등의 물리학 자식이 생물학 현상을 이해하는데 어떻게 응용될 수 있는지 배울 수 있는 기회를 제공한
다. 본파워포츠에서 말하는 생물학 현상을 주 대상으로 하면서 더 복잡한 생물체에 관한 물리적 도달이 될 수 있다. 고등학교 수준의 생
물학 근본적, 기초적인 것이라면 이 과목은 생물학의 지식이 필요에 따라 수업 내용에 포함될 것이다.

This course is designed for senior students majoring in
physics, who want to find out how their knowledge of physics such as mechanics, electricity and magnetism, thermal and statistical physics can be applied to the understanding of biological phenomena. Most of the lectures focus on bio-
physical phenomena at the molecular level, but higher order
systems can be considered. A prior knowledge of biology at
the high school level is required, whereas further information on biology will be provided during the classes if necessary.

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弥生ülü금과 집단현상 (3-3-0)
Collective Phenomena in Condensed Matter Physics

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전기 및 자기적 현상에 관한 기본 물리적식과 용용 등을 핵심적 내용 위주로 다룬다. 주요 내용은 전하기, 정전운동에 의한 자기장, 유전체 및 자세체의 성질, 허파약이 법칙, 뉴스벤 방정식, 전자기파 등을 다룬다. 이와 함께 중력 및 천체의 원리, CCD 검출기의 구조와 특성, 구면천문학 등에 대해 학습한다. 이와 함께 망원경과 가시광선을 하루 광선측량기로 변광성 관측하고 CCD 검출기로는 혜성, 행성이, 성단, 성, 은하, 변광성 등을 관측한다.

In this course, students will study astronomical optics, instruments, detectors, and the data reduction method for optical observation as well as the basic equations of spherical astronomy. They will also optically observe sunspots, stars, clusters, nebulae, galaxies, and variables.  

![3342.002A 단학기 전자기학 3-3-0](#)

Electromagnetism : Short Course

전자기적 상호작용에 관한 원리, 광학적 성질, 유전체 및 자세체의 성질, 허파약이 법칙, 뉴스벤 방정식, 전자기파 등을 다룬다. 핵심적 내용 위주로 다룬다. 주요 내용은 전하기, 정전운동에 의한 자기장, 유전체 및 자세체의 성질, 허파약이 법칙, 뉴스벤 방정식, 전자기파 등을 다룬다. 이와 함께 중력 및 천체의 원리, CCD 검출기의 구조와 특성, 구면천문학 등에 대해 학습한다. 이와 함께 망원경과 가시광선을 하루 광선측량기로 변광성 관측하고 CCD 검출기로는 혜성, 행성이, 성단, 성, 은하, 변광성 등을 관측한다.

In this course, students will study astronomical optics, instruments, detectors, and the data reduction method for optical observation as well as the basic equations of spherical astronomy. They will also optically observe sunspots, stars, clusters, nebulae, galaxies, and variables.  

![3342.305A 단학기 양자물리 3-3-0](#)

Quantum Physics : Short Course

양자물리학의 기본적인 개념과 용용을 핵심적 내용 위주로 다룬다. 주요 내용은 불확정성 원리, 슈뢰딩거 방정식, 1차원 이중입 입자, 중요한 이론적 개념과 유전체 및 자세체의 성질, 허파약이 법칙, 뉴스벤 방정식, 전자기파 등을 다룬다. 이와 함께 중력 및 천체의 원리, CCD 검출기의 구조와 특성, 구면천문학 등에 대해 학습한다. 이와 함께 망원경과 가시광선을 하루 광선측량기로 변광성 관측하고 CCD 검출기로는 혜성, 행성이, 성단, 성, 은하, 변광성 등을 관측한다.

In this course, students will study astronomical optics, instruments, detectors, and the data reduction method for optical observation as well as the basic equations of spherical astronomy. They will also optically observe sunspots, stars, clusters, nebulae, galaxies, and variables.  

![3345.319* 천문관측 및 실험 1 3-2-2](#)

Astronomical Observation and Lab. 1

천체 관측법 및 관측 자료 분석법을 익히기 위하여 망원경의 원리, CCD 검출기의 구조와 특성, 구면천문학 등에 대해 학습한다. 이와 함께 유전선측량과 가시광선을 하루 광선측량기로 변광성 관측하고 CCD 검출기로는 혜성, 행성이, 성단, 성, 은하, 변광성 등을 관측한다.

In this course, students will study astronomical optics, instruments, detectors, and the data reduction method for optical observation as well as the basic equations of spherical astronomy. They will also optically observe sunspots, stars, clusters, nebulae, galaxies, and variables.  

![3345.320* 천문관측 및 실험 2 3-2-2](#)

Astronomical Observation and Lab. 2

광학 영역을 포함한 전적 영역의 관측기과 고에이지 입력을 통해 우주의 현상을 각기 다른 이론의 각을 비약적으로 넘길 수 있다. 이를 위해 학생들은 우주의 천체, 광학적 성질 및 광학적 해양강로의 변광성 관측과 CCD 검출기의 특성, CCD 검출기의 구조와 특성, 구면천문학 등에 대해 학습한다. 또한 대형과 관측에 반해 천체를 이해하기 위한 기본 소설을 갖추기 위해 광학적 flickering 검출기와 전자기파를 비롯한 다른 파장대역의 관측법을 배운다. 이에 따라 광학의 기본적인 개념과 천체의 성질 및 성질, 행성이, 성단, 성, 은하, 변광성 등을 관측한다.

Through multi-wavelength observation we can explore various aspects of the universe. Students will first learn the operational principle of detectors and telescopes used for various wavelengths. Then students will learn the observational methods of optical spectroscopy and those at radio and other wavelengths. They are also expected to carry out observations using an optical telescope equipped with spectrograph, a radio telescope, and a solar telescope in campus and to learn how to reduce and analyze data for deriving physical parameters of given objects.
3348.454 현대우주론 3-3-0
Introduction to Modern Cosmology

현대우주론의 핵심 내용을 소개한다. 우주론 이해에 필요한 개념들을 학습하고 복사장 안에서 일어나는 홀수와 방출 과정의 물리적 개념을 이해한다. 이론적 모형을 이론적 모형로부터 양상의 온도, 압력, 화학조성 등의 기본 물리량을 도출하는 방법을 학습한다.

In this course, students will learn the basics of line and continuum processes in stellar atmospheres under local thermodynamic equilibrium and understand the physical concept of absorption and emission processes of the radiation field. They will also learn to derive basic stellar parameters such as temperature, pressure, and heavy element abundances by comparing the observed spectra with those from model atmospheres.

3348.455 전산천문학 3-2-2
Computational Astronomy

과학에서 컴퓨터를 이용한 문제해결 방법이 보편화되고 있다. 이 과학에서는 수치해석을 이용해 천문학 연구를 하기 위해 필요 한 기본적인 방법론들을 소개한다. 이를 위해 컴퓨터 언어 및 Unix 환경에서의 프로그램 방법을 공부하고, 미분방정식, 적분, 비선형 방정식, Monte Carlo 방법, 특히, 연산의 수행을 수치적으로 다루는 기법들을 배운다.

Core topics of modern cosmology will be introduced. Students will study first the basic concepts needed for understanding the cosmology, and will learn about recent results of cosmology obtained through theoretical and observational approaches. Major topics include the structure and dynamics of the universe, the components of the universe, formation of the large scale structures, formation and evolution of galaxies, and the properties of cosmic microwave background radiation.

3348.457 우주환경 3-3-0
Space Environment

전사, 통신, 우주 기술의 발달로 근접 우주 환경은 점점 더 인간 생활에 중요해지고 있다. 이런 추세에 맞추어 본 과목은 학생들에게 태양의 자기 활동 현상 및 이 활동이 우주 환경에 미치는 영향을 소개한다. 구체적으로는 플라스마/자기유체역학적 기반, 태양 활동의 관측과 해석, 태양풍과 지구 자기권의 상호작용, 자기 폭풍의 위협, 지구의 기후 변화에 미치는 태양 활동의 영향을 다룬다.

Near-earth space environment is getting more an more important for life of mankind as the electronic, communication, and space technologies progress. The objective of this course is to introduce students to the solar magnetic activity and its influence on the space environment. Specifically, the course covers the basic theories of plasma and magnetodynamics, the observation and interpretation of solar magnetic activity, the interaction between the solar wind and the Earth's magnetosphere, the danger of magnetic storms and the effect of solar magnetic activity on the Earth's climate.
Introduction to Chemical Biology

Chemical Biology involves the study of the chemical processes that occur in living systems, focusing on the interplay between biology and chemistry. This field aims to understand how chemical events are linked to biological phenomena, and how these processes are controlled and regulated.

This course covers topics such as the chemical nature of life, the role of enzymes in catalysis, the mechanisms of signal transduction, and the use of chemical tools to study biological processes. Students will learn about the principles of chemical biology and how they are applied in various biomedical research areas.

Organic Chemistry 2

This course continues the study of organic chemistry, focusing on advanced topics such as synthetic organic chemistry, spectroscopy, and advanced reaction mechanisms. Students will learn about the synthesis and properties of complex organic molecules, as well as the application of organic chemistry in various fields such as medicine, materials science, and environmental science.

Physical Chemistry 1

Physical chemistry is the study of the physical principles underlying chemical processes. This course covers topics such as thermodynamics, statistical mechanics, and quantum mechanics. Students will learn how to apply these principles to understand the behavior of macroscopic systems and the fundamental laws governing chemical reactions.

Physical Chemistry 2

This course continues the study of physical chemistry, focusing on advanced topics such as chemical kinetics, spectroscopy, and the application of physical principles to the study of chemical systems. Students will learn how to apply these principles to understand the behavior of complex chemical systems and the development of new materials and technologies.
고분자 합성과 같은 유기 화학의 범위를 넘어서고 있는 학문은 고분자 합성과 합성에 대해 소개하고 합성된 유기 고분자의 분자 구조와 전기광학적 특성 등에 대해 학습한다. 

이 수업은 고관찰 학년 및 대학원 유기화학 전공자들을 위해 개설한 수업으로 유기 분자와 고분자 합성에 대해 학습한다. 고분자의 구조와 반응성 및 특성을 연구하는데 사용되는 물리적 방법, 유형별 유기반응 메커니즘, 구조 및 기능적 특성을 이해하기에 필수적이다. 

This course is intended as an introductory class for synthesis of organic polymers at the advanced undergraduate level. The course deals with the preparation of various polymeric molecules through radical polymerization, condensation polymerization and other synthetic methods. This course will also cover the relationship between molecular structures and functions as electro-optical and biochemical materials.

유기화학 1 3-3-0

Inorganic Chemistry 1

무기화합물의 구조와 결합을 설명하는 이론들을 공부하고, 결합에서 결합을 둘러싼 물질의 물리적, 화학적 성질을 논한다. 또한 여러 가지 유기화학 반응(산인기, 산화-환원, 침해)에 대한 영역학 및 속도론에 관한 기본개념도 다룬다.

An introductory survey of the structure and bonding in inorganic compounds will be given. Principles of various reactions of inorganic compounds (acid-base, oxidation-reduction, substitution reactions) will be introduced.

물리화학 3 3-3-0

Physical Chemistry 3

본 과목에서는 양자화학과 통계열역학을 배운 학생들을 대상으로 하여 화학 반응 속도론, 반응 동역학, 표면 화학 등을 기본 원리에 대하여 공부한다. 저체온, 역적상 및 고체 상태에서 일어나는 화학반응의 기본 원리와 이해하기 위하여 양자화학 및 통계화학에 기초한 이론적 접근법과 함께 과거 눈부시게 발전하고 있는 현대 물리화학 실험 방법론들도 소개한다.

This course is intended for students with backgrounds in quantum chemistry and statistical thermodynamics. It aims to understand the principles of chemical kinetics, reaction dynamics, and surface chemistry. To understand chemical reactions occurring in the gas and liquid phases and on the solid surfaces, theoretical methods based upon quantum and statistical mechanics as well as modern experimental techniques in physical chemistry will be introduced.

물리유기화학개론 3-3-0

Introduction to Physical Organic Chemistry

이 강의는 학부 고학년 및 대학원 유기화학 전공자들을 위해 개설한 과목으로 유기 분자 구조와 반응성 및 유기반응 메커니즘에 대한 기초적인 사항을 다룬다. 유기화합물의 구조, 반응성 및 특성을 연구하는데 사용되는 물리적 방법, 유형별 유기반응 메커니즘, 구조 및 기능적 특성을 이해하기에 필수적으로 다룬다.

This course is primarily intended for senior undergraduates and postgraduates in organic chemistry. The course deals with basic concepts of structure, reactivity, and reaction mechanisms of organic compounds. The course provides a deeper understanding of physical tools used for studies on structures, reactivity, and properties of organic compounds, various types of organic reaction mechanism, effects of structural changes on reaction mechanism and reactivity, etc.
화학부(Dept. of Chemistry)

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분석화학(Fundamental Analytical Chemistry)의 졸업내용으로, 수학적 개념을 이해하는 기초를 배운다. 다루는 내용은 다음과 같다.

- 분석화학의 유전적 발전조세, 생물체의 단백질의 운반, 지방, 아미노산 탄수화물의 분세과정 및 합성과정, 대사·단백질 합성, DNA전사 및 번역
- 액체분석 및 희석법
- 분석화학의 기초가 되는 다중분석에 관한 기초를 배운다.

The objective of this course is to provide students with fundamental understanding of concepts, principles, and phenomena related to the physical and analytical chemistry. Training in how to measure fundamental quantities with high accuracy/precision and observing various chemical phenomena lead students to accomplish deeper understanding of chemical reactions in view of thermodynamics, electrochemistry, chemical kinetics, and quantum mechanics at an undergraduate level. Furthermore, a few analytical experiments offer practical applications based on the principles of physical and analytical chemistry.

**영문 번역**

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Metabolic Biochemistry course introduces the analytical methods of mass spectrometry and instrumental analysis are covered. The lab course contains the synthesis, separation, and spectroscopic analysis of organic compounds to accomplish the better understanding of organic reactions in the molecular level. In addition, this lab course offers the synthesis of inorganic compounds, metal complex, nanoparticles and practical applications based on the principles of organic and inorganic chemistry.
This course provides the opportunity for carrying out a basic research project by joining a particular laboratory of student’s choice for a period of six months. This course can be taken repetitively for three times in at least two laboratories.

3343.409A 분자생화학 3-3-0

Molecular Biochemistry

Molecular Biochemistry is an introduction to various topics in biochemistry, including biosynthesis of amino acids and nucleotides, genetic information processes, sensory systems, immune systems and drug development.

3343.410 양자화학 3-3-0

Quantum Chemistry

Quantum chemistry allows one to understand atomic and molecular properties through their electronic structures. Starting from the postulates of quantum mechanics, we learn the fundamental principles of quantum chemistry and its application to various chemical problems. Students will also learn how to perform actual calculations on chemically interesting systems using computer software.

3343.411 분자설계 및 합성 3-3-0

Molecular Design and Synthesis

This one-semester course will cover the basic concepts of organic chemistry for students majoring in life science. To help students’ understanding of biologically important organic compounds, the course will provide the fundamental aspects of bioorganic and organic chemistry.

This one-semester course will cover the basic concepts of organic chemistry for students majoring in life science. To help students’ understanding of biologically important organic compounds, the course will provide the fundamental aspects of bioorganic and organic chemistry.

886.031 기초유기화학 3-3-0

Basic Organic Chemistry

Basic Organic Chemistry Laboratory

This course will deal with the preparation of various organic compounds through carbon-carbon bond-forming reactions such as substitution reaction, Wittig reaction and aldol condensation, and oxidation/reduction reaction. It will also cover the synthesis of interesting organic compounds in relation to everyday life such as organic dyes and simple drugs.
세포생물학 3-3-0

Cell Biology

일반생물학을 익수한 학생들을 대상으로, 세포생물학의 중요한 내용을 세포학적 및 분자생물학적 관점에서 접근하는 강의다. 근본적으로 본 과목은 미생물계통분류학 및 실험에 관한 기본적인 내용을 개설한다. 생명과학 전공을 수료한 후 다수의 생명과학의 핵심인 유전공학을 일반생물학 수준의 지식을 가진 고등학교 졸업생을 대상으로 개설된다.

3346.205*

세포생물학 3-3-0

Introduction to Genetic Engineering

 자연과학대학 2학년을 대상으로, 본 과목은 예비 과목으로서 과목의 내용을 기반으로, 생명과학과 유전공학에 이르기까지 미생물의 전반적인 기본지식을 제공한다. 과목의 내용을 기반으로, 생명과학과 유전공학에 이르기까지 미생물의 전반적인 기본지식을 제공한다. 과목의 내용을 기반으로, 생명과학과 유전공학에 이르기까지 미생물의 전반적인 기본지식을 제공한다. 과목의 내용을 기반으로, 생명과학과 유전공학에 이르기까지 미생물의 전반적인 기본지식을 제공한다.

3346.207A

미생물학 1 3-3-0

Microbiology 1

본 과목은 미생물의 전반적인 기본지식을 강화한다. 과목의 내용을 기반으로, 생명과학과 유전공학에 이르기까지 미생물의 전반적인 기본지식을 제공한다. 과목의 내용을 기반으로, 생명과학과 유전공학에 이르기까지 미생물의 전반적인 기본지식을 제공한다. 과목의 내용을 기반으로, 생명과학과 유전공학에 이르기까지 미생물의 전반적인 기본지식을 제공한다. 과목의 내용을 기반으로, 생명과학과 유전공학에 이르기까지미생물의 전반적인 기본지식을 제공한다. 과목의 내용을 기반으로, 생명과학과 유전공학에 이르기까지미생물의 전반적인 기본지식을 제공한다. 과목의 내용을 기반으로, 생명과학과 유전공학에 이르기까지미생물의 전반적인 기본지식을 제공한다. 과목의 내용을 기반으로, 생명과학과 유전공학에 이르기까지미생물의 전반적인 기본지식을 제공한다. 과목의 내용을 기반으로, 생명과학과 유전공학에 이르기까지미생물의 전반적인 기본지식을 제공한다.
ground for microbiology will be given. The lecture includes morphology, cellular microbiology, culture methods, control of growth, genetics, genetic manipulation, mutation and evolutionary mechanism, virology, and biotechnology.

3346.208A 조지세포학 3-3-0

Histology and Cell Biology

세포를 구성하고 있는 세포들은 비록 동일한 유전자를 가지고 있지만 형태적으로 매우 다양하다. 또한 세포의 다양한 생명활동을 시각할 수 있도록 가능적으로도 세분화되어 있다. 이는 각 세포가 발현하는 유전자의 종류가 서로 다르기 때문이다. 본 과목에서는 생명체를 구성하고 있는 다양한 세포들의 구조를 기반으로 연구하려 한다. 본 과목은 생명체의 구조 및 기능을 종합적으로 이해하는데 기본을 제공하므로 앞으로 생리학, 발화학, 면역학 등을 수강하는 사람들을 위한 수업이다.

Cells in a single organism share an identical genome but look different one another. Such diversity in cellular structure and functions is critical for diverse cellular functions that have to be performed in an organism. Such cellular diversity stems from tissue specific gene expression. In this class, we study structure and functions of diverse tissue cells in the organism. The goal of this class is to have a view to understand biological functions as a whole organism. This class will be helpful studying physiology, developmental biology and immunology in the future.

3346.210B 현대생물학의 이해 1 3-3-0

Understanding Modern Biology 1

기본적으로 일반생물학을 수강한 학생들에게 현대 생명과학의 최근 흐름을 파악하게 하고 그 실험적 방법론을 익혀 21세기 최첨단 생명과학의 학문적, 산업적, 그리고 사회적적 중요성을 이해하도록 하는 강의이다. 또한 전공탑재과정에만 미치지 못하는 분야와 기반을 두루모을 고르게 소개하는 예정이다.

The 21st century is often called the Age of Biology. This course surveys the histories and current trends of all important subdisciplines of modern biology. Starting with the concepts of evolution, this team-taught course covers a variety of topics ranging from genetics and bioinformatics, biology and biochemistry, and neurobiology to behavior and ecology.

3346.211 현대식물학 3-3-0

Modern Plant Biology

서로수준에서 볼 때 식물의 생명은 여타의 다른 생명체와 매우 유사한 과정을 가지고 있지만 고착성에서 비롯된 여러 가지 특성 또한 보이고 있다. 식물은 인류에게 식량의 목적이며 생물학의 기본개념 및 원리와 다양한 방법론에 대해 공부하며, 식물의 생물학적 특성을 직접 관찰, 동정하고 주요 분류군의 식별방법을 제계적으로 파악한다.

A study of diversity and classification of plants, with attention to the principles and basic concepts of systematics, the processes of plant evolution, and the means of analyzing evolutionary relationships among plants. The laboratory concentrates on methods of plant identification, an understanding of major characters in plants, and numerical methods of data analysis.

3346.215 미생물 계통분류학 및 실험 3-2-2

Microbial Systematics and Laboratory

Microorganisms are microscopic organisms, consisting of Bacteria, Archaea, Fungi and Protists. In this lecture, students will learn the principles of taxonomy, nomenclature and phylogeny of microorganisms. It also includes experimental components (sampling, identification, molecular phylogenetic analysis).

3346.216 식물 계통분류학 및 실험 3-2-2

Plant Systematics and Laboratory

Systematics is the scientific study of the kinds and diversity of organisms and of any and all relationships among them. Systematic study involves the process of identification,
description, naming, and classification of organisms in order to recognize them systematically. Systematics also searches for theoretical basis of these processes. In this course, the basic principle of systematics will be taught. Then the features of 34 phyla, if possible down to ‘order’ level, in the animal kingdom will be introduced. Laboratory work will be performed with major phyla.

3346.220 현대생물학의 이해 2 3-3-0

Understanding Modern Biology 2

기본적으로 일반생물학을 수강한 학생들에게 현대 생물과학의 최근 흐름을 파악하게 하고 그 실험적 방법론을 이해 21세기 화합생물과학의 학문적, 산업적, 그리고 사회정치적 중요성을 이해하도록 하는 강의이다. 또한 생물학적과학적 문제에 미치는 분야와 저서적 분야 모두를 고르게 소개할 예정이다.

The 21st century is often called the Age of Biology. This course surveys the histories and current trends of all important subdisciplines of modern biology. Starting with the concepts of evolution, this team-taught course covers a variety of topics ranging from genetics and bioinformatics, biochemistry and biophysics, developmental biology, and neuroscience to behavior and ecology.

3346.227 생물물리학실험 2-0-4

Biophysics Lab.


The research for the biological phenomena has been developed by the methodological innovation. In this laboratory, various spectroscopic techniques, such as nuclear magnetic resonance (NMR) spectroscopy, electron paramagnetic resonance (EPR) spectroscopy, Raman spectroscopy, and mass spectrometry, and the technique of X-ray diffraction were introduced.

3346.320 식물생리학 3-3-0

Plant Physiology

식물의 생리현상을 구조와 기능면에서 다룬다. 식물의 채내에서 일어나는 모든 생리적인 반응들을 세포조, 형태학, 생화학, 분자생물학, 생태학 등의 방법론을 사용하여 포괄적으로 분석한다.

Physiological phenomena in plants will be studied in structural and functional perspectives. All physiological reactions will be comprehensively analyzed by using the methods used in cytology, morphology, biochemistry, molecular biology and ecology.

3346.321 동물생리학 3-3-0

Animal Physiology

생리학은 생명의 원리를 다루는 학문으로서 세포, 기관 및 개체 수준에서 생명현상의 기본적 원리를 이해하기 위해 생명체의 기능에 초점을 맞추고 있다. 항상성의 기본 원리를 바탕으로 다양한 환경에서 동물들이 어떻게 생리조절과정을 거치는지를 이해하고 생리조절의 중요한 요소인 신경조절과 호르몬 조절 메커니즘을 고찰하게 된다. 여기에는 신경계, 순환계, 호흡계, 배설계, 대사계 및 동물의 행동이 포함된다. 특히, 본 과목에서는 인간유전체 연구 이 후에 대두되고 있는 생명체의 생리기능 연구의 중요성이 강조된다.

Animal physiology studies the principle of life phenomena by focusing on the function of organisms. Included are the physiological process, based on homeostatic control mechanism, in the nervous system, circulatory system, respiratory system, excretion system, metabolism, and behavior. Particularly we emphasize the importance of physiological studies in the era of human genome project.

3346.322A 미생물학 2 3-3-0

Microbiology 2

<미생물 1>을 수강한 학생들을 대상으로, 미생물의 다양한 대사활동과 다양성, 생태계에서의 역할, 감염과 면역현상 등 자연계에서 미생물의 다양한 역할에 대한 기본현황을 교육한다.

The lecture targets the students who have already took <Microbiology 1>. The lecture includes metabolic diversity of microorganisms, molecular ecology, infection and immunity including vaccine, and environmental issues.

3346.324 생명과학연구실습 1 2-0-4

Research Practice in Biological Sciences 1

생명현상의 한 주제를 선택하여 짧은 시간(8주 내외) 동안 수행할 수 있는 작은 실험을 구성하고, 실험을 수행하는 실습을 한다. 학생 원 연구실 중 한 연구실을 선택하여 실험실습의 지도를 받는다. 이를 통하여 교과서적인 지식이 아닌 실험과정을 통해 연습할 수 있는지를 이해하고 향후 독립적인 연구자로 전공연구를 심화할 수 있는 배경을 제공한다. 학부 3학년 학생의 참여를 권장한다.

This course is for students who wishes to design and perform experimental research. Students select a theme among various biological phenomena, which can be done within a short period (about 8 weeks). The experiments will be done in a graduate laboratory, guided by the professor in charge. The students are expected to understand how a piece of textbook knowledge can be obtained through experiments. This course will provide a background to aid the students to become an independent scientist in the future. The Practice course 1 is recommended for junior students.

3346.325A 생명과학연구실습 3 2-0-4

Research Practice in Biological Sciences 3

생명현상의 한 주제를 선택하여 짧은 시간(8주 내외) 동안 수행할 수 있는 작은 실험을 구성하고, 실험을 수행하는 실습을 한다. 학생 원 연구실 중 한 연구실을 선택하여 실험실습의 지도를 받는다. 이를 통하여 교과서적인 지식이 아닌 실험과정을 통해 얻어질 수 있는지를 이해하고 향후 독립적인 연구자로 전공연구를 심화할 수 있는 배경을 제공한다. 학부 4학년 학생의 참여를 권장한다.

This course is for students who wishes to design and perform experimental research. Students select a theme among various biological phenomena, which can be done within a short period (about 8 weeks). The experiments will be done in a graduate laboratory, guided by the professor in charge. The students are expected to understand how a piece of text-
book knowledge can be obtained through experiments. This course will provide a background to aid the students to become an independent scientist in the future. The Practice course 3 is recommended for senior students.

3346.328 생물과학특수연구 1 1-0-2

Special Research in Biological Sciences 1

The objective of this course is to understand several aspects of development in various organisms at cellular and molecular levels. It includes developmental genetic program, control mechanisms of cell differentiation, axis specification, and evolution of higher taxa above the genus rank. It also covers fundamental ideas on studies on the evolution of organisms, covers modern concepts on evolution. This course will help students to understand evolutionary pathways based on phylogenetic relationships of fossils and present organisms.

3346.402 발생생물학 3-3-0

Developmental Biology

This course introduces basic computer science and statistics to undergraduates majoring in biology. Various topics in modern computer science are covered including computer architecture, data structure, programming, and algorithms with emphasis on the areas relevant to computational biology and bioinformatics. This course serves as a prerequisite for 3346.218 Introduction to Bioinformatics.
**Immunology**

The course aims at gaining basic concepts of immune response to infectious agents. Non-specific and specific immunity including humoral and cellular branches of immune response will be studied.

- **Non-specific immunity**: General resistance to infection; nonspecific defenses.
- **Specific immunity**: Accumulation of specific mechanisms and effects against specific agents.

**Topics Covered**
- Characteristics of invading antigens, including those that are recognized by the immune system.
- Mechanisms of antigen processing and presentation.
- The role of T cells and B cells in the immune response.
- Adaptive immunity, including the development of memory cells.
- The role of the immune system in the control of chronic infections.

**Additional Resources**
- Online resources: Immunology Institute, American Society for Microbiology.

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**Biotechnology**

Biotechnology is defined as the application of principles in biological sciences to the processing of materials by biological agents to provide useful metabolites, goods and services. Based upon the concepts, principles to isolate strains of microorganisms and cells are initially introduced and thereafter understanding of gene structure and the regulatory function related toover-production of useful metabolites are discussed. With the recent progresses in basic biological sciences, a new paradigm has endowed us with new concepts for the over-production of useful metabolites and also with the generation of novel compounds. The principles and practices built from the multi-disciplinary sciences are going to be introduces and discussed.

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**Virology**

This class is to introduce viruses to students as research subjects and tools. During the first half of the class, basic virology will be taught. Subjects covered will include

- **Virus particle and structure**: General principles and classification.
- **Assembly and replication**: Genetic and metabolic processes.
- **Host-virus interactions**: Viral pathogenesis and host responses.

**Topics Covered**
- Viral replication and gene expression.
- Host-virus interactions and disease outcomes.
- The role of viruses in chronic and acute diseases.

**Additional Resources**
- Online resources: Journal of Virology, American Society for Virology.

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**Introduction to Animal Behavior**

Animal Behavior is a rigorous scientific discipline that studies the biological basis of animal and human behavior. Prior to the advent of the field, most studies of behavior were done by psychologists on learning abilities of laboratory animals. In contrast, the zoological discipline of ethology recognized the award of a Nobel Prize to its founders 40 years ago, emphasizes studying the behavior of wild animals in their natural environments. Since then, the field has grown exponentially. Animal behavior encompasses ecology, evolution, physiology, psychology, endocrinology, genetics, molecular biology, physiology, and even fields as

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**References**

- J. C. Locksley, *Immunobiology*.
- P. M. Maramorosch, *Virology*.
This course is for students who wish to design and conduct experimental research. Students select a theme from among various biological phenomena that can be studied in a short period (approximately 8 weeks). They are expected to understand how textbook knowledge can be obtained from experiments. The course will serve as a background for students who wish to become independent scientists in the future. Practice course 2 is recommended to junior students.

### Environmental Biology

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>3346.410</td>
<td>Environmental Biology</td>
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The goal of this class is to give basic knowledge on modern environmental biology. In detail, we will deal environmental protection, searching for a sustainable relationship, population challenge, resource issues, air pollution and noise, and modern environmental biology. In detail, we will deal with evolution shapes behaviors and the morphological and physiological adaptations that underlie them. The class will consist of lectures in English supplemented by movies (in English). Two exams are planned (midterm and final).

### Thesis Research in Biological Sciences

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<tr>
<td>3346.412</td>
<td>Thesis Research in Biological Sciences</td>
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This course aims to give an ecological and evolutionary perspective on the origins of humans: how the human body and mind originated in the context of the environment of the past, and how human cultures also evolved to allow humans to survive in nature. We will also explore the development of culture, technology and civilization since humans abandoned their original hunter-gatherer lifestyle and took up agriculture, and origins of modern day environmental problems.

### Research Practice in Biological Science

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<th>Title</th>
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<tr>
<td>3346.414</td>
<td>Research Practice in Biological Science 2</td>
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### Human Evolution and Ecology

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<th>Course Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>3346.416</td>
<td>Human Evolution and Ecology</td>
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</table>

This course aims to give an ecological and evolutionary perspective on the origins of humans: how the human body and mind originated in the context of the environment of the past, and how human cultures also evolved to allow humans to survive in nature. We will also explore the development of culture, technology and civilization since humans abandoned their original hunter-gatherer lifestyle and took up agriculture, and origins of modern day environmental problems.
required to make an enjoyable and productive life, in the context of biological sciences. Teachers will aid students to find students’ own identities, such as his/her own characteristics, personalities, and vocational aptitudes, by using psychological tests as well as providing the information on the job market. In almost all areas of biological sciences, human relationships and communication skills are very important for working with colleagues, one of the most crucial elements needed to become a successful scientist. For this reason, this course will also provide tips on how one can be a “friendly” colleague to others. To maximize the teaching effect, the actual communication practice will be given.

This course is an introductory course for the students who took the general biology course in the freshman year and will deal with the major issues of the modern cell biology. Main theme of the course is how the individual cells can maintain the lifeness and reproduce for the next generations. For that end, the course will deal with the subjects of cellular physiology, basic genetic mechanisms, differentiation and development of multicellular organisms as well as inborn genetic diseases. It is hoped that this course will provide the pre-med or dental students the ability to continue on the upper class courses such as biochemistry, molecular biology, gross anatomy and human physiology.

### 태전공 및 타학과 학생을 위한 과목
(Courses for Non-major Students)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td>3346.001</td>
<td>세포분자생물학</td>
<td>3-3-0</td>
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<tr>
<td>3346.002</td>
<td>미생물학개론</td>
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#### 3346.001 세포분자생물학

Cellular and Molecular Biology

이 과목은 일반생물학을 수강한 학부 하급생들에게 세포생물학의 핵심 내용을 알기 쉽게 전달하기 위한 입문과정의 강의라고 할 수 있다. 특히 현대 세포의 공동 특성과 각 독립 세포가 어떤 방식으로 생명을 유지하고 생식하는지를 이해하는데 필요한 내용을 아래 강의계획에 따라 다루고자 한다. 이 강좌의 핵심 주제는 면역세포 기전과 체계, 발생 및 분화 과정, 그리고 유전학적 이론 등과 인류의 건강 증진에 기여하는 변화가 있다. 세포생물학의 기초 내용을 알기 쉽게 전달하고자 한다.

This is an introductory course for the students who took the general biology course in the freshman year and will deal with the major issues of the modern cell biology. Main theme of the course is how the individual cells can maintain the lifeness and reproduce for the next generations. For that end, the course will deal with the subjects of cellular physiology, basic genetic mechanisms, differentiation and development of multicellular organisms as well as inborn genetic diseases. It is hoped that this course will provide the pre-med or dental students the ability to continue on the upper class courses such as biochemistry, molecular biology, gross anatomy and human physiology.

#### 3346.002 미생물학개론

Introduction to Microbiology

이 과목은 생명과학 전공자가 아닌 다른 전공의 학부생들을 위해 미생물학을 소개하는 기초적인 과정이다. 진세균(eubacteria)과 고세균(archaebacteria) 등 원핵생물과 진핵미생물(eukaryotic microorganisms)들, 그리고 바이러스들(영역 및 구조, 생리, 유전, 생태학적 관점에서 이해하고, 그들의 다양성과 인간생활에서의 역할 및 치료 및 치료 등)을 공부한다.

This is an introductory microbiology course for those students who are not majoring in biological sciences. The lectures cover a survey of microorganisms and their activities; structure and function of microorganisms; ecology, nutrition, physiology and genetics; aspects of applied microbiology, including genetic engineering, disease, immunity, and chemotherapy.
in the atmosphere related with water. The course will also study the rain, cloud, electric discharge in the atmosphere and the electromagnetic field of the earth.

**Atmospheric Dynamics 1**

The course teaches students the fundamental equations of fluid dynamics, which include conservation laws of mass, momentum, and energy in both cartesian and pressure coordinates. We will also cover vorticity dynamics.

**Atmospheric Dynamics 2**

This course will study the fundamental equations of fluid dynamics, which include conservation laws of mass, momentum, and energy in both cartesian and pressure coordinates. We will also cover vorticity dynamics.

**Atmospheric Physics 1**

This course is a study of the principal representatives of the major chemical groups of minerals. The emphasis is on rock-forming and useful minerals, their crystal structure, chemical analysis, and phase diagrams. The course includes the study of theory as well as the use of optics in the identification and classification of rock-forming minerals in fragments and thin sections.

**Atmospheric Physics 2**

This course is a study of the principal representatives of the major chemical groups of minerals. The emphasis is on rock-forming and useful minerals, their crystal structure, chemical analysis, and phase diagrams. The course includes the study of theory as well as the use of optics in the identification and classification of rock-forming minerals in fragments and thin sections.

**Minerals and Rocks Lab.**

This course focuses on the origin and evolution of life. We will examine the morphological features and geologic distribution of selected taxonomic groups, and discuss the principal paleontological methodologies and their applications to solve geological problems.

**Structural Geology and Lab.**

This course will examine the morphological features and geologic distribution of selected taxonomic groups, and discuss the principal paleontological methodologies and their applications to solve geological problems.
The Earth has undergone several orogeny and deformations through the geological times since it was formed. Therefore, various types and styles of geological structure in the rocks are produced during orogeny and deformations. This class includes lectures and laboratory work in which students learn how these structures are formed and how to interpret them. Geological structures are variable depending on the stress fields. They includes planar and linear structures, joints, folds, thrust faults and shear zones. Primary structures in sedimentary and volcanic rocks are also important when trying to recognize whether the beds are laying right way up or overturned. During the term, students will have a 3-day field trip in the Yoncheon/Yeongwol or other area where various rocks and geological structures are exposed.

3345.310 지구물리 3-3-0

Geophysics

This course deals with the basic theories of geophysics. Topics include: seismic wave propagations in the Earth, the figure of the Earth, Earth’s gravity field, Earth’s magnetic field, dynamo theory, and electromagnetic (EM) properties and EM induction of the Earth. The ensuing discussions will be on how these basic principles can be applied to the study of the Earth’s interior and the processes of the Earth system. The course will also examine earthquakes and plate tectonic aspects of the Earth system.

3345.311 환경지구학 3-3-0

Geo-Environment

The Earth systems and its processes are interconnected to the environment. This class studies individual Earth systems such as soils, surface water, groundwater, energy and exercises to predict environmental changes.

3345.312 지구화학 및 실험 3-2-2

Geochemistry and Lab.

The course will also examine earthquakes and plate tectonic processes such as soils, surface water, groundwater, energy and exercises to predict environmental changes.

- 311 -
A fundamental understanding of biological oceanography in terms of ecosystem structure and function in marine environment, topics include marine environment and organism, ecosystem interaction, benthic-pelagic ecosystem, and marine resources and pollution. Field activities followed by laboratory exercise focusing on classification of various marine organisms will be highlighted.

The objectives of this course are to understand the abiotic environmental components of pelagic systems in the aquatic environment and to examine the biological processes that interact with these environmental components. Because the biological processes of the aquatic environments depend on the upward transfer of organic material and energy of the primary producers, studying the classification and distribution of the plankton community, the nutrient dynamics, the interaction between plankton and microzooplankton is the basis of understanding the overall ecology of the pelagic environments.
In this course we will study the basic chemical concepts that are applicable to atmospheric science and examine the way they are applied in the atmosphere. Main topics of this course include: gases and aerosol that cause air pollution; air pollution in the troposphere; chemical reactions that form the stratospheric ozone layer; remote observations of minor gases; pollution in the troposphere; chemical reactions that form the stratospheric ozone layer; remote observations of minor gases by satellite instruments; the changes in the chemical environment associated with recent climate changes.

3345.403 기후역학 3-3-0

Climate Dynamics

Climate changes are determined by solar energy and physical processes of the globe. This course will cover various dynamical and physical processes that determine the climate system. Topics to be discussed include: the energy equilibrium of global climate system; surface energy balance; climate phenomena associated with ocean circulation; global climate variability such as the El Nino and global warming.

3345.405 중층대기 3-3-0

Middle Atmosphere

The middle atmosphere and stratosphere are significant for understanding stratospheric ozone layer; formation of the ozone layer and its effect on radiative transfer; photochemical reactions that form the ozone layer; climate phenomena associated with ocean circulation; global climate variability such as the El Nino and global warming.

3345.406 암석학 및 실험 3-2-2

Petrology and Lab.

This course deals with the phisico-chemical principles essential for understanding igneous and metamorphic rocks, and introduces various techniques for unraveling petrogenetic processes. Major themes of lectures include phase equilibria, basic thermodynamics, multi-component system analyses, Schreine- makers’ principle, metamorphic reactions, geothermo-barometry, metamorphic evolutionary path, and tectono-metamor-phism. Laboratory work emphasizes the identification of rock-forming minerals, mineral assemblages and textures of igneous and metamorphic rocks, and petrogenetic interpretations. In the laboratory, it is required to use petrographic microscope, and when needed, a few laboratory sessions could be devoted for reviewing optical crystallography. Two-day field trip is planned to examine characteristic metamorphic rocks in Korea.

3345.407 퇴적시스템 및 실험 3-2-2

Sedimentary Systems and Lab.

Sediments and sedimentary rocks comprise about 75% of the surface of the Earth. These contain important historical records of the surface processes. Accordingly, this course intends to introduce general sedimentary processes and sediment characteristics in the recent sedimentary environments with emphasis on their controlling factors such as climate, geomorphology and tectonic setting. Lectures on sedimentary textures, structures, petrology, and geochemistry will guide students to understand the sedimentary basins, stratigraphy, tectonic environments, paleoclimate, paleoweathering, sedimentation and diagenesis.

3345.408 지진·지구동력학 3-3-0

Seismology and Geodynamics

Propagation properties of the acoustic and elastic waves in the mediu ma of solid and liquid state in the earth are studied. The occurrence of earthquakes, the source and propagation of the seismic wave are analysed based on the properties of the acoustic and elastic waves. Geodynamical phenomena are studied through the interpretation of recorded seismograms.

3345.409A 자원지질학 및 실험 3-2-2

Resource Geology and Lab.

This is a course on geologic occurrence and genesis of economic mineral deposits, including metallic and nonmetallic resources. Students are offered an introduction to mining,
processing, and exploration methods. Through this course, students will learn the significance of regional and local geological features and processes related to the exploration and production of the resources. History, economic, and environmental consideration, national mineral policy, and international aspect of metallic and nonmetallic resources are discussed through the term.

3345.410 Geochemical Environment and Lab.

Geobiology and Lab.

This course will deal with sedimentary, igneous and hydrothermal processes in diverse marine environments. Students will learn the components and chemical compositions of marine sediments and their implications for paleo-oceanography and paleoclimate. Second, they will learn the geochemical features and petrogenesis of marine igneous rocks from mid ocean ridge, island arc, back arc basin and oceanic intraplate settings. This will allow the students to understand the formation and evolution history of oceanic crust and Earth’s mantle. Third, students will also learn the ore-forming processes of VMS-SEDEX deposits and polymetallic oxide deposits.

3345.413A Coastal Dynamics

Any hydrodynamic forces to be studied. Physical, chemical, and biological processes in surface and groundwater system are the main topics of this class. The transport of contaminants in the water system are to be studied.

3345.414A Microbial Oceanography and Lab.

Microbial Oceanography and Lab.

This lecture provides an overview of the interaction between life and Earth over a range of temporal and spatial scales. In particular, microbes have helped shape Earth over the past four billion years habitable for higher forms of life. Focusing on the role of microbes as a geological agent, we will cover diversity of life and metabolism, co-evolution of microbes adapt and grow in their habitats and the basic techniques how marine microbes are used in environmental monitoring and biotechnology.
various sources and routes and their cycles and bio-geochemical changes within the marine environment, their effects on various marine organisms, measures for preventing marine pollution will be dealt with through lectures and discussion.

**3345.416** Marine Organic Chemistry and Lab.

Organic chemistry and lab course will offer a basic understanding of various organic compounds and their physiological and ecological roles. The following topics will be covered in the laboratory experiments: extraction techniques of marine organic compounds, various chromatography methods for isolation of marine compounds, a variety of methods for simple identification.

**3345.417** Geophysical Oceanography and Lab.

This course will cover diverse aspects of geophysical oceanography and marine geology including coastal processes, formation of sedimentary basins, geological processes at continental shelf and at deep oceans. It will focus on the geological and geophysical processes at plate boundaries and the structure of crust and upper mantle.

**3345.423** Shipboard Training Course in Oceanography

This course intends to provide students with oceanographic experiences of planning an oceanographic survey, shipboard training, and data analysis. Students will join a class discussion for the planning and preparation of oceanographic survey and observations. They will join an actual oceanographic survey to learn how to operate various oceanographic instruments, and to actively participate in data collection in physical, chemical, biological and geological oceanography. Data obtained during the survey will be processed and analyzed using data analysis techniques taught in the class. The data will then be used to understand oceanographic characteristics of survey areas.

**3345.424** Field Geology and Exercises

This is a practical class that offers a broad and general introduction to techniques used in every-day geology life. This class includes a general introduction into the main features of various crusts, like primary structures (bedding etc.), joints, fractures and veins, as well as, folds, foliations, lineations, and shear zones. We will focus on how to recognize, observe, measure (with a structural compass), plot geological features in stereographic projection and on cross sections, and finally interpret their meaning. The class mainly comprises indoor exercises, but also includes outdoor activities, on the Campus of SNU, and during some Saturdays in the mountains around Seoul.

**3345.425** Satellite Meteorology and Climatology

Recent advent of satellite technology has led into unprecedented use of satellite data for improving weather forecasting via data assimilation. Furthermore, atmospheric physical processes, climate and environmental change monitoring, validation of climate models are a few of many applications in climate sciences. Lecture will be given about how satellite measurements are performed, and about how those data are used for improving our weather forecasting capability and understanding climate-related phenomena.

**3345.427** Satellite Geophysics and Lab.

This course discusses the basic principles of remote sensing techniques for studying the geophysical and chemical processes associated with the Earth System, utilizing various
man-made satellites. Acquisition and processing of optical, thermal infrared, and microwave (SAR) sensor data, as well as basic principles of the global positioning system (GPS) will also be discussed and learned in this course. This course will be accompanied by a laboratory sessions, where students can become familiar with Landsat, Ikonos, RadarSAT, and TerraSAR-X data.

3345.428 지질도학 실험 3-0-6
Geological Map Exercises

This practical class offers an introduction in simple geological analysis using maps. We will learn how to construct simple geological maps and cross sections, and how to determine the nature of faults and measure the displacement along them. Geological maps are two-dimensional representations of the four-dimensional geological evolution of rocks and regions. We will use maps to reconstruct the geological history of regions.

M1411.000700 지구환경과학실험연구 3-0-6
Experimental Study of Earth and Environmental Sciences

This subject aims to increase the understanding in overall earth and environmental sciences and to cultivate student’s ability to conduct scientific research by having students select a topic in earth and environmental sciences. Through this course students are expected to experience the real research of each laboratory before selecting their own research field. Students will receive guidance systematically by joining a particular laboratory of their choice.

M1411.001400 대기수치모델링 개론 및 실습 3-2-2
Introduction to the Numerical Modeling of the Atmosphere and the Practice

This course provides introductory methods to obtain numerical solutions for various atmospheric phenomena observed in nature. During the practice, the students will have a chance to learn and practice the basic programming language for the atmospheric sciences, Fortran and other visualization tools, such as Matlab or Grads.
본 과목에서는 계산과학 입력자에 필요한 계산과학에 대한 전반적인 지식을 다양한 주제들을 통하여 학습하는 것을 목표로 한다. 계산과학은 자연과학, 공학 그리고 인문학에서 발달한 계산량이나 수치 해석의 틀이 필요한 다양한 문제들을 수학과 컴퓨팅을 이용하여 계산하는 것을 목적으로 한다. 강의내용은 1) 계산과학에서 주로 활용되는 미분방정식의 해석적 풀이 및 수치 해석적 풀이를 위한 여러 가지 방법, 2) 획득한 자료 값의 변환 및 변형, 3) 자연과 계산결과 등의 시각화, 그리고 4) 수치 컴퓨팅에 필수적인 MPI 등을 포함한다.

수준 요구 조건: 기본 수학적 혹은 이와 유사한 수학 과목

This course is designed to provide the beginners general backgrounds and techniques by solving diverse topics relevant to computational sciences. Computational science is broadly used to compute immense calculations and/or numerical solutions arising from natural sciences, engineering and social sciences using computer and mathematics. The contents include 1) several methods to find analytic and numerical solutions of differential equations, 2) transformation and inverse transform of acquired data, 3) visualization of data and calculations, and 4) MPI (Message Passing Interface) for supercomputing.

Prerequisite courses: calculus or similar mathematics

3349.203* 계산과학 이론 및 실습 1 3-3-0

Theory and Practice in Computational Sciences 1

본 과목에서는 계산과학을 위한 기본적인 프로그래밍 기법과 기초적인 수치연산 방법론에 대해 강의한다. 프로그래밍 및 전산 학생인 기초를 배우기 위하여 Python언어를 사용하며, 기본적인 문법과 더불어 수치 연산에 필요한 list, tuple, dictionary와 같은 자료구조 및 예제처리, 수치 데이터의 입출력에 대해 강의한다. 또한 보다 효과적인 수치알고리즘 구현을 위한 객체지향적 프로그래밍의 기초와 모듈 구현에 대해 배우게 된다. 학생들은 간단한 형 제의 뉴턴법, 유사차원문법과 같은 수치해석기법들을 Python 프로그래밍을 이용하여 구현해보며 실습을 수행하게 된다.

This course introduces basic skills for numerical analysis with Python programming language. In order to learn the fundamentals of programming and computer sciences, this lecture provides basic usage of Python, data-structures (such as list, tuple, and dictionary), exception handling, and file I/O for numerical data. Also, in order to implement numerical algorithms more effectively, students will learn about object-oriented programming and module-based development. By implementing simple form of numerical methods, such as Newton iteration and finite difference method, students will practice how to solve computational problems using computer programming.

3349.204* 계산과학 이론 및 실습 2 3-2-2

Theory and Practice in Computational Sciences 2

본 강좌에서는 계산과학의 중요 수치연산 프로그래밍의 고급 방법론에 대해 강의하며, 이를 실습하기 위하여 Python 사용과 프로그래밍을 학습한다. 중대형 규모의 프로그램을 작성하기 위한 프로그래밍 설계의 이론을 학습하게 되며, 이는 성공 분석, 최적화, 다이어그램 패턴 등을 포함한다. 이를 위해 Python과 C를 이용한 코드 작성 및 임포트를 실습해 통해 배운다. 나아가, 학습한 알고리즘들을 구현하고 결과를 간단하게 가시화 해볼 수 있는 Python 확장 모듈들의 사용법에 대해 강의한다.

This course aims to introduce in-depth theory on numerical programming for computational sciences, and high-level programming skill using Python will be introduced. Students will learn program design principles, such as analysis, optimization, and design patterns. In order to achieve it, integration technique for Python and C will be introduced by practice. Also, extension modules of Python will be introduced to implement and visualize what students have learned.

3349.205A 계산과학의 기초와 역사 3-3-0

Foundation and History of Computational Sciences

본 교과에서는 계산과학에 처음 입문하는 학생들을 위한 계산과학을 위해 필요한 미분방정식, 역사 및 유래를 강의한다. 보간 법, 퀘스트, 심화 계산법의 발달, 방정식 계산법의 학습, 해평 계산법의 발달, 김포분산성의 계산법 및 모형사진 및 해법의 역사적 계산법을 발달, 최적화의 계산법의 발달을 가르친다.

This course offers the calculus which is necessary to study the computational sciences as well as the origin and history for those whom has little experience in this area. Topics include Development of interpolation theory, Development of numerical differentiation and integration, Development of numerical methods for solving nonlinear equations, Development of numerical methods for linear systems, Development of numerical methods for ordinary differential equations, Development of numerical methods for partial differential equations and Development of numerical optimization.

3349.206 계산과학 모델과 데이터 1 3-3-0

Computational Science Models and Data 1

방대한 관측 및 조사 데이터를 효과적으로 처리하는 계산과학 기법들은 자연과학, 공학 그리고 사회과학에서 널리 응용되고 있다. 본 강좌는 관측 및 조사 등을 통하여 획득한 데이터의 처리를 위한 이론과 기법을 소개한다. 강의내용은 (1) 최소제곱법 (least-square method), (2) 퀘리에 변환(Fourier transform), (3) 외삽법 (interpolation and extrapolation), (4) 다차원조사(multidimensional search), (5) 적합한 데이터 추출을 위한 필터링(filttering) 및 (6) 예측 (forecast) 등의 시계열(time-series) 등의 이론과 방법을 포함한다.

This course offers the theories and methods for processing the massive data measured from natural sciences, engineering and social sciences. Topics include: (1) data fitting such as least-square method, (2) data transform such as Fourier transform, (3) architectures such as interpolation and extrapolation, (4) data optimization such as multidimensional search, (5) data filtering to find meaningful data and (6) time-series such as forecast.

3349.308 과학적 가시화의 기초 및 실습 3-2-2

Introduction to Scientific Visualization

수치 사물레이션의 결과를 해석하고 이해하는데 있어서 과학적
가시화는 매우 중요한 방법론이다. 본 교과목에서는 이러한 과학적 가시화에 대해 이해하고 다양한 방법론들에 대해 학습한다. 계산과학의 수치적 결과물을 유동, 분포, 궤적, 이미지 등의 다양한 형태로 나타내게 되는데, 이러한 데이터의 효과적인 해석을 위해 다양한 가시화 기법들이 존재한다. 본 강의에서는 먼저 궤적과 같은 단순한 형태의 데이터를 쉽게 표현하는 방법을 배우며, 다양한 형태의 출력물을 생성하는 방법을 학습한다. 더불어 시간의존적인 데이터의 해석에 대한 방법도 소개한다. 나아가 측정 데이터로 나타나는 다차원의 목적(예시)의 가시화 방법론들을 강의하며, 스칼라, 벡터, 부호거리장의 특성과 이에 적합한 표현 방식을 강의한다. 또한 다양한 형태의 각 데이터를 생성하고 이를 가시화 하는 기법들을 다루며, 이를 2, 3차원으로 렌더링하는 방법도 배운다. 끝으로 이미지형태의 데이터에 대해서도 학습하며, 특히 LDR, HDR의 이미지 프로세싱에 대해 배운다.

Examination of scientific visualization is a critical portion of the analysis and interpretation of numerical simulations. This course offers a wide variety of methods used for scientific visualization. Output data from the scientific computations appears in various kinds of formats including fluid flow, distribution, trajectory, and image. In order to understand and analyze these data effectively, numerous existing visualization techniques are used. In this course students will learn how to simply present data, and how to convert data into various kinds of formats. The topic also includes the techniques for animating time-dependent data set. In addition, this course will cover the methods for visualizing multi-dimensional field data in order to learn characteristics and effective representations of scalar, vector, and signed-distance fields. The methods for generation and visualization of grids will also be covered. At last, introduction to image processing from the aspect of LDR and HDR will be given.

**3349.309** 데이터과학 3-3-0

**Applied Computational Sciences**

데이터 과학이란 급격히 증가하는 대량의 범용 데이터를 체계적으로 분석하여 이전에는 불가능했던 새로운 통찰력을 얻거나 의사결정에 적합한 도움을 줄 수 있는 학문을 말한다. 컴퓨터 과학이 프로그래밍에 관련된 이론에서 비롯해 데이터 과학은 데이터에 중심을 두고 데이터를 처리하는 과정에 중점을 두는 학문이다. 본 강의에서는 데이터 수집, 데이터 마이닝, 데이터 비주얼라이제이션 등 데이터의 수집부터 결과를 인지까지의 모든 과정을 다룬다.

There are huge number of under-utilized data because data is too big and we do not know how to approach the problems. Data science is a new approach to so called big data problem. Unlike traditional computer science that emphasize theory of computation, data science is focused more on problem solving. Techniques such as data collecting and cleaning, data mining, data visualization are covered.
과학기술과 젠더 3-3-0

Science, Technology and Gender

이 수업은 과학기술 인제 전공을 선택한 학부생들을 대상으로 과학기술과 젠더에 대한 이론과 현상을 개괄하는 것을 목표로 한다. 이 수업에서 과학기술은 여성 억압적이거나 여성배타적인 것으로 규정하기 보다는 젠더 정체성/구조에 대한 역동적이고 다층적인 이해가 가능하도록 한다. 특히, 교육, 소비, 대중 문화, 한국 과학기술계 등의 현장과 사회와 함께, 생명의료기술 및 정보통신기술, 지속가능한 과학기술의 단안 등 아울러 사회에서 이슈가 되는 과학기술의 문제들에 대한 과학기술과 젠더가 만들어지는 현실에 대한 비판적 인 시각을 제공하고자 한다.

과학기술과 환경 3-3-0

Science, Technology and Environment

이 과목은 과학기술과 환경에 대한 상호작용을 다학제적으로 분석하는 것을 그 목적으로 한다. 과학기술의 발전이 자연에 대한 인간의 이해와 사용에 어떠한 방식으로 영향을 미쳤는지를 살펴보고 이를 통해 학생들은 과학기술의 발전과 환경의 관계에 대한 여러 학문적, 작업과 역사적, 사회학적, 정치적 연구들을 살펴볼 것이 다. 수업에서 다른 주제는 인간과 자연의 관계, 생태학적 관점의 기원과 과학기술, 자연의 산업적 이용과 자연주의의 상장, 그리고 지속가능 환경과의 기원과 현황 등이 될 것이다.

과학커뮤니케이션 3-3-0

Communication of Science & Technology

이 과목은 과학기술에 대한 핵심적인 이해를 목적으로 한다. 현 대사회는 과학기술이 삶의 주요한 부분을 차지하고 있으며, 과학과 그 응용분야에 대한 시각들의 관심이 아주 많다. 그러나 시스템적으로 과학 분야의 새로운 변화나 한계를 알기에는 어려움이 많다. 이런 상황에서 중요한 역할을 할 수 있는 것이 언론이다. 과학은 정책, 경제, 사회 등 다른 분야와 구별되는 차이 중 하나라는 제언이다. 이는 예측 가능성에도 관련이 있다. 한 과학자의 주장은 다른 과학자의 제언 또는 검증에 의해 발전시킬 필요가 있다. 이렇게 과학은 여타 분야와 다른 특성, 과학기술에 대한 요소로 체계되어 있다. 이 과목을 통해 과학기술론의 특정 및 과학언론 연구의 방법을 설명할 것이다. 과학기술은 과학, 사회의 변화와 발전의 결과가 되며, 과학기술의 발전은 과학기술의 발전에 기여한다. 과학기술은 과학기술과의 상호작용을 통해 이들 사이에 연결되고, 이러한 연결은 과학기술의 발전에 기여한다.

The overall objective of the course is to attain a fundamental understanding of science communication. (This course aims at the fundamental understanding of science communication.) In modern society, since scientific technology influences everyday life in many ways, people pay close attention to science and the application of science but have difficulty understanding scientific advances. This gives science communication an important role. (Under these circumstances, it is science communication that plays an important role.) One difference between science and other fields such as politics, economics, social studies is the (ability of) replication. This difference is related to predictability. The opinion of one scientist should be supported by replicating or verifying by other scientists. In this way, because science
differs from other fields, needs of science communication science have the difference. We will examine the characteristics of science communication, and the methods of study of science communication. We will also look at the effective communication of knowledge about science and technology, especially via new media forms of the 21st century and the characteristics of technology. We will study the nature of science news (what science news is), journalists who specialize in science news (who a journalist specializing in science news), and what makes a science journalist differ from a general journalist. We will end by practicing subject selection and composition.

M2888.000500 과학기술과 연구윤리 3-3-0

Science, Technology and Research Ethics

Recently series of research misconduct have been in the focus of worldwide media. Research ethics is the basis of conducting a research, and is thought to be the fundamental of good research practice for both students and researchers. In this class, it is expected from students to achieve the followings: First, students are expected to understand the characteristics of research ethics in science and technology by acquiring the proper knowledge on the history of research ethics. Second, students are expected to develop proper knowledge on the criteria of FFP (fabrication, falsification, and plagiarism) which are considered as the clear research misconducts. Third, students are expected to develop proper knowledge on the standards of good research practice (GRP). Fourth, research misconduct in the field of humanities and social sciences as well as in the natural science and engineering fields are possible. Students are expected to understand this by examining case studies.

M2888.000600 한국현대과학기술발전사 3-3-0

History of Science and Technology in Modern Korea

이 강의는 개항이후부터 현재까지 한국 근현대 사회의 과학기술의 전개과정을 살펴봄으로써 한국 현대 과학기술의 역사적 흐름과 현상을 파악하는 것을 목적으로 한다. 개항이후 1950년대까지 시기별로 대두하고 이후 시기는 주제별로 구별하여 살펴 볼 것이며, 북한의 과학기술에 대해서도 한 주를 할당한다. 강의 주제로는 이승만 정부의 과학기술정책, 1960년대 과학기술의 중흥, 중화학공업과 새로운 기술 개발, 전국민의 과학화 운동, 반도체와 CDMA 개발, 생명공학의 육성 등이 포함된다. 이 강의를 통해 수강생들은 한국 과학기술의 제반 성과를 파악하고 남북한의 비교 연구를 통해 과학기술과 사회체제의 상호관계를 이해할 수 있을 것으로 기대한다.

This course aims to survey the history of science and technology in modern Korea. The former part is composed of specific historical issues of each period, and the latter part is comprised of historical topics, where there is one week’s class about North Korean science and technology. The historical topics will include: Rhee’s science and technology policy; the revival of science in the 1960s; the heavy and chemical industry and new technologies; the scientificization of the all nation movement; semiconductors and CDMA, and the emergence of new biotechnology. Examining specific historical issues of each period and historical topics, the students would have better understanding about history of science and technology in modern Korea as well as the relationship between S&T and political system.
간호대학
College of Nursing
간호대학(College of Nursing) : 간호과(Dept. of Nursing)
Nursing and Diet

This course, students will study the nature, function, and metabolic process of nutrition for the maintenance, promotion, and rehabilitation of health. In addition, they will examine the nutritional problems of patients or clients and implement and teach prescribed diets to clients.

Pharmacology in Nursing

This course introduces students to the study of the basic concepts and current knowledge of medical microbiology. Its aim is to provide students with an understanding of the basic and clinical aspects of medical microbiology so that they can put this knowledge to practical use in their professional lives.

Communication/Interpersonal Relationship & Lab.

This course provides students with the basic concepts of therapeutic communication and interpersonal relationships as the fundamental tools in nursing. The topics studied include: principles of self-understanding; therapeutic communication; and therapeutic interpersonal relationships.

Community Health Nursing 2

This course is intended to help students to understand the needs of rehabilitation nursing and to apply the rehabilitation process to patients with clinical illnesses and disabilities. The main topics studied include rehabilitation and common rehabilitation disorders. Students will participate in clinical experiences at rehabilitation centers.

Nursing Informatics & Practicum

This course covers the most common applications of nursing informatics to clinical nursing practice, nursing education, nursing administration, and nursing research. It will also provide students with an insight into the practical aspects of the infrastructure elements of the informatics environment.

Adult Health Nursing 1

This course, students will examine the risk factors, related diseases, and theoretical bases of adults’ health and nursing problems so as to provide holistic nursing care. The physical, psychological, and social aspects of patients with oncological, gastrointestinal, cardiovascular, endocrine, or dermatologic diseases are the main areas of study. In addition, nursing diagnoses and nursing interventions in the nursing process will be emphasized.
811.325* 성인건강간호학실습 1 3-0-9

Adult Health Nursing Practicum 1

성인환자 중 영양장애, 배설장애, 호흡상태, 순환상태, 신경계 장애 및 중양문제도 가진 환자를 간호하는데 필요한 지식, 태도, 기술을 습득하는 것이 이 과목의 목표이다. 실습 장소는 주로 대학병원의 내과병동이며 입원환자를 대상으로 간호과정을 적용하는 것이 실습의 주 내용이다.

In this practicum course, students will acquire the knowledge, skills, and attitude needed to take care of adult patients who have problems with nutrition, elimination, circulation, neurological system, or malignant neoplasm. The practicum will take place in the University Hospital and most student activities will focus on the application of the nursing process to actual inpatients.

811.326* 성인건강간호학 2 3-0-3

Adult Health Nursing 2

본 과목은 성인의 신소화장장애, 소변배설장애, 감각 및 신경조절 장애, 활력저하와 관련된 건강문제를 해결하기 위한 간호과정을 적용할 수 있는 학생의 능력을 함양하기 위한 과목이다. 본 과목의 내용은 질병아이를 위한 이론적 배경과 질병예방, 질병관리 및 건강증진을 목적으로 하는 전인적인 간호근본의 이론과 실제를 다루고 있다.

In this course, students will learn the application process to patients who have problems with oxygenation, urinary elimination, sensory regulation, or locomotion. The course consists of the theoretical basis for understanding the diseases related to above-mentioned health problems and the theories and practice of holistic nursing approaches for the individual, family, and community.

811.327* 성인건강간호학실습 2 3-0-9

Adult Health Nursing Practicum 2

본 과목은 영양배설장애, 감각 및 신경조절장애, 활력저하와 관련된 외과적 건강문제를 가진 환자의 간호과정을 적용할 수 있는 임상적 지식과 태도와 기술을 함양하기 위한 과목이다. 임상실습은 동통병원의 일반외과병동, 신경외과병동, 정형외과병동 및 수술 병동이다.

This clinical practicum course will focus on the development of students’ clinical knowledge, skills, and attitude needed to take care of adult patients who have surgical problems with nutritional-eliminatory, sensory, neuro-regulatory, or locomotive functions. Clinical classes will be held in the gastrointestinal, neurosurgical, and orthopedic units and the operating room of a teaching hospital.

811.328* 아동건강간호학 3-3-0

Child Health Nursing

본 과목은 아동 건강 및 간호의 이론적 기초지식으로서 과·관상 화자와 그 가족의 간호과정에 관한 지식의 개념화, 조직화 및 지식을 통합하는 데에 초점을 둔다. 아동과 가족의 성장 및 발달의 개념을 강조한다.

This course will focus on conceptualizing, organizing, and integrating knowledge related to the nursing process of children and families in acute and ambulatory care settings. The application of concepts of growth and development of the child and the family will be emphasized.

811.329* 아동건강간호학실습 3-0-9

Child Health Nursing Practicum

본 과목은 간호간병의 연속선 상에 있는 아동의 간호실습현장에서처럼 건강건강환경 속에 있는 아동에게 간호과정을 적용함에 있어 아동의 간호에 직접적인 간호진료 개발과 초점을 둔다.

This clinical course will focus on developing students’ nursing intervention skills specifically for the nursing care of children in short-term and long-term health care settings. Students will practice the application of the nursing process to infants and children who are on the wellness-illness continuum.

811.330* 정신건강간호학 1 2-2-0

Psychiatric Mental Health Nursing 1

본 과목은 정신건강 대상자의 정신, 정서적 문제를 이해하기 위하여 간호 전단 및 개선, 치료의 원리를 학습하고, 특히 성인 간호대상자의 이상행동 및 문제 해결을 위한 간호과정, 진단, 계획, 평가의 지식을 습득한다.

Study and application of selected theories and relevant research works for the nursing process of psychosocially deviant adult persons.

811.331* 노인건강간호학 및 실습 3-2-3

Gerontological Nursing & Practicum

이 과목은 잊와 실습이 병합되어 운영된다. 잊의를 통하여 노화과정과 관련된 신체, 심리, 사회적 특성과 이것이 개인과 가족에 미치는 영향을 이해하고 노인건강을 유지, 증진하기 위한 간호사정 과 중재 및 평가의 원리를 학습하여 실습을 통하여 학습한 이론을 응용할 수 있는 지식을 얻는 것이라 한다. 노인과 관련된 가족문제, 사회복지의 속편도 다루어 노인의 건강문제를 전인적으로 접근하도록 강조한다.

In this course, students will acquire gerontological nursing knowledge and skills through lectures and practicum. Through lectures, they will learn the physical, psychological, and social characteristics of the elderly and the nursing process needed to improve or maintain the health status of the elderly. Through field practicum, students will practice the application of knowledge to practice. In addition, the course will address family and social welfare issues related to the elderly and emphasize a holistic nursing approach.

811.332* 지역사회간호학실습 3-0-9

Community Health Nursing Practicum

본 과목은 지역사회를 하나의 간호 대상으로 하여 건강문제를 사정하고 이에 근거한 간호과정을 수립하는 과정을 실습한다. 그리고 보건소의 사업대상인 보건인구, 유영인구, 노인인구, 가족계획대상 인구와 결핵환자집단, 만성질환자집단의 건강문제에 관한 보건소의 사업운영과정을 이해하고 자료분석과 토의를 통해 사업방향을 탐구한다.

1. 지역사회를 하나의 간호 대상으로 하여 건강문제를 사정하고 이에 근거한 간호과정을 수립하는 과정을 실습한다.
2. 보건소의 사업대상 인구에 대한 보건간호사의 역할 및 업무를 수행할 수 있다.
3. 보건소를 이용하는 주민을 대상으로 집단 보건교육을 할 수 있다.
4. 지역사회를 단위로 건강문제를 사정하여 간호계획을 수립할 수 있다.
5. 지역사회 거주 건강문제자에 대해 간호과정을 적용할 수 있다.
In this course, students will learn to apply the community health nursing process to families, communities, and aggregates of high risk populations. In addition, they will analyze and discuss the programs offered by community health clinics in order to suggest improvements. The specific objectives of the course are:

1. To understand the organization, functions, and roles of the Ministry of Health and Welfare
2. To understand the roles of community health nurses
3. To teach health and health management to the general public
4. To assess the community and to establish nursing plans
5. To apply the nursing process to those with health problems.

811.403* 간호연구개론 2-2-0

Introduction to Nursing Research

간호연구에 대한 단계적 지식을 학습함으로써 간호연구의 필요성을 이해하고 논문평가능력과 심의에 적용할 수 있는 능력을 습득하기 위하여 한다.

In this course, students will study the process of writing basic nursing research proposals in the fields of their interest and critique studies for application to the nursing practice.

811.409* 간호관리학 3-3-0

Nursing Management

본 과목은 우리나라 보건의료 체계내에서 간호과정과 간호관리 과정을 통하여 간호관리자가(하위, 중간, 상위계층)로서 역할을 효과적으로 수행하는데 있다.

In this course, students will study the principles and concepts of nursing management, the management process (planning, organizing, staffing, directing, and controlling), and the role of the nurse manager. In addition, they will come to understand and develop the skills of the nurse manager in the health care system.

811.410* 간호관리학실습 3-0-9

Nursing Management Practice

본 과목은 우리나라 보건의료 체계내에서 간호과정과 간호관리 과정을 통하여 간호관리자가 하위, 중간, 상위계층으로서 역할을 효과적으로 수행하는데 있다.

In this course, students will study and carry out the role of the nurse manager on the first, middle, and top levels in nursing organizations. In addition, they will learn to implement the nursing process and the nursing management process in the health care system.

811.416* 간호목론 2-2-0

Advanced Nursing

간호학의 학문적 특성과 전문성으로서 사회적 책임을 의료사회적 요구, 정치, 경제, 주민건강의식의 변화 및 사회 정책개발의 역동적 관계 속에서 조명하고, 간호학의 발전적 방향을 모색해 보는 과정이다.

In this course, students will examine the dynamic nature of nursing as an academic and professional discipline in national, international, political, socioeconomic, cultural, and technological terms.
간호대학(College of Nursing)

간호학과(Dept. of Nursing)

Child Bearing Family Nursing Practicum

가족을 중심으로 여성의 생식기와 관련된 건강문제 및 임신, 분만, 산후과정과 신생아의 건강을 사정하고 간호진단하여 필요한 간호를 중재하고 평가할 수 있다.

In this course, students will clinically experience and demonstrate the role of the professional nurse for childbearing and pregnant women and their families.

School Health Nursing Theory & Practicum

이 과정은 학교 보건 간호를 이해하고 우리나라의 양호교사제와 학교사업의 범위를 알고 현장에 적용할 수 있는 원리를 배운다. 또한 학교를 단위로 한 건강문제를 사정하고, 간호계획을 수립하며, 이를 수행·평가할 수 있다. 양호교사의 역할을 알고, 업무를 수행할 수 있는 능력을 기른다.

This course will cover the principles and skills of being a school nurse. The students will familiarize themselves with the school health programs and nursing systems. They will then assess health issues of each school as well as conduct and evaluate nursing plans.

Critical Care Nursing and Practicum

본 과목은 생명이 위급한 중환자(호흡, 인지, 외상, 마취 후 및 아동)와 그 가족을 대상으로 간호문제를 발견하여 신속한 중재를 도모할 수 있는 지식, 능력을 기르는 것을 목표로 한다.

This course provides theories and skills needed in identifying nursing problems with critical patients and their families. It includes timely interventions as well as skills to handle high-tech medical devices.

Health Care System and Nursing Policy

보고의료사업의 현황과 정점을 제안하고, 간호관련 정책을 분석함으로써, 간호현장 즉, 의료기관별, 간호사업영역, 필요한 간호규정, 정책을 확인하고, 정책과정에서 필요한 정책과 권력을 관리함을 논의한다.

This course will improve their ability to develop nursing policies and effective leadership skills through identifying and analyzing the current situations in the health industry. Special focus will be placed on issues concerning nursing such as the nursing services, its policies and health facilities. Students will thus be able to understand the relationship between power and politics in policy process.
Courses for General Education
이 과목은 현재 기업조직의 성공을 위해 필요한 지식과 아이디어를 훈련적으로 강화하는 데 목표를 두고 있으며, 기업경영의 기초 원리를 설명하는 경제학과의 강의방법으로는 계획적 집단 법, 관리학적인 합법, 기업가가기적 집단법 등이 있으나 이 과목에는 지향 목표이며 제제적인 시스템적 집단법을 택하고자 한다. 이 과목의 주요 내용은 경제학원론, 경제주제와 가치경영, 경영상학, 경영조직론, 기업관리론, 사업관리론, 비정부조직로 구성되어 있으며, 사후의 일반적인 경영현상과 현실의 특수한 상황을 비교하여 이해하고자 한다.

The purpose of this course is to provide students with the theories, knowledge, and ideas required to succeed in management, corporate strategy, organization theory, human resource management, and vision management. Furthermore, students will compare issues of other countries with those of Korea.

이 강의는 학생들에게 재무회계 실무인사에 대한 기업, 산업 및 국가 경제의 성장, 안정, 능률, 형평, 국제수지 등의 기본문제를 이해하고 그 해결을 위한 정책방안을 구현하는데 필요한 각종 핵심경제원리, 개념, 경제시스템 등을 쉽게 이해하게 한다. 이 강의는 기업, 산업, 국가경제 및 글로벌 경제차원의 분석, 한·미·일 등 국제비교, 현실문제에 대한 기본경제원리의 응용능력 등을 중시한다.

The purpose of this lecture is to let students understand core economic theories, concepts, economic systems, etc., which are needed to understand and devise policy prescriptions for fundamental economic problems in the global knowledge-based era such as growth of firms, industries and national economies, economic stability, equity, balance of international trade, etc. This lecture also emphasizes economic analysis at the levels of firms, industries and national economies, and international comparisons including countries such as the U.S. and Japan and applicability of core theories to the real word problems.

본 과목은 회계원리를 수강한 학생들을 위하여 중급재무회계의 다양한 주제들을 강의한다. 먼저, 자산, 부채 및 주주자본과 관련한 회계기초를 살펴본 후, 리스회계, 법인세회계, 회계변경 및 오류수정, 현금흐름표, 과정상환계목 등과 같은 특수주제도 다루게 된다. 또한, 이 과목은 기업의 재무정보를 창출하는 과정에 대한 전반적인 이해를 제공하고자 한다. 이 과목의 주요 내용은 재무회계의 기초원리로는 회계순환과정, 회계학의 기초원리로서 회계순환과정(accounting cycle)을 이해하기 위한 기초개념으로서의 회계의 진보과정 및 회계원칙과 자산, 부채, 소유주자본, 수익, 비용, 이익의 개념과 회계의 기술적 구조를 중심으로 분석할 것이다. 기업의 발생단과 재무제표를 자세히까지 일반의 과정을 풀집적으로 설명할 것이다. 이와 아울러 현금 및 현금등가물, 단기금융상품, 유가증권, 상품, 재무 및 재무, 이수 및 무형자산 등에 관한 회계처리 및 재무제표의 작성원리 및 보고방법에 관하여 설명할 것이다.

The purpose of this course is to provide students with fundamental concepts in accounting, such as accounting postulates, concepts of assets, liabilities, equities, income, expenses, etc. This course will discuss, in particular, the whole accounting cycle from recording business transactions to the preparation of financial statements.

본 과목은 조직과 조직 내 구성원의 특성과 그들의 행동에 영향을 미치는 제한 요소를 이해하게 하며, 조직론과 조직관리가 효과적으로 이루어지고, 나아가 구성원의 만족도를 증가시키면서 전체 조직의 유효성을 증가시켜야 한다. 본 강의는 관리론, 기업관리론, 기업행동론, 그리고 조직 및 모험 등이다.

This course is an introduction to methods of operations research from an executive or managerial viewpoint, emphasizing formulation of business problems in quantitative terms. Topics include industrial applications of linear programming, dynamic programming, game theory, probability theory, queuing theory, and inventory theory.

This course lets students understand various factors that affect the characteristics and behavior of an organization and its employees. By doing so, students will learn the way to effectively manage individuals, groups, and the organization.
Learning the concepts and methods to simultaneously increase the satisfaction of employees and the effectiveness of an organization is the purpose of this course.

251.214

**Business Law**

In contemporary society, law is a fundamental issue that affects every aspect of our lives. This course will focus on the laws that govern business transactions and their impact on the operation of companies. The course will cover topics such as business formations, contracts, and liability, and will explore the legal framework that supports the development of business strategies.

251.215

**Organization Structure**

Organizational structure is a critical aspect of business management. This course will delve into the various types of organizational structures, their strengths and weaknesses, and how they can be adapted to meet the needs of different organizations. The course will also cover the basics of organizational design and planning, and how these elements can be used to support strategic objectives.

251.219

**Business Communications**

Effective business communication is essential for the success of any organization. This course will cover the principles of effective communication, including written and oral communication, public speaking, and interpersonal communication. The course will also explore the use of communication technologies and tools, and will emphasize the importance of cultural sensitivity in communication.

Understanding practical issues in business communications is a key to success for individuals and businesses. This course will introduce the essential elements regarding various types of business communications, ranging from verbal, written and non-verbal, including an examination of internal reports, proposals, presentations, and face-to-face meetings. Critical issues regarding strengths, weaknesses and risks in business communications, including topics such as confidentiality and potential liabilities, will be addressed. Students will have the opportunity to work on various business communication skills as part of the course and the course will utilize a wide range of real and practical examples. The course is designed to strengthen the understanding of the business world with a view towards helping future success in business generally.
251.301* 재무관리 3-3-0

**Financial Management**

This course will give students the opportunity to learn the basic concepts, tools and techniques of corporate financial management. The students will learn the structural and functional aspects of financing and investment decisions of a corporation. The students will learn the structural and functional aspects of financing and investment decisions of a corporation. The students will learn the structural and functional aspects of financing and investment decisions of a corporation.

251.303* 인사관리 3-3-0

**Human Resource Management**

The focus of this course is on the long-term strategic nature of Operations Management, with special emphasis on the manner in which OM decisions relate to other functions of the firm including engineering, accounting, finance, and marketing. Topics addressed include quality management; manufacturing design, cost and performance analysis; service sector design and performance analysis; justification of traditional and new technologies; supply chain management; location; facility design; and learning.

251.320* 생산관리 3-3-0

**Operations Management**

The aim of this course is to study the design methodologies of management accounting systems in order to enhance the quality of management decision making related to each function in the corporate value chain, namely research & development, design, manufacturing, marketing, distribution and customer service. Topics include cost structure analysis, various cost concepts, design methods of various costing systems, strategic decision making using cost information, and performance measurement systems. This course provides students with contemporary management accounting techniques including ABC, Target Costing, Quality Costing, Lifecycle Costing, Balanced Scorecard, etc. It’s important to know how accounting can contribute to management as a whole.

251.317 금융기관경영론 3-3-0

**Management of Financial Institutions**

The course will provide undergraduate students with the fundamental knowledge and theories helpful to the manager of financial institutions. Students will discuss how to apply the theories to the management practices of the financial institutions. Topics include the following: finance, capital market, and monetary- & nonmonetary-financial institutions.
Marketing Management

The objective of this course is to understand the marketing function and how it relates to strategic management decision making. Students will study the major phenomena underlying marketing strategy formation and component decisions of pricing, product planning, advertising, promotion, distribution, and personal selling. Students will be exposed to both conceptual issues as well as implementation. Tests, cases, and articles will be used in the course.

Intermediate Accounting II

This course provides a comprehensive understanding of financial accounting and problem-solving abilities for students who have already taken Principles of Accounting and Financial Accounting. This course deals with the theory and applied problems from all areas in financial accounting.

Management Information System

This course focuses on the effective use of information technology in business management. The aim is to assist the student in becoming an intelligent consumer/user of information systems. Toward this end, the specific learning objectives for this course are: 1) to understand the basic language of information systems, 2) to analyze the roles and responsibilities of a manager in the design and implementation of information systems, and 3) to discuss how information systems affect the work of an individual and the competitive strengths of an organization.

Consumer Behavior

The purpose of this course is to provide knowledge about how consumers make a decision to buy products or services, and how managers make an effective marketing decision using the knowledge. Students are required to carry out projects based on case studies and in-depth interviews, thereby learning the strategic application of this knowledge.
"Experience interdisciplinary and integrative approaches. Important fields, management and design, so that students can class “Design Management” attempts to link those two important fields, management and design, so that students can experience interdisciplinary and integrative approaches. The field of “management” has shown the most significant improvement both in theory and practice in the 20th century. Therefore, the experimental class “Design Management” attempts to link those two important fields, management and design, so that students can experience interdisciplinary and integrative approaches.

The field of “design” is also expected to show substantial improvement both in theory and practice in the 20th century. This course focuses on management challenges in business processes and physical processes will be used to illustrate successful quality improvement efforts.

In this course, students will be presented with quality improvement approaches, and will be asked to discuss the managerial implications and responsibilities in implementing them. Topical coverage includes the construction and interpretation of control charts, graphical methods, quality function deployment, robust experiments for product design and improvement, mistake-proofing (poke yoke), the Deming approach, Baldrige award criteria, quality cost audits, worker empowerment, and reward systems. Cases involving both business processes and physical processes will be used to illustrate successful quality improvement efforts.

This course discusses various contemporary management theories and issues from looking synthetically at K (knowledge), R (Resource), and P (Power). Knowledge is the known things which are applied to diagnose and interpret problems being faced, in order to solve problems. Resource is the elements with which businesses carry out management activities. Power is the extent of influence that one organization (person) has in getting one’s demands to the other.

Recent, several accounting fraud scandals and other business fraud accidents have occurred. One of the possible reasons for the problem is the lack of appropriate ethics education in the university. This course will teach the necessary ethics to help students to improve the ethical attitude.

This course will cover new product development and product management. This course will deal with not only new product development and product management, but also management of marketing, R&D, and production management. This course will deal with not only the general principles of new product development, but also the way it should be changed considering industry characteristics. Product management covers topics including brand management, product-related management, product life cycle management, and brand equity management.
Financial Statement Analyses and Firm Valuation

This course studies the various ways to evaluate firm values, and how to apply the methods to real cases. First, students learn how to analyzing financial statements, find out necessary information from financial statements and annual reports, and predict future earnings and cash flows by using the information. Finally, using the predicted information, students will learn how to evaluate the price of a firm.

Design and Business Strategy

Today's role of the company is changed to a creator of new world with design by companies. The core of the firm is shifted to the design from the manufacturing, and also strongly suggested to make the business with the design. This class is focusing on this change. Students will learn how to evaluate the price of a firm.

Preparation for the Corporate World

This course is intended to provide the students with a general framework of understanding the factors that affect firm value when the interests of the management and the investors are not perfectly aligned. Thus, we are explicitly relaxing the basic assumption of no agency costs of Miller and Modigliani, and enter a world where 'corporate control' has a distinct value. Through the course, the students will be introduced to various internal and external mechanisms that have been designed to mitigate the conflicts of interests between managers and shareholders. This course studies the fundamentals of insurance and risk management, ethics, corporate governance and investment ethics. Students will learn how to evaluate the price of a firm.

Corporation Governance and Investment ethics

This course is intended to provide the students with a general framework of understanding the factors that affect firm value. Students will learn how to evaluate the price of a firm.

Community Service & Leadership

This course is intended to provide the students with a general framework of understanding the factors that affect firm value. Students will learn how to evaluate the price of a firm.
This course is designed to provide specialized community service opportunities to students for establishing basic concepts and attitudes towards community service in order for them to be nurtured as global leaders who will lead to enhancement and development of the public interest. In this program, undergraduates majoring in business will have the opportunities to work with a variety of non-profit organizations in their local community or overseas area. Community Service & Leadership is a creative way to provide a public service program that fosters intellectual, social and professional enrichment for the students. It will help to reinforce academic learning with practical experience, entrepreneurship, and moral character while responding to community needs. After completing the course, students are expected to contribute their social responsibilities as members of society.

This course is designed to provide specialized community service opportunities to students for establishing basic concepts and attitudes towards community service in order for them to be nurtured as global leaders who will lead to enhancement and development of the public interest. In this program, undergraduates majoring in business will have the opportunities to work with a variety of non-profit organizations in their local community or overseas area. Community Service & Leadership is a creative way to provide a public service program that fosters intellectual, social and professional enrichment for the students. It will help to reinforce academic learning with practical experience, entrepreneurship, and moral character while responding to community needs. After completing the course, students are expected to contribute their social responsibilities as members of society.

### 251.401 회계감사 3-3-0
**Auditing**

회계감사는 이론을 분석적으로 체계화하여 현대 회계감사에 관한 이해를 높이고자 한다. 현대사회에서 회계감사는 영리를 목적으로 하는 기업뿐 아니라 정부, 학교, 병원, 지방자치단체 등 모든 조직에서 필요하다. 본 강의는 주로 기업을 대상으로 한 회계감사 문제를 다루지만, 그 기본 원리는 모든 조직에 적용될 수 있다.

The purpose of this course is to systematize auditing theory and enhance the students’ understanding of modern auditing. Auditing is necessary not only to corporations, but also to governments, hospitals, schools, and so on. In short, auditing is essential to all organizations. This course deals mainly with auditing problems with corporations, but the basic principles apply to all organizations.

### 251.402 세무회계 3-3-0
**Tax Accounting**

본 강의는 회계원리 및 계회계를 이수한 학생을 대상으로 세무회계 전반에 걸친 기본적 이해도 중진 및 문제해결능력을 배양하는 것을 목적으로 한다. 특히 본 강의에서 국세기본법과 법인 세법, 소득세법, 부가치세법 등을 살펴보며 우리가 생활하면서 부담하게 되는 세조관련 문제를 이해하고 해결할 수 있는 능력을 배양하고, 특정한 조세관련 기해나 사전에 대하여 단순히 조문을 해석하는 것에 그치지 않고 그 원리 자체를 재무회계처리를 하는 근본적인 이유가 무엇인가를 설명함으로써 내용을 체계적으로 이해할 수 있게 한다.

This course provides an overview of tax accounting: it examines the National Tax Basic Law, the Corporate Tax Law, Income Tax Law, and Value Added Tax Law. After taking this course, students are expected to be able to make year-end tax adjustments as well as prepare a tax plan for a company.

### 251.411A 마케팅조사론 3-3-0
**Marketing Research**

본 강의는 마케팅조사론을 통해 고전적 기법을 통해 관련적인 부분에 대해 학습할 것이다. 마케팅조사론은 핵심적으로 기업 문제에 대해 관점을 파악하고, 사업의 재정 및 재무적, 제품 및 서비스의 이해를 바탕으로 현대 마케팅 이해와 관점을 강화하는 데 초점을 두었다. 본 강의는 다양한 범위의 마케팅 문제에 대한 이해를 통해 학생들은 마케팅 전략을 잘 수 있게 된다면 소정의 목적으로 할 수 있었다.

In this course, students will study how to recognize and manage problems, and focus on enhancing their problem-solving abilities by using new viewpoints. By taking this course, students will acquire the knowledge structure for scientifically solving not only marketing problems but also the problems of everyday life.

### 251.420 파생금융상품론 3-3-0
**Financial Derivatives**

본 과목은 옵션, 선물, 스왑거래 등과 같은 파생금융상품의 기본구조와 가격결정이론에 대하여 학습하고, 차익거래 및 위험관리에의 활용방안에 대하여 논의한다. 주요 내용은 융신, 선물, 단기연금, 스왑거래의 구조와 가격결정이론, 차익거래 및 위험구조, 펀드가격결정과 투자전략, 시장기초가격모형과 금리, 가격결정 및 수익수익모형과 Black-Scholes모형, 재무적 위험 및 변동성의 추정방법, 수치해석방법에 의한 옵션가격결정, 이자율 결정, 기간구조와, 금리, 수익수익모형, 수치해석방법의 상공 및 실체 사례연구 등을 포함한다.

This course is designed for the study of basic structures and pricing theories for financial derivatives such as options, futures, forward, and swap contracts. Students will also discuss real-world applications of these derivatives to arbitrage transactions, and risk management. Topics include basic pricing theories for the derivatives, arbitrage vs. hedge transactions, bond pricing, duration, term structure of interest rates, interest rate derivatives, binomial option pricing model vs. Black-Scholes model, implied volatility, numerical analysis, exotic options, market risk vs. credit risk, and several cases of financial risk management.

### 251.422 투자론 3-3-0
**Investments**

이 과목은 투자사정에 필요한 이론과 실제를 소개한다. 투자사정은 포트폴리오를 선택하고 또 평가하는 과정을 말한다. 장기적인 투자사정보다는 투자과정을 이해할 수 있는 개념적인 내용을 마련하여 소정의 목적이 달성되며, 분석의 대상은 주로 주요 재화해결이 된다. 미래에 자산투자나 증권투자, 또는 투자자문 분야에서 작업을 하고자 한다면 반드시 수강하여야 할 과목이다.

This course is intended to provide students with the necessary background in both the theory and practice of investment decision making, which involves choosing and evaluating investment portfolios. It is designed to provide a conceptual framework with which one can view the investment process, rather than the nitty-gitty institutional details. Naturally, the course should be of most use to those who
think of portfolio management, investment advisory services, and security analysis as their career opportunities.

251.423 노사관계론 3-3-0

**Industrials Relations**

노사정 3부서가 대등한 입장에서 교섭과 경영참가를 통해 이 맑게 노사문제를 해결하는 것을 중심으로 노사관계의 이론과 실제를 학습하고자 한다.

특히 중대한 노사관계론과 달리 다중 3가지에 초점을 두고 강의 진행하고자 한다. 첫째, 노사관계의 당사자로서 정부의 토담과 역할을 인식한다. 둘째, 단체교섭 및 경영참가의 제도조직과 공동의 문제시각과 상황을 고려한 노사당사자의 전략적 선택을 강조한 분석시각을 동시에 소개한다. 셋째, 노사관계에 대한 일반이론을 바탕으로 한국의 실정에 맞는 새로운 노사관계 패러다임을 모색한다.

This course provides useful perspectives for solving many problems of employment relations in organizations, such as management participation and looking at the bargaining process of employee-employer-government from reciprocal positions. Apart from existing ideas on industrial relations, this course focuses on three points: 1) government status and roles for industrial relations; 2) strategic choices of employers and employees considering the situations and institutions; and 3) a new paradigm for industrial relations based on generally accepted theories.

251.424* 경영전략 3-3-0

**Corporate Strategy**

본 과목에서는 지속적인 경쟁 우위를 창출하기 위하여 전략을 수립, 설명하는 개념과 응용을 제공하는 특수모습이 제공되며, 또한 각각의 사례를 통하여 다른 과목에서 배운 기법들을 사용함으로써 전략적인 통찰력을 키우도록 한다. 이 과목은 광범위한 문제들에 외부 환경의 요구를 인식하고 이를 활용하기 위한 기업의 내부 자원과 능력을 형성할 수 있는 구체적이고 실행 가능한 전략을 수립하는 과정을 이해하게 되는 것이다.

This course will provide fundamental concepts and frameworks of strategy formulation and implementation to create sustainable competitive advantages. Students will gain strategic insights by applying techniques taught in the classes to case analyses. By the end of the course, students are expected to know how to recognize the important factors in the external environment and understand the managerial process of establishing feasible and concrete strategies based on the resources and capabilities of firms.

251.425 광고관리론 3-3-0

**Advertising Management**

이 과목은 마케팅 커뮤니케이션의 일환이 되는 광고란 무엇이며, 왜 필요하며, 어떻게 수행하며, 어떻게 관리해야 하는지를 다루는 과목이다. 광고는 기업활동의 일부분, 마케팅 활동의 일부분, 충진활동의 일부분으로서 우리가 항상 접하게 되는 것으로 효율적인 경영의 한편이다. 광고는 마케팅 활동의 한편이다. 이 과목은 광고의 이론과 실제를 체계적으로 정리하여 광고에 대한 이해와 전략적 시각을 제시하고자 한다.

The purpose of this course is to examine the role of advertising in business activities. It covers not only the strategic issues of advertising but also the practical issues. The course will use several teaching aids such as cases, articles, news clippings, and videos. Students will participate in a group project that involves a creative design of an ad campaign.

251.426 국제기업환경 3-3-0

**International Business Environment**

기관의 국제화에 관한 정책, 체제적인 환경변화에 대한 분석을 목적으로 하며 상품의 수출입, 국제자본이동, 직접투자에 대한 이론적 배경, 자국의 현황 및 정책 등을 알아보고자 한다. 특히 현재 이슈가 금융/외환위기를 중심으로 기업 경영환경의 급격한 변화에 대한 체계적/현실적 이해를 도모하는 것이 큰 중점을 두고자 한다.

The aim of this course is to analyze the economic, political, and socio-cultural environments of multinational corporations. It provides students with theoretical background on ex/import, international capital movements and FDI, and it focuses on a systematic and realistic understanding of effective responses to complex and dynamic changes in global business environments.

251.430 국제금융관리론 3-3-0

**International Financial Management**

국제거래에 수반되는 재무적 결정들을 연구하는 과목으로 외화시장, 국제금융시장에 대한 기본적인 소개와 편입학, 이자율에 의한 측정 및 관리를 연구하는 것을 목적으로 한다.

This course is intended to present a basic introduction to foreign exchange markets and international financial markets. Students will study valuation and management of the risk in foreign exchange and interest rates.

251.432 특수경영론 3-3-0

**Special Topics in Management**

경영이란 최소한의 비용으로 최대의 효율, 즉 능률을 얻을 수 있는 것이라고 정의되며 일반 기업경영과 특수경영(병원, 대학 및 국가기관)으로 구별될 수 있다. 본 강좌에서는 특수경영의 영역에 포괄되는 병원, 대학 및 국가기관의 특수한 조건에 대한 경영학을 학습하게 된다.

In this course we will examine various different management organizations. We will especially focus on the gross management system of special organizations i.e. hospitals, universities and the Nation.

251.434 기업경영특성론 3-3-0

**Special Topics in Business Administration**

체제정보의 생산과정을 이해하고 있는 학생들에게 정보분석의 돌파 방안에 초점을 두고자 한다. 본 강좌에서는 기존의 재무제표 위주의 근거적인 분석을 지양하고 기업의 가치창출능력의 영향을 미치는 다양한 요소에 대한 종합적인 분석을 강조하며, 국내외 주요 산업과 기업에 대한 사례개발 및 분석을 한다.

This course provides the framework and methods of information analysis for students who understand the production process of accounting information. In this course, comprehensive analyses of various factors affecting corporate value-creating abilities are emphasized, rather than the myopic approach. This course deals with case development and analysis in major domestic and foreign industries and corporations.
251.435 理情報システム: 特講 - 理情報システム : 特講
Topics in Information Systems

The course will enumerate and discuss theories relevant to the successful deployment and diffusion of information systems. Topics will cover technological trends and limits, standardizations, and relevant industrial and organizational issues. The objectives are to develop an advanced understanding of information systems, to understand how they have evolved, and to learn about important keys information technologies used by organizations today. This course is designed to explore the current issues in information systems and technologies. The course will examine latest topics in information systems, the growth of the industry and trends in productivity and communications. Additionally, the legal and ethical issues of obtaining, using and managing information technology will be addressed.

251.436 服务運營管理 - 服务運營管理
Service Operations Management

Services permeate everyone's daily life, every industrial economy. The importance of services in today's developed economies is an unquestionable fact. This course examines the management of services, focusing on both the strategic and operational aspects of designing new services, assessing productivity and communications. Additionally, the legal and ethical issues of obtaining, using and managing information technology will be addressed.

251.437 理情報システム: 特講 - 理情報システム: 特講
Information Technology and Business Innovation

The objective of this course is to introduce special topics in management information system (MIS). It can be an in-depth treatment of a specific area in MIS or an application of MIS to a particular industry.

251.439 理情報システム: 特講 - 理情報システム: 特講
Special Topics in Management Information System

The objective of this course is to introduce special topics in international business. It can be an in-depth treatment of a specific area in international business or an application of international business to a particular industry.

251.440 服务運營管理 - 服务運營管理
Special Topics in International Business

The objective of this course is to introduce special topics in marketing. It can be an in-depth treatment of a specific area in marketing or an application of marketing to a particular industry.

251.441 理情報システム: 特講 - 理情報システム: 特講
Special Topics in Operation Information System

The objective of this course is to introduce special topics in operations management. It can be an in-depth treatment of a specific area in operations management or an application of operations management to a particular industry.
Special Topics in Organization and Personnel

The objective of this course is to introduce special topics in organization and personnel. It can be an in-depth treatment of a specific area in organization and personnel, or an application of organization and personnel to a particular industry.

Special Topics in Accounting

The objective of this course is to introduce special topics in accounting. It can be an in-depth treatment of a specific area in accounting or an application of accounting to a particular industry.

Leadership Development

This course deals with analytics of fixed income securities and their derivatives. Starting with a short discussion of the structure of the global fixed income securities markets, we will study various interest rates and their relationships. Important concepts such as duration and convexity will be discussed and will be applied to the immunization problem. In the second half of the course, we will look at various models of term structure of interests and apply them to price interest rate derivatives like options, futures and swaps. If time permitting, we will discuss corporate bonds, credit risk and credit derivatives. Students will also study cases of uses and misuses of fixed income securities. This course is technically demanding and a good grasp of fundamental investment theory is required.

IT Consulting Methodologies

This course is designed to investigate the nature of the firm, firm objectives, the relation between market, society and the firm, and the relation between money, finance and the firm among others. Students will have a synthetic understanding about the firm and the management and finance of the firm.

Fixed Income Securities

This course presents an exciting and interactive learning experience that enables students to enhance the leadership, communication skills and make good relationship with peers in practice time, special guest speakers link the knowledge of teamwork and business leadership. Course credit will be conferred after a review of the students' participation learning reports.

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M1338.000100 전략경영토의강 3-3-0

Special Issues in Strategic Management

This course aims to provide students with a better understanding of the theories, concepts, and practices of industries. The course will help the students prepare academic as well as practical careers by giving them opportunities to study underlying theories and the cases of highly successful companies in art and culture industries.

M1338.001000 기업리스크와 보험 3-3-0

Corporate Risk Management and Insurance

Risk management is becoming more important in fast growing business environment. The objective of this course is twofold. This course first examines how risk management can add value to firms and then introduces corporate risk management techniques for all risks that enterprises face. This course not only reviews the traditional pure risk management concepts and business applications are increasingly dependent on data, yet traditional data analysis technologies were not designed for the complexity of the big data. Big data analysis has emerged as a new, exciting, and fast-paced discipline that explores novel statistical and implementation challenges that emerge in collecting, processing, storing, and extracting knowledge from big data. This course will provide a gentle, yet intense, introduction to programming using data programming language for highly motivated students with little or no prior experience in big data.

M1338.001200 문화예술 마케팅 3-3-0

Art and Culture Marketing

This course aims to provide unique perspectives and knowledge about how music, art, movie, media, performance, game, digital content, and sports industries implement marketing strategies in their own context. This course will focus on collecting and analyzing data, as well as the grammar of the data programming language and provide an in-depth look at big data analysis.
M2171.00200

Economics for Business

This course introduces the fundamentals of economic theory and practice with emphasis on business applications. The students will develop insights into the economic principles and learn quantitative skills for decision making, in particular, in a managerial context.

Economics studies the production, distribution and consumption of goods and services. Decision making is the key to these economic activities. This course discusses how consumers choose their consumptions and how firms make business decisions such as production levels and pricing strategies. Then, the implications of these choices on a market are examined to understand whether and how the market should be regulated. Aggregate level analysis of an economy such as business cycle is also discussed.

M2171.002100

Business Administration and My Future

Business Administration and My Future is a course designed to be relevant to the broad spectrum of managerial settings including cross-cultural context. The course is designed to be relevant to the broad spectrum of negotiation problems that are faced by managers in diverse careers. Particular emphasis would also be made to apply the framework to strategic contexts such as alliance formation, M&A activities, and international bargaining.

M2171.001800

Theory and Practice of Negotiation

Negotiation is the art and science of securing agreements between two or more parties that are interdependent and who are seeking to maximize their outcomes. The purpose of this course is to provide an understanding of the theory and processes of negotiation as it is practiced in a variety of managerial settings including cross-cultural context. The course is designed to be relevant to the broad spectrum of negotiation problems that are faced by managers in diverse careers. Particular emphasis would also be made to apply the framework to strategic contexts such as alliance formation, M&A activities, and international bargaining.

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introducing background knowledge that serves as a key template for the understanding of management as a social phenomenon. Theoretically, this course departs from historically reviewing the birth and evolution of management as a social phenomenon, moves to briefly discussing the rational basis of the modern, complex organization and concludes by critically examining management as a social phenomenon with respect to entrepreneurship and ethical considerations. Practically, this course seeks to infuse the sense of responsibility and ethical awareness into the students in class.

**M1338.00300 창업론 실습 II 3-3-0**

**Entrepreneurship Lab (2)**

창업론 실습은 본 학기에 개설된 창업론 실습 I과 기말학기에 개설된 창업론 실습 II의 두 과목으로 구성해 있다. 창업론 실습 I는 평기학기로 개설된 창업론 실습 I의 연장선으로 진행된다. 개설 학생들이 10명의 인원으로 팀을 구성하고, 스스로가 기획한 사업안으로, 직접 창업활동을 일 년 동안 진행하고, 그 수익을 전액 지역의 비영리기관에 기부하는 것을 목표로 한다. 학과는 학생들의 창업활동을 위해 최대 300만원까지 창업운용자금을 지원한다. 창업 활동이 전략, 인사, 회계, 재무, 마케팅, 생산 제반의 지식을 종합적으로 적용하는 능력이 필요하기 때문에, 본 수업을 통해 학생들은 종합적 문제 해결 능력을 높이게 된다.

Entrepreneurship Lab consists of two courses: Lab 1 offered in spring semester and Lab 2 in fall semester. Students should take Lab 1 in order to take Lab 2. Every student will be a member of a team of up to 10 students to make her own business proposals, once screened positively, to run business on these proposals, whose profits will be donated to non-for-profit organizations in regional communities. The school will make a loan up to 300 Mills won as the seed money for the students’ ventures. As entrepreneurial activities involve the combination and joint-application of diverse functional knowledge such as business strategy, human resources management, finance, marketing, and operations, students will improve an integrative problem solving skill from this course.

**M2836.000100 창업론 실습 I 3-3-0**

**Entrepreneurship Lab (1)**

![Image of a page from a document with text in Korean]

Entrepreneurship Lab (1)

작던 창업활동, 기업가정신의 영역은, 지식의 수동적 학습만으로는 부족하다. 아무리 작은 아이디어라도 구체적 현장 접촉 하는 노력이 빠지면 기업가정신이 형성될 수 있기 때문이다. 본 수업은 조직가학과 기술학과에 걸쳐 진행되며, 개별 학생들이 10명의 인원으로 팀을 구성하고, 스스로가 기획한 사업안으로, 직접 창업활동을 일 년 동안 진행하고, 그 수익을 전액 지역의 비영리기관에 기부하는 것을 목적으로 한다. 학과는 학생들의 창업활동을 위해 최대 300만원까지 창업운용자금을 지원한다. 창업활동이 전략, 인사, 회계, 재무, 마케팅, 생산 제반의 지식을 종합적으로 적용하는 능력이 필요하기 때문에, 본 수업을 통해 학생들은 종합적 문제 해결 능력을 높이게 된다.

Passive in-class learning is not suitable to the development of entrepreneurship, for whatever idea it will be obtained only through exertful and sustained application of the idea in a real business set-up. This course, a year-long class (i.e., across spring and fall semesters), will require teams of up to 10 students to make their own business proposals, once screened positively, to run business on these proposals, whose profits will be donated to non-for-profit organizations in regional communities. The school will make a loan up to 300 Mills won as the seed money for the students’ ventures. As entrepreneurial activities involve the combination and joint-application of diverse functional knowledge such as business strategy, human resources management, finance, marketing, and operations, students will improve an integrative problem solving skill from this course.

**M1338.00600 사회적 기업의 창업 3-3-0**

**Social Entrepreneurship**

Social Entrepreneurship

사회적기업(social enterprise)은 수익창출을 목적으로 하는 기
This course concentrates on identifying and evaluating opportunities for new business. The primary purpose is to investigate concepts tools and practices associated with opportunity recognition. Students will explore ways to shape and evaluate the viability of these opportunities by understanding industry factors, market and competitive factors and customer needs. The strategic analyses of characteristics of global markets and entry strategies will be also covered in class.

M1338.000900 창업기술론 3-3-0

Exploring Opportunities in Entrepreneurship

본 과목에서는 새로운 사업의 기회를 어떻게 파악하고 평가할 것인가를 다루고자 한다. 주요 목표는 새로운 사업기회를 다루기 때문에 개발된 개념의 전략적 적용을 배우는 것이다. 학생들은 중요한 기업 요소들, 시장과 경쟁 요소, 고객의 나이스를 파악하여, 새로운 사업기획과 그 실현가능성을 계획하고 평가하는 방법을 배운다. 세계시장 진출을 위한 글로벌 사업의 특성과 전략 전략성도 수업에서 다뤄질 것이다.

M2836.000200 벤처창업 웹프로그래밍 1 3-1-4

Web Programming 1 for Entrepreneurship Management

최근 IT전문기술을 중심으로 컴퓨터 프로그래밍 교육의 필요성과 중요성이 강조되고 있다. 이는 창업 IT산업의 발전과 함께 많은 스타트업이 생겨나면서 능력 있는 프로그래머의 수요가 급증하고 있기 때문이다. 우리나라 또한 글로벌 ICT 트렌드에 맞추어 IT기술과 서비스를 기본으로 하는 스마트 창업이 크게 성장하고 있는 추세이다. 이에 웹 프로그래밍 교육은 창업을 시작하려는 학생들에게 필수적인 요소로 자리매김하고 있다. 본 강좌는 IT 비전공자들을 대상으로 하는 웹 개발 입문과정으로서 기초적인 웹 개발, 서비스 기획방법, 프로그래밍 언어 등 창업에 있어 요구되는 컴퓨터 프로그래밍과 관련된 이론적 지식뿐만 아니라 기술적 역량을 증진시키고자 한다.

The importance of teaching programming languages is be-
ing emphasized centered around IT advanced countries. This is because the demand on skilled programmers is increasing with the growth of high-tech IT industry and startups. Following the global ICT trend, Korea is also experiencing a rise in startups based on IT technology/service. Hence, web programming courses are becoming an essential part for students who are looking to found startups.

This course introduces students whose major is not in Information Technology to some fundamental concepts of IT. This course introduces students whose major is not in Information Technology to some fundamental concepts of web development, web service project plan and programming languages at an introductory level. The primary goal of this course is to allow students to improve their knowledge of theoretical backgrounds in programming languages and of techniques for managing complex systems.

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In this regard, the students, who are willing to start technology venture business based on ICT industry, are suitable for this class, and they will be given the opportunities to train technological capabilities for commercializing their idea. Moreover, by offering the chances to work on team projects, the class will enhance the students' network, the one that is spread around the developers, managers, and designers, thereby presenting tangible changes of starting their business.

Recently, the society is rapidly getting a new paradigm creating new value by interacting with everything (people, machine, industry, country) based on information and communication technology. In this changing of technological environment, ICBM (IoT, Cloud, Bigdata, Mobile) will be expected to be a new momentum for leading the ICT industry.

This lecture will be given in the form of two-day hackathon and reinforce a technology business competence. In addition, it aims for finding excellent start-up by providing opportunities for developers, promoters and designers to build powerful network.
공 과 대 학
College of Engineering
Introduction to Industrial Engineering

This course deals with general areas of electrical engineering for non-electrical engineering majors. The course contents cover basic concepts of electrical circuits and analysis methods, the operation principles of transistors and operational amplifiers, and the fundamentals of digital logic and its applications to microcomputers.

400.020 재료공학개론 3-3-0
Introduction to Materials Science and Engineering

This course focuses on the fundamentals of structure, property and processing of materials that underpin materials science and engineering. It is the introductory lecture class for sophomore students who do not major in Materials Science and Engineering. Topics include: atomic structure; interatomic bonding; structure of crystalline solids; imperfections in solids; diffusion; mechanical properties; location & strengthening mechanisms; phase diagrams; electrical, thermal, magnetic & optical properties of solids; materials selection. Discussions on real world applications of various materials are also included in the lecture.
Introduction to Civil and Environmental Engineering

Civil and environmental engineering is a field of study concerned with safety, convenience and welfare of human beings. This course deals with an overview of civil and environmental engineering for the students majoring in other area of study. Fundamental concepts of civil and environmental engineering as well as application of the technology for planning, design, construction, and operation and maintenance of the social infrastructures and facilities for the municipalities and industries are the main subjects of the course. A comprehensive and broad knowledge on civil and environmental engineering could be gained from this course.

Introduction to Chemical and Biological Engineering

This is an introductory course on chemical engineering and biological engineering. To understand the process engineering based on chemistry and biology, students will study the basic concepts of reaction, separation and process synthesis. Also they will learn the basic knowledge for the development of polymer materials, electronic materials and bio materials.

Introduction to Energy Resources Engineering

This course introduces an overview of the whole field of energy including conventional and unconventional petroleum resources, and new and renewable energies. Students will learn the definition, history, worldwide consumption structures, and prospect of energy. This course also covers the nature of oil and gas reservoirs, petroleum exploration, drilling, and pro-daction. Student will study the characteristics and prospects of new and renewable energies such as solar, hydrogen, geothermal energy as well as biomass and fuel cell.

Introduction to Engineering English Communication

The goal of this course is to introduce the students to the broader social and ethical issues concerned with the practice of engineering. One of the most popular assumptions held by engineers is that technology is a powerful force that shapes society, but is inherently neutral. We will challenge this notion by thinking about technology and engineering within the broader social context, and its implications for engineering practice. We begin with at the very beginning: What is engineering, and why study ethics? Then, we cover the basic principles of ethics, followed by in-depth discussions on detailed case studies that illuminate the relationships between technology and society, engineering disasters, and professional responsibility.
This course focuses on building a strategy in technology-based start-up organizations, and entrepreneurial capability. The course will cover the following topics: start-up of technology-based ventures, formulation and evaluation of technology strategy in entrepreneurial start-ups, introduction to models of technological evolution, models of start-up of technology-based ventures, formulation and evaluation of technical effects, engineering technology and the development of society. Analyzing the effects of the improvement in technology on society will give the students a sense of value in both technology and the change of society/environment. The contents of the course are as follows: engineering technology and the social system, and its organization; improvement in technology and changes in society; engineering technology and social morals; the evaluation of technical effects; engineering technology and social issues; and engineering technology and employment.

This course will cover the relation between engineering technology and the development of society. Analyzing the effects of the improvement in technology on society will give the students a sense of value in both technology and the change of society/environment. The contents of the course are as follows: engineering technology and the social system, and its organization; improvement in technology and changes in society; engineering technology and social morals; the evaluation of technical effects; engineering technology and social issues; and engineering technology and employment.
Many sectors of engineering appreciate the importance of good project management for delivering projects in accordance with predetermined objectives. The primary challenge of project management is to achieve all of the project goals while honoring the preconceived project constraints such as scope, time, and budget. Project management is the discipline of planning, organizing, and managing resources to bring about the successful completion of specific goals and objectives. This class provides a clear description of the aims of project management and discusses the theory and practice of project management, particularly in relation to multi-disciplinary engineering projects.

400,316  공학경제 3-3-0

Engineering and Economy

The opportunity cost of making one choice over another must also be considered. For engineers to increase their profit and growth, they have to know how to combine technical and economic decision-making to create cost-effective, optimal performance designs. Engineering economics is the application of economic techniques to the evaluation of design and economic decision-making to create cost-effective, optimal performance designs. The role of engineering economics is to assess the appropriateness of a given project, estimate the value of a project, and justify it from an engineering standpoint. Students have opportunities to exercise an unique problem-solving skills. Especially, through digital technology which serves as a catalyst for convergence, the interrelationship between science technology and cultural art will provide students with opportunities to learn Bio Art, Nano Art and Space Art, as well.

400,320  공학연구의 실습 1 1-0-2

Engineering Research Practice 1

This course gives an undergraduate student a chance to be involved in a practical engineering research, as an intern in a graduate research lab. The student should have a regular meeting with the professor at least once per week, participate in a graduate research during the semester, and submit a research report at the end of the semester. S/U grade will be given based on the research performance and attitude.

400,420  공학연구의 실습 2 1-0-2

Engineering Research Practice 2

This course is open for undergraduate students that have already taken “Engineering Research Practice 1”. It gives an undergraduate student another chance to be involved in a practical engineering research, as an intern in a graduate research lab. The student should have a regular meeting with the professor at least once per week, participate in a graduate research during the semester, and submit a research report at the end of the semester. S/U grade will be given based on the research performance and attitude.

400,437  디지털아트공학 3-3-0

Digital Art Engineering

This course is designed to analyze the interdisciplinarity of cultural and technology, and based on this, to develop students with opportunities to learn Bio Art, Nano Art and Space Art. It gives an undergraduate student a chance to be involved in a practical engineering research, as an intern in a graduate research lab. The student should have a regular meeting with the professor at least once per week, participate in a graduate research during the semester, and submit a research report at the end of the semester. S/U grade will be given based on the research performance and attitude.

400,497.000100 안전공학과 법 3-3-0

Forensic Safety Engineering

This course is designed to analyze the interdisciplinarity of cultural and technology, and based on this, to develop students with opportunities to learn Bio Art, Nano Art and Space Art. It gives an undergraduate student a chance to be involved in a practical engineering research, as an intern in a graduate research lab. The student should have a regular meeting with the professor at least once per week, participate in a graduate research during the semester, and submit a research report at the end of the semester. S/U grade will be given based on the research performance and attitude.

400,531  공학연구의 실습 3 2-0-2

Engineering Research Practice 3

This course is open for undergraduate students that have already taken “Engineering Research Practice 1”. It gives an undergraduate student another chance to be involved in a practical engineering research, as an intern in a graduate research lab. The student should have a regular meeting with the professor at least once per week, participate in a graduate research during the semester, and submit a research report at the end of the semester. S/U grade will be given based on the research performance and attitude.
로 활용하는 방법에 대해 강의를 진행 한다. 실제 안전사고(봉괴, 파탄, 화재, 교통, 시뮬레이션, 대형재난, 폭발사례) 해석을 기초로 하여, 원인규명을 위한 손상조건, 파손해석 기반의 안전기술 이해, 범인 감정 기반 인증사례 해석에 대해서 논의할 것이다.

Forensic safety engineering deals with identification of the actual safety accidents (collapse, rupture, fire, transportation, simulation, large-scale disasters, explosions), understanding damage diagnosis and failure analysis method based on safety technology and studying cases of court judgment.

이 강좌는 공과대학 학생들에게 사회진출에 필요한 지식과 경험을 전달하는 취업 및 창업에 대한 기본 지식과 용어 및 주요 관리기법들을 소개하며, 그중에서도 기업의 경영 원리를 이해하고, 기업의 경영원리를 적합하게 적용할 수 있도록 한다. 공과대학 보직교수와 강의담당교수와 협의하여 결정한다.

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Engineering Frontiers and Leadership 1

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Engineering Frontiers and Leadership 2

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이 강좌는 공과대학 학생들에게 현재의 공학기술의 합성분야들을 소개하고 학계, 산업계, 정부 및 공공 분야에서 성공한 공학인들의 경영철학과 사례를 후보로 한 학생들에게 엔지니어링 분야의 잠재적인 미래 리더로 성장하는데 필요한 자질을 훈련한다. 즉, 학생들은 서울대학교 공학대학에서 정합하는 인재로 교육하고 발전하기 위해 공학과 공학인의 미래 발전에 대한 확신을 주고, 생산적이며 효과적인 엔지니어링 리더로 성장할 수 있도록 지원한다.

강좌는 공학과 공학도의 미래 비전에 대한 내용과 공학 리더십에 대한 내용의 2개 트랙을 매주 각 1.5시간씩 병렬로 운영한다. 공학도의 도전 트랙에서는 수강생들에게 공학대학 각 분야 교수들이 기술적인 과학효과가 큰 프런티어 및 융합기술을 소개하고, 대학, 연구소, 대기업, 중소기업, 정부 등에서 성공한 공학인들로부터 공학기술의 경험과 미래 비전에 대한 학생들의 경험과 교훈을 듣고 토론할 수 있는 기회를 제공한다. 리더십 트랙에서는 학생들이 과학적인 학습과 방법론 구현 과정을 이끌어 내길 수 있는 잠재적인 미래의 지도자에게 요구하는 자질을 배우고 싶어할 수 있도록 한다.

이 강좌의 내용구성과 초정감사는 매 학기 공과대학 보직교수와 주요 학부학과장으로 구성되는 위원회를 통해 결정한다.

The objective of this course is two-folded: the one is to introduce current frontiers of engineering and successful careers of engineers in academia, industry, and the government and other public sectors to students, and the other is to educate students as potential future leaders in engineering practice and development. The course is intended to cultivate the character of SNU engineering students the school pursues by providing students with the clear vision of engineering and engineers and by supporting students to develop the competencies required to become a productive and effective engineering leader. The course is comprised of two parallel tracks and each track offers an 1.5-hr session a week. In the engineering leadership track, leading researchers at the College of Engineering present their experience and lessons learned during their career starting a business, government and other public organizations.

Interdisciplinary Innovative Capstone Design

본 과목에서는 수강생들에게 대한민국을 넘어 세계로 나가서 스스로 문제를 탐색하고 정의한 후, 그것을 해결하는 설계대안을 도출하고, 핵심기술개발서를 개발할 것을 요구한다. 이러한 훈련을 통해 수강생들은 미래에 국제 사회의 리더로서 지속적으로 요구되는 다양한 제품이나 기술을 개발할 수 있는 “global first mover”의 능력을 배양한다. 본 과목은 서울대학교뿐만 아니라 해외 유수 대학의 과정과는 물론 타 대학의 다양한 전공의 학생들로 구성된 다학제 글로벌 설계팀을 구성하여 설계프로세스를 수행하도록 요구한다. 설계팀은 학기 동안 (1) 국제 사회나 기업가가 필요로 하는 문제를 창출해서 고객요구사항목록을 작성한 후, (2) 세계적인 공학설계 방법론을 기반으로 개념설계를 수행하여 최적설계대안을 완성하고, (3) 이 설계대안을 바탕으로 핵심기술개발서를 제작하며, (4) 최종적으로 이것을학기말에 발표하고 전시한다. 공동으로 강의를 운영하는 해외 대학 학과들의 팀 구성 및 팀워크를 위해 해외 대학을 방문하거나 해외 학생들이 서울대학교에 방문할 수 있다. 한편, 설계 프로젝트팀을 지원하기 위해서 마케팅, 산업디자인, 특허, 창의적 사고, 개념설계 방법론, 문화창출 사례연구 등 다양한 강의를 제공하며, 마케팅 교수진과 산학협력 교수진, 변리사, 외부 전문가로 이루어진 밴드모드가 개별화, 조별 밴드모드를 한다.

Global Innovative Capstone Design

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students from various majors of the other colleges and foreign universities, as well as of the engineering college. For a semester, the design team (1) completes a customer requirement list after creating a global user-centered design problem that is required by the global society and industry companies, and then (2) finishes its optimal design solution based on the systematic design methodology, and (3) builds a critical function prototype of the design solution, and finally, (4) presents and exhibits it at the semester end. Students can visit a collaborative foreign university for team building and team working. Likewise, students of collaborative foreign universities can visit our university.

M2177.002600

로봇공학부는 만들기 3-2-2

How to make a robot with artificial intelligence

최근 급속한 기술 발달로 자동주행차량, 드론, 휴머노이드, 무인항공기와 같은 스스로 인지 판단하여 움직이는 자율로봇들이 일상생활에 보급 등장하기 시작했다. 이로 인해, (1) 기존의 동작으로 사고가 나지 않은 자율로봇의 안전과 사용자의 안전을 고려한 학습성능을 대체하기 시작했다. 이러한 학습성능은 자율로봇의 기능과 영어를 번갈아 가며 강의하고 실습을 강조하므로 교환학생 및 대체학생들이 비로봇으로 발전하기 시작했고 실제로 여러 분야의 인간 노동력을 대체하기 시작했다. 인공지능 기술은 현재 로봇의 지능을 구현해보고 응용함으로써 배우게 된다. 최근로봇과 같은 스스로 인지 판단하여 움직이는 자율로봇들이 일상생활에 보급 등장하기 시작했다. 인공지능과 같은 스스로 인지 판단하여 움직이는 자율로봇들이 일상생활에 보급 등장하기 시작했다.

With the rapid development of information, computer, intelligence technologies, perception-based autonomous robots have been realized in our daily life such as self-driving cars, drones, humanoids, and manufacturing robots. The emergence of autonomous robots enables to make an accident-free and environmentally friendly robot that can work in nuclear-power plants and earthquake area such as Fukushima nuclear plant. Moreover, human-like robots have appeared along with big data, machine learning, and artificial intelligence technology, who have already begun to replace human-workers such as in logistics, transportation, and human interfacing. The goal of this course is to give students theory and practice of autonomous robots with a learn-through-experience philosophy. Students can have hands-on experiences of robot design and programming. Students are requested to form an inter-disciplinary team and make a new and useful autonomous robot to the public through skills learned in this course. International and non-engineering students are also welcomed to this course, because all lectures are alternatively provided in English and Korean; all materials are provided in English; and this course is a practice-intensive and experience-oriented course.

M2177.003200

융합공학도를 위한 전기전자학회 및 실험 3-2-2

Electrical and Electronic Circuit Theory and Experiments for Integrated Engineers

전기 전자 공학을 전공하지 않은 공학도에게 전기전자 회로에 관한 기초적인 이론과 이에 관련된 실험을 제공하며 여러 분야의 응용 예를 제시한다. 수강생은 다음과 같은 것을 학습한다. (1) 기초적인 전기전자학회를 이해하고 해석하며 설계하는 것, (2) 대표적인 부품인 저항, 캐파시터, 인덕터, 다이오드, 트랜스포터와 연산 증폭기 등의 기능과 응용을 이해하는 것, (3) 전기전자학회로 수강생이 더 많은 능력을 배양하게 된다.

전기전자 부품의 기능을 이해하고

전기 전자에 대해 이해하고 전기전자학회가 어떻게 캐

파시터와 인덕터에 지능화되고 배출되는지를 이해하고

연산증폭기의 기능과 연산증폭기 회로를 이해하고

다이오드의 기능과 정류기와 같은 다이오드 응용회로를 이해

하고

트랜스포터의 기능과 증폭회로의 기능과 증폭회로 응용

을 이해한다.

스테미온에서는 간단한 전기전자 회로설계 장치의 원리 및 조작에 대하여 학습할 후, 간단한 회로를 구성하여 전류, 전압, 전기 회로 수학 법을 읽어한다. 또한 회로 사례설명서 사용을 학습한 후 회로 설계와 측정에서 그 결과를 활용하도록 한다. 응용 과학을 위하여 신재생 에너지 기술을 대상으로 여러 간단한 회로를 구현하여 응용 회로를 제작하는 스테미온을 한다. 또한, 실험의 기본

is intended to provide non-EE majored students with a basic knowledge of electrical and electronic circuits and electrical instrumentation and experiments. It is to educate the students to be able to 1) understand and be capable of analyzing and designing basic electrical and electronic circuits, 2) understand the function and the use of standard components, such as resistors, capacitors, inductors, diodes, transistors, and operational amplifiers. At the end of the course, the student should be able to: Understand * the fuction of electrical and electronic components, * what electrical power and energy are, and how to store or extract electrical energy with capacitors and inductors, * operating amplifiers in the design of a simple amplifier circuit, * what a diode is and what it can do, and be able to use diodes in the design of circuits such as: power supplies, clippers, and clamps, * a transistor is and what it can do, and be able to use transistor in the design of circuits such as amplifier. In experiments, you must experiment simple electrical and electronic circuits and understand how to measure electric variables, such as currents, voltages. Application circuits using regenerative sources are experimented and various application circuits using Arduino kits are experimented.
obtained by in-class lectures are practiced. It is very important for engineering students to have both theoretical background and diverse field experiences. For this reason, several industrial examples are experienced by the field trip to check how the theories and principles in diverse subjects are applied and merged in designing, manufacturing, producing, evaluating processes. After the field practice in foreign institutions, various application cases are discussed and new ideas for improvement and development are proposed. Unlike the “Field Engineering of Engineering Knowledge”, the field education program should be approved by the College of Engineering for a student to take this course. A documentary evidence of at least 120 hours of participating in field programs is required to take this course.

Silicon Valley and Innovative Thinking

In this course, field applications of engineering knowledge obtained by in-class lectures are practiced. It is very important for engineering students to have both theoretical background and diverse field experiences. For this reason, several industrial examples are experienced by the field trip to check how the theories and principles in diverse subjects are applied and merged in designing, manufacturing, producing, evaluating processes. After the field practice in foreign institutions, various application cases are discussed and new ideas for improvement and development are proposed. Unlike the “Field Engineering of Engineering Knowledge”, the field education program should be approved by the College of Engineering for a student to take this course. A documentary evidence of at least 120 hours of participating in field programs is required to take this course.

Silicon Valley and Startups

Located in California, Silicon Valley is a cutting-edge technology research complex. Today, not only numerous micro-electronic companies lie within Silicon Valley, but also venture businesses and capitals based on technology innovation form parts of the complex. The lecture aims to introduce strategic thinking on innovation for Silicon Valley multi-national companies, that take lead in world ICT market. With field trips that helps students’ understanding, the lecture presents background and perspective for those who want to establish a business.
Homo Architectus: Voyage around the World Excellent Architecture

This course intends to 'show' architecture to the students of engineering. The category of 'beauty' defined by Immanuel Kant may apply to the structural integrity in architecture. The category of 'truth' defined by Immanuel Kant may apply to the structural integrity in architecture. The course deals with the historical understandings & val-
Modern industry has been dramatically changed with the emergence of digital fabrication and manufacturing technology such as 3D printer, 3D scanner, cyber physical computing, and industrial robots, which enable anyone to do make his own product freely at home. Moreover, The capability of small quantity batch production has accelerated rapid production and world-wide lean start-up. The goal of this course is to give students theory and practice of digital fabrication and manufacturing with a learning-through-experience philosophy. Students can have hands-on experiences of 3D printer, 3D scanner, laser cutter, and CNC (Computer Numerical Control) router along with traditional machines such as milling machine, lathe, welding, and casting. Students are requested to form an inter-disciplinary team and make a creative product to attract the public using the skills learned in this course.
이 과목은 건축의 존재형식을 사회의 공동적 산물임을 바탕으로, 공간의 창조적 작업에서 요구되는 건축가의 작동 문제, 공간의 공동성과 공공성, 사적과 프로페셔널 등의 사회적 문제에 기반을 두고, 공간, 조성, 법규 등 건축가의 작업과 직접 관련 되는 주제와 함께, 거주, 패턴, 정보, 시간, 설계, 기술 등 현대 사회에서 전개되는 계획적 성과를 다루면서, 오브젝트로서의 건축물이 아니라, "도시를 설계하는" 건축물로 어떻게 만들어야 하는지를 이론적으로 접근한다. 따라서 이 과목은 건축물을 어떻게 만드는가 하는 수법을 넘어, 건축가이 사회와 도시에 능동적으로 작동하는 분야에 주목하는 건축학 전 분야를 핵심화하는 과목이다.

4012.304* 건축과 사회 3-3-0
Architecture and Society

학생과 공간. 이 단계에서는 개별적인 개인의 행위의 집합인 집단 행위에 대한 공간의 구성이 연관된다. 집중하는 행위, 행위에 대한 명백한 공간적·시간적·인간 행위의 법규를 신중하게 인간행위의 분포에 주목함으로써, 다양한 사건과 행위가 동시에 있는 것을 허용하고 이것이 만들어내는 공간을 설계한다. 이에 따라 외부와 내부의 경계, 연속성, 가구, 공간의 복잡성, 건축 속의 버섯, 시간, 공간하는 공간, 사람의 미감이 만들어내는 장면 등, 다양한 건축적, 도시적 공간이 반드시 이루어지는 공간성을 아우른다.

Behavior and Space. In this course, students will study how to organize a space corresponding to group behaviors. Students will concentrate on the pure concep of space in terms of the distributions of human behaviors and design a space made by various events and behaviors. According to this process, students will learn about the following: how to form the threshold between inside and outside; continuity; furniture; irregularity in a space; void space; time; coexisting space; scene of assemblage of people; and loose compositions of various architectural and urban spaces.

4012.301* 건축설계스튜디오 3-1 6-2-8
Architectural Design Studio 3-1

공공건물로 범위를 넓히 인간의 행위의 인접과 분리, 다른 요소의 개입을 통해 서로 다른 기능을 가진 용도를 결합하여 더 큰 전체를 완성하는 건설방식을 탐구한다. 변격과 기능 관계를 설계의 법규의 제약 조건을 따르면서, 동시에 이 공간을 이용하는 사람들의 공동체 의식을 고려하기 위한 지역의 인문적 조건에 주목하면서 소규모의 공공공간을 제작한다. 학교나 도서관 같은 공공시설도 근데 이후 이렇게 해석되어 있었으며, 공간의 배달은 역사적 경험에 대한 반전을 통해 새로운 시대에 적합한 공간의 배달을 가진 건축을 생각한다.

Analysis of Programs. Human behaviors and facilities are closely related to the times and the program analysis done by the users. In this course, students will analyze the programs especially built since the beginning of the modern era. For this, they will study how to combine different functions into one through the intervention of different elements and adjacency, and the separation of human behaviors. Later, students will think about architecture for the new era by criticizing current systems and facilities under the premise that the arrangement of space contains systems, and study how schools and libraries were interpreted from the aspect of systems in the modern era.

학교의 건축은 "학교수-주당 강의시간-주당 실습시간"을 표시한다. 한 학기에는 15주로 구성됨. (The first number means "credits"; the second number means "lecture hours" per week; and the final number means "laboratory hours" per week. 15 weeks make one semester.)
Building Materials

newly recognized or created building materials such as ceramics, organic materials, metallic materials and wood are introduced along with their attributes and handling instructions through case studies of building design.

Construction Technology

This studio will be to explore the architectural and urban potential of an approach to escape from the present building types regarded as a matter of course, which asserts that the architectural and urban behaviors. Also learn the procedure of urban regeneration and building design through case studies of building design.

Architectural Design Studio 4-2

Program takes precedence over space. Now we say it to make 'program', not to compose the plan as before. Usually we regard program as function or use, but it is rather more flexible concept or strategy. We do not exactly analyse function or use and compose a plan, but now we program and interpret it, Program is related to function or use, more or less indirectly allows architect's various interpretations. Another meaning of program is therefore conceived as a social one whose primary function is to criticize established building types through the drift from institutionalized one. Generally program is realized as action or activity. However the studio will be to explore the architectural and urban potential of an approach to escape from the present building types regarded as a matter of course, which asserts that the architectural and urban behaviors. Also learn the procedure of urban regeneration and building design through case studies of building design.
Students will learn about building regulations which affect design practice, such as building codes and legislation with regard to the architect’s license, building contract, and architectural design firm.

4012.411* 건축설비계획 3-3-0

Mechanical and Electrical Systems for Building

This course helps students acquire general knowledge on the mechanical and electrical systems for buildings and apply this knowledge into building design and structural design in an integrative manner.

4012.421A 도시문화와 보전 3-3-0

The City Cultures and Urban Conservation

This course helps students understand the authenticity and utilization of cultural heritages. The third part is standing of architectural and urban cultures by approaching and negotiating. The second part is to deepen their understanding of architectural cultures that the city has been shaping, living, and conducting. The goal of this course is to let architecture students be experienced architects, urban designers, and planners need to understand with various perspectives and scales, ranging from a single building to a regional and global contexts. To have better understanding of our urban and architectural cultures is a prerequisite to become a thoughtful architect and urbanist. The course consists of three parts: The first part is to upgrade students’ understanding of various aspects in urban and architectural cultures that the city has been shaping, living, and negotiating. The second part is to deepen their understanding of architectural and urban cultures by approaching to them as objects of our cultural heritages. The third part is to learn about the authenticity and utilization of cultural heritages under the current structures of cultural institutions and industries, along with the recent preservation efforts to manage them.

4012.422A* 건축과 도시설계 3-3-0

Architecture and Urban Design

This course is structured as an introductory urban design seminar to motivate students to be familiar with broad concepts and practices of urban design. The course objective is to examine various urban design principles, processes, and products in the context of our long tradition of making places. The goal is to help students have a better understanding of the city and its design.

4012.423 디지털디자인연구 3-3-0

Digital Design Research

Computer Simulated Image's tool is to examine various urban design principles, processes, and products in the context of our long tradition of making places. The goal is to help students have a better understanding of the city and its design.
terests), 6) Internalization of city (Live with informational network and urban space with no boundary is repeated), 7) City of symbols, and architecture (The fact that symbols of city have continuity is understanding land as activity, thinking of space based on body).

4012.502*  建筑设计工作室 5-2  5-0-10

Architectural Design Studio 5-2

21세기 정보사회의 도시 속의 새로운 건축-시설의 제안하기 위해 1) 정보사회의 세대로서의 시설, 2) 사회의 변화: 화목과 건축, 3) 휴대성인 (자유공간과), 4) 시설의 교통, 5) 공동체, 6) 도시의 내부화, 7) 지표의 도시와 건축이라는 주요 이상 속에서 설계 하는 일련의 과정 속에서, 전반부는 계획안의 전반적인 기술적 검토를 토대로 설계의 모든 단계를 기술적으로 해결할 능력을 갖게 한다. 또한 주요 공간단계 설계를 갖 추고, 계획의 의도가 디자인의 단계에까지 설계될 수 있게 한다. 이에 진급 시스템 전반의 저작과 함께 세부 공간을 검토하며, 이 각 단계에서 접하게 되는 다양한 기술적, 계획적 단계의 전반성을 종합하는 능력을 기른다.

우반부는 본래의 계획 의도와 이론적 고찰 및 이를 구체화해 가는 과정에 대한 기술을 입증한다. 이 단계를 통해 이론과 실습 설계가 어떻게 제작화하는지에 대해 점검하고, 실제의 십두 형식을 밝히 각자의 도시를 작성하게 한다. 또한 이를 공식적으로 졸업전 시회를 통해 비평을 받아 또 다른 단순으로 성숙할 수 있게 한다.

In 21st century, new method of urban architecture is explored in which articulation doesn’t exist, no orders, no districts. For this, design concerning main issues as following: 1) Institutions and facilities of information oriented society, 2) Change of society: flow and architecture, 3) Portable self space and privacy, publicivity, 4) Exchange of institution, 5) Union, 6) Internalization of city, 7) City of symbols and self space and privacy, publicity. For this, design concerning main issues as follows: 1) Institutions and facilities of information oriented society, 2) Change of society: flow and architecture, 3) Portable self space and privacy, publicivity. In 21st century, new method of urban architecture is explored in which articulation doesn’t exist, no orders, no districts.

4012.504*  建筑设计 3-3-0

Professional Practice

한편, 조건과 문화 속에서 전개되는 건축사로서의 경영력과 책임감 전문용역을 수행하기 위해 요구되는 전문적 원칙, 프로젝트와 관련된 적절한 지식을 지니도록 한다. 전문 용역에 따른 건축사의 역할과 책임을 이해하며 프로젝트와 관련된 다양한 인간관계의 조정 및 사무실 조직, 경영방법, 계약관계 등에 관해 이해한다. 또한 프로젝트 단계별 도면과 사무의 유형을 이해한다.

As future architects, students are required to have proper knowledge related to design and building projects, and be aware of professional principles. Students will study the role and responsibilities of an architect and understand the following: arbitration of human relations, office organization, method of management, and financial administration. They will also learn to understand drawings and documentation types for each stage of the project.

4012.511A*  建筑物理 3-3-0

Building Systems

이 수업은 학생들에게 건설 과정에 필수적으로 고려해야 하는 재료, 설비, 방재, 구조, 환경시스템 등을 평가, 선정하여 설계에 이용할 수 있도록 하는 것이다. 구조분야, 환경조절분야, 사공분야 등에 소속된 과목들의 통합을 통해 하기 DEOANS에 기술관련 과목과의 최종 단계에서 제시된다.

This course teaches students the ways to evaluate and select building materials, equipment, and structural and environmental systems for their building design. It integrates the fields of structure, environmental control, and building construction, and is thus provided at the final stage of building technology courses.

4012.522  デジタルデザイナーズ スクール 3-1-4

Digital Design Studio

디지털 디자이너로서 컴퓨터 기술의 창조적인 역량을 도시의 공공공간과 건축설계와 밀접하게 작용하는 스크립토스와 창조적 아이디어를 통합적인 미디어와 디지털 기술 두 가지 모두를 통한 디자인 프로세스를 체험해 본다.

This is an experimental studio for the application of the creative potentiality of computer technology on architectural designing. Students will experience the designing process...
with creative ideas through both traditional media and digital technologies.

4012.524 실내설계 3-3-0
Interior Design

이 강의에서는 추후에 설계책임에서 다루어야 할 실내 설계에 관한 교육, 계획, 제조, 가구, 시공, 설비, 공간, 사량지리가 통합되는 과정을 연습한다. 이를 위해 소규모 또는 중규모의 주택 또는 상업 공간 내부를 설계하고, 이에 필요한 계획, 가구, 기계 및 전기설비 가공정적 관리자에서 어떻게 통합되어야 하는지를 습득한다. 나아가 중규모의 거주시설 시설 또는 공공건물의 실내를 계획하고 이에 대한 계획, 마감 등 각종 실무적 문제를 습득한다.

In this course, students will practice how to combine design, material, furniture, machinery or electronic equipment. They will also learn about the practical matters of material and finishing.

4012.526 건축기획 3-3-0
Building Economics and Development

건축설계는 건축가에게 단순히 주어지는 것이 아니라, 건설 주체와 함께 기획하는 것이기도 하다. 건물에 대한 독자, 사적 또는 공적 채산에 대한 경제적 가치의 이해와 이를 실현하기 위한 가능성을 통한 설계가 주목이 되어야 하는 경제적, 법적, 설계단계의 문제를 습득한다. 이에는 초기 시장 분석이 아니라, 설계가 진행됨에 따라 발생하는 문제를 모으는데, 기술적 측면, 영업 시스템, 가격 계획 등으로 나누어 고찰한다. 이에는 각 분야의 실무자와 함께 강의를 진행한다.

Architectural design is not just a task given to the architect, but is usually planned in cooperation with the constructing group. In this course, students will learn about the economic and legal problems that an architect should cope with as they check out the possibility of constructing a building and understand its economic value. Students will consider possible problems not only from the beginning but also as the construction progresses, in areas of size, technology, possible problems not only from the beginning but also as the construction progresses, in areas of size, technology, and cost plan. Professionals in each field will participate in teaching the course.

4012.528A 주거계획 3-3-0
Residential Planning and Design

도시 안에서 가장 중요한 시설인 집합 주거를 도시 이론의 입상에서 탐구하고, 이를 공공주거로 발전시키기 위한 방식을 다룬다. 또한 개발 단계에서 사후 평가에 이르기까지 건축가가 집합주택의 설계에서 관여하게 되는 전 과정을 따라 이와 관련된 제반 과제를 강의한다. 따라서 집합주택의 기획과 기획을 하며, 새로운 주거 환경을 설계한 주거 요소를 어떻게 분석하여 이를 실제로 설계하는가를 다룬다. 특히 집합단지와 관련한 개발사업의 목적과 경제적 분석만이 아니라, 완성된 주거에 대한 경제적, 문화적인 평가를 분석적으로 다룬다.

Students will study about group housing, one of the most important urban facilities, and learn how to develop it as a public dwelling. They will also learn about the whole process of designing group housing from developing the plans to the evaluation afterwards. Students will not only analyze the purpose of development and economic conditions for group housing, but also make economic and cultural evaluations on the completed housing.

4012.530 아시아건축과 도시 3-3-0
Asian Architecture and Urbanism

중국, 일본 등 동아시아의 아시아사에서 현재 일어나고 있는 현실의 건축 상황을 이해하기 위하여, 각 지역의 건축역사와 현대건축작품 건축연구의 동향, 주택정책, 도시 설계 등 학습한다. 이를 통해 아시아인으로서 사고와 정보를 고유하므로 동시적 사고를 지향한다. 이를 위해서 아시아의 주요 국가의 건축적 배경이 되는 문화와 역사를 이해하고, 선택된 아시아 건축가의 작품과 이론을 제대로 탐구한다.

In this course, students will study various situations in Asian architecture, including not only Eastern Asia, but also Southeast Asian countries from the aspects of architectural works, trends of architectural studies, housing policy and urban design. For this, students will study the cultural and historical backgrounds of certain Asian countries and investigate the works and theories of selected Asian architects.

4012.531 행위와 공간 3-3-0
Activity and Space

특정 지역의 인간의 움직임, 공간의 크기에 대한 인간의 심리에 대해 이론 공간을 마련하여 분석하는 거동 방식은 건축 설계를 통해 이상적인 방식은 이러한 특정 지형의 움직임과 행동에 대응하는 건축공간의 분석으로 대응시킨다. 이것은 종래의 정량적인 건축계획학을 연장한 것이면서도, 해결 방법은 건축설계를 통해 바라본다. 또한 이 강의는 공공성과 공공 공간을 규모와 무관하게 형성함에 관한 행위와 공간의 공간성을 형성하는 것을 목적으로 한다.

Students will learn what kind of spaces to build according to the human psychology of size of space, and random movements of people. The course is based on quantitative analysis, but will take more concrete form through architectural space analysis corresponding to the random movements of people and their behaviors. This course is an extension of architectural planning, but the solution is derived from architectural design. It also aims to design public spaces that can result in public activities, indifferent to size.

4012.532 도시건축과 공간계획 3-3-0
Architecture, City and Planning

지속적으로 성장하고 변화하는 도시공간에 대한 계획체계를 심도 있게 학습시키는 과목이다. 구체적으로, 단지계획, 도시계획, 건축환경, 분산화, 도시환경, 전략계획, 도시환경계획, 건축기획, 도시계획, 도시개발계획 등에 대한 일반적인 이해와 관련된 분석을 학습한다. 특히, 현행도시계획제도, 토지이용 계획 및 교통계획, 도시개발계획 등에 대한 획득적인 이해를 바탕으로 도시계획과 건축계획의 최근 주요사례들을 기술교육의 일환으로 경험할 수 있게 한다.

This course is to understand the systematic urban space planning. Urban space planning systems can be changeable. Students will analyze certain urban problems and propose proper systems for improvement of urban conditions.
Computing in Architectural Engineering 2

Designed with CAD, which is applied to detailed design and drawing, structural analysis, and BIM. A small building is

covered, to introduce and practice the lecture topics and softwares that are frequently used for the design and construction of buildings are introduced and practiced. The lecture topics and softwares that are frequently used for the design and construction of buildings are introduced and practiced. The use of MATLAB and softwares is practiced to solve basic engineering problems.

Fluid System in Building

In this course, fundamental skills for the use of computer softwares that are frequently used for the design and construction of buildings are introduced and practiced. The lecture topics and softwares that are frequently used for the design and construction of buildings are introduced and practiced. The use of MATLAB and softwares is practiced to solve basic engineering problems.

Thermal Energy Fundamentals in Buildings

In this course, fundamental skills for the use of computer softwares that are frequently used for the design and construction of buildings are introduced and practiced. The lecture topics and softwares that are frequently used for the design and construction of buildings are introduced and practiced. The use of MATLAB and softwares is practiced to solve basic engineering problems.

Mechanics of Materials in Architectural Engineering 2

In this course, fundamental skills for the use of computer softwares that are frequently used for the design and construction of buildings are introduced and practiced. The lecture topics and softwares that are frequently used for the design and construction of buildings are introduced and practiced. The use of MATLAB and softwares is practiced to solve basic engineering problems.

M1498.001300* 건축전산 3-2-2

Architectural Environmental System

In this course, fundamental skills for the use of computer softwares that are frequently used for the design and construction of buildings are introduced and practiced. The lecture topics and softwares that are frequently used for the design and construction of buildings are introduced and practiced. The use of MATLAB and softwares is practiced to solve basic engineering problems.

4013.207* 건물유체시스템 3-3-0

Architectural Environmental System

In this course, fundamental skills for the use of computer softwares that are frequently used for the design and construction of buildings are introduced and practiced. The lecture topics and softwares that are frequently used for the design and construction of buildings are introduced and practiced. The use of MATLAB and softwares is practiced to solve basic engineering problems.

4013.203A* 건축환경시스템 3-3-0

Thermal Energy Fundamentals in Buildings

In this course, fundamental skills for the use of computer softwares that are frequently used for the design and construction of buildings are introduced and practiced. The lecture topics and softwares that are frequently used for the design and construction of buildings are introduced and practiced. The use of MATLAB and softwares is practiced to solve basic engineering problems.

4013.205* 건물열에너지론 3-3-0

4013.208A* 건축재료역학 2 3-3-0

Mechanics of Materials in Architectural Engineering 2

In this course, fundamental skills for the use of computer softwares that are frequently used for the design and construction of buildings are introduced and practiced. The lecture topics and softwares that are frequently used for the design and construction of buildings are introduced and practiced. The use of MATLAB and softwares is practiced to solve basic engineering problems.
4013.305 건축설비 1 3-3-0
Mechanical and Electrical Equipment for Building 1

건축설비시스템의 개념 및 공학이론을 숙지함으로써 전환 건축설비 엔지니어링과 관련된 과목을 이해하기 위한 기초지식을 터득한다. 건축에 필요한 기기설비 즉, 공기조절설비, 강화설비, 배수설비, 환기설비, 공기조절시스템, 난방설비, 소화설비 등의 개념 및 기본 원리를 파악하고 건축설비에 이용되는 방법에 대하여 학습한다.

As a preparation course for future building engineering subjects, this course deals with the fundamentals of building mechanical systems and engineering theory. Students will study the fundamentals and practical applications of mechanical systems in buildings, including plumbing systems, hot-water systems, drainage systems, ventilation systems, HVAC systems, heating systems, and fire protection systems.

4013.306 건축재료 3-3-0
Building Construction Materials

건축재료의 성능에 영향을 미치는 제반 건축재료의 일반적 특성 및 제조방법, 용도 및 시용방법 등을 소개하고, 건축신재료의 개발 사례를 소개함으로써 건축재료설계, 구조 및 시공방법에서 필요한 재료를 적절하게 선택하여 활용할 수 있도록 한다.

This course introduces the characteristics, manufacturing processes, uses of construction materials, and the development of new construction materials. This course will help in understanding how proper materials are selected in the planning, architectural/structural design, and construction phases.

4013.307* 건축시공 3-3-0
Building Construction Engineering

건축물의 설계, 시공, 유지관리에 이르는 전반적인 건축생산과정을 설명하고, 건축물의 품질과 성능을 위한 시방기준을 고찰하며, 건축공사비의 산정과 주요 공종에 대한 시공방법 및 절차에 대하여 강의한다.

This course introduces overall construction processes from design through construction and maintenance. The course examines specifications for performance and higher quality of buildings, and explains the construction methods of major trades and cost estimating skills.

4013.308 건설관리 3-3-0
Building Construction Management

건설 프로젝트의 목표를 달성하는데 요구되는 제반 관리 요소들을 소개하고, 건설관리에 토대로 주요한 관리요소인 성공관리, 비용관리, 자원관리, 품질관리 등의 방법과 절차에 대하여 강의한다.

Based on basic theories of construction management, this course introduces methods and processes of major management areas such as time, cost, resource, and quality.

M1498.001400* 콘크리트구조설계 및 공법 1 3-3-0
Design and Construction of Structural Concrete 1

콘크리트의 재료특성에 대한 기초적인 이해를 토대로 콘크리트 구조시스템의 구성, 구조설계의 개념, 시공방법, 부재설계의 기초에 대한 접근방법을 제공한다. 콘크리트는 재료부터 시공 그리고 구조 완성되기까지 폐기물관리, 안전성, 유지관리, 내구성에 대한 초기 설계 개발의 중요성을 이해하는 것이 이 과목의 주요 목표이다.

On the basis of basic understanding the material properties of concrete, structural system selection, design philosophy, construction process, and basic member behaviors under flexure, shear, and axial forces are addressed. The main objective of this course is to understand that the conceptual engineering design stage of buildings should start with the consideration of quality control, safety, maintenance, and durability over the life cycle.

4013.310 구조재해석 3-3-0
Structural Analysis

이 과목은 합의 평형조건, 변형을 고려한 기하학, 재료의 역학적 특성을 이해하여 콘크로 구조물에 적용하는 응력과 변형 해석, 구조물에 대한 기초적 지식을 배양한다.

This course focuses on stress and strain analysis based on the equilibrium conditions of the forces, geometrical compatibility, the mechanical properties of the material, and other fundamental knowledges of the structural system.

4013.311 구조동역학 3-3-0
Structural Dynamics

이 과목은 구조물의 동적거동의 이해와 해석방법을 토대로 내진, 내풍설계에 대한 동적 해석방법 및 능력을 배양한다.

This course deals with the dynamic response of building structures and their analysis methods to improve the problem solving capability concerning seismic and wind engineering designs.

M1498.001500* 철골구조설계 및 공법 3-3-0
Design and Construction of Structural Steel

본 과목에서는 하중저항계수법에 의한 강구조물 설계방법을 숙련하고 구조설계의 개념과 설계과정의 기본동력학, 구조물의 설계에 대한 기본철학을 배양한다. 설계방법의 근거가 되는 여러가지 법적, 철근공사의 특성과 배치방법 등으로 구성된 설계기준을 배운 후, 실제 문제의 해결에 창의적으로 응용할 수 있도록 한다.

This course presents a concise treatment of both design and construction of steel structures such that core knowledges essential for competent structural design and field managing of steel structures are all provided to students. The key elements underlying modern steel engineering are covered from design concept to final construction. This course tries to provide the necessary backgrounds to understand the complicated stability design rules for members and frames in current LRFD specifications. Key considerations needed in design and construction of representative steel framing systems are discussed. Steel engineering expected in next generation is introduced.
4013.313 土質 및 기반공학 3-3-0

Soil Mechanics and Foundation Engineering

This course will help students enhance their design abilities through learning about foundation & soil engineering, along with structural stability.

4013.314* 전기공학 3-3-0

Electrical & Lighting Theory in Buildings

This course is focused on understanding the basic concepts and engineering theory of electrical systems in buildings so as to provide students not only with the elementary knowledge required for advanced courses in mechanical and/or electrical system engineering, but also with the basic information for engineering consulting in fire protection, structural design and construction. In this course we will study the basic concepts of electricity & electrical circuits, lighting theory & lighting design method in buildings, which include the following: the basic properties of electricity, direct current (circuit laws, circuit analysis), alternating current (circuit laws, frequency, effective value, phase, impedance, power & power factor, voltage & voltage drop, circuit analysis), power equipment (generator, motor, transformer, inverter & rectifier, MCC), physics of light (illumination, luminous intensity, luminance and brightness), and luminous radiative transfer. We will also examine the methods of applying electrical systems to buildings such as lighting design methods (lumen method, point method).

4013.315* 건축공학시스템설계 3-2-2

Design Process Building Systems

This course intends to grow the ability of architectural design and engineering approach, which will be necessary to experts seeking effective expression method. The course is composed of setting up the design requirements, design alternatives, design expression and systematic design process. Finally, this course aims to grow the general decision-making ability in the process of architectural design and engineering problems. In addition, students will be trained to understand each other in architectural engineering problems through individual projects. This course requires synthetic thinking ability, creativity and basic knowledge which may be acquired during lower grade's classes.

4013.401A 에너지절약 건축계획 3-3-0

Energy Conscious Building Planning

4013.402 건축환경설계 3-3-0

Architectural Environmental Design

4013.403 구조설계 3-3-0

Structural Design

4013.404 건축측량 3-3-0

Construction Engineering and Survey

4013.405 건축설비 2 3-3-0

Mechanical and Electrical Equipment for Building 2
This course deals with lighting design, illumination analysis, and daylight design, for the purpose of creating a comfortable indoor environment. Students will study the fundamentals and the practical application of electrical systems in buildings, including lighting systems, electrical conversion systems, electrical distribution systems, emergency power systems, information systems, telecommunication systems, and data distribution systems.

Course: Structural Experiment and Material

This course will cover structural mechanics through experiments on materials and structural members.

Course: Building Construction Technology

This course aims to provide an understanding on the roles and responsibilities of construction engineers, and examines the current status of construction technology. This course also provides experience in utilizing computers in preparing technical reports, and reviews the utilization of information technologies in the construction industry.
건축은 특정한 인식을 통해 기능이 되고, 설계가 되며, 건축적 상상력과 분석력 또한 건축의 고유한 표현기법을 활용한 결과 그림을 통해 생성되고 공유된다. 본 수업은 전통적인 스튜디오 제작에만 향추는 스튜디오를 중심으로, 각 학생의 분석, 창작, 표현 활동이 대화와 토론을 통해 발견되고 진행된다. 지식형태 푸닝, 추상성/구체성 모델, 설계/가상 미디어들을 아우르는 건축의 기초 표현기법을 습득하고 인연과 그립을 통해 탄생한 건축적 사고가 가능해지는 것을 인지하여 적합한 기법을 선택할 수 있도록 돕는 것이 본 수업의 목표라고 할 수 있다. 본 수업의 진행 방법은 다음과 같다.

건축적 창의력: 장소/환경과의 대화, 그리고 사물의 진이 (translation)/이화(defamiliarization)/변형(transformation) 방식을 주로 다루는 개인 설계와의 협업 방법을 습득한다. 다양한 표현기법을 이용한 인식의 이해, 그리고 이중 표출 기법을 바탕으로 물질/사물을 해석하고, 건축적 의미를 생성해, 구성사진/재료의 능력이 등가하는 과정을 경험한다.

Architecture is designed, recorded, analyzed, and imagined through a set of conventions—both visual and verbal, which constitute a specific language for communicating architectural thoughts. Following a classic pedagogical model of a design studio, this course will introduce, through a sequence of individual design projects, basic architectural presentation techniques, including orthographic vs. parallel projections, abstract vs. tectonic models, and manual vs. digital media. Particular emphasis will be placed on the distinct generative potential of each representational technique, and how an architectural thought may be abstracted, analysed, visualized, and created through drawings and words.

The first part of the course will emphasize spatial imagination, and ask students to perceive, draw, and re-present spaces in three forms-proportional space, relational space, and embodied space. The second part of the course will introduce elements of architectural analysis and design through various conceptual techniques, including defamiliarization, translation, and transformation of tropes, objects, and materials.

Design Computing
CAAD의 원리와 개념, 그리고 설계의 응용에 대해 다루고, 이론적 합성과 예비디자인, 웹팩지 작성에 대해서도 실습한다. 실습주로 진행되며 학생들은 개별 혹은 집단별 프리젠테이션을 하게 된다.

This laboratory course deals with the principles and concepts of CAAD (Computer-Aided Architectural Design). Students will also practice image processing, animation, and web page design. They will be required to provide some individual and group presentations.

Structural System
건축물에 따른 하중 및 구조시스템의 종류와 역할, 각 구조시스템의 특성, 재료와 구조시스템, 각 부재의 등급, 간략한 설계방법을 소개하며 주요 부재의 역학적 특성 설명

This course introduces the basic structural topics required for architects and engineers. The main topics are as follows: classification of structural systems and their characteristics; basic geometry and load path of structural systems; relationship between material properties and structural systems; basic member behavior and the related design procedure; and preliminary design procedure for a simple structural system.

Basic Studio 2 (Architecture and Structure)
구조에 대한 이해는 모든 건축교육의 바탕이다. 스튜디오에서는 공간을 구축하는 구조의 형식과 공간의 절차를 탐구하는 프로세스를 진행한다. 일체제구조, 가구구조, 복합구조 등 다양한 구조의 형식을 탐구한다. 구조 개념은 구체적인 건축공간으로 구현하는 과정에서 도면과 모형을 통해 구조적인 공간을 표현하는 능력을 배양한다. 또한 구조의 역학적 이해를 바탕으로 건축의 형식을 이끌어 내는 동작을 키운다. ‘개인’과 사물의 ‘요소’를 ‘구축’을 위한 기름을 통해 건축공간으로 실현하려는 과정, 즉 요구되는 공간의 프로그램에 합치하여 구조체계를 제안하고 이를 구현하는 설계 과정을 익힌다.

Understanding of architectural structure forms the basis for all architectural projects. This studio will actively engage theoretical understanding of structural systems from the conception of design projects. A broad major of structural systems and their applicability will be followed by individual design exercise for transforming a structural logic into an architectonic concept. In addition, based on understanding of building structure mechanics, student will raise their insight to generate architectural form and learn the process of adapting the needs of individual and society to architectural space through technology for constructing - the design process realizing a structural framework that conforms to the space program required.

Basic Studio 3 (Architecture and Environment)
디자인/엔지니어링 교육과정의 핵심이 되는 본 스튜디오는 건축과 환경의 관계성에 초점을 맞춘다. ‘House + Creative Studios’ 프로그램을 통해 가설적이고 포괄적인 접근법으로 건축적 지식을 탐구한다. 학생들은 이러한 디자인 모델링을 응용하여 각 구조물의 진단과 시스템의 분류와 특성, 그리고 설계에의 응용에 대해 다루고 있다.

As a core studio that integrates the Design and Engineering curriculum, the studio will focus on architecture’s relationship to the environment. Through the program of a House + Creative Studio, integrated, rather than additive approaches to sustainability will be explored. Using
This course deals with the basic scientific principles of heat, light, and sound, which affect environment performance. It will also help students understand the technology for controlling the building interior. The topics of the course include energy, heating & cooling, humidity, lighting and solar radiation, acoustics, etc.

4013.206* 건축재료역학Ⅰ  3-3-0

Mechanics of Materials in Architectural Engineering I

The course examines the roots and developments of the Western architectural tradition, starting with prehistoric and primitive developments in the Near East, and continuing through Egypt, Greece, Rome, Byzantium, and Western Europe through the Renaissance and Baroque period. We will look primarily at the historically significant architecture, and secondarily at domestic or vernacular buildings. We will try to understand the architectural characteristics of each period and how they were influenced by the cultural, religious and social impacts.

4012.312A* 건축환경계획  3-3-0

Architectural Environmental Planning

The studio will allow students to experience new holistic concepts and ways of creating and producing architectural spaces conceived in virtual digital space, produced in the real world by designing it in the consideration of the fabrication in virtual digital space, produced in the real world by designing it in the consideration of the fabrication process as well as the creation of architectural design.

Basic Studio 4 (Fabrication Design)

The objective of this course is to learn basic knowledge and principles of digital design technology being renewed day by day, and to understand comprehensively the causes and the possibilities of current transition in architectural delivery methods from Traditional Project Delivery (TPD) to Integrated Project Delivery (IPD) on the basis of exploration of the deployment of changing patterns in interacting and complementing between virtual construction and actual construction.

The studio will allow students to experience new holistic concepts and ways of creating and producing of architectural design technology being renewed day by day, and to understand comprehensively the causes and the possibilities of current transition in architectural delivery methods from Traditional Project Delivery (TPD) to Integrated Project Delivery (IPD) on the basis of exploration of the deployment of changing patterns in interacting and complementing between virtual construction and actual construction.

The study will allow students to experience new holistic concepts and ways of creating and producing of architectural design technology being renewed day by day, and to understand comprehensively the causes and the possibilities of current transition in architectural delivery methods from Traditional Project Delivery (TPD) to Integrated Project Delivery (IPD) on the basis of exploration of the deployment of changing patterns in interacting and complementing between virtual construction and actual construction.

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The study will allow students to experience new holistic concepts and ways of creating and producing of architectural design technology being renewed day by day, and to understand comprehensively the causes and the possibilities of current transition in architectural delivery methods from Traditional Project Delivery (TPD) to Integrated Project Delivery (IPD) on the basis of exploration of the deployment of changing patterns in interacting and complementing between virtual construction and actual construction.

This course helps students understand the changes in contemporary theories, function, structure, and esthetics of architecture from the Renaissance to the modern era, from the perspectives of philosophy, religion, politics and environment.

4013.206A* 건축재료역학Ⅰ  3-3-0

Mechanics of Materials in Architectural Engineering I

The study will allow students to experience new holistic concepts and ways of creating and producing of architectural design technology being renewed day by day, and to understand comprehensively the causes and the possibilities of current transition in architectural delivery methods from Traditional Project Delivery (TPD) to Integrated Project Delivery (IPD) on the basis of exploration of the deployment of changing patterns in interacting and complementing between virtual construction and actual construction.

This course helps students understand the changes in contemporary theories, function, structure, and esthetics of architecture from the Renaissance to the modern era, from the perspectives of philosophy, religion, politics and environment.

4013.206A* 건축재료역학Ⅰ  3-3-0

Mechanics of Materials in Architectural Engineering I

The study will allow students to experience new holistic concepts and ways of creating and producing of architectural design technology being renewed day by day, and to understand comprehensively the causes and the possibilities of current transition in architectural delivery methods from Traditional Project Delivery (TPD) to Integrated Project Delivery (IPD) on the basis of exploration of the deployment of changing patterns in interacting and complementing between virtual construction and actual construction.

This course helps students understand the changes in contemporary theories, function, structure, and esthetics of architecture from the Renaissance to the modern era, from the perspectives of philosophy, religion, politics and environment.

4012.204* 건축사 1  3-3-0

History of Architecture 1

This course helps students understand the changes in contemporary theories, function, structure, and esthetics of architecture from the Renaissance to the modern era, from the perspectives of philosophy, religion, politics and environment.

4014.301* 건축사 Ⅲ  3-3-0

History of Architecture 3

This course helps students understand the changes in contemporary theories, function, structure, and esthetics of architecture from the Renaissance to the modern era, from the perspectives of philosophy, religion, politics and environment.

4014.301* 건축사 Ⅲ  3-3-0

History of Architecture 3

This course helps students understand the changes in contemporary theories, function, structure, and esthetics of architecture from the Renaissance to the modern era, from the perspectives of philosophy, religion, politics and environment.

4014.301* 건축사 Ⅲ  3-3-0

History of Architecture 3

This course helps students understand the changes in contemporary theories, function, structure, and esthetics of architecture from the Renaissance to the modern era, from the perspectives of philosophy, religion, politics and environment.
As an introduction course to Building Construction Engineering & Management, this course deals with overall building production process in terms of engineering and management perspective. Construction engineering parts covers temporary work, earth work and foundation, reinforced concrete work, and finish work, while construction management includes understanding construction industry, management fundamentals, construction project organization and structure, contracts, scheduling techniques such as network scheduling, LOB, and TACT, project execution, and cost estimation.
406.211* 과학적 관리 3-3-0

Scientific Management

‘과학적 관리’는 산업공학의 기초 과목으로, 산업공학 전공
학과학습을 대상으로 산업공학이 주구하는 이론, 원칙, 방법,
기본적 방법론 등을 강의한다. 수강생들은 Frederic Winslow
taylor를 비롯한 산업공학 선구자들이 추구했던 사상을 학습한다.
이를 통해서 산업공학의 역사적 배경을 이해하며, 또 오늘날의 상
황에 맞게 재해석을 시도하여 과학적 관리의 전통한 의미를 재해
한다.

‘Scientific Management’ is a basic and essential course in Industrial Engineering. This course provides several lectures dealing with the philosophies, principles, scopes, and basic methodologies that IE has pursued. Students graduating from this course learn the ideas of IE pioneers such as Frederic Winslow Taylor. The students will discuss new interpretations of scientific management while taking into account today’s situations from many perspectives. They will develop a deep understanding of the historic background of IE, and also appreciate the true meaning of the scientific management.

406.212 산업컴퓨팅개론 3-3-0

Introduction to Computing for Industrial Engineering

본 과목은 산업공학계를 위한 컴퓨터 이론을 개괄적으로 소개한다. 특히, 컴퓨터 아키텍처, 운영체제, 통신, 인터넷, 알고리즘, 프로그래밍언어, 소프트웨어공학, 데이터베이스, 인공지능 및 컴퓨터 이론 등을 다룬다. 각 분야마다 산업공학과의 연계성을 강조할 것이며, 또한 최근 IT 업계의 동향 및 IT 산업
에서 산업공학도의 역할 등을 접한다.

This course introduces computing fundamentals to Industrial engineering students. It covers various topics such as computer architecture, operating systems, communications, internet, algorithms, programming languages and implementations, software engineering, data structures, database, file systems, artificial intelligence, and theory of computing. Relevance to industrial engineering will be emphasized. Finally, students will be exposed first hand to current issues and topics of IT industry that are relevant to industrial engineers.

406.304* 인간공학 3-3-0

Human Factors Engineering

Man-Machine-Computer-Environment의 total integrated system effectiveness를 향상시키기 위한 human capability, limiting function, performance output의 측정, 변수의 선정, 분석, 평가, 개선을 위한 설계과정을 심리학, 사회학, 생리학, 역학 등의 방법론을 동원하여 논 Magick. 위의 목표를 이루기 위한 방안으로 input 가능성과 심리적, information processing 가능성과 측정, output 의 분석 및 주변환경의 변화가 인간성능에 미치는 내용을 주요 강
의내용으로 구성한다.

This class will address the basic concepts of ergonomics and their applications to the design of the human-machine-computer environment, while considering the psychological, sociological, human physiological, biomechanical, and biological capabilities and limitations in design for human efficiency, safety and comfort. The course will study human limitations in the light of human engineering, human reliability, stress, and human physiology.

406.305A* 인간공학실험실 1-0-2

Human Factors Engineering Lab

Man-Machine-Computer-Environment의 total integrated system effectiveness를 향상시키기 위한 human capability, limiting function, performance output의 측정, 변수의 선정, 분석, 평가, 개선을 위한 설계과정을 심리학, 사회학, 생리학, 역학 등의 방법론을 동원하여 논 Magick. 위의 목표를 이루기 위한 방안으로 input 가능성과 심리적, information processing 가능성과 측정, output 의 분석 및 주변환경의 변화가 인간성능에 미치는 내용을 주요 강
의내용으로 구성한다.

This class will address the basic concepts of ergonomics and their applications to the design of the human-machine-computer environment, while considering the psychological, sociological, human physiological, biomechanical, and biological capabilities and limitations in design for human efficiency, safety and comfort. The course will study human limitations in the light of human engineering, human reliability, stress, and human physiology.

406.306 경영정보시스템 3-3-0

Principles of Management Information Systems

기업 경영의 추세가 고도화, 복잡화, 글로벌화 되면서, 정보시스템
의 활동은 경영 활동의 생산성향과 및 경쟁력 제고에 핵심 도구
로 자리 잡고 있다. 경영정보시스템(MIS)은 기업 경영 활동을 지
 원하는 컴퓨터 소프트웨어 시스템을 총칭하는 말이다. 본 과목의
주요 내용은 1) 수강생들이 여러 가지 MIS 시스템의 개념을 습득하고,
2) MIS 시스템에 사용되는 기본 기술을 이해하며, 3) 그리고
MIS 온라인 프로그래밍을 실제로 구현하는 능력을 기른다.

MIS (Management Information Systems) is a key for improving the productivity and enhancing the competitiveness of companies. With the further complication and globalization of enterprise management, the applications of information systems is becoming more important. MIS (Management Information Systems) is a general term for computer software systems supporting many managerial activities in companies. The objects of this course are for students to 1) learn the concepts of various MIS systems, 2) understand basic technologies used in MIS systems, and 3) develop skills and abilities required to implement MIS applications.

406.310* 생산관리 3-3-0

Production Control

생산시스템의 운영과 관련된 제반문제들의 해결을 위한 계통적 접근방법을 소개하고 이를 이용한 생산시스템의 효율적인 관리 및 통제기술을 소개하며, 클로브시스템에 요구되는 고객맞춤 설계와 물류관리, CALS/EC, ERP상계를 소개하고 있다. 주요 내용
으로는 생산시스템에 대한 기본 개념, 고객 맞춤, 생산계획, 물류관
리, 생산정보정제, 생산성 향상 공정자동화와 생산전략 등을 포함
하고 있다.

This course is an introduction to the analytic problem solving approaches for operating production systems. It includes basic concepts of production systems, customer satisfaction, production planning, logistics management, factory automation, and strategic production planning. Students will examine applications of efficient management and control techniques, customer oriented design, innovations of logistics management, CALS/EC, and ERP.
406.311 시뮬레이션 3-3-0  
Simulation

본 과목에서는 시스템의 시간경과에 따른 상대변화를 컴퓨터를 이용하여 추적하고 분석하는 시뮬레이션 기법의 제반 사항을 컴퓨터 프로그래밍 언어와 시스템 이론에 종속으로 공부하게 된다. 우선 시스템 및 모델의 기본 개념을 공부한 후 시뮬레이션의 이론적 배경이 되는 수치방법 기법, 직접도 검정 및 확률 적 사물레이션의 기법, 결과분석 기법, 분산분산 기법을 공부한다. 그리고 두 세 종류의 사물레이션 페키지를 공부하면서 산업공학과 관련한 깊은 제도 시스템이나 FMS (Flexible Manufacturing System) 등 자동화 시스템에 대한 응용연구를 시도한다. 시간이 허락할 경우 가상현실을 이용한 사물레이션도 취급될 것이다.

Simulation can be defined as the process of designing a computer model of a complex system in the real world and conducting experiments with this model for the purpose of understanding the behavior of the system and/or evaluating various strategies for the operation of the system. To fully utilize the functions that the simulation can give, this course teaches systems theory, systems modeling technique, method of random number generation, and variance reduction technique as well as programming languages. Students are required to have basic knowledge of statistical analysis and experimental design. If time permits, simulation using virtual reality will be covered.

406.314* 경제성공학 3-3-0  
Engineering Economy

이 과목의 내용은 크게 두 가지 부분으로 나누어진다. 전반부에는 공학도에게 응용될 수 있는 기본적인 재무관리의 기법을 다루며, 후반부에는 투자론의 기본적인 내용을 다루게 된다. 경제성은 고려한 공학적 설계에 대한 해안을 가질 수 있도록 기본적 재무관리의 기법들을 경제성 공학이라는 주제로 묶어 학습하게 된다. 또한 금융 산업 전반에 대한 기초적 지식을 익히고, 투자공학을 업무에 두 기법들을 학습하게 된다.

The contents of this course consist of two parts, which are the techniques of financial management for students in engineering, and basic techniques related to investment engineering.

406.315* 경영과학 1 3-3-0  
Operations Research 1

<경영과학 1>은 경영, 정보, 통신 및 공학 등 여러 가지 시스템 상에서 발생하는 문제들에 대한 계량적, 재정적 사고와 처리 능력의 제고를 위해 경영과학 기법을 학습하는 과목이다. 선형계획, 목표계획법, 선수형계획법, 동적계획법 등에 대해 학습한다.

The purpose for taking <Operations Research 1> is to improve the ability of thinking quantitatively and systematically, and the ability of dealing with problems in management, information, communication, and engineering systems. The contents of this course include linear programming, goal programming, integer programming, nonlinear programming, dynamic programming.

406.317* 경영과학 2 3-3-0  
Operations Research 2

<경영과학 2>는 경영, 정보, 통신 및 공학 등 여러 가지 시스템 상에서 발생하는 문제들에 대한 계량적, 재정적 사고와 처리 능력의 제고를 위해 경영과학 기법을 학습하는 과목이다. 이 과목은<경영과학 1>에 이어서 수수료제, 계임이론, 베타프랭크 이론, 사업평가 기법, CPM, Pert, queuing theory, equipment replace model, and simulation.

406.319 기술경영 3-3-0  
Management of Technology

시스템적 시각과 기술-경영간의 상호관계와 합목적성을 종합적으로 이해하고, 구체적으로 기술경영을 위해 수행되는 제반활동의 내용과 방법 및 절차를 파악하며, 다양한 활동에 사용될 수 있는 구체적인 기법과 방법론을 이해함으로써, 전공분야에 관계없이 기술 경영에 대한 폭넓은 이해를 바탕으로 미래의 관리자로서 필요한 기술적적 및 전략적 사고를 배양할 수 있는 과목이다.

The objective of this course is to understand the interactive relationship and functional linkage between technology and management from the systems perspective. By doing so, students are expected to obtain basic knowledge and strategic insight required for prospective CTOs and CEOs. To this end, the main tasks of the course are to identify the contents and scope of related activities in technology management, to learn relevant methods for system analysis and design, and to develop, as an individual or as a team, prototype technology management systems. Specifically, the course is composed of topics such as related concepts and terminology, framework of MOT, technology forecasting, project evaluation and selection, project control, cost management, project organization management, commercialization and management of technological assets.

406.320 품질경영 3-3-0  
Quality Management

품질경영은 제품의 품질을 만족할 수 있는 수준으로 유지하고, 또 향상하고자 하는 노력이라고 볼 수 있다. 이를 위하여 통계적 이론을 이용하여 관리적 작동과 제품성 검사에 대한 이론과 실제 사례를 연구하고, ISO, 6시그마, 소비자 지향적 품질경영 추세 등을 다룬다.

This course provides the application of statistics and probability theory to the design and analysis of procedures for the quality control of products, organizations, and services systems. Topics include control charts, sampling plans, process capability analysis, measurement capability, Taguchi, ISO, 6 sigma, and the trend of customer-oriented quality management.

406.321 최적화 모형 및 응용 3-3-0  
Optimization Models and their Application

학생들은 산업공학의 경영과학 또는 OR에서 최적화 모형들을
406.324A 공학도를 위한 창의적 사고 3-3-0

Creative Thinking for Engineers

본 과목은 공과대학 과정 학생들을 대상으로 신제품, 신서비스의 개발과 이론적, 공학적 문제의 해결을 위한 창의적 사고 기법들을 소개하고, 이를 응용하는 능력을 배양시키는 데 있다. Brainstorming, mind mapping, lateral thinking, TRIZ, attribute listing and morphological analysis, transformation theory, physical stress reduction principles, portability design principles 등의 기법을 다루게 된다. 수강생들은 다수의 설계 및 기획 문제를 해석하여 그 결과 프로세스를 수행함으로써, 습득한 지식을 실제 문제 해결에 응용하는 능력을 배양하게 된다.

This course aims to teach undergraduate students in Industrial Engineering and other engineering disciplines with basic concepts and methods for ergonomics design of products, work tasks and systems. Major topics include applied anthropometry, occupational biomechanics techniques, digital human models, comfort and discomfort and population accommodation level optimization.

406.327 산업경영수리기법 3-3-0

Mathematical Methods for Industrial and Management Engineering

산업공학과 경영과학에 필요한 수리적 이론과 과학계산 기법을 적용하는 것을 목표로 하며 계산적 분석, 계산적 계산기법, 기계학적 문제 해결, Matlab, R 프로그래밍을 사용하여 응용하는 능력의 배양에 초점을 맞춘다.

This course introduces basic theories and scientific computing skills on mathematical methods for industrial engineers. In terms of methodology, the course covers such subjects as matrix computations, differential equations, Fourier transform, and MCMC. This course also emphasizes
mathematical and computational practices for practical problems in industrial engineering and management using MATLAB or R programming.

406.401 管理学概論 3-3-0
Linear Programming

선형계획은 경영과학의 여러 가지 모형 중에서 많이 사용되고 있다. 선형계획법은 모형이 복잡하고 해법이 잘 개발되어 있어 다루기 비교적 용이하다. 개발된 해법 중 널리 이용되고 있는 방법인 Simplex method이다. 이 강의에서는 Simplex method, Simplex method의 기하학적인 의미, 그리고 network 형태의 문제에는 Simplex method가 어떤 식으로 변형되어 적용되는지를 중심으로 강의가 진행된다.

LP is much used among several models of operation research, for the reason that it is clear and there are many algorithms for it. Among them, the Simplex method is much used. In this lecture, we will learn the Simplex method, the geometric meaning of the Simplex method, and its application to network problems.

406.417 컴퓨팅시스템설계실습 1-0-2
Computer Integrated Manufacturing Laboratory


In connection with the companion course ‘CIM System’, students will have hand-on experience in CAD (Computer Aided Design), CAM (Computer Aided Manufacturing), PLC (Programmable Logic Controller), Computer Communication, Robotics, Numerical Control, Vision System, Voice Recognition, etc.

406.416 컴퓨터통합생산시스템 3-3-0
Computer Integrated Manufacturing

CIM (Computer Integrated Manufacturing) System is emerged as the most competitive manufacturing system due to the integration of automated equipment, information systems, and data communication technology. CIM systems are built with new management philosophies that seek to improve organizational, technical and personnel efficiency. In the class, students will learn diverse subjects like CAD (Computer Aided Design), CAM (Computer Aided Manufacturing), PLC (Programmable Logic Controller), Computer Communication, Robotics, Numerical Control, Vision System, Voice Recognition, etc. A term project designing a real CIM system for the manufacture of a selected product will be included as part of the course requirement.

M1505.001600 정보모델링기법과 응용 3-3-0
Information Modeling Methods and Their Applications


With the rapid growth of Internet and mobile communication, it is increasingly becoming important to better satisfy users’ information needs by improving the effectiveness and efficiency of information retrieval and recommender systems, and also by discovering knowledge from massive amount of web and mobile data. In this course, students will (1) learn theoretical foundations and methods for information retrieval (IR), automated recommendation (AR), and text mining (TM) (2) understand technical issues related to design and implementation of IR and AR systems as well as TM applications by using web and mobile data, and (3) develop necessary problem solving skills for analysis of web and mobile data.

406.426B* 데이터관리와 분석 3-3-0
Data Management and Analysis

본 과목에서는 데이터베이스 (DB)와 이를 기반으로 한 데이터 시스템의 설계 및 구현, 그리고 데이터베이스 마이닝과 관련된 제한 이론 및 기법을 배운다. 체계적으로, 본 과목에서는 DB의 개념, 관계형 데이터베이스와 SQL, DB 개념 모델과 설계, DB 프로그래밍, DB 설계 이론과 정규화, 파일 구조와 인덱싱, 트랜잭션 처리 및 동기성 제어, 의사결정 나무, 규칙 마이닝, 인란관계 문제에 대한 기본적인 이론과 기법을 배운다.
The course aims to introduce theoretical foundations and methods for data system design and implementation as well as database mining. Specific topics include database (DB) concepts, relational data models and SQL, conceptual modeling and DB design, DB programming, DB design theory and analysis, and sequential pattern mining. Advanced topics such as data warehousing and business intelligence are also covered if time permits. Projects that require students to implement and analyze a DB system using MySQL DBMS are included.

406.427A Human Interface Design

This course reviews basic theories and practical skills on design interface. Design for six sigma, etc., from the integrated point of view. The state-of-the-art tools and methods from the domains of marketing, design, manufacturing, and systems engineering will be introduced and investigated with a view to integrating and facilitating the interdisciplinary processes involved in creating a product. Especially, the recent trend in the market strongly requires not only the reduction of defectives but also the systematic planning and management of quality from the early stages of product design. In this context, this course covers the issues of product and process design, design of experiments and Taguchi methods, and design for six sigma, etc., from the integrated point of views of product development and quality design.

406.433 Introduction to Financial Engineering

This course introduces basic data mining problems (clustering, classification, and association analysis) and the respective algorithms and techniques. In addition, students will learn about actual business problems, goals, and the environment in which data mining is applied. Cases in various areas will be studied. Students are strongly encouraged to identify and solve real world business problems using data mining techniques so that they improve their relevance to human interface design.
This course introduces the basic principles of financial engineering including the theories of options, futures, derivatives, and risk management. The preliminaries required for this course are the basic quantitative skills in the junior level of mathematics and statistics. This course takes an engineering approach to the principles and values of various financial products so that students can learn the elementary of financial engineering from a general engineering perspective.

406.434 Understanding Industrial Engineering

Understanding Industrial Engineering

This course teaches Industrial Engineering majors such core subjects as mathematical programming, investment engineering, manufacturing, automation, technology management, data mining, human factors, ergonomics, management science, information management, product and service engineering, and financial risk engineering. Students will learn various applications fields including manufacturing, transportation, communication, logistics, hospital management, service management as well as finance, marketing, human relations.

406.436 Manufacturing Process Design for Industrial Engineers

Manufacturing Process Design for Industrial Engineers

이 강좌에서는 여러 종류의 공정 계약과 주조, 성형, 기계가공, 조립 등으로 구분되는 가공 공정 각각에 대해 상세히 소개하고, 공 산품의 제조과정에 대한 이해를 높이기 위하여 향후 산업공학도의 전 문가로서의 성공능력을 배양시키는 데 도움을 주고자 한다. 시간이 허용하면 최적 중간 공정예에 등장한 반도체 제조 공정에 대해서도 자체히 공부하고자 한다. 공정에 대한 이해도가 높은 산 업공학도는 산업현장에서 더 많은 기여를 할 수 있을 것이다.

To help students improve their abilities as an expert in industrial engineering, this course will cover manufacturing processes such as casting, forming, machining, assembly and so on. Time allowing, students will study the semiconductor manufacturing process in detail. Industrial engineers must fully understand such processes in order to contribute to the real world.

M1505.001000 Design Engineering

Design Engineering

본 과목에서는 제품 설계설계에 대한 기본 개념과 설계된 제품을 효율적으로 생산하기 위한 후속 공정들에 관한 내용들을 다룬다. 과목 초반 및 중반부에서 학생들은 개발 과정 중 제품 설계 설계 과정에서 중요한 요소인 CAD 모델링 및 Additive Manufacturing을 사용한 Prototyping 기술을 다양한 실습을 통해 학습하고 이와 병행하여 제품 설계설계의 중요한 요소인 재료선정, 공차 및 편차 관리, 그리고 관련 제조 공정들에 관한 기본 이론을 학습한다. 과목 후반부에는 제품의 적절적인 품질과 관련된 조립공정에 대한 중요 사항들 (조립 순서 분석, 조립공정 설계, 작업장 설계)을 강의와 관련 그룹 프로젝트를 통하여 학습한다.

In this course, basic concepts for detailed product design and the subsequent process for efficient product production are introduced. During the first 2/3 of the course, students will learn CAD modeling and Additive Manufacturing skills, which are important tools used for the detailed product design stage. In parallel, students will learn the basic theory behind material selection, tolerance and variation management, and related manufacturing process. During the last 1/3 of the course, students will learn about important issues about the assembly process (assembly sequence analysis, assembly process design, workstation design), which are related to direct quality of the final product. Students will work through a group project for assembly system design.
409.101A 원자핵공학의 미래 1-1-0

Prospect of Nuclear Engineering

이 교과에서 학생들은 원자핵 공학 분야의 다양한 학술적, 공학적, 기술적, 사회적 주제를 도출하여 토의한다. 핵공학 분야에 대한 이해, 전공 분야의 학습 준비, 전공 미래에 대한 고찰, 원자핵 공학도로서의 사회적 역할, 인간의 복지 결정 등을 통해 핵공학이 갖는 사회적 수용성 과찰 등을 통하여 인간공학의 관계 등을 토의하고, 이를 통하여 공학도로서 성장에 필요한 문제의식과 능력을 강화시킨다. 자기 주도적이고 창의적인 핵공학도로서 성장 기반을 제공하는 것이 이 교과의 목적이다.

In this course, a variety of scientific, engineering, technical, and social topics in the field of Nuclear Engineering will be selected by students and those topics are discussed for understanding of the field of Nuclear Engineering, preparation of this major field study, prospect of Nuclear Engineering, social role of nuclear engineer, life goal setting. Along with discussion of social acceptance of Nuclear Engineering, the relationship between humans and technology will be reconsidered and the capability of problem consciousness will be improved.

409.201* 핵공학개론 1 3-3-0

Introduction to Nuclear Engineering 1

핵공학은 원자핵을 근원으로 발생하는 핵에너지의 이용 기술과 핵에너지가 환경에 미치는 영향을 다루는 학문이다. 핵공학개론은 원자핵공학과에 입학한 신입생과 저학년을 대상으로 핵공학에 관련된 전공기초 분야의 분류, 각 분야별 기술개발 현황과 전망, 고학년 핵공학 과목과정과의 연관성 등 원자핵공학과에서 전수되는 각종 핵공학 기술 분야를 개략적으로 소개하는 과목이다. 핵공학개론은 학부학생이 핵공학과의 주요 과목들을 앞으로 성공적으로 수강하고 이해를 증진하는 데 필요한 물리학의 기초, 핵물리학 및 핵공학의 기본 원리에 대한 이해 기반을 제공한다.

This course provides introductory review of nuclear engineering, focusing on its sub-fields, technological developments, and the prospect of each field.

409.202* 핵공학개론 2 3-3-0

Introduction to Nuclear Engineering 2

이 교과는 학부학생들이 핵공학과의 주요 과목들을 앞으로 성공적으로 수강하고 이해를 증진하는 데 필요한 물리학의 기초 개념과 기본적인 수학적 기법을 소개한다. 핵공학개론은 학부학생들이 핵공학과의 주요 과목들을 앞으로 성공적으로 수강하고 이해를 증진하는 데 필요한 물리학의 기초 개념과 기본적인 수학적 기법을 소개한다.

This follows the <Introduction to Nuclear Engineering 1>. It focuses on fundamentals and applications of fusion, plasma and radiation.

409.209A* 플라즈마전자역학 1 3-3-0

Introduction to Plasma Electrodynamics 1

핵공학개론에 이어서 핵공학의 전반에 대하여 강의하며, 특히 핵융합, 플라즈마, 방사선 등의 분야의 기초와 응용에 관하여 중심적으로 강의한다.

This course focuses on the electromagnetic theories as a basis for nuclear fusion and quantum engineering. Specific topics will include Coulomb's Law, Gauss's Law, Ampere's Law, Faraday's Law, and Maxwell equation.

409.210A 플라즈마전자역학 2 3-3-0

Introduction to Plasma Electrodynamics 2

<플라즈마전자역학 1>에 이어서 핵공학의 전반에 대하여 강의하며, 특히 핵융합, 플라즈마, 방사선 등의 분야의 기초와 응용에 관하여 중심적으로 강의한다.

This course provides the basics of modern physics for nuclear engineering: the theories of relativity, black-body radiation, wave-particle duality, the Rutherford experiment, the Schrödinger equation, and the wave mechanics. Fundamentals of the atom and nuclear models, radioactive decay and nuclear reactions are also covered.

409.214* 공학물리 기초 3-3-0

Fundamentals of Engineering Physics

이 강의는 학부학생들이 핵공학과의 주요 과목들을 앞으로 성공적으로 수강하고 이해를 증진하는 데 필요한 물리학의 기초 개념과 기본적인 수학적 기법을 소개한다. 핵공학개론은 학부학생들이 핵공학과의 주요 과목들을 앞으로 성공적으로 수강하고 이해를 증진하는 데 필요한 물리학의 기초 개념과 기본적인 수학적 기법을 소개한다.

This course will provide the fundamental physical concept and basic mathematical tools which are necessary for undergraduate students of the department of nuclear engineering to take core courses offered in this department successfully and to enhance their understanding of the subjects. Topics include most essential parts of classical mechanics, electricity and magnetism, thermodynamics and statistical physics, and fluid mechanics. Background at the level of college freshmen physics and mathematics is required.

409.223* 핵공학기초실험 3-1-4

Basic Experiments for Nuclear Engineering

이 교과는 학부학생들이 원자핵공학과의 주요 과목들을 앞으로 성공적으로 수강하고 이해를 증진하는 데 필요한 물리학의 기초 개념과 기본적인 수학적 기법을 소개한다.

This course will provide the fundamental physical concept and basic mathematical tools which are necessary for undergraduate students of the department of nuclear engineering to take core courses offered in this department successfully and to enhance their understanding of the subjects. Topics include most essential parts of classical mechanics, electricity and magnetism, thermodynamics and statistical physics, and fluid mechanics. Background at the level of college freshmen physics and mathematics is required.

학점구조는 "학점수-주당 강의시간-주당 실습시간"을 표시함. 한 학기는 15주로 구성됨. (The first number means "credits"; the second number means "lecture hours per week"; and the final number means "laboratory hours per week. 15 week make one semester.")
This course provides with the first survey to the nuclear engineer who will perform successful experiments. Typical subjects are: 1) Introduction of passive electric components such as resistors, capacitors, and inductors, 2) Introduction of active components such as diode and operational amp, 3) Analysis of electrical circuit of Norton and Thevenin circuits, 4) Understanding of noise filter and frequency response, 5) Introduction of various balanced circuits such as Wheatstone Bridges and unbalanced circuits. Based on these knowledge, circuits for temperature, vacuum and flow measurements will be designed, fabricated, and used for data acquisition and analyses.

409.224B Radiation Detection Experiments

*409.225 Applied Nuclear Physics*

409.302B Nuclear Reactor Dynamics and Control

409.307A* 플라즈마기초 3-3-0

*409.308A 핵융합기초 3-3-0*

409.308A 핵융합기초 3-3-0

*409.307A 플라즈마기초 3-3-0*

409.307A* 플라즈마기초 3-3-0

*409.308A 핵융합기초 3-3-0*

409.308A 핵융합기초 3-3-0

본문의 주요 내용은 다음과 같다.

1. **Introduction to Plasma Physics**
   - 고온 및 저온 플라즈마의 기본적인 특성과 물리적 현상에 대해 설명한다. 플라즈마의 생성, 성장, 그리고 소멸 과정을 이해할 수 있도록 설명한다.
   - 플라즈마의 특성, 특성, 특성, 특성, 특성을 이해할 수 있도록 설명한다.

2. **Nuclear Reactor Theory**
   - 원자로에서 중성자와 물질의 반응 과정을 이해하기 위한 핵공학과의 기본 개념과 방식을 설명한다.
   - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

3. **Nuclear Reactor Dynamics and Control**
   - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
   - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

4. **Radiation Detection Experiments**
   - 중성자와 하전입자에 대한 핵반응 기구와 사용 방법에 대해 설명한다.
   - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

5. **Applied Nuclear Physics**
   - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
   - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

6. **Nuclear Reactor Dynamics and Control**
   - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
   - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

7. **Radiation Detection Experiments**
   - 중성자와 하전입자에 대한 핵반응 기구와 사용 방법에 대해 설명한다.
   - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

8. **Applied Nuclear Physics**
   - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
   - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

9. **Nuclear Reactor Dynamics and Control**
   - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
   - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

10. **Radiation Detection Experiments**
    - 중성자와 하전입자에 대한 핵반응 기구와 사용 방법에 대해 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

11. **Applied Nuclear Physics**
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

12. **Nuclear Reactor Dynamics and Control**
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

13. **Radiation Detection Experiments**
    - 중성자와 하전입자에 대한 핵반응 기구와 사용 방법에 대해 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

14. **Applied Nuclear Physics**
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

15. **Nuclear Reactor Dynamics and Control**
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

16. **Radiation Detection Experiments**
    - 중성자와 하전입자에 대한 핵반응 기구와 사용 방법에 대해 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

17. **Applied Nuclear Physics**
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

18. **Nuclear Reactor Dynamics and Control**
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

19. **Radiation Detection Experiments**
    - 중성자와 하전입자에 대한 핵반응 기구와 사용 방법에 대해 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

20. **Applied Nuclear Physics**
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

21. **Nuclear Reactor Dynamics and Control**
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

22. **Radiation Detection Experiments**
    - 중성자와 하전입자에 대한 핵반응 기구와 사용 방법에 대해 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

23. **Applied Nuclear Physics**
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

24. **Nuclear Reactor Dynamics and Control**
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

25. **Radiation Detection Experiments**
    - 중성자와 하전입자에 대한 핵반응 기구와 사용 방법에 대해 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

26. **Applied Nuclear Physics**
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

27. **Nuclear Reactor Dynamics and Control**
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

28. **Radiation Detection Experiments**
    - 중성자와 하전입자에 대한 핵반응 기구와 사용 방법에 대해 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

29. **Applied Nuclear Physics**
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.

30. **Nuclear Reactor Dynamics and Control**
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
    - 원자로 동작에 관련된 핵공학의 기본 개념과 방식을 설명한다.
Fusion Plasma Experiments

This course studies on the experimental knowledge of vacuum technology, electronic devices, generation of low-temperature industrial plasma and diagnostics of plasma properties. Design of plasma reactor is carried on with simulation tools and the expected plasma properties are compared to the diagnostic tools.

Physical Chemistry for Energy Engineering

消費者ondays the experimental knowledge of vacuum technology, electronic devices, generation of low-temperature industrial plasma and diagnostics of plasma properties. Design of plasma reactor is carried on with simulation tools and the expected plasma properties are compared to the diagnostic tools.

Systems Engineering Hydrodynamics

System Energy Transport Engineering

This introductory course provides with students with a unified approach to system thermo and fluids engineering. Typical subjects include thermofluids overview of concepts and basic definitions, fluid statics of force balance, conservation of mass leading to continuity equation, inviscid flow according to Bernoulli’s equation, conservation of momentum pursuant to Newton’s law of motion, viscous flow in laminar and turbulent regimes, conservation of energy dealing with first and second laws of thermodynamics, dimensional analysis in terms of prototype vs. model, pure substance model with thermodynamic relations, bulk flow model for

Introduction to Numerical Analysis

Numerical analysis is covered in the companion course named numerical analysis and design. The course probes into basic principles and technological topics related to the engineering feasibility of fusion reactors as power sources. Specific topics will include mechanisms of energy generation and losses, plasma confinement and transport. It also covers thermonuclear fusion concept, magnetic and inertial confinement devices, and low-temperature fusion.

This course studies basic concepts about the analysis of physical/chemical nature of substances. It focuses on the law of thermodynamics, energetics of chemical reaction, the equation of state, and the equilibrium condition of chemical reaction. The course also deals with statistical thermodynamics, the kinetic theory of gases, and electrochemistry.

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open thermodynamic systems, and finally power systems thermodynamic cycles and processes. This course is geared to training for the students to solve the engineering problems of practical interest with hands-on experience and expertise.

409.328* 원자핵공학세미나 1 1-1-0
Seminars in Nuclear Engineering 1

This course provides seminars regarding nuclear systems, as well as industrial trends of nuclear engineering.

409.329* 방사선공학 3-3-0
Radiation Engineering

This course pursues the education for understanding the ultimate goal of radiation protection and learning the theoretical basis on shielding design, ventilation & clearance system design, and radioactive waste treatment system design. Topics include the nature of radiation, radiation biology, radiation design, and radioactive waste treatment system design. Ultimate goal of radiation protection and learning theoretical basis on shielding design, ventilation & clearance system design, radioactive waste treatment system design, and topics include the nature of radiation, radiation biology, radiation design, and radioactive waste treatment system design.

409.330 시스템공학열역학 3-3-0
Systems Engineering Thermodynamics

This course provides seminars regarding nuclear systems, as well as industrial trends of nuclear engineering.

409.331 원자핵재료 기초 3-3-0
Introduction to Nuclear Materials

This course provides seminars regarding nuclear systems, as well as industrial trends of nuclear engineering.

409.402F 원자력시스템실습 3-1-4
Nuclear Systems Workshop

This course is aimed at minimizing the working hours by way of the process optimization through real-time exchange of the design and process information. A great deal of information of the plant construction can readily be analyzed and modeled adopting the

clear plant; impulse turbine, impulse-reaction turbine, efficiency, turbine governing & control, radial flow turbine; practical cycle, centrifugal & axial flow compressors, combustion, jet propulsion, small stage efficiency; engine types, engine output efficiency, performance characteristics, real & air standard cycles, fuels; vapor compression cycle, refrigerating load, gas refrigeration cycles, refrigerants, insulating materials; law of conduction, law of cooling, electrical analogy, numerical methods, heat exchangers, and gas radiation.
일반적으로 모형은 3차원 컴퓨터 입력을 사용하는 자동화된 디자인 시스템을 구성합니다. 이는 설계 프로세스의 주요 요소로, 크기에 상관없이 모든 경계를 활용할 수 있게 해줍니다. 

Project Safety Engineering

위파로 설계에 따라 계획 및 원자로 사고의 경우, 초기 모형을 마무리합니다. Lumped Parameter Model, 규제요건 및 해석용도, PSA 등을 강화하여, 사고대책 방법론에 대한 설명입니다. 

This course deals with basic concepts of DBA (design-basis accident), accident analysis, and regulatory requirements. It also covers several safety parameters of nuclear power plants.

Designing Nuclear Equipment and Materials

원전 부품 소재의 건전성 및 신뢰성은 안전, 환경 및 경제성으로 결정됩니다. 본 강의의 주요 목표는 원자로 설계 및 핵융합의 양식 설계 방법을 활용하여 부품 소재 설계 요건을 조사합니다. 

This course reviews economic and licensing problems concerning nuclear power plants.

Industrial Plasma Engineering

아카, 글로우, 코로나 방전을 통해서 얻을 수 있는 저온 플라즈마의 산업적 응용을 위한 기술 개발에 초점을 맞추고, 화학 및 공학을 학습합니다. 각종 저온 플라즈마의 특성과 발생방법, 플라즈마 화학반응, 전자 증류와 공학 방법론과 관련된 다양한 플라즈마 양극 및 응용은 학습에 포함됩니다. 

This course studies various plasma generation methods and their characteristics. It focuses on plasma chemistry, various plasma heat sources and reactors depending on power supply and processing methods. The course also deals with a survey of leading-edge material processing and environmental treat-
ment methods. The system design for processing plasma reactor is also introduced in this course.

409.421B 原子力発電所 3-3-0

Nuclear Power Plant System

This course covers the engineering principles of nuclear reactors and the fluid flow and heat transfer analyses for the design of nuclear power plants. The followings are included: reactor designs, thermal analysis of nuclear fuel, reactor coolant flow and heat transfer, power conversion cycles, and nuclear safety.

409.431 原子力法規と社会 3-3-0

Nuclear Energy Laws and Society

This course covers the law systems related with building, operating, and protecting various nuclear facilities and also the general nuclear related public issues such as social acceptance of nuclear energy.

409.433 放射線の産業及び医学的利用 3-3-0

Radiation Technology for Industrial and Medical Application

This course presents Radiation Isotopes, Radiation Production, Radiation Physics and Technologies in Industrial and Medical Applications of Radiation.

409.434 折射率、応力、光・熱の研究 3-3-0

Probabilistic Safety Analysis

Probabilistic safety assessment (PSA) is a systematic and effective methodology to evaluate risks of a complex engineered system such as a nuclear power plant. This course provides basic concepts of reliability engineering and probability theory for the fault and event tree analyses. The level 1 PSA is practiced for a simplified nuclear power plant model by using a fault and event tree analysis tool.

M1509.000100 原子力発電所実験 3-1-4

Nuclear Thermal-Hydraulics Experiments

This course covers measurement principles of experimental instruments, single phase fluid mechanics, and two-phase flow by participating in the experiments. This course covers measurement principles of experimental instruments (temperature, pressure, flow rate, fluid velocity), experiments on the single phase fluid mechanics, lectures and experiments on the two-phase flow and the two-phase heat transfer.

M1509.000300 放射線の医学的利用 2-2-0

Basic Radiological Science for Medicine

This course presents Radiation Isotopes, Radiation Production, Radiation Physics and Technologies in Industrial and Medical Applications of Radiation.

M1509.000400 原子力発電所実験 3-2-2

Nuclear Reactor Physics Lab.

This course covers measurement principles of experimental instruments, single phase fluid mechanics, and two-phase flow by participating in the experiments. This course covers measurement principles of experimental instruments (temperature, pressure, flow rate, fluid velocity), experiments on the single phase fluid mechanics, lectures and experiments on the two-phase flow and the two-phase heat transfer.
Through this course, students can learn theories of nuclear reactor physics experiments and participate real-time experiments at AGN-201K of Kyung Hee University by Internet Reactor Laboratory equipments. The reactor physics experiments at AGN-201K are composed of reactor operation, reactivity measurements, critical approach, rod worth measurement, flux mapping, and temperature and reflector effects. The neutron diffusion equation and the point kinetics equations are reviewed and various nuclear reactor behaviors are simulated using Matlab and a Monte Carlo neutron transport analysis code. Analyses of experimental data will enhance the understanding of the nuclear reactor behavior.

This course offers undergraduate students the opportunity to pursue an independent research on a thesis topic. Students can select the thesis topic from introduction to various researches in nuclear engineering and professor interviews. Each student conducts research on the selected topic in a laboratory of his or her thesis supervisor. After a literature survey for the selected topic, students present reviews on related references. Students learn thesis writing and present their thesis proposals.
414.110* 조선해양공학의 이해 1-1-0

Understanding Ship & Ocean Engineering

한국 조선산업의 전반을 소개하고, 선박 및 해양 구조물의 개요와 종류를 학습한다. 또한, 선박설계와 선형설계 및 선박력학적, 선박운동학적 기초개념에 대해 학습하고, 일반적 및 선체구조에 대해서도 살펴본다. 마지막으로 잠수함을 포함한 다양한 함정과 해저선박 등의 개요와 종류에 대해서도 간략히 살펴본다.

이 강좌는 한국조선해양공학과 학생들에게 선박 및 해양 구조물에 대한 기본적인 이해를 제공하고, 실제 작업 환경에서 필요한 기초학문 지식을 제공한다. 또한, 선박 및 해양 구조물 설계 과정에 적용하여 안전성과 안정성을 평가하는 것을 목표로 한다.

414.241* 유체역학기초 3-3-0

Fundamentals of Fluid Mechanics

유체역학에 대한 기본적인 개념을 임의하고, 이상 유체 및 비압축성 유체의 기본 방정식을 유도한다. 또한, 이 기초방정식들의 활용법과 선박해양기계설계 및 관련되어 어떻게 응용이 되는지를 연구하는 방법을 통해 학습한다.

이 강좌는 구성원들이 유체역학의 기본 개념과 적용법을 이해하고, 실제 작업 환경에서 필요한 기초학문 지식을 제공한다. 또한, 선박 및 해양 구조물 설계 과정에 적용하여 안전성과 안정성을 평가하는 것을 목표로 한다.

414.251* 구조정역학 3-3-0

Structural Statics

이 강좌는 유의미한 개념을 임의하고, 이상 유체 및 비압축성 유체의 기본 방정식을 유도한다. 또한, 이 기초방정식들의 활용법과 선박해양기계설계 및 관련되어 어떻게 응용이 되는지를 연구하는 방법을 통해 학습한다.

이 강좌는 구조물의 안정성과 안전성을 평가할 수 있도록 유체정역학적 특성과 관련한 다양한 계산 방법을 다루고 있다. 또한, 구조물의 안정성과 안전성을 평가하기 위해서는 선박 및 해양 구조물 설계 과정에 적용하여 안전성과 안정성을 평가하는 것을 목표로 한다.

414.271* 해양열전기기초 3-3-0

Fundamentals of Thermodynamics and Electricity in Ocean Engineering

해양공학 전반적인 분야의 이해와 전기전자공학 기초와 열역학의 이론이 필요함에 따라 이론과 연계한 내용을 배우게 된다. 또한 전기전자공학은 해양공학의ritical한 역할을 한다. 이 강좌는 전기전자공학의 기본이 되는 내용을 배우게 된다.

이 강좌는 해양공학 전반적인 분야의 이해와 전기전자공학 기초와 열역학의 이론이 필요함에 따라 이론과 연계한 내용을 배우게 된다. 또한, 전기전자공학은 해양공학의 critical한 역할을 한다. 이 강좌는 전기전자공학의 기본이 되는 내용을 배우게 된다.
Primer of Offshore Plant Engineering

As an engineering to provide facilities and equipments for human activities in the ocean, from the practical point of view, the necessary basic terminology will be described to deal with various offshore plant engineering problems by defining the offshore oil and gas related problems, and assessing why such a problem occurs.

Creative Experiments in Naval Architecture

Basic digital signal processing theory used in processing the experimental data inevitably occurring in naval architecture & ocean engineering discipline, specifically in underwater acoustics, is studied. We apply the fundamental theory into real application practices. Additionally, use of MATLAB is required to tackle problems assigned, thus the students will naturally acquire the ability to use MATLAB.

Creative Experiments in Naval Architecture and Ocean Engineering

Dealing with the fundamental skills of experiments in engineering (1)experiments in hydrodynamics, solid mechanics or wave related fundamental areas are performed followed by (2)creative experimental design projects that may arise in or wave related fundamental areas are performed followed by

In order to learn the necessary basic terminology will be described to deal with various offshore plant engineering problems by defining the offshore oil and gas related problems, and assessing why such a problem occurs.

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Dealing with the fundamental skills of experiments in engineering (1)experiments in hydrodynamics, solid mechanics or wave related fundamental areas are performed followed by (2)creative experimental design projects that may arise in or wave related fundamental areas are performed followed by
columns. In the second part, this course covers the basic theories of vibration-oscillatory motion, harmonically excited vibration, transient vibration, system with two or more degrees and properties of vibrating systems.

414.361 선택해양설계이론 3-3-0
Design Theories of Ship and Offshore Plant

본 강의에서는 선박 및 해양플랜트의 기본 설계에 대한 기초이론을 학습한다. 즉, 선박설계, 일반배치설계, 구조설계, 의장설계등으로 나누어 각 단계에 따른적인 기초이론을 학습하고, 전산프로 그래프를 이용한 설계를 수행한다. 학생들이 주어진 선박 또는 해양플랜트의 설계설계, 일반배치설계, 구조설계, 의장설계 등을 Term Project로서 수행한다.

This course presents basic theories for basic design of ship and offshore plant. As theoretical education, the theories related to hull form design, general arrangement design, structural design, outfit design, and so on are presented, and the practice related to the theories using computer programs are given as the practical education. Students perform a term project which consists of hull form design, general arrangement design, structural design, outfit design of the given ship or offshore plant.

414.371 해양장비 3-3-0
Offshore Equipment

최근 해양플랜트에 대한 관심이 고조되면서, 서브시 공학에 대한 이해가 중요해지고 있다. 그래서 본 교과에서는 서브시 공학에 필수적인 다양한 해양장비에 대한 기초적인 이해를 근간으로 해양플랜트 공학의 전체 그림을 조망하도록 관련 법률과 관련 시스템의 이해를 돕도록, 주요 해양레저계의 특성을 습득하도록 한다.

Due to the big concerns on offshore plant engineering recently, it becomes important to understand what the subsea engineering is. Thus, based on the fundamental concept on the various offshore equipments used for oil and gas operations, main characteristics of offshore project should be learned through over viewing whole systems of offshore plant engineering to meet the related regulations.

414.372 해양플랜트 공정이론 3-3-0
Process Systems Engineering for Offshore Plant

해양플랜트 탑사이드(Topside)에서 설치되는 일련의 공정(Process)은 오일 및 가스 생산에서 제품의 수율 및 품질 나아가 안전성을 결정짓는 핵심적인 요소이다. 본 교과목에서는 Well에서부터 수출된 낮은 온도의 흡수/가스가 탑사이드 공정을 통하여 어떻게 고무가가지를 지닌 오일 및 천연가스로 재탄생하는지 조망하고, 그 핵심이 되는 공정 설계 기법에 대해서 배운다. 계성적 개념설계방법론을 통하여 요구사항을 만족시키는 공정을 설계하는 기본적인 지식을 갖추고, 공정 모사 프로그램을 통하여 이를 구체화하는 기법을 습득한다.

A series of processes that are installed on the topside of an offshore plant are extremely crucial, because they decide not only the yield and quality of oil and gas as a product but also the safety of production processes. This course will illustrate how the low-quality mixed fluid from a well can be converted to the high value-added oil and gas as a product, and how to design core processes that satisfy required conditions. Students will learn about basic knowledge of a hierarchical methodology for conceptual design under specifications. Process simulation softwares will be used to specifically design industrial processes.

414.419 조선해양경영론 2-2-0
Shipyard Economics and Management

경제, 경영 관련 기초 이론과 실무 강의를 통하여 조선해양산업 경영에 있어 중요한 요소들을 개략적으로 이해하도록 하고 경영 마인드를 가지고도록 한다.

Economic and management issues at shipyards are introduced. Economic issues include global market analysis, shipping industry trend, technology, financial problems and etc. Management issues include role and responsibility of stock holders, boards, and workers, labor union. HSE, R&D, strategy and planning, structures are also studied with basic principles and actual cases.

414.445 선택해양추진장치이론 3-3-0
Seakeeping, Manoeuvring and Control of ships and Offshore Platform

선박 및 해양구조물의 종류에 따른 운동유도 및 조향 관련 공학문제 소개, 선박 및 해양구조물의 운동방정식, 선박 및 해양구조물의 파랑 종 운동유도 이론 및 해석, 선박조종이론, 부유체 운동장치 기법 습득, 조종모델 작성기법 및 선박설계기법 습득.

- Introduction to the motion responses and maneuvering problems of ships and offshore platforms
- Equation of motion for ships and offshore structures
- Theory and analysis for motion responses in waves
- Ship maneuvering theory
- Motion control of marine vehicles
- Maneuvering models and design of linear controllers

414.446 선박해양추진장치 3-3-0
Marine Propulsors

선박해양 추진장치의 종류와 기능을 소개하고 항상, 효율, 강도, 전동 및 소음, 캐비테이션, 제작 및 제작 성능특성을 파악한다. 선박용 프로펠러의 주요 저수를 결정하는 기본 개념을 정립하고 설계에 활용하는 기법과 방법을 소개한다. 실험적/이론적/수치적 성능해석결과를 분석하면서 추진장치에 관련된 물리적 현상을 설명한다. 덕트 프로펠러, 롤드전용 추진장치, 부유설치 프로펠러, 가변폭프로펠러 등 특수 추진 장치의 성능향상과 설계 개념을 이해할 수 있는 공학적인 접근 방법을 익힌다.

This course introduces the various types and some functions of marine propulsors. It deals mainly with their overall performance characteristics which are closely related to geometry, efficiency, structural integrity, vibration, noise, cavitation, and manufacture. Basic concepts for determining major geometry of screw propellers and their applications to the basic design are described. Especially the preliminary design procedure for screw propellers is illustrated. From experimental, theoretical and numerical data for performance analysis, we investigate the associated physical phenomena with the engineering estimates. Such investigation would be extended to other special-purposed propulsors: duct propellers, waterjet propulsors, surface piercing propellers, and controllable pitch propellers.
414.451 선박소음진동론 3-3-0
Ship Noise and Vibration

기초음향이론의 학습을 통하여 음과의 투과, 반사 등 기본 개념을 이해하고, 이를 기반으로 음향공간에서의 음향특성 및 소음원, 그리고 음향파와 자체 음향공학의 특성들을 학습한다. 또한 본 강좌는 선박의 음향을 이해하기 위한 음향공학기본의 특성들을 이해하고 그 적용사례도 살펴본다. 일반적으로 선박에 대한 소음진동이기 기법과 소음진동이기 원리들을 알아보고, 선박의 각종 소음진동현상들에 대한 이해를 통해 선박소음저하 기법들을 학습한다.

This course covers the fundamentals of acoustics-wave equation and wave reflection/transmission, along with the basic issues of noise control engineering such as noise in room, noise reduction of wall and enclosures, duct acoustics and mufflers, acoustic resonators, and sound absorbing materials. The course also deals with the fundamental problems of ship vibration and noise including the principles of noise and vibration control.

414.452 선박해양구조해석 3-3-0
Structural Analysis of Ship and Offshore Structure

이 강좌는 선박 및 해양구조물의 구조해석에 필요한 기초 이론을 학습하고, 실제 설계에 사용되는 구조 해석 방법들을 다룬다. 먼저, 선박 및 해양구조물의 구조 특성을 이해하고, 재료역학을 바탕으로 한 층재 강도 평가법, 피로강도 평가법, 소성 강도 평가법 등의 기초 구조 강도 평가법을 학습한다. 이를 바탕으로 종강도 평가, 황강도 평가, 전선강도 평가, 최종 강도 평가, 단순 피로 강도 평가 등 다양한 선박 구조 강도 평가법을 공부한다.

This course aims at studying basic theories required for structural analysis of ship and offshore structures and various structural analysis methods used for the design. It begins with the understanding of structural features of ship and offshore structures and deals with basic theories for buckling, fatigue strength, plastic strength and so on. Based on these studies, this course covers various structural analyses methods such as longitudinal strength analysis, transverse strength analysis, global strength analysis, ultimate strength analysis, simplified fatigue analysis and so on.

414.461 선박해양생산공학 3-3-0
Production Science of Ships and Offshore Plants

조선의 건조과정을 제품, 공정, 설계, 공정의 6개 요소로 분석하고, 공정과 생산 계획과 관리, 안전, 품질 공학의 기초를 배운다. 생산시스템과 시뮬레이션 기반 생산 방법을 배우고, 해양플랜트의 특징적 공학과 최선의 정보기술을 통해 생산성 및 품질 향상 방법을 고찰한다. Term Project를 수행하여 세부전문분야에 섬세한 내용을 조사한다.

Shipyard production processes are studied with 6-factor analysis; product, process, scheduling, human, space, and resource. Planning and management, health and safety, and quality, factory layout and space allocation, and others are taught. Modeling and simulation of ship production system are studied and special issues on offshore plants are reviewed. Students prepare and present their own project on creative production system in detail.

414.462 선박해양창의설계 3-3-0
Innovative Ship and Offshore Plant Design

본 강좌에서는 선박 및 해양플랜트의 기본설계방법을 학습한다. 선수 요구조건, 주요수수결정, 구조의 크기와 폭 측면, 안전 설계, 일반 배치 설계, 설계 구조 설계 등을 다루고 이를 실제 선박 설계에 적용한 사례를 소개하며 이해도를 구체화한다. 또한, 창의적인 선박 설계의 도구 중 하나인 최적화 기법을 학습하고 이의 적용 예를 소개한다. 결국, 학생들은 실제 선박 및 해양플랜트의 기본 설계를 Term Project로서 수행한다. 본 강좌를 통해 선박 및 해양플랜트의 창의적인 설계방법 기초와 향후 출현할 창의적인 선박 및 해양플랜트 설계 방법 기초를 확립하도록 한다.

This course present a method for basic design of ship and offshore plant. Owner's requirements, determination of principal dimensions, determination of main engine and propeller, hull form design, general arrangement design, structural design, and so on are presented, and application examples to actual ships are also presented to maximize understanding of students. In addition, optimization technique which is one of creative methods for design is presented. Finally, students perform a term project of basic design of actual ship or offshore plant. Through this course, the students will learn a basis for creative design method of ship and offshore plant and a basis for design method of creative ship and offshore plant in the future.

414.463 조선해양 PLM개론 3-3-0
Introduction to Shipbuilding PLM and Applications

PLM(Product Lifecycle Management)의 개념과 발전과정을 소개하고 제품 구조와 제품의 라이프사이클 프로세스를 정의하고 CAD, CAM, CAE, PDM의 기본을 습득한다. 모델링과 시뮬레이션의 기본 개념을 배우고 생산과 운용에 대한 시뮬레이션 사례를 학습한다. 선박과 해양플랜트의 특성에 따른 적용 방법을 학습하고 간단한 사례를 수행한다.

By reviewing the historical development of CAD/CAM and PLM (Product Lifecycle Management), concept and engineering applications of shipbuilding PLM are introduced. Ship work breakdown structure and production processes are defined. Basic principles on CAD, CAM, CAE, and PDM are studied with modeling and simulation technologies. Students carry out applications to ship and offshore plants including production and operations.

414.471 해양플랜트 안전성 설계 3-3-0
Offshore Plant Safety Design

해양플랜트의 사고가 반복되면서 안전에 대한 관심이 고조되고 있는 상황에 맞추어, 해양플랜트 설계시에 고려되는 안전성 설계 방법론에 대해 설명한다.

Recently, Offshore Plant accidents raises big concerns on safety of large complex systems such as Oil and gas facilities. Thus, various safe design methods should be included properly when designing offshore plant, in addition to the consideration of main performance of the systems.
FEED for Offshore Plant

FEED (Front-End Engineering Design) is the most important engineering product to estimate the possibility of success for a whole project. The project itself could be suspended absolutely by the results of FEED. This course focuses on understanding of the range and major products of FEED, and how to expand the results of conceptual design to the basic engineering package of FEED. This course includes information about the design factors of the equipments and instruments that required essentially for the offshore plant, such as LNG-FPSO (Floating Production Storage and Offloading unit). Students will learn to interpret, understand, and write actual industrial diagrams and data sheets including P&ID (Piping and Instrument Diagram).

Introduction to Naval Ship Engineering

In this course, the general characteristics of naval ships and their weapon systems are covered. And also, naval ship-system structures & integrations, ROC (Required Operational Capability) for the combat and survivability performances of the surface ships and submarines are studied. In addition, naval ship’s various intrinsic special performances compared with the merchant ships’ such as underwater radiated noise (URN), ship noise and vibration, acoustic targetstrength (TS), electromagnetic wave reduction (radar cross section (RCS) reduction), infrared radiation (IR) signature, electromagnetic signature, underwater explosion (UNDEX), protective ship structure, electromagnetic interface (EMI) and electromagnetic compatibility (EMC) are also deeply studied. Finally, diverse analysis programs used at the naval ship design procedures are introduced.
430.201A* 
**Digital Logic Design and Lab**

This course studies electromagnetic waves. It covers trans- 
derivations and radiating systems, along with 
mission lines, waveguides and cavity resonators, along with 
methodology of finite state machines is explained with vari-
covers basic storage elements, flipflops, PLA, FPGA, syn-
plementation of arithmetic units such as adders and multi-
design and optimization of combinational logic circuits.

The objective of this course is to provide students the 
concrete concepts of logic design by learning its basic con-
cepts and doing their corresponding experiments including a 
small project. This class covers the basic concepts of logic 
concepts and doing their corresponding experiments including a 
concrete concepts of logic design by learning its basic con-

430.202B* 
**Introduction to Electromagnetism with Practice**

This course offers computer engineering majors with op-
portunities for learning essential practical skills for 
programming. These skills include the Unix operating system 
and their tools, advanced Java programming techniques, and 
C programming techniques. This course also covers socket-
based network programming, graphical user interface pro-
gramming, and window manager and event processing.

430.211A* 
**Programming Methodology**

This course studies electromagnetic waves. It covers trans-
derivations and radiating systems, along with 
mission lines, waveguides and cavity resonators, along with 
methodology of finite state machines is explained with vari-
covers basic storage elements, flipflops, PLA, FPGA, syn-
plementation of arithmetic units such as adders and multi-
design and optimization of combinational logic circuits.

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concrete concepts of logic design by learning its basic con-
cepts and doing their corresponding experiments including a 
small project. This class covers the basic concepts of logic con-
cepts and doing their corresponding experiments including a 
concrete concepts of logic design by learning its basic con-

430.213A* 
**Introduction to Circuit Theory and Laboratory**

This course offers computer engineering majors with op-
portunities for learning essential practical skills for 
programming. These skills include the Unix operating system 
and their tools, advanced Java programming techniques, and 
C programming techniques. This course also covers socket-
based network programming, graphical user interface pro-
gramming, and window manager and event processing.

430.207B* 
**Introduction to Electronic Circuits and Laboratory**

This course studies electromagnetic waves. It covers trans-
derivations and radiating systems, along with 
mission lines, waveguides and cavity resonators, along with 
methodology of finite state machines is explained with vari-
covers basic storage elements, flipflops, PLA, FPGA, syn-
plementation of arithmetic units such as adders and multi-
design and optimization of combinational logic circuits.

The objective of this course is to provide students the 
concrete concepts of logic design by learning its basic con-
cepts and doing their corresponding experiments including a 
small project. This class covers the basic concepts of logic con-
cepts and doing their corresponding experiments including a 
concrete concepts of logic design by learning its basic con-


이 강좌는 전기전자 공학을 전공으로 학습하기 시작한 학생들에 게 전기전자 공학의 기초이론과 전반적인 원리 및 응용과 보고서 작성법, 구조 방법론 등의 자세 및 연구윤리와의 고취하기 위
하여 개설되었다. 강좌의 내용은 전기전자 공학의 역사, 기초 원
리, 응용 전기전자 공학의 전망 등을 다루면서 전공 분야에 대
한 인식을 높인다. 이외로, 공학자로서 갖추어야 할 능력인 보고
서 작성법, 구조 방법론, 연구 윤리에 대해서도 강의한다. 이 강
좌를 통하여 전공 분야에 대한 폭넓은 지식을 갖도록 하며 공학
연구자로서의 기본 능력을 향상시키려 하여 본 강좌는 전공자들
을 위한 기초 단계로 설계되었다.

이 강좌는 전기전자 공학을 전공으로 학습하기 시작한 학생들에
게 전기전자 공학의 기초이론과 전반적인 원리 및 응용과 보고서
작성법, 구조 방법론 등의 자세 및 연구윤리와의 고취하기 위
하여 개설되었다. 강좌의 내용은 전기전자 공학의 역사, 기초 원
리, 응용 전기전자 공학의 전망 등을 다루면서 전공 분야에 대
한 인식을 높인다. 이외로, 공학자로서 갖추어야 할 능력인 보고
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연구자로서의 기본 능력을 향상시키려 하여 본 강좌는 전공자들
을 위한 기초 단계로 설계되었다.
전기전자 공학 연구자로서의 능력을 향상하도록 하려 한다.

This lecture provides advanced various research fields and applications of electrical and electronic engineering for the third year students. It provides advanced research results and applications: electrical energy conversion and power system, optic engineering and displays, semiconductors, robotics and control systems, computer and VLSI, communications, bio-electronics. The lecture makes the students understand the major field fully and strengthen their abilities required in research.

430.309A 전기에너지변환 3-3-0

**Electromechanical Energy Conversion**

이 과목에서는 전기적으로 저장된 에너지를 기계에너지로 변환 하거나 또는 기계에너지를 전기에너지로 변환하는 이론과 응용에 대해서 강의한다. 우선, 기본적인 전차기 이론을 강의한다. 예를 들면, 발전기, 스토크스 정리, 전하보존의 법칙, 테스텔 방정식 등을 소개한다. 전기기에 에너지 변환은 중요하며, 전차기의 칼기 유도형과 정전형에서 유도형을 보고, 일반화된 인터발수 및 접점형, 변형 등에 대하여 강의한다. 기계 시스템에 대한 각기의 설계를 위한 간단한 열역학과 스토크스, 테스텔, 편광 등의 기계초기와, 운동정지, 기계회로에 대하여 소개한다. 저장된 전기에너지와 기계에너지를 변환하는 에너지 변환이론과 운동 방정식을 학습한다. 그 이론은 전기적 기계에 적용하여 임의 간극형 기계와 유도형 기계를 해석한다. 운동형 기계들도 적용하여 해석한다. 마지막으로 전기형 기기가 아닌 일반적인 기 기에 적용하여 안정성, 정상상태의 응답 등을 이용하여 해석한다.

The objectives of this course is to present electro-mechanical energy conversion theory and its applications. By using the theory, the electrical energy converts to the mechanical energy and vice versa. Firstly, fundamental electromechanical theories are introduced briefly, for examples, divergence theorem, Stokes theorem, charge conservation theory and Maxwell equations. Quasistatic electromagnetic theories, generalized inductances, capacitances and the energy are derived electromechanical conversion theory. Springs, dampers masses, simple mechanics, motion equations and mechanical circuits are briefly introduced before the analysis of electromagnetic systems. The electromagnetic energy conversion theory from stored electrical energy to mechanical energy and vice versa is derived. Synchronous and induction electric machines as uniform gap rotating machines and salient electric machines are analyzed using the theory. Finally, stability and steady-state response are analyzed in general electric machines including linear machines.

430.310 제어공학개론 3-3-0

**Fundamentals of Control Engineering**

역학적인 시스템 동적 반응, 피드백의 기본적인 특성, Root-Locus법, 주파수 반응법, 안정도, 제어시스템 설계법 등을 배운다.

This course focuses on dynamic systems and responses, along with the basic properties of feedback, Root-locus method, and frequency response method.

430.312 반도체소자 3-3-0

**Semiconductor Devices**

반도체에서의 전하 수송 현상에 대한 기본적인 사항들을 다룬다. P-N결합과 다양한 반도체 기기들의 기본 동작 원리를 학습한다.

This course reviews fundamental charge transport phenomenon in semiconductors. It covers P-N junctions and basic operating principles of various semiconductor devices.

430.314 확률변수 및 확률과정의 기초 3-3-0

**Introduction to Random Variables Processes**

확률변수 및 확률과정의 기초에서는 불규칙 변수를 포함하는 선형 시스템의 해석에 필요한 기본적인 불규칙 신호의 특성과 랜덤 프로세스의 특성을 배운다. 확률이론과 기초한 랜덤실험을 정의하고, 랜덤실험을 다룰 수 있는 1차 모멘트(moment)에 대하여 배운다. 랜덤 프로세스를 정의하고 평균이 수학 및 프레스외인 Gaussian random process와 Poisson random process의 특성을 알아본다. 선형 stationary process에 널리 쓰이는 power spectrum에 대하여 배우고 이를 이용한 선형 불규칙 시스템의 해석 방법을 소개한다. 간단한 선형 불규칙 시스템을 예들을 들어 확률 변수 및 확률 과정의 기초가 선정 시스템 해석에 어떻게 이용되는지 알아본다.

This course introduces random variables and processes to analyze a linear system with random inputs. Specific topics will include probability space, the first and second moments, the Gaussian and Poisson processes.

430.315A 디지털 시스템 설계 및 실험 4-3-2

**Digital Systems Design and Experiments**

디지털 시스템 설계에 필요한 기본적인 이론을 습득하고 하드웨어 기술언어를 사용하여 구현하는 방법을 심화한다. 디지털 시스템을 Register Transfer Level과 Architecture Level에서 설계 하는 방법을 배운다. 효율적인 설계를 위해 control unit 및 data path을 분리 설계하는 기법을 다루며, VHDL과 같은 하드웨어 기술 언어로 사용할 방법들의 효율성에 대해 논한다. 프로세서, 버스 및 메모리 구조 및 설계 방법을 배우고, 고속 덧셈기, 곱셈기 등의 다양한 연산기구, 신호처리 및 하드웨어 구현 기법을 익힌다. 프로그래밍 속도 및 프로젝트를 통하여 설계실습을 한다.

This course is intended to introduce the basic principles and provide design experiences for digital systems. This course covers the register transfer level design as well as the architecture level design of digital systems. It also explains the control unit and data path design of digital systems and practices modern digital systems implementation with a hardware description language, VHDL. Topics also include processor, bus, and memory architecture and design issues as well as fastalgorithms and hardware implementation issues for arithmetic operations such as addition and multiplication. Programming assignments and term project(s) are given for design practices.

430.317 통신의 기초 3-3-0

**Introduction to Communications**

이 과정은 학부생들에게 기초적인 이론과 일반적인 개념을 제공할 것이다. 이 과정은 신호와 잠재 손실의 표현, 변조 방법 (AM, PM, FM)과 이 방법들의 특성, 신호 처리 언어에 대한 물리학적인 의미, 디지털 신호의 코딩과 신호로의 변환(PAM, PWM, PPM, PCM), 디지털 변조방법(ASK, PSK, FSK) 등 통신에 대한 대부분의 기초적인 주제를 포함한다. 이러한 것은 통신에 대한 일반적인 이해를 도모한다.

This course deals with fundamental subjects on communication systems. Specific topics will include mathematical rep-

- 391 -
resonances of signal and noise, analog modulation schemes (AM, PM, FM), and physical meaning of sampling theorem.

430.318  
**Introduction to Operation System**

This course introduces electric power and energy systems. It is intended to promote abilities of the undergraduate students to understand, analyze and design various electric power and energy systems. It includes the fundamentals of electric power, 3 phase electric system, power generations by wind and solar energy systems, the transmission, the distribution, and the grid connection technologies. It will provide understanding of electric power and the power conversions in energy systems.

430.329  
**Introduction to Algorithms**

This course covers hardware and software design techniques and analysis related with computer architecture and organization, which is based on basic concepts of digital system design (prerequisite course).

Computer organization mostly deals with the micro-architecture hardware implementation and the ISA (Instruction Set Architecture) based on the knowledge of data structure, which is abstraction level for data flow and control. The practical exercise of system-level implementation would be much helpful to the expert use of HDL.

430.326  
**Application of Quantum Mechanics**

This course, fundamentals and applications of quantum mechanics, and statistical mechanics are covered. Main topics include wave-particle duality, Schrodinger equation, tunneling, hydrogen atom, energy levels of molecules, perturbation theory, photon-atom interaction, laser, fundamental concept of statistical mechanics and energy band theory, which will provide students with fundamental background for better understanding of semiconductor and photonics.

430.402A  
**Seminar in Electrical and Electronics Engineering**

Weekly discussions of special topics of current interest in electrical engineering.

430.405  
**Design Project for Electrical Devices & Systems**

This course provides hands-on experience on operating systems through a well-designed set of programming projects based on Nachos from the University of California at Berkeley. It also offers students with hands-on experience on operating systems which lay foundation for modern operating systems. In this course, fundamentals and applications of quantum mechanics, and statistical mechanics are covered. Main topics include wave-particle duality, Schrodinger equation, tunneling, hydrogen atom, energy levels of molecules, perturbation theory, photon-atom interaction, laser, fundamental concept of statistical mechanics and energy band theory, which will provide students with fundamental background for better understanding of semiconductors and photonics.

430.328  
**Introduction to Electric Power and Energy Systems**

This course introduces electric power and energy systems. It is intended to promote abilities of the undergraduate students to understand, analyze and design various electric power and energy systems. It includes the fundamentals of electric power, 3 phase electric system, power generations by wind and solar energy systems, the transmission, the distribution, and the grid connection technologies. It will provide understanding of electric power and the power conversions in energy systems.
This course provides projects regarding the electrical/ electronic fields. It covers all relevant procedures ranging from design and production of projects to technical reporting.

430.414 컴퓨터러의 기초 3-3-0
Introduction to Compilers

프로그래밍언어의 컴퓨터러에 대한 기초를 가르친다. 컴퓨터 하드웨어의 디자인을 바탕으로 컴퓨터러 설계의 이론을 들고 있다. 컴퓨터러의 설계를 바탕으로 컴퓨터러 설계의 기초를 이해할 수 있다.

This course introduces the compilers of programming language, focusing on their theoretical approaches and designs.

430.417 임베디드시스템설계 3-3-0
Embedded System Design

임베디드 시스템에 대한 기초와 각종 주변 장치들에 대한 하드웨어 구성, 이를 사용하여 특정 융용 프로그램을 동작시키는 시스템 설계를 할 수 있다. 본 과목에서는 특정 융용에 최적화된 마이크로프로세서기반 하드웨어 구성 및 동작시키는 소프트웨어 프로그래밍을 위한 이론과 기법들을 대상한다. 마이크로 프로세서의 기기구조 및 내부 구조에 대하여 소개하고, 메모리 시스템 및 각종 입력출력 장치의 구조 및 동작원리에 대해 설명한다. 구성된 하드웨어를 효과적으로 동작시키기 위한 인터럽트 처리 기법, 디바이스 드라이버, run-time library, firmware, 및 실시간 운영 체제 (Real-time operation system: RTOS) 프로그래밍 기법을 설명한다. 프로젝트에서는 마이크로프로세서를 사용하여 실제 임베디드 시스템을 구현해 볼 수 있게, 소개된 이론을 실습하고 시스템 구현에 필요한 노하우를 습득한다.

Embedded systems are application-specific systems with the support of a microprocessor with various peripheral devices. This class covers basic knowledge and techniques for microprocessor-based hardware design and embedded software programming. Microprocessor architecture and organization are introduced and structures and operating principles of memory systems and various peripheral devices are explained. It also covers embedded software programming to effectively operate the microprocessor-based hardware systems and explains interrupt service routines, device drivers, run-time libraries, firmware, and real-time operating systems (RTOS). A design project is offered to experience the design know-hows and practice the introduced knowledge and techniques.

430.421A 나노소자의 기초 3-3-0
Fundamentals of Nanoelectronic Devices

본 과목에서는 나노 소자와 나노 기술에 대한 기초를 제공한다. 전자기, 물리학 및 나노소자에 대한 이해를 위한 기본적인 개념을 제공한다. 또한, 나노소자의 특성과 기능에 대해 설명한다. 그 외에도 나노소자의 디자인과 동작원리에 대한 기초를 제공한다.

Fundamentals of Nanoelectronic Devices

This course introduces the emerging nano-electronic devices that can overcome the approaching end of Moore’s scaling and their applications in bio-engineering. Also, it provides a basic understanding of quantum device physics as well as the interactions between semiconducorsurfaces and ion electrolytes, which can explain various device operations in nano-scale, quantum dimensions. The first half of the course covers the basics of nano-electronic device physics including the concepts of energy bands, effective mass, and holes. Then the introduction to various emerging nano-device structures will be given. The second half focuses on the practices with basic physics simulations, which can enhance the students’understanding of the quantum device physics and provide opportunities for students to design their own nano-electronic or bio-electronic devices and analyze their characteristics.

430.423 광전자공학 3-3-0
Introduction to Photonics

이 과목에서는 광학과 레이저의 기본 원리를 강의하고, 이의 응용을 설명하며, 특히 광통신을 위한 소자와 시스템 및 그 원리를 설명한다. 주로는 광학의 기본 원리, 가우스 빔 광학, 전자의 전자공학 및 레이저의 원리, 반도체 광소자, 전자공학, 비선형광학 및 광통신의 원리 등이다.

This course reviews the fundamentals of optics and laser principles. It focuses on optical communication devices and systems. Specific topics will include Gaussian beam optics, electromagnetic optics, and semiconductor optical devices.

430.424B 디지털집적회로 3-3-0
Digital Integrated Circuits

이 과목은 Deep-Submicron CMOS 다이버스에 대해 집중하고 디지털 집적회로의 기본 원리와 설계에 대해서 다루며 프로젝트, 실험, 그리고 메모리 설계와 최적화에 대해서도 다룬다. 마지막으로 인터페이스, 전력소모, 그리고 다양한 주제를 다룬다.

We briefly overview the characteristics of deep sub-micron CMOS devices and explore analysis techniques and design methods of digital integrated circuits. Design and optimization techniques of logic gates, arithmetic circuits, and memories are covered. Interconnection, power, clock distribution, and various other topics are discussed.

430.425 생체계측 3-3-0
Bio Instrumentation

본 과목에서는 생체 계측의 이론 및 실현 기법 등을 다룬다. 교과 내용은 전자기술, 종합기기, 신호처리법에 포함되는 생체계측 기기의 설계와 이를 이용한 다양한 생체 신호의 측정이 주를 이룬다. 측정하는 생체 신호의 예로는 근육에서 발생하는 근전도 (EMG), 심장에서 발생하는 심전도(EGC), 뇌에서 발생하는 뇌파(EEG) 등이 있으며 또한 눈 및 신경계에서 발생하는 신경 신호를 이용한 나노웨어시스템, 미세신호를 측정하기 위한 나노바이오센서 등 최근 주제도 다룬다. 일부실습도 병행할 계획이다.

This course covers the basics in bio-instrumentation techniques for clinical and research measurements. Course topics include design of medical instruments composed of biosensors, amplifiers, and signal processing methods. Measurement of various bio-signals, such as those from muscles (electromyogram; EMG), heart (electrocardiogram; ECG), and eyes (electrooculogram; EOG) will be dealt with. Also discussed will be more recent topics such as neural signal acquisi-
430,431A 유기전자소자 3-3-0

**Electronic Devices**

This course will provide students an opportunity to learn fundamental operational principles. This course will cover energy transfer to help students understand electronic devices, exciton formation and recombination, and organic semiconductor and metal, charge transport in organic optical properties of organic semiconductor, interface between Devices, and Sensors. Electronic structure, and electrical and thermal and electrical conductivity of solid matters, semiconductors, conductors, anisotropic features of electrical and electronic materials and physical characteristics of electrical and electronic materials and physical concept of electronic materials and electronic devices. It also covers organic electrical and electronic materials, organic device operational principles and applications to flat panel displays and plastic electronics. Especially, organic semiconductor is next generation semiconductor in the fabrication of OLED, OTFT, Organic Photovoltaic Cells, Memory Devices, Sensor etc. The devices are widely used for OLED, OTFT, Organic Photovoltaic Cells, Memory Devices, Sensor etc.

This course covers bonding and crystallinity in solids, thermal and electrical conductivity of solid matters, semiconductor properties, and insulation property of dielectric materials to help senior students systematically understand characteristics of electronic materials and physical properties of electronic devices.

430,447 전력시장이론 3-3-0

**Power System Economics**

This course introduces the concepts of fundamental theory and devices for electro-physics. Based on the solid-state physics, quantum mechanics, thermal physics and statistical physics, the following subjects are discussed: the characteristics of electronic materials, the interaction between light and material, the structures and characteristics of semiconductors, conductors, anisotropic materials, nonlinear optic materials, electronic devices and optical devices using the materials, and polymer devices. The current status and applications of the electronic devices, optical devices and display devices are also explained.

430,442 전력전자공학 3-3-0

**Power Electronics**

This course introduces power conversion and control using power semiconductors. It covers basic structures and operation principles of power devices and their usage. The course also addresses DC-DC, AC-DC, and DC-AC conversions.
system security and the effects that networks have on electricity prices. Finally, in the last course, we consider the issue of investments in power generation and transmission equipment in a competitive environment.

**430.448** 로봇공학개론 3-3-0

*Introduction to Robotics*

This course introduces the foundation of intelligent systems, such as probabilistic modeling and inference, statistical machine learning, computer vision, and robotics, to undergraduate students. Topics include Bayesian networks, hidden Markov models, Kalman filters, and robotics. Students will also learn about how these methods are applied to practical applications such as computer vision and robotics.

**430.457** 지능시스템개론 3-3-0

*Introduction to Intelligent Systems*

본 교과목에서는 현재 여러 분야에서 적용되고 있는 지능시스템 및 관련연구의 핵심이 되는 확률적 모델링 및 추론, 통계학적 기술학습, 컴퓨터비전, 로봇학의 기초를 소개한다. Bayesian networks, hidden Markov models, Kalman filters, Markov decision processes 등의 확률적 모델링 및 추론방식이 소개되고 선형 regression 및 classification 그리고 nonparametric 학습 방법의 기초를 학습한다. 그리고 확률적 모델, 추론방식, 학습방식들이 어떻게 컴퓨터비전 그리고 로봇학 등의 응용분야에 적용되느냐에 대해 알아본다.

본 강의에서는 Digital Signal Processing의 기본인 이론과 디지털 필터로 구성된 디지털 시스템 설계를 다룬다. 전반부에는 디지털 신호와 시스템의 기초, z-변환, 샘플링율, 신호학습비, 그리고 뒤반응에 대해서 다루며, 후반부에서는 디지털 신호처리에 관한 여러 회로 (필터, 펄트 강화, 주파수 영역에서의 신호처리, 무리에 변환한 고속계산 방식 (Fast Fourier Transform), 간단한 스펙트럼 분석에 관한 학습을 한다. 디지털 필터와 시스템에 관한 내용을 이해하고 하드웨어 구성에 적용한 디지털 필터와 주파수 영역에서의 FFT를 이용한 전반부 시스템을 설계해 본다.

Theories and practice of digital signal processing are covered in this lecture, including the design of digital filters and digital systems. In the first part, concept of signals and systems, z-transforms, and sampling are reviewed and studied in detail. In the second part, we study the circuits for the digital systems, digital filters, fast Fourier transform (FFT), signal processing in the frequency domain and basic spectrum analysis methods. In studying the digital filters and systems, we design efficient hardware architectures for the digital filters, and also design the convolution systems in the frequency domain using various algorithms.

**430.461** 디지털신호처리의 기초 3-3-0

*Introduction to Digital Signal Processing*

본 강의는 로봇공학개론과 로봇학이 개괄적으로 강의된다. 로봇의 최초 병환, 기구학과 역기구학, 동역학, 프레임 계획이 강의된다. 또한 세부적 그리고 완벽히의 기법이 강의된다. 특히 센서, 비선형계와 함께 병환, 프로그래밍 기법에 대하여 강의한다. 이들과 로봇의 최신 연구동향과 Video를 이용하여 소개한다.

Basic theory of Robotics will be overviewed. The lecture will include the coordinate system, Kinematics and Inverse kinematics, Dynamics, and Trajectory planning methods for a Robot. Also, various sensing and control techniques will be introduced. Especially, the lecture will focus on the Linear, Nonlinear, and Force Control methods for Robots. Several Programming Methods will be explained with video lectures for Intelligent Robotics Research trend.

**430.456** 최신제어기술 3-3-0

*Advanced Control Techniques*

Advanced Control Techniques will be overviewed. The lecture will include the linear and nonlinear systems, feedback control, and state-space methods for control systems. Also, various sensing and control techniques will be introduced. Especially, the lecture will focus on the Linear, Nonlinear, and Force Control methods for Robots. Several Programming Methods will be explained with video lectures for Intelligent Robotics Research trend.

**M2608.001200** 데이터통신망의 기초 3-3-0

*Introduction to Data Communication Networks*

이 과목은 데이터 통신 네트워크와 OSI (Open System Interconnection) 모델의 기본 개념에 대해서 공부한다. OSI 모델은 physical 단계부터 application 단계까지의 구조를 설명하고 있으며, 각각 단계의 기능과 개념과 함께 여러 실험
This course mainly deals with the fundamental concepts of digital communication systems and OSI (open systems interconnection) models.

**Electromagnetic Engineering**

This course studies basic theories of digital modulations used in digital communication systems. It covers spread spectrum communication systems, multiple access systems, and the information theory.

**Communications Systems**

This course deals with the advanced communication network and the information theory.

**Bioelectrical and Computer Engineering**

Main focus of this lecture is introduction of basic biophysical and chemical principles of cells to understand information and energy transportation systems in living organisms.
M2608.001300 기계학습 기초 및 전기정보 응용 3-3-0

Machine Learning Fundamentals and Applications in Electrical and Computer Engineering

This is an undergraduate-level machine learning course for students in electrical and computer engineering and related fields. This class focuses on the fundamental concepts of machine learning as a core of artificial intelligence and their applications in various domains including electrical and computer engineering. This course will cover various algorithms of machine learning and their mathematical models. Students will be assigned programming projects and homework assignments through which they can have hands-on experiences with various state-of-the-art machine learning algorithms to solve practical problems. Covered topics include concepts of machine learning design, supervised learning and unsupervised learning, linear regression, logistic regression, random forests, clustering algorithms, support vector machines, artificial neural networks, hidden Markov models, collaborative filtering, graphical models, and deep learning fundamentals. Prerequisites: data structures or algorithms, linear algebra for electrical systems, probability and random variables, and programming methodology.
Discrete Mathematics

This course covers the mathematical topics closely related to computer science. Topics include: logic, sets, functions, relations, number theory, combinatorics, proof techniques, mathematical induction, recursion, recurrence relations, graph theory, and number theory. The course emphasizes the context and applications of these concepts within computer science.

M1522.000600* Computer Programming

This course introduces basic knowledge for digital circuits, which are basic components not only for computers but also for most of electronic devices. In this course, students study digital circuits and then design methods with resistive circuits and the frequency-domain analysis techniques for circuits with capacitors and inductors. It covers the general circuit analysis methods with resistive circuits and the frequency-domain analysis techniques for circuits with capacitors and inductors. This course introduces basic knowledge for digital circuits, which are basic components not only for computers but also for most of electronic devices. In this course, students study basic elements of digital circuits and then design methodologies for combinational circuits and sequential circuits. Students confirm their understanding through a series of experiments implementing example digital circuits.

M1522.000800* System Programming

This course gives a practical introduction to system software. A computer system consists of hardware, system software, and application software. The task of the system software is to efficiently and safely execute programs written in a machine language on given hardware while other programs are also running. This class covers aspects of an operating systems’ system software, I/O and file management, network and web programming.

M1522.000900* Data Structures

This course covers the mathematical topics closely related to computer science. Topics include: logic, sets, functions, relations, number theory, combinatorics, proof techniques, mathematical induction, recursion, recurrence relations, graph theory, and number theory. The course emphasizes the context and applications of these concepts within computer science.

M1522.000700* Logic Design

This course gives a practical introduction to system software. A computer system consists of hardware, system software, and application software. The task of the system software is to efficiently and safely execute programs written in a machine language on given hardware while other programs are also running. This class covers aspects of an operating systems’ system software, I/O and file management, network and web programming.

M1522.001000* Electrical and Electronic Circuits

This course gives a practical introduction to system software. A computer system consists of hardware, system software, and application software. The task of the system software is to efficiently and safely execute programs written in a machine language on given hardware while other programs are also running. This class covers aspects of an operating systems’ system software, I/O and file management, network and web programming.

M1522.001100* Computer Engineering Seminar
This course deals with the fundamental concepts of current database systems. Specific topics will include data modeling, database system architecture, and query processing. The course also covers advanced issues such as concurrency controls and disaster recovery methods.

4190.303C 임베디드시스템과 응용 3-3-0

Embedded Systems and Applications

본 과목의 전반부에서는 ARM 기반의 내장형 시스템 하드웨어와 개발이 주요 부분에 대해 실습실습을 습득한다. 기존 컴퓨터구조 및 관련 과목에서 마이크로프로세서 위주로 컴퓨터구조를 소개하는 것에 대응하여, 본 과목에서는 메모리 시스템, 입출력 및 버스 등의 구조를 강조하여 소개하여, 내장형 시스템 전체의 하드웨어 이해와 설계 능력을 배양하는 데 그 목표를 둔다. 본 강의의 후반부에서는 내장형 시스템을 구성하는 주요 소프트웨어 구성을 요소들을 소개하고 내장형 시스템 요구하는 설계의 요건들을 만족하기 위한 설계 기법들을 훈련한다. 실험실 OS, 마이크로프로세서 등의 기능들을 소개하고 내장형 시스템의 주요 응용(에뮬레이팅이응용)에 대해서도 익힌다. 개발된 시스템의 성능평가 및 성능 최적화 기법을 다루며 내장형 소프트웨어를 위한 검증기법을 학습한다.

This course is composed of two phases. The first phase of this course introduces ARM-based embedded system hardware and its design techniques. The topics covered include memory system, I/O system and bus structure. The first phase of this course aims at understanding overall embedded system architecture and design technique. The second phase of this course introduces the main software components of embedded systems and studies various design optimization techniques for embedded systems. The topics covered include RTOS, device drivers, and key target applications such as multimedia applications. In addition, the course covers performance evaluation techniques and performance optimization techniques and introduces validation techniques for embedded software.
운영체제 3-3-0

Operating Systems

이 과목은 운영체제가 무엇이며, 그것이 수행하는 역할은 무엇이며, 또 운영체제가 어떻게 설계되고 만들어지는지를 소개한다. 주요한 주제들은 프로세스 관리, 자원장치 관리, 입출력 시스템, 분산처리 및 보안 등이다. 이와 함께 Linux와 같은 실제 운영체제에 대한 소개도 한다.

This course probes into operating systems. It covers process management, storage management, and I/O systems. The course also studies distributed systems and security issues.

 컴퓨터구조 3-3-0

Computer Architecture

이 과목에서는 컴퓨터를 구성하는 주요 구성 요소들의 기능과 그들 상호작용의 작용을 이해하고 이를 바탕으로 컴퓨터 시스템을 구현하는데 사용되는 여러 설계 기법들을 학습한다. 방대한 집합, 중앙처리장치, 자료베이스, 메모리 저장구조, 입출력장치 등을 다루며 컴퓨터 발전의 역사적 고찰 및 컴퓨터 시스템의 성능 분석에 필요한 지식을 배운다.

This course introduces the main components of a modern computer system including the instruction set, the processor, and the memory hierarchy. We cover techniques such as pipelining, caching, and virtual memory. In addition, this course gives a historical perspective on the evolution of computer systems and an overview of performance evaluation methodologies.

하드웨어시스템설계 3-2-2

Hardware System Design

전기전자회로 및 논리설계의 이론 지식에 기초하여 실제 디지털 하드웨어 시스템을 설계 구현할 수 있는 능력을 향상시킬 목표이다. 수학적 지식과 실습을 통해 완전한 디 esi 시스템을 직접 설계 및 구현할 수 있는 능력을 배움으로 한다. 컴퓨터구조에서 배운 이론적인 디지털 회로를 전자회로의 소자 특성에 적응하여 실제 디지털 시스템을 구현할때 이론과 실제가 어떻게 다르며, 신호와 전원 조건이 시스템 동작에 미치는 영향을 파악한다. 아울러 디지털 디바이스가 아닌 여러 입력출력 및 통신 디바이스와의 인터페이스를 배운다. 하드웨어 시스템을 구현하기 위한 전자장치를 배우며, LCD 디스플레이, 허브, 허브 컨트롤러, 소프트웨어의 코딩을 배운다. 하드웨어에 대한 이해를 통해 프로그램은 모듈로 연계할 수 있다.

This course provides both theory and hands-on experience for the design of digital hardware system, assuming the prerequisite knowledge on the electrical and electronics circuits and logic design. It aims to enable all students to design and implement a complete digital hardware system for themselves by applying the theory and lab. experience. Students will learn how the classroom theory of logic circuits is different from the real circuit that is affected by elec tronic circuit characteristics. They will also learn the effect of signal and power integrity on the circuit behavior. In addition, this course will cover the interface with several input/output and communication devices. It will also cover other components of a system for independent operation, such as power circuitry, LCD display, and communication devices. As the final project, the hardware system that deals with Morse signal will be implemented.

프로그래밍언어 3-3-0

Programming Language

프로그램 언어에 대한 전반적인 이해를 높이고, 다양한 프로그래밍 언어를 익힌다. 이를 위해 프로그래밍 언어의 개념, 설계 이론, 구현 방법에 대해 공부한다.

This course examines fundamental syntactic and semantic concepts underlying modern programming languages. It helps students compose several small programs in various programming languages.

창의적통합설계 1 3-0-6

Creative Integrated Design 1

본 강의는 소프트웨어/하드웨어 설계 실습을 위주로 하며 다음과 같이 이루어진다. 참가 기업은 4명 내외의 그룹이 1-2 학기 동안(학기의 평균 학생당 60시간 투여) 할 수 있는 프로젝트 리스트를 제안하고, 학생들은 적당한 그룹을 조성하여 해당 기업의 프로젝트를 수행하며, 학기 중 개발 지도는 회사와 지도교수의 협조로 이루어진다. 학기말에는 각 그룹이 진행한 프로젝트에 대한 전체적인 평가와 발표가 이루어진다.

This course emphasizes practice in designing software/hardware. In the course, participating companies propose a list of projects that can be done by a group of about 4 students for 1 or 2 semesters (spending 60 hours per student in average each semester), and students perform proposed projects via organizing groups appropriately. During the semester, the company and advisor cooperate in providing guidance on the development. At the end of the semester, there are overall evaluation on the project done by each group, and a presentation.

데이터마이닝 개론 3-3-0

Introduction to Data Mining

데이터마이닝은 대용량 데이터에서 유용한 패턴을 찾기 위한 이론과 기법이다. 데이터마이닝은 웹, 사기 탐지, 주요 식별, 의미 복잡한 데이터에서 중요한 응용에 활용되고 있다. 본 과목에서는 데이터마이닝에 대한 중요한 알고리즘과 이론을 설명한다. 주요 학습 주제로 mapreduce, 유사 아이템 검색, 맵 감사 패턴, 트리 구조, 데이터 시트 셀링, 클러스터링, 그래프 마이닝 등을 다룬다.

Data mining refers to theories and techniques for finding useful patterns from massive amount of data. Data mining has been used in high impact applications including web analysis, fraud detection, recommendation system, cyber security, etc. This course covers important algorithms and theories for data mining. Main topics include mapreduce, finding similar items, mining frequent patterns, link analysis, data stream mining, clustering, graphs, and mining big data.

선형 및 비선형계산모델 3-3-0

Linear and Non-linear Computation Models

이 과목은 컴퓨터공학의 기초로 수학적 수학의 대상으로 선형대수학, 선형 프로그래밍, 비선형 최적화 등의 다양한 계산 모델들을 소개한다. 이러한 계산모델들이 컴퓨터공학에서 사용되는 구체적인 실례들에 대해 이들을 컴퓨터 응용소프트웨어 개발에 어떻게 사용하는지를 살펴본다. 이 과목은 수학장 있게 사용할 수 있는 지식이 요구된다. 수업의 진행은 강의와 실습이 여
This course aims at providing senior level students with basic understanding to linear and non-linear computation models including selected topics from linear algebra, linear programming, and non-linear optimization. In this course, many examples from computer science and engineering will be discussed. Through these practical examples, the students can understand the usefulness of linear and non-linear models in solving various problems encountered in developing computer application softwares. Students are expected to be familiar with basic computer science and engineering and they have basic knowledge on how to program using C, C++, etc. In addition to lectures, they will carry out various programming assignments.

**4190.315 IT ventureship course 2-2-0**

**IT Venture Creation**

IT technology now moves towards the new paradigm of convergence with various other areas beyond classical computing paradigm. The next wave of IT-convergence venture creation is coming back again. This course will cover various issues regarding entrepreneurship mind and IT-convergence venture creation. Students will study and practice various IT-convergence venture cases.

**4190.405**

**Software Engineering**

Software Engineering is the study of methods for developing software systems. Specific topics will include critical systems specification and development, verification and validation, along with software cost estimation and quality management.

**4190.406B Mobile Computing and Its Applications**

This course probes into software system engineering, focusing on widely-used techniques for developing large-scale software systems. Specific topics will include critical systems design and analysis, various software design methodologies, and software project management.

**4190.407 Algorithms**

This course covers the issues regarding software requirement analysis, various software design methodologies, and software project management.

**4190.408 Artistic Intelligence**

Artistic Intelligence focuses on heuristic search, reasoning, learning, and knowledge representation. It also covers the methods of logical theorem proving, playing games, intelligent agents, and neural networks.
Computer Graphics

2-charts and 3-charts Computer Graphics. The basic principles are drawn. The principles are drawn. Using the 3-charts to express the two-dimensional and three-dimensional objects. The geometric transformation is the main topic. This course deals with the principles of computer graphics and interactive graphical methods. Specific topics will include the representation of two-dimensional and three-dimensional graphical objects, geometric transformation, projection, and viewing transformation.

Computer Networks

This course aims to introduce general concerns and techniques. Special topics will include the representation of two-dimensional and three-dimensional graphical objects, geometric transformation, projection, and viewing transformation.

Computer Modeling

Compilation. Participating companies perform tasks to extend and improve the projects done in the former course. Since the projects are done in the former course, the students develop the projects in the former course. Participating companies perform tasks to extend and complete these projects. At the end of the semester, there are overall evaluation on the project done by each group, and not only an internal presentation but also an external one.

Multicore Computing

This course deals with the Internet technology in detail. It covers Internet architecture and protocol applications.

Computer Networks

This course reviews how to model computing resources in terms of quantity and analyzes the performance of the models. It covers basic stochastic modeling, the theory of queues and its application to real cases.

Creative Integrated Design 2

This course deals with the Compiler which translates high-level language into assembly language. It focuses on lexical/syntax/semantic analysis, intermediate code generator, and optimization technique.

Introduction to Computer Security

This course deals with introduction to computer security. It covers basic digital signal processing, the theory of queues and its application to real cases.

Basic Digital Signal Processing

This course deals with the Internet technology in detail. It covers Internet architecture and protocol applications.
This course deals with the basics of digital signal processing. In the first half, it covers the analysis of Fourier-transformed signals in the frequency domain and the sampling theorem which translates an analog signal to a digital signal. The second half deals with specific filters, signal processing in the frequency domain, and FFT (Fast Fourier Transform) will be explained. It ends with a brief introduction on image processing.

This course introduces the fundamental components and practical techniques of Human-Computer Interaction which is a field of study on designing, implementing, and evaluating interactive computing systems for human use. It starts with studying designs of everyday objects to help students to realize the importance of the efficient design of interactive computing systems. Then, HCI theories and techniques on how to involve users in designing and evaluating interactive computing systems will be covered. In this course, students have a chance to apply the HCI theories and techniques to solving practical problems while designing and implementing a team project throughout the semester.

This course gives the students the foundation to understand the issues and underlying technologies of e-business applications. The student will learn to be aware of the business values of enterprise information systems including customer relationship management (CRM), e-commerce, data warehouse, enterprise application integration (EAI), and supply chain management (SCM). Fundamental e-business technologies include XML, data mining, web services, security & payment, information system architectures. General understanding of operating systems, database, and computer networks is required.

This course is to teach the basics of leadership in the IT field through case studies by experts. The topics include general elements of leadership and leadership skills considered to lead various groups in fields such as IT + BT, IT + Finance, IT + Car Telematics, IT + Handset Devices, etc. This course will cover various technologies and ideas behind computer fusion applications such as IT + BT, IT + Finance, IT + Car Telematics, IT + Handset Devices, etc. Students will study and practice various computer convergence application cases.
Computer Vision

Computer vision is the science and technology of designing machines that work visually and processed digitally. Digital imaging is ubiquitous, with applications including photography, television, movies, tomography, printing, robot perception, surveillance, and many more. This is an undergraduate-level introductory course to the fundamentals of digital image processing. We expect to cover topics including light and color, image formation, filtering, warping, morphing, Fourier transform, image pyramid, multi-resolution analysis, matting, editing, high-ly dynamic range imaging, tone mapping, Plenoptic function, and videography.

Topics in Computer Systems

The computer system is changing rapidly. The shift into multicore/manicore computing has fundamentally changed the computing paradigm from sequential to concurrent program-ming and the transition from hard disk to flash based disk is pushing changes in OS as well as in DBMS. Also the prom-ise of new memory technology is opening new computer architecture and compilers, operating systems, and communication network systems for empirical modeling and performance prediction. This course aims to provide the students with the basic concepts and principles of supervised, unsupervised, and reinforcement learning methods and their model structures, algorithms, and mathematical backgrounds. Students learn the specific learning architectures and algorithms for pattern classification, probabilistic rela-tional modeling, and sequential decision-making through mini projects on real-life application problems.

Topics in New Computer Technology

This course teaches a particular topic in new computer technology. The computer system is changing rapidly. The shift into multicore/manicore computing has fundamentally changed the computing paradigm from sequential to concurrent program-ming and the transition from hard disk to flash based disk is pushing changes in OS as well as in DBMS. Also the prom-ise of new memory technology is opening new computer architecture and compilers, operating systems, and communication network systems for empirical modeling and performance prediction. This course aims to provide the students with the basic concepts and principles of supervised, unsupervised, and reinforcement learning methods and their model structures, algorithms, and mathematical backgrounds. Students learn the specific learning architectures and algorithms for pattern classification, probabilistic rela-tional modeling, and sequential decision-making through mini projects on real-life application problems.
Computers and Internet technologies have become the social infrastructure, and hence understanding the security requirements, security mechanisms, and system vulnerabilities is crucial for students who major in computer science and engineering.

To understand security systems, it is a must to know cryptographic techniques and its mathematical backgrounds. This course deals with mathematics including number theory, discrete logarithm, integer factorization, hash function to understand cryptography. Then, students learn basic security techniques such as symmetric key cryptography, public key cryptography, digital signature, key management and so on. Last, we deal with application security techniques like PKI, Bitcoin, TLS, Web security, Tor and so on.

This course aims at undergraduate students who major in computer science and engineering. The prerequisite for this course will be high school mathematics and discrete mathematics.
445.102A* 재료공학원리 3-3-0
Principles of Material Engineering

원자구조, 결정구조, 상평형, 공정 등에 관한 재료공학의 기초지식과 이들 바탕으로 금속, 고분자, 세라믹 등 각 재료의 구조와 특성을 공부하고 동시에 화학공학의 기본을 공부하며, 각 재료별로 주어진 설계 과제로 팀 별로 수행한다.

The purpose of this class is to study the basic concepts of atomic structures, crystal structures, phase equilibrium, and processes and apply these to understand the structures and properties of various materials. In addition, the students will carry out a team project on the design problems on each material.

445.202 재료현대물리 3-3-0
Modern Physics of Materials

재료를 전공하는 학생들에게 양자역학, 원자구조, 분자구조, 고체구조 등을 이해하기 위한 기초적 개념을 제공한다.

This course covers the concepts of modern physics in order to understand quantum mechanics, atomic, molecular, crystalline structures.

445.206* 결정학개론 3-3-0
Introduction to Crystallography

본 강의에서는 결정체학을 형성하는 기본 구조인 원자 배열의 규칙성과 이들로부터 얻어지는 금속, 이온, 공유결합 등에 의한 대표적인 결정체의 개념을 배우고, 이론과 결정구조의 규칙성을 이해하기 위한 symmetry, lattice 및 reciprocal lattice의 concept과 회절현상의 근본 이론에 대하여 배운다.

This course reviews atomic arrangement, typical crystal structures of metallic, ionic and covalent bonding materials. It covers the concepts of symmetry, lattice, reciprocal lattice, and the diffraction theory.

445.211* 유기재료화학 3-3-0
Chemistry of Organic Materials

재료공학의 전공과정에 필수적인 유기화합물의 구조 및 특성, 유기반응과 이들을 이용한 새로운 재료의 합성에 대해 강의한다. 양식적인 유기재료였던 유기화합물이 무기재료의 추세와 함께 무기재료로의 이르게 되어, 이에 따른 새로운 재료 개발과 관련된 기본적인 유기화학의 개념을 제공한다.

This course addresses organic compounds as well as their properties and synthesis processes. It covers the basic concepts of organic chemistry to develop organic/inorganic/ composite materials.

445.213A* 재료물리화학 1 3-3-0
Physical Chemistry of Materials

온도, 압력, 체적 등의 기후 변화에 따른 물질의 상태변화를 자유에너지 차이에 결정하는 열역학의 기초를 공부한다.

This course provides the basic concept of thermodynamics for students to determine the changes of physical and chemical properties of materials upon the variation of macroscopic stimuli such as pressure, temperature and volume, etc.

445.214 재료수치해석 3-3-0
Numerical Analysis in Materials Science and Engineering

이론과 실제의 결합하여 재료공학에 필요한 기초적인 수치해석을 제공한다. 수치해석의 기본적인 개념과 함께 기초이론을 익혀서 재료공학에서 사투리 나오는 현상을 수치 해석하기 위해 결과를 해석할 수 있도록 하는 과목이다.

This course offers a groundwork for numerical analysis in materials science and engineering.

445.215* 재료물리화학 2 3-3-0
Physical Chemistry of Materials 2

온도, 압력, 체적 등의 기후 변화에 따른 물질의 상태변화를 자유에너지 차이에 결정하는 열역학적 물리적 변화의 속도를 다루는 화학반응 속도론을 공부한다.

This course provides the basic concept of chemical kinetics for students to analyze the rate of changes of physical and chemical properties of materials.

445.301* 재료열역학 3-3-0
Thermodynamics of Materials

물리화학에서 배운 열역학적 개념 및 기법을 적용하여 재료공학에서 필요한 기본적인 열역학적 지식을 습득할 수 있는 내용을 예를 들어 상평형, 열용량 구글의 열역학적 성질, 자유에너지와 상평형도의 관계 등에 관한 부분을 중점적으로 다룬다.

This course introduces thermodynamics in materials. It covers phase equilibrium, calculation of heat capacitance, and the relation between free energy and phase diagram.

445.302* 재료상변태 3-3-0
Phase Transformation in Materials

상평형 및 재료의 상변태에 관한 개념을 다루어 고체에서의 상변태의 열역학적 및 속도론의 기초 개념을 간결하게 설명한다. 이를 위하여 속도론적 과정을 이해할 수 있도록 개념 및 학습의 중점에서 다른 과정을 다룬다.

This course studies phase transformation in solid materials. It focuses on the nucleation theory and growth mechanism.
재료공학 연구에 기본적으로 필요한 실험 지식을 습득하는 한편 상변태, 열역학, X-선 결정학 등의 과목에서 배운 재료의 성질을 실험을 통하여 다시 배울 수 있도록 한다.

This course focuses on phase transformation, thermodynamics and X-ray crystallography.

이 실험이에서는 1) 전공필수 ‘재료의 전기적 성질’ 관련 실습으로서 재료의 전기적 특성을 직접 느끼고 정량화하는 방법을 체득하게 하고, 2) 전공필수 ‘결정구조학’ 관련 실습으로서 X-선회절을 응용하는 능력을 배양하며, 3) 흑물이 재료의 제조 공정(특히 분말공정) 및 소성체의 특성을 분석하는 법을 익혀하게 한다.

This course focuses on the experiments regarding the X-ray crystallography, sintering of ceramics and its properties.

재료의 기계적 거동

구조재료의 가장 중요한 기능인 하중을 지탱하는 능력인 강도의 원천을 이해하기 위해 원자사이의 결합력, 전위론, 연속체의 탄성소성 역학, 그리고 파괴학 등을 강의한다.

This course introduces atomic bonding, the dislocation theory and the fracture mechanics in order to understand material behavior under pressure.

재료의 전기- 자기적 성질

이 과목은 학부생에게 고전적인 또는 양자역학적인 관점에서 재료의 전기적, 자기적, 광학적 그리고 열적 성질을 재료를 구성하고 있는 전자와 원자의 관점에서 이해할 수 있도록 하는 목적이 있다.

This course reviews electric, magnetic, optic and thermal properties of materials from a view point of classic mechanics and quantum mechanics.

재료기기분석

첨단산업의 발달과 더불어 새로운 성능을 가진 재료들이 개발, 응용되고 있으며 이에 따라 재료분석의 역할이 증가하고 있다. 본 과목에서는 기초적인 재료분석기기의 원리와 응용을 소개함으로써, 재료공학의 이해를 넓히고 학생들의 연구활동 도움을 주고자 한다. 본 과목에서는 재료 시험에 걸쳐서 기초적인 분석 장비를 이용하고 있는 기기들을 다루고자 하며 특히, 재료의 성능을 크게 결정하는 성분과 구조를 분석하는 장비에 중점을 두고자 한다.

This course addresses materials characterization and evaluation methods. Specific topics will include element analysis (AAS, AES, and MS), structural analysis (XRD, OM, SEM, and TEM), and thermal analysis (DTA, TGA, and DSC).

고분자재료학

고본자의 구조, 물성에 관한 기본적인 개념과 계조 방법에 대하여 강의한다. 라디칼중합, 이온중합, 배위중합, 단계중합, 계열중합, 공정중합 등 종합발효, 메타나중 및 증합속도에 대하여 강의한다. 제조 방법에 대한 종합발효 및 고본자들을 이용한 반응 등을 다룬다. 상용화된 고본자들의 제조 방법, 물성 및 용도를 소개하고, 천연 가공사소 및 나노재료로서의 고본자에 대해 알아본다.

This course studies the fundamental concepts of polymer structures and manufacturing process. It covers polymer-
ization mechanisms such as radical, ion, coordinate, and polymerization kinetics. The course also addresses recent technologies of polymerization.

445.328 Polymeric Materials Physics

This course introduces the fundamental concepts of structure-property-processing interrelationships of polymers. It covers configuration and conformation of polymer chains, state of polymer melt, and amorphous nanostuctures.

445.330A Applied Statistics and Design for Materials Processing

This course covers (1) experimental practices with a software for automatic measurement and process control related with materials science and engineering, (2) introduction to statistics and probability, (3) analysis of variance, and linear and multiple regression for the statistical experimental data analysis, (4) design of experiment (DOE) and Taguchi’s method, and (5) application of statistical software to materials process.

445.331 Transport Phenomena in Materials

This course addresses transport phenomena of materials, in relation to quantitative product fabrication process.
this course, the interface between biological systems and materials will be taught.

445.408A Self-design Experiments in Materials

In this course the students will be learning to apply the knowledge of materials science and engineering, to design the experiments and to perform them. Through this process, the students' ability to integrate the knowledge of materials science, to design the experiment for solving problems in engineering fields, well as some reactor design principles in this course.

445.410 Structural and Properties of Alloys

In this course the students will be learning to apply the knowledge of materials science and engineering, to design the experiments and to perform them. Through this process, the students' ability to integrate the knowledge of materials science, to design the experiment for solving problems in engineering fields, well as some reactor design principles in this course.

445.411 Integrated Circuit Processes of Semiconductor

This course focuses on the integrated circuit processes of semiconductor and up-to-date integration technologies in the industry.

445.425 Ceramics Processing

Modern ceramic technology has rapidly developed based on the understanding of the fundamental principles of ceramic properties and manufacturing process. Understanding the manufacturing process of ceramics is especially important for designing new materials. In this course, we will examine various techniques for ceramic processing and the effect of the processing parameters on the material properties.

445.426 Organic Materials Engineering

This course will introduce the design, manufacturing processes, and mechanical characteristics of yarns and fabrics and examine their structure, geometrical analyses, and mechanical properties to understand spinning, weaving, and knitting processes. This course will also introduce the manufacturing methods and techniques of non-woven fabrics, and cover the relationship between the manufacturing conditions and mechanical properties of nonwoven fabrics. In addition, various polymer processing methods will be introduced. We will study the laws of mass conservation, energy conservation and momentum conservation to understand the principles of polymer processing and composite materials processing. Theoretical properties of polymeric materials are discussed and applied to the modeling of polymer processing.

445.427 Electronic Ceramics

Electronic ceramics include piezoelectric, pyroelectric, ferroelectric, and microwave dielectric materials, and magnetic materials such as ferrite, ferrimagnetic, and microwave dielectric materials. The course will cover various electro-ceramics and their properties. The dielectric materials include piezoelectric, pyroelectric, ferroelectric, and microwave dielectric materials, and magnetic materials include ferrite, ferrimagnetic, and microwave dielectric materials. The course will cover various electro-ceramics and their properties. The dielectric materials include piezoelectric, pyroelectric, ferroelectric, and microwave dielectric materials, and magnetic materials include ferrite, ferrimagnetic, and microwave dielectric materials. The course will cover various electro-ceramics and their properties. 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445.440 Spin-Materials Science and Application

Spin-Materials Science and Application

This course is designed to provide MSE-major undergraduate students with the fundamental knowledge of the synthesis, processing and functionality of these molecular materials as well as the operational principles of molecular electronics/photonics devices. The molecular materials discussed in this course include the following: fluorophore/phosphore for organic EL, liquid crystal and color filters for TFT-LCD, substrate and recording media for CD/DVD, photoresist and low-k dielectric in memory semiconductors, plastic optical fibers for LAN and image guiding. This course will also examine the basic concepts and materials of super optical memory, ultrafast optical devices, high capacity smart card, and high fidelity sensors.

445.441 Energy Materials and Devices

Energy Materials and Devices

This course is designed to introduce and teach students about the principles and concepts of engineering design and materials science. The course will include the following: fluorophore/phosphore for organic EL, liquid crystal and color filters for TFT-LCD, substrate and recording media for CD/DVD, photoresist and low-k dielectric in memory semiconductors, plastic optical fibers for LAN and image guiding. The lecture describes a concept of spins and their collective behaviors, its related physical phenomena based on quantum mechanics. Also, fundamental theory on and practical applications of various magnetic materials and magnetism, as well as examples of the applications of spintronics will be studied. Through this class, information storage/processing, design of materials through the completion of a project, and interdisciplinary knowledge will be learned.

445.442 Capstone Design for Material Science and Engineering

Capstone Design for Material Science and Engineering

This course is a mixture of lectures and team-based project performance. The course will include the following: fluorophore/phosphore for organic EL, liquid crystal and color filters for TFT-LCD, substrate and recording media for CD/DVD, photoresist and low-k dielectric in memory semiconductors, plastic optical fibers for LAN and image guiding. This course will also examine the basic concepts and materials of super optical memory, ultrafast optical devices, high capacity smart card, and high fidelity sensors.

445.443 Materials Science for Nanotechnology

Materials Science for Nanotechnology

This course is designed to introduce and teach students about the principles and concepts of engineering design and materials science. The course will include the following: fluorophore/phosphore for organic EL, liquid crystal and color filters for TFT-LCD, substrate and recording media for CD/DVD, photoresist and low-k dielectric in memory semiconductors, plastic optical fibers for LAN and image guiding. The lecture describes a concept of spins and their collective behaviors, its related physical phenomena based on quantum mechanics. Also, fundamental theory on and practical applications of various magnetic materials and magnetism, as well as examples of the applications of spintronics will be studied. Through this class, information storage/processing, design of materials through the completion of a project, and interdisciplinary knowledge will be learned.
필수적인 내용을 정리함으로서 나노기술에 있어 재료과학의 중요성을 주지시키는 것으로 한다.

The purpose of this lecture is to introduce fundamental concepts of materials science which is closely related with the concept of nanotechnology. Namely, the excerpt of crystalllography and crystal structure, thermodynamics, kinetic aspects of materials science to understand the evolution of microstructure of nano-size material will be introduced. The main processing technology to build nano features such as top-down and bottom-up processing technology will be introduced. Furthermore, the properties of nano-materials such as electrical, optical, magnetic, and surface chemical properties which typically appears in nano-size materials will be summarized. The materials characterization techniques will also be briefly introduced. The students are expected to summarize all the basic concepts of materials science to understand the evolution of microstructure of nano-size material will be introduced. The top-down and bottom-up processing technology will be discussed and application of those materials to the medical field will be focused. This course will offer new biomedical concepts on materials science and engineering and open a new avenue for the students toward BT and related IT/NT fields.

445.444 전산재료학 3-3-0
Computational Study of Materials Science and Engineering

수치해석을 통한 재료 인구의 원리와 방법을 학습함으로써 학생들이 재료를 연구하는 수단의 하나로 시뮬레이션 연구의 필요성과 내용을 이해할 수 있는 수준을 달성하도록 한다. 각 주제의 프로그래밍을 갖는 것이 아니고, 원리에 대한 설명, 그리고 관련 소프트웨어를 사용한 계산 결과의 응용을 다룬다. 한 학기의 내용에 맞게 내용으로 공학 인증의 설계 범주에 들어가는 과목으로 개발한다.

구성:
1. 모델링과 시뮬레이션
2. 기계적 재산의 원리와 실험(물리학 및 생물학
3. 기계적 재산의 원리와 실험(물리학 및 생물학
4. 공정 계산(역 및 물질 전달, 공정 설계)
5. 전산 재료 연구 방법론

This course introduces basic concepts on numerical analysis and provides the student with the tools necessary to apply the power of computers to solve material-related problems so that they can obtain a fundamental understanding of simulations.

Topics:
- Modelling and Simulations
- Principles and Applications of Microscopic Computations (First Principle Calculations, Molecular Dynamics, Molecular Design)
- Principles and Applications of Macroscopic Computations (Thermodynamics, Diffusion, Continuum Mechanics, Materials Design)
- Process Simulations (Thermal Transport, Process Design)
- Methodology for Computational Materials Science

445.445 생명의료재료 3-3-0
Biomedical Materials

본 강의는 NT, IT 분야와 함께 재료과학에서 최근 활발히 연구되고 있는 바이오기술(BT)에서 사용되는 재료과학의 영역을 소개한다. 바이오분야의 이해를 위한 기존적인 학문의 영역인 생명학, 생화학과 기초적으로 소개하고, 바이오분야에 사용되는 고분자, 세라믹, 금속재료에 대하여 소개한다. 의료재료(Biomedical Materials)에 관한 기본적인 개념을 이해하고 의료용으로 사용되는 재료의 조건, 특성을 강조하며, 현재 관심이 있는 바이오 관련 기술에 대한 응용기술에 대하여 소개한다. 생명의료 재료는 화학, 물리학에 집중되어 있어 재료과학 분야의 새로운 생물 응용 분야의 개발을 위하여 갖추어야 할 기본적인 개념을 제공할 것이다.

This course introduces the basic research areas on Biomedical Materials, which has been extensively investigated Biotechnology (BT) field along with NT and IT. Introduction to Biology and Biochemistry will be covered at first in order to help students to understand the following bio-related materials. Biomedical polymers, ceramics and metals will be discussed and application of those materials to the medical field will be focused. This course will offer new biomedical concepts on materials science and engineering and open a new avenue for the students toward BT and related IT/NT fields.

445.446 재료결정결함 3-3-0
Crystal Detects in Materials

본 과목에서는 서로 다른 결정구조를 가진 재료에서의 점 결함, 전위 및 평면 결함 등의 생성 및 소멸 과정에 관련하여 조사하고 이들의 재료의 물리적, 기계적 특성에 미치는 영향에 대하여 강의한다.

In this lecture, the generation and annihilation processes and properties of point defects, dislocations and planar defects in materials with different crystal structures will be examined. The effects of these defects on physical and mechanical properties of materials will also be discussed.

445.447 디스플레이재료 및 소자 3-3-0
Display Materials and Devices

우리나라 산업에서 중요한 위치를 차지하고 있는 CRT, 액정 디스플레이(LCD), 플라스마 디스플레이(PDP), 전자발광디스플레이(FED), 유기전기발광소자(OLED) 등 디스플레이 재료, 소자 및 디스플레이 동작원리를 다룬다. 범용 스위치로서 작동하는 CRT에서는 액정의 분자구조와 베타상태, 이들의 광학적 특성, 액정과 전기장의 상호작용을 이해하고 빛이 액정막을 통과할 때 액정의 분자배열이 빛의 전반적특성을 변화시키는 원리를 다수로써 액정의 특성과 작동 원리를 이해한다. 전자발광(FED)이나 자외선(PDP)또는 전기로 흐려져서 빛을 내는 유기물전기발광소자(OLED)를 이해하기 위하여 사용되는 물질의 전자구조, 광학적 성질, 전기적 특성을 다루며 삼원색을 내는 물질의 구조와 발광효율을 증진시키기 위한 방법론을 다룬다. Display 구동방법과 제조공정도 취급한다.

Materials and devices of various displays such as Cathode Ray Display (CRT), Liquid Crystal Display (LCD), Plasma Display Panel (PDP), and Organic Light Emitting Diodes (OLED). Molecular structures, arrangements, and electro-optic properties of liquid crystals. Polarization of light through liquid crystals. Optical properties of luminescent materials, device structures and operation principles of CRTs, FEDs, and PDPs. Electronic structure, electrical and optical properties of organic materials, device structure, operation principle of OLEDs. Driving methods of passive and active matrix arrays. Fabrication process of the displays.

- 411 -
Offer the basic understandings on semiconductor memory and logic devices and materials for logic, DRAM and non-volatile memories, such as flash memory. Review the current status of the technologies and problems. Fundamentals of logic devices and operations principles will be elucidated. The problems related to the scaling of the devices will be studied. Operation principles and scaling problems of NAND and NOR type flash memory devices will be discussed. New memory devices, such as FeRAM, MRAM, PcRAM and other resistive switching memory devices will also be reviewed. The basic operation principles and ultimate limitations of these new devices will be discussed and finally nano-electronics concepts that may ultimately replace current microelectronics will be introduced.
bending and torsion will be touched.

**M2794.001100** 열역학 3-3-0

**Fluid Mechanics**

유체역학의 기초 교과목으로서 유체의 성질, 유체 내의 압력분포, 제어체적에 대한 적분관계식, 유체절점에 대한 미분관계식, 차원해석과 상상석 및 닫는액의 산성유동 등을 학습한다. 이론과 동력학의 기초원리를 이해하고 실험에서에 응용하기 위한 능력을 배양한다.

This course introduces fluid mechanics and their practical applications to several flow systems. Course topics include the characteristics of fluid, hydrostatics, mass and momentum conservation laws, dimensional analysis and internal flows.

**M2794.001500** 기계공학실험 1 2-0-4

**Mechanical Engineering Lab. 1**

기계공학 관련된 기본 실험을 취급한다. 유량, 유속의 측정, 압력 측정, 고체의 열전도 계도의 열전이, 압축시험, 경도시험, 진동차, 회전속도의 측정, 기어시험, 스프링시험 등의 실험을 실시하고 실험의 처리, 보고서 작성 방법 등을 교육하고 실험을 행한다.

In this course we will do experiments related to mechanical engineering. Course topics include the following: measurement and calibration of temperature and pressure, measurement of flow rate and velocity, heat transfer in solid, tensile and compression test, fatigue test and strain gauge.

**M2794.001600** 기계공학실험 2 2-0-4

**Mechanical Engineering Lab. 2**

기계공학실험 1에서 다룬 내용을 기초로 하여, 보다 구체적이고 응용적이면서 제도적 장치의 복합적 특성을 해석하는 기술을 배양한다.

Based on the studies in the course Mechanical Engineering Lab. 1, this course deals with the analysis of the complex properties of more concrete, applicable and systematic equipments. We will do experiments related to mechanical and aerospace engineering. Course topics include the following: measurement and calibration of temperature and pressure, measurement of flow rate and velocity, heat transfer in solid, tensile and compression test, fatigue test and strain gauge.

**M2794.002500** 기계시스템해석 3-3-0

**System Analysis in Mechanical Engineering**

본 과목에서는 동적 시스템의 이해에 필요한 기본 개념과 여러 물리적 시스템의 수학적 모델링 기법 및 동적 응답 해석에 대하여 다룬다. 특히 동적 시스템을 상태공간에서 수학적으로 모델링하는 기법들을 배우고, 시간 영도와 주파수 영도에서의 선형 시스템을 분석하는 기법들을 다룬다.

In this course we will study the basic concepts of dynamical system and the mathematical modeling method of various physical systems. We will also practice analyzing the dynamical response of various physical systems. More specifically, we will examine the mathematical modeling of dynamical systems in state space and the analysis method of linear dynamical system in both time and frequency domain.
Introduction to Sensors

This is an introductory course on sensors which are widely used in scientific research and are an integral part of commercial products and automated systems. We will examine the measurement techniques using pressure sensor and thermometer and also study the methods of using the micro processor which unites the AD converter with the interface circuit.

This introductory course on sensors will cover the following topics:

- The fundamentals of sensor physics and technology
- Types of sensors: mechanical, optical, thermal, electrical, etc.
- Sensor selection criteria and measurement techniques
- Signal conditioning and data processing
- Applications in various fields such as automotive, industrial, and environmental monitoring

- 456 -
M2794.002900 MEMS in Mechanical Engineering

- 415 -

This course will examine the fundamental mechanics of micro system, scale-down effect and transmission of force and torque in micro machines. We will discuss the design, production and applications of various micro mechanical devices used as mechanical transducers.

M2794.002100 Theories of Control System

This course will examine the various theories related to the analysis and design of continuous time Control System. Topics in this course include the following: time domain and frequency domain analysis of system response; PID Controls; various control theories; etc. Emphasis is placed on control design using MATLAB.

M2794.002200 Applied Thermodynamics

This course will examine the fundamental mechanics of thermodynamic systems and the principles of heat transfer. Topics covered include: the laws of thermodynamics; energy and work; entropy; steady-state heat conduction; unsteady-state heat conduction; one-dimensional steady-state heat conduction; two-dimensional steady-state heat conduction;

M2794.001800 Materials and Manufacturing Processes

This course is intended to give lectures to learn knowledge, attitude and approach methods for the engineers who are interested in business management. Experts working in government service, research, academic institutes, and industries are invited their experience and knowledge in the management of industries related to mechanical engineering.

M2794.002400 CAD/CAM

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Mechanical System Design Project 1

The purpose of the course is to enhance students' ability to solve problems in the real engineering environment. This problem solving will be based on the students' knowledge of mechanical engineering acquired through undergraduate studies. After consulting the instructor, each student selects a topic which will be pursued for the semester. Various forms of teaching such as seminar, presentation, discussion and experiment will be utilized.

Mechanical System Design Project 2

This course is intended to enhance students' ability to solve problems in the real engineering environment. This problem solving will be based on the students' knowledge of mechanical engineering acquired through undergraduate studies. After consulting the instructor, each student selects a topic which will be pursued for the semester. Various forms of teaching such as seminar, presentation, discussion and experiment will be utilized.

Digital Embedded Mechanical Systems

This course deals with embedded and digital system design based on microprocessors with the mechatronics applications. This course emphasizes sensor and actuator interface with digital systems. Power supply systems for digital and analog systems, and embedded software are also covered.

Micro-nano Mechanics

This course will examine the fundamental mechanics of micro-structure and micro-device and also cover the problems regarding the production and operation of micro system. Basic theory of the design, production and measurement of micro-nano system will be discussed and its applications will be introduced.
Optimal Design

All engineers dream of designing something new and better. Creative imagination is essential for achieving this goal. To find optimal designs that both perform efficiently and satisfy all the design and manufacturing constraints, we also need to acquire systematic design methods.

The objective of this course is to introduce such design optimization methods. We will begin by examining design optimization formulation and various numerical optimization algorithms. Based on our study of various design optimization techniques, we will carry out design projects that are relatively simple but sophisticated enough to help us acquire engineering insight. Through this course we will learn to appreciate the effectiveness of the optimization method. A brief introduction to topology optimization and genetic algorithms will also be given at the end of the course.

Computer Simulation and Design

This course deals with the basic techniques for mechatronics system design and laboratory. The course begins with basic circuit design techniques such as DC circuits, transistors, OP Amplifiers, etc. The micro processor application for mechanical engineers. The course involves the design of microfabrication and microinterconnection of integrated systems, alternative energy systems, and also examine their performance. Other topics to be discussed include various examples of integrated systems, alternative energy systems, and economic and efficient systems.

Environmental Thermodynamics

This course will deal with the basic theories and applications of refrigeration and air conditioning systems. Based on the fundamentals of thermodynamics, fluid mechanics and heat transfer, we will examine the methods of designing and analyzing several systems in refrigeration and air conditioning. We will study the components of refrigeration and air conditioning systems and also examine their performance. Other topics to be discussed include various examples of integrated systems, alternative energy systems, and economic and efficient systems.

Biomechanics and its Applications in Engineering

This course will deal with the basic theories and applications of refrigeration and air conditioning systems. Based on the fundamentals of thermodynamics, fluid mechanics and heat transfer, we will examine the methods of designing and analyzing several systems in refrigeration and air conditioning. We will study the components of refrigeration and air conditioning systems and also examine their performance. Other topics to be discussed include various examples of integrated systems, alternative energy systems, and economic and efficient systems.

Micro Manufacturing

This course will deal with the basic theories and applications of refrigeration and air conditioning systems. Based on the fundamentals of thermodynamics, fluid mechanics and heat transfer, we will examine the methods of designing and analyzing several systems in refrigeration and air conditioning. We will study the components of refrigeration and air conditioning systems and also examine their performance. Other topics to be discussed include various examples of integrated systems, alternative energy systems, and economic and efficient systems.

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Biomechanics and its Applications in Engineering
Creativity and cooperation are two important key strengths required in the global world, especially for engineers. In other words, professional engineers in the future should be able to perform creative engineering design with creativity and cooperation. Therefore, the objective of this course lies in experiencing the process of creative engineering design and cultivating the ability to cooperate coordinately through team-work assignments such as homework #1 and a design project.

This course will deal with the fundamental theories and applications of thermal energy systems. We will practice designing and analyzing energy systems based on our background knowledge of thermodynamics, fluid mechanics and heat transfer. Special emphases will be given on several design tools and optimization. We will also examine diverse examples of optimization.

Integrated Mechanical Design and Analysis

This course is intended to enhance students’ abilities for the integrated design or analysis of specific machine systems by comprising the basic courses which are taken through the undergraduate study in mechanical engineering field. Students are going to do problem identification, design and analysis of their creative subject with a guide from their instructors. Students are expected to learn the integrated ability in mechanical design and analysis through presentations, discussions and practices.
Mechanical Strengths and Behaviors of Solids

Materials and their characteristics are fundamental to understanding the dynamic behavior of solids. The course aims to deliver the basic knowledge of structural stability, energy, heat, and work, entropy, thermodynamic properties, analysis of cycle performance, various engineering cycles. The aim is to understand various fundamental laws of thermodynamics and to develop the ability to apply them to various thermal systems. Course topics include energy, heat and work, enthalpy, entropy, laws of thermodynamics, thermodynamic properties, analysis of cycle performance and various engineering cycles.

Solid Mechanics in Aerospace Engineering 2

Properties of stresses and strains in the three dimensional space are investigated. Basic theory of structural stability will be introduced. Various analysis methods based on energy principle will be provided. Failure criteria will be discussed in three dimensional space and the detailed aspect of beam bending and torsion will be touched.

Introduction to Aerospace Engineering

Aerospace Thermodynamics

Aerodynamics

Solid Mechanics in Aerospace Engineering 1

Mechanical Strengths and Behaviors of Solids

The course integrates mechanics, biology and engineering to explore how mechanical interactions play a key role in driving the functions of living systems. A series of molecular players that act as active machines as well as passive mechanical elements are introduced to understand an intimate interplay between mechanics and biology. We also cover a variety of biomedical devices and experimental techniques used to characterize living systems across multiple length scales.
Starting from the fundamental theory of fluid mechanics, this course will deal with the key theories for the lift and drag generation mechanisms of aircraft in the incompressible air. Based on that, the aerodynamic characteristics of lift, drag and moment around 2-D airfoil and 3-D finite wing will be studied, which will become essential element for aerodynamic analysis and design of aircraft.

Dynamics

We will do stability analysis and control system design. Plot and Nyquist plot. Using aircraft and satellite systems, function, Routh-Hurwitz criterion, Root Locus analysis, Bode and control system synthesis for linear systems using transfer function. We will examine the dynamic analysis between forces and mass and the motion of a body. We will study about kinematics, with a dynamic analysis and design of aircraft.

Linear Algebra for Aerospace Engineering

This course deals with the motion analysis of point masses and rigid bodies. We will study about kinematics, with a focus on the geometrical relation between displacement, velocity and acceleration of a body and also examine the relation between forces and mass and the motion of a body.

Aerospace Engineering Lab. 1

This course will deal with the basic principles of designing control systems. It will examine the dynamic analysis and control system synthesis for linear systems using transfer function, Root Locus criterion, Root Locus analysis, Bode plot and Nyquist plot. Using aircraft and satellite systems, we will do stability analysis and control system design.

Airframe and fuselage dynamics, fluid mechanics, and structural dynamics.

Aircraft and Spacecraft Vibrations

We will study about the stability analysis and control system design. Plot and Nyquist plot. Using aircraft and satellite systems, function, Routh-Hurwitz criterion, Root Locus analysis, Bode and control system synthesis for linear systems using transfer function. We will examine the dynamic analysis between forces and mass and the motion of a body.
본 강의의 목적은 우주항공공학실 1에서 다룬 내용을 기초로 하여, 보다 구체적이고 응용적이면서 계층적 정립의 복잡한 특성을 해석하는 기술을 배양한다. 에이로스 엔진의 압력 측정, 흐름, 유체의 방향 측정 및 전력, 헬리콥터 시리얼 용량 및 성능 측정, 영역학, 유체역학의 영업용 실험을 위한 온도측정 실험을 습득하고 설립을 수행함으로 원리에 대한 이해를 돕는다.

Based on the studies in the course Aerospace Engineering Lab 1, this course deals with the analysis of the complex properties of more concrete, applicable and systematic equipments. We will do experiments related to aerospace engineering. Course topics include the following: pressure distribution of airfoil, measurement and calibration of temperature, heat transfer in solid, tensile and compression test, fatigue test and strain gauge etc.

Aerospace Engineering Lab 2

본 과목은 항공기에서 심장부 할 수 있는 동력장치를 다루는 과목으로서 항공기에서 쓰이는 제트추진기관의 전반적인 종류 (turbo prop, turbo shaft, turbo fan, turbo jet, ram jet, scram jet 등) 중, 특정 및 원리에 대하여 다루게 한다. 또한, 오존을 창조해 비행체(MAV, Micro Aerial Vehicle)에 대한 관심이 높아지고 있는데, 이러한 초소형 비행체의 동력원으로 사용 가능한 마크로 엔진을 다루게 된다. 그리고, 항공기의 엔진, 환경 향상적인 엔진개발이 요구되고 있으므로 배기가스 및 소음, 기계정찰을 위한 방법을 소개한다.

This course will examine the fundamentals of dynamic stability and flight control, and autopilot systems. We will study the dynamic characteristics of various kinds of airbreathing engines such as turbo prop, turbo shaft, turbo fan, turbo jet, ram jet and scram jet. It will also examine the micro-engines used in MAV (Micro Aerial Vehicle) and discuss the exhaust and noise reduction methods.

Jet Propulsion

본 교과목은 항공기의 동력특성을 이해하고, 비행 제어시스템을 설계하기 위한 기초원리를 제공하는 교과목이다. 항공기 조종성 및 안정성에 대한 내용을 다루고, 항공기의 전체적으로 안정하고 설계하기 위한 기하학적 및 공력특성을 해석적으로 다룬다. 또한, 뉴턴의 제법칙을 이용하여 강체형 항공기의 비행운동특성을 묘사할 수 있는 비행학 운동방정식을 도출한다. 항공기의 특성을 이해하고, 제어시스템을 설계하기 위해서 주어진 평형상태에 대하여 설계하여, 단주기/단주기 운동 등의 항공기 운동특성을 학습한다. 동적 안정성 증대 및 조종성 증대를 위한 제어기 설계기법을 학습한다.

This course will examine the fundamentals of dynamic characteristics of aircraft. It will deal with topics on static stability and aircraft conceptual design. After deriving equations of motion, we will study the dynamic characteristics of aircraft and practice designing stability augmentation systems and autopilot systems.

Spacecraft Mission Analysis and Design

본 강의는 우주 비행체 시스템 설계 과목으로, 학생들은 본 강의를 통해 훈련하는 극초음속 시스템과 그의 성능에 대한 기초적인 내용을 배우게 된다. 또한, 로켓 엔진, 스 kaldı셋 엔진, 발사체, 극초음속 순항 비행체, 탄도 미사일, 행성 전설 비행체들의 개발세계기 위한 방법을 배운다. 이들 토품의 모든 수강생들은 각
Aerospace Combustion

Basic understanding combustion is required. The course is comprised of lecture, discussion, semi-technical presentations, and team projects. Each student will be given a different engine to design. A rocket engine and a scramjet engine is mandatory to all students. In this course, fundamental study of combustion phenomena will be treated to analysis an actual combustion condition through understanding of the basic physical phenomena and basic knowledge of thermodynamics. Students will learn in this course, to calculate the actual flow conditions.

The primary objective of this course is to introduce fundamentals of spacecraft systems. With this goal in mind, topics such as basics of orbital mechanics, orbit transfer, rendezvous, station keeping and geostationary spacecraft mission are covered. In addition, attitude dynamics of rigid spacecraft is introduced in conjunction with basic principles of spacecraft attitude control. Introduction to spacecraft sub-systems for small-scale satellites is provided on frequent basis.

Aerospace engineering is a branch of learning which deals with vehicle systems such as aircraft, launcher, satellite, missile, and therefore aerospace engineer is required abilities on the design of system based on general acquaintance of aerospace engineering. This course will handle practical problems such as aerodynamic design, aircraft structural design, propulsion system design, and flight control system design of vehicle system, and it will be proceeded with seminars, presentations, and team projects.

Viscous Fluid Flow

This course will be an fundamental and theoretical studies of an numerical analysis for flow differential equation which are studied in undergraduate course; aerodynamics compressible fluid dynamics, etc. Students will make a one-dimenstional and two-dimensional numerical simulation code, learned in this course, to calculate the actual flow conditions.
This course will treat flow equation, learned in aerodynamics and compressible aerodynamics classes, to help enhance the ability to analyze high speed three dimensional viscous flow; Low Reynolds number flow, two-dimensional laminar boundary layer, three-dimensional boundary layers, thermal boundary layer theory of incompressible flow.

M2795.004400
High Energy Thermofluid Dynamics

This course will address advanced topics in compressible fluid dynamics, thermodynamics, and heat transfer of energetic materials. Topics of interest may include combustion, multi phase flows, directed energy (laser) conversion, propulsion, etc. The course will cover thermodynamics of pure transport phenomena, and the governing equations for multi-component energetic mixtures. The course will also emphasize technologies that reduce emission of greenhouse gases.

M2795.004300
Rocket Propulsion

This course will introduce the general principles of space propulsion. It will cover the conceptual explanations of rocket propulsion technologies, chemical rocket, electric propulsion rocket, future propulsion rocket, space/trans-atmospheric propulsion, and ultra long-distance space journey technologies. We will then examine the propulsion mechanisms, performance, merits and demerits of solid propellant rockets, liquid propellant rockets and hybrid rockets. We will also study the design parameters such as combustor design, nozzle design, heat transfer design, fuel/oxidizer feeding system design, combustion instability analysis and measurement technique.

M2795.003700
Noise Engineering

Noise Engineering

Noise engineering is concerned with the measurement and analysis of noise and vibration, with the design of noise- and vibration-control systems, and with the evaluation of the effects of noise and vibration on humans. It involves the study of the physical properties of sound and vibration, and the development of techniques for their control. The course will cover the fundamentals of noise and vibration, the effects of noise and vibration on humans, and the design and evaluation of noise and vibration control systems.

M2795.004600
Air Traffic Control and Navigation System

Air Traffic Control and Navigation System

This course will provide an introduction to the methods of advanced engineering analysis with an aerospace engineering emphasis. Course topics include elements of vector and tensor, linear ordinary differential equation, and calculus of variations and variational methods. The elements of vector and tensor analysis form the basis for the theoretical development of advanced continuum mechanics that includes fluid mechanics and solid mechanics. Linear ordinary differential equations arise in virtually all aerospace engineering topics, particularly in control theory and mechanics. The calculus of variations and variational methods are an integral part of many methods of optimization and finite-element analysis.
리와 이론을 고찰하고 실험으로 증명함으로써, 아직 세상에 없는 새로운 항법시스템을 구상할 수 있는 바탕을 마련하는 것이 이 과목에 추구하는 바이다. 그 밖에도 Dead Reckoning과 Radio Navigation 그리고 위성항법(GNSS)에 대해서도 그 원리와 실행 환경의 응용 예를 다룬다. 또한 항공기/우주비행체의 항공교통(Air Traffic Control) 및 관제에 대한 소개와 공익에 대한 관계 점차를 설명하고, 관제의 핵심 장비인 레이더와 ADS-B를 소개하고, 차세대 항행시스템인 CNS/ATM에 대해서도 신도 있게 그 내용과 원리를 소개한다.

이 과목에서는 항공기 개념설계과정을 차세대 다용도 항체들이 각각의 항공기를 AAD와 RDS 프로그램을 통해 실제로 개념 설계하도록 하여 설계에 대한 이해를 증진시킨다.

In this course we will study the process of aircraft conceptual design. Students will be trained to do actual conceptual design using AAD and RDS program.

M2795.008200 항공기 개념설계 3-3-0

Aircraft Conceptual Design

M2795.008220 장거리 항행항법 3-3-0

Helicopter Engineering

이 과목에서는 당직 항법 및 단거리 이착륙 항공기의 발전 역사, 기본적 공기역학 이론, 요구사항 추정, 로터 블레이드 동력학, 이론 및 적용학의 성능 예측, 진동 및 하중, 안정성 및 제어, 동력 장치에 대한 기본이고 개념적인 내용을 다루되, VSTOL 항공기의 전체에 대한 시스템적인 접근방법을 배운다.

This course will provide a systematic approach to VSTOL aircraft. It will cover the history of VSTOL aircraft development, fundamentals of aerodynamics, estimation of the required power, rotor blade dynamics, prediction of performance for take-off and landing, loads and vibrations, design of a high lift device, and the propulsion system.

M2795.010700 유무인항공선설계입문 3-2-2

Introduction to Innovative Aerospace Design

이 과목에서는 항공우주공학 시스템에 대한 전반적 기초지식과 공학설계기술 및 기술을 강화함으로써 학습하고 최신 CAD 기술과 3D 프린팅 제조기술 실퓨도 병행하여 공학설계기술을 배운다. 기계제도 이론 및 CAD 실습, 항공우주공학 시스템 개론, 구조 및 제어 이론, 3D 프린팅 제조기술 감리와 Idea Factory 3D 프린팅 워크숍을 통해 설계-제작-실험-평가로 구성된 팀 프로젝트를 수행한다. 팀 프로젝트를 위해서 경량이면서, 복잡한 형태를 갖는 엔진 공학, 무인기드론 날개, 또는 CubeSat 등과 같은 항공우주공학 시스템을 위한 구조를 원형제작에 적합한 3D 프린팅 제조기술을 적극 활용한다.

This course consists of lectures on fundamental knowledge about aerospace engineering system, engineering design process and specifications, and hands-on training on CAD and 3D printing manufacturing technology. The course covers topics in engineering drawing theory, CAD training, introduction to aerospace engineering system, structures and materials theory, and manufacturing by 3D printing. Students will perform team projects and experience design-manufacturing-test-evaluation engineering process. In team projects, students will utilize 3D printing technology suitable for rapid prototyping of aerospace engineering system such as complex shape aircraft engine components, lightweight wing for UAV/Drones or CubeSat, etc.
457.102A* 공학설계 및 CAD 2-1-2

Engineering Design and CAD

본 과목에서는 컴퓨터를 이용한 구조물 설계와 옵용을 이해하고, 컴퓨터를 이용한 톱구구조물의 설계 및 제도 프로그램들에 익숙하도록 한다. 본 과목의 학습자들은 디자인 기술을 이용한 극악 교량설계기술의 현황과 인공 및 건설환경에 대한 소개를 하고, 구조물의 제도 규격에 대한 소개를 한다. 주 방향은 컴퓨터를 이용한 구조물 제도 프로그램의 사용법을 소개하고 수업 시간 중 직접 실습을 통하여 사용법이 완전히 숙지할 수 있도록 한다.

The objective of this course is to understand the function and object of design drawing. In particular, we will examine the elementary methods for the graphical expression of structural design. Another aim is to develop practical skills of design drawing.

457.104* 건설공학리더십 1-1-0

Leadership for Civil Engineers

본 과목에서는 사회 진출 시 리더로서의 역할을 성공적으로 수행하기 위해 필요한 리더십의 핵심, 그리고 공학자로서의 윤리의 성찰을 함양한다. 본 과목의 학습자들은 공학인 리더십 프로그램을 집중적으로 취득한다. 토크, 발표, 현장체험 등을 통하여 의사 전달, 예치 작성 및 프레젠테이션, 집단동기 능력을 배양한다. 후반부에서는 엔지니어와의 프로세스를 배양하는데, 여기서는 엔지니어링에서 윤리적 문제소개, 사례발표회, 건설현장 견학 등을 통해 엔지니어 윤리의 성찰을 한다.

The objective of this course is to cultivate the leadership, teamwork, and engineer's ethics for the successful career as a leader after graduating the university. The first half of this course is concentrated on the engineer leadership program. This course will focus on the cultivation of capability for communication, technical writing and presentation, and complication management through discussion, presentation, field experiences. In the latter part of the course, engineer's ethics is treated: ethical problems in engineering, case study, communication, technical writing and presentation, and complication management through discussion, presentation, field experiences. In the latter part of the course, engineer's ethics is treated: ethical problems in engineering, case study, communication, technical writing and presentation, and complication management through discussion, presentation, field experiences.

457.201* 재료역학 및 실험 3-2-2

Mechanics of Materials and Lab.

재료역학은 자연 또는 인공 구조물의 역학적인 가동특성을 취급하는 공학의 한 분야이다. 이 과목에서는 속도와 변형, 변형계, 단선과 비탄성, 변형에너지, 하중지지능력 등의 기본개념을 소개한다. 이러한 개념들은 다양한 역학 및 구조 시스템의 해석과 설계에 요구되는 고전역학 해석의 기초가 될 것이다. 또한, 실제 역학문제를 다루는 실험시간을 통하여 개념적인 학습의 내용에 대한 학생들의 이해도를 높일 수 있도록 한다. Mechanics of materials is a branch of fundamental engineering that deals with the mechanical characteristics of natural or man-made structures. This lecture introduces fundamental concepts such as stresses/strain, deformations/displacements, elasticity/inelasticity, strain energy, and load-carrying capacity. These concepts will contribute to the constitution of professional knowledge required for analysis and design of various mechanical and structural systems. Moreover, Laboratory works with actual mechanical problems are organized to be able to help the students’ comprehension about the conceptual substances of the class.

457.202* 융용동역학 3-3-0

Theory of Applied Dynamics

물체에 작용하는 힘과 물체의 움직임에 따르는 현상을 학습하고 공학분야의 옵용을 연구하는 과목이다. 이 과목에서는 전력 및 강인의 운동에 대해 배우고, 역학에 대한 기본 개념과 원리를 학습하며, 구조물의 운동방정식을 유도하여 구조물의 운동특성을 파악한다. 또한 기초적인 구조 안전에 대하여 소개한다.

The objective of this course to understand the phenomena of force applied to object and its corresponding motion and to study the applications of the phenomena to the field of engineering. We will examine the dynamics of particles and rigid body motion, the principles and concepts of kinetics and understand the dynamics of structures by deriving their equations of motion. The fundamentals of structural vibration theory is also provided.

457.203* 도시계획 3-3-0

Urban Planning

도시계획의 목적, 작용범위, 수속 등을 연구하기 위하여 기본원리를 기초로 현대 도시계획의 내용과 자료를 도출한다. 역사, 지리, 사회적 경제적 측면에서 도시개발에 관한 연구를 수행한다. 구역설성, 산업구조, 계획평가 등을 계획실시를 바탕하여 연구함으로써 간과적 방법론을 도출한다.

In this course we will study the purpose, scope and techniques of urban planning. Based on our understanding of these basic principles, we will discuss the guideline of today's urban planning. We will first review the theories on the progress of city shaping, including the historical and socio-economic aspects. And then we will derive the scientific methods by examining the planning practice, population estimation, zoning and industrial structure analysis.

457.204* 기초류체역학 및 실험 3-2-2

Elementary Fluid Mechanics and Lab.

본 과목에서는 유체의 운동 및 역학에 관한 기초적인 이해를 취득한다. 우선 정리지역의 역학 및 압력에 대하여 공부하고, 유체운동을 기술하는 방정식을 취득한다. 또한 유체에 관한 정질론의 법칙 및 연속방정식에 관한 개념을 도입한 후, 유체의 운동에 관한 에너지방정식, 운동량방정식 등을 유도하고, 이들의 응용문제를 취득한다. 후반부에서는 실험체의 호조 특성과 난류흐름의 거동을 연구하고, 실험류체역학의 기초이론에 사례별적 사례로 근거하여 취득한다.

In this class, the basic properties of fluids are introduced and the hydrostatic problems in quiescent fluid are studied. After introducing the conservation of mass and continuity equation related to fluid flow, the energy equation and momentum equation are derived for flowing fluid and their applications are studied. Furthermore, the flow characteristics and turbulent motions of real fluids are discussed, and the similarity laws and dimensional analyses are studied for laboratory experiments of flow problems.

457.205* 공간정보공학 3-2-2

Spatial Informatics and Systems

습관과 발병에 기초적인 오차조정법, 네트워크 분석, 상대 및 상대측량, 트래버스측량 등의 내용을 강의하고, 최적과디지털측정기,
In this course lectures will be given on current computer computation, survey network analysis, triangulation & trilateration, and traverse survey. This course will also cover the experimental field survey, Electronic Distance Measure (EDM) and Global Positioning Systems (GPS) Discussions on the high-tech survey technique such as Geographic Information Systems (GIS), Satellite Remote Sensing and Digital Mapping will be included.

**457.207A 수학응용 3-3-0**

Hydrology

This course will introduce the hydrologic circulation as a field in Earth Science and examine the engineering techniques to solve various hydrologic problems. It deals with the physical theories, measurement methods and data analysis techniques for precipitation, evapotranspiration, infiltration, ground- water, and runoff processes. It will also cover statistical techniques such as flood frequency analysis and hydrologic design methods.

**457.207* 土木역학 3-3-0**

Soil Mechanics

This course will deal with the following topics related to the basic theory of soil mechanics: the basic properties of soil, the concept of effective stress, shear strength, consolidation of soil, lateral earth pressure, and the seepage in soil, the concept of effective stress, shear strength, consolidation, soil, lateral earth pressure, and the seepage in soil. We will especially focus on the study of the concepts of effective stress and shear strength and the consolidation theory of clay.

**457.206* 도로역학 3-3-0**

Traffic Engineering and Lab.

This course will provide a comprehensive overview of the concepts in the field of Traffic, including Transportation Engineering, Transportation Planning, Highway Engineering and Public Transportation.
457.302  **Urban Design**

This course will introduce the concept of urban design to students who do not have strong background in the field of urban planning and design. The basic theories and concepts of space, space aesthetics and urban landscape will be dealt with in this course as well as techniques for urban design and implementation methods. It is recommended that students take 'Urban Planning(457.203)' prior to this course, though it is not mandatory.

457.303  **Structural Analysis 1**

Structural Analysis 1 will cover the basic concepts and skills required to determine reaction forces, moments and deflections in prescribed structures such as trusses, beams, and frames under prescribed force systems.

457.304  **Structural Analysis 2**

In this course we will examine the basic concepts and structures under prescribed force systems.

457.305  **Theory of Reinforced Concrete and Lab. 1**

This course will introduce various construction equipments frequently used in construction sites and examine the methods of handling these equipments according to the type of equipments in use. Students will acquire the professional knowledge of various construction methods essential for construction work such as foundation work, construction planning and management. Contemporary construction practice requires construction professionals to not only master professional knowledge of various construction methods but also have a strong background in engineering and management methods.

457.306  **Theory of Reinforced Concrete and Lab. 2**

The main objective of this course is to have leadership training in the construction industry including engineering practice, field project and corporate management. Contemporary construction practice requires construction professionals to not only master professional knowledge of various construction methods but also have a strong background in engineering and management methods.

457.307  **Construction Methods and Equipment**

This course will introduce various construction equipments frequently used in construction sites and examine the methods of handling these equipments according to the type of the required engineering work. Students will acquire the professional knowledge of various construction methods essential for construction work such as foundation work. Field trips will help concretize their knowledge of the construction methods. The main objective of this course is to acquaint students with various processes carried out in construction sites.

457.308  **Hydraulics and Lab.**
The purpose of this course is to have a systematic understanding of the mathematical and physical concepts of hydraulics and also prepare for subsequent in-depth study of the highly developed areas of application. This course will examine the practical cases, which will help develop quantitative thinking skills regarding the elementary pipe and open channel flows. We will also study about the kinematics and dynamics of fluid motion which are central to hydraulics.

Structural Information Engineering

This course is to study the extraction of information on the behavior and state of structures thorough extraction of information on the behavior and state of structures thorough experimental procedures. In this course, the students will learn about the measurement, sensors, data acquisition and data processing. Then the students will perform various kinds of static and dynamic experiments. They will also expose to the latest information technologies such as monitoring and remote control via internet. They will understand the behavior of structures, technologies such as monitoring and remote control via internet. They will understand the behavior of structures, technologies such as monitoring and remote control via internet.

Spatial Information System

This class is to advance the understanding of spatial information systems and the ability of applications of spatial information technology. For this, broad knowledge on spatial information is covered in lecture with some practical lab exercises.

Site Investigation and Soil Testing

This course provides the experimental methods of engineering properties of soils required for engineering applications, and deals with the planning for site investigation, boring, in-situ tests, sampling. It also introduces technical trends and analysis methods of testing results By performing laboratory experiments on main soil testings and analyzing their results, acquiring testing techniques, and experiencing mechanical properties of soils, the students understand the importance of field measurements of soils.
대중교통체제를 효율적으로 운영하기 위해 대중교통수단의 역할로서 도시교통망 설계과 주거지역의 건설산업의 상호작용의 유효적 연계를 도모하고 도시가 안고 있는 교통분쟁을 해결해야 할 것이다. 본 장에서는 대중교통체계설계, 도시교통판관리, 주거패턴에 대한 기법, 장·단기 대중교통정책 등을 다루게 된다.

The main objective of this course is to investigate various mass transit systems. This course involves the following topics: introduction of various mass transit systems including the bus, subway and other new mass transit systems; and the characteristics, operation systems, and fare systems of mass transit systems.

M1586.001600 도시의 물질과 에너지 순환 3-3-0

Material and Energy Circulation for Sustainable Cities

2018년 자원순환기본법이 시행되는 등 국내외에서 폐기물에 대한 인식과 폐기물 관리의 역할이 변화하고 있다. 도시의 위생 수준 항상에도 폐기물 관리의 기본 역할을 더욱 잘 수행하고자 에너지 회수를 통한 도시의 지속가능성과 환경적 제약과 고려해야 한다. 따라서, 이 교과목에서는 도시 내의 물질과 에너지 순환에 관한 폐기물 관리에 대한 학습을 논의하고자 한다.

Recognition of wastes is changing and evolving. They are no longer useless and unwanted substances and instead have become reusable natural resources and renewable energy sources. In addition to the traditional and fundamental roles of waste management, i.e., hygiene, sanitation, and waste management needs to be planned and considered for more sustainable and resilient cities. Solutions for waste management in urban areas will be discussed and addressed.

457.318 토질공학 3-3-0

Geotechnical Engineering

지반에 관련된 재반 공학적 문제들을 다루는 과목으로서 암반의 성질과 같은 기초와 같은 기초의 하중과 강도, 시멘트성, 하층기초성 등에 대한 해석 및 설계방법과 실제 공학적 적용사항을 강의한다. 지반에 관련된 역학적 차원들을 토대로 구축된 다양한 지반구조물들의 해석 및 설계방법들을 실 사례에 대한 설명 및 예제를 함께 병행하여 실시한다. 특히 실제 지반공학적 문제들에 대한 학생들의 현실감을 고려하고 최근 지반공학 분야의 연구동향도 파악할 수 있도록 관련분야 외부전문가의 세미나와 현장견학을 행하여 실시한다.

This course deals with subjects on geotechnical engineering. It provides design and analysis of following geotechnical structures: shallow foundations, deep foundations, retaining walls, excavations, soil improvement, and slope stability. To enrich students’ knowledge on geotechnical engineering, lectures on field cases and problem solutions are allocated. Also, to help students to grasp deep understanding on field applications and recent research trends, field trip and seminars by field experts are provided.

457.319 도시 및 지역경제론 3-3-0

Urban and Regional Economics

도시 및 지역경제론은 경제학 이론을 활용하여 현재의 도시 및 지역이 직면하고 있는 주요, 교통, 교육, 주거, 근로, 범죄 등 주요한 이슈를 다루고, 그에 대한 경제학적 해법을 모색한다. 또한 도시의 존재, 도시의 입지, 도시의 규모, 도시의 성장과 쇠퇴, 환경의 공간적 분포와 관련된 이론들을 다루게 될 것이다. 또한 기존의 도시경제학의 학문적 성과를 바탕으로, 지구환경과 지구경제현상에 미칠 도시의 경제확산과 삼차직업에 초점을 두어 강의를 진행해 나갈 계획이다. 이 과목은 정규 수업과 더불어 학생들의 발표, 토론을 결합하여 이루어질 것이다.

Urban and Regional Economics utilizes economic theory to examine the major contemporary issues confronting urban and regional areas, exploring possible economic solutions to the problems of housing transportation, education, employment, poverty, and crime. Also considered will be theories of why cities exist, city location, city size, the causes of growth and decline, and the spatial distribution of alternative activities within cities. Also, based on existing urban economic's academical achievement, this class will be focused on city's economic situation and interaction that will influence earth environment and world economics. The class follows a seminar format, which involves a mixture of formal lectures, student presentations, and class discussion.

457.320A 수자원 공학 3-3-0

Water Resources Engineering

수자원공학의 기능은 시간적, 공간적으로 발생하는 해양에서의 수자원을 양질의 물질과 질적인 측면에서 이용할 수 있도록 하는 것이다. 본 과목에서는 수자원공학 분야에서의 계획 및 관리에 대한 소개, 수자원계획에 대한 핵심적인 개념, 경제학에 대한 일반적인 사항 및 시스템공학에 대한 소개를 다룬다.

The function of water resources engineering is to make available a water resource of given properties (quantity as well as quality aspects), which is a limited resource in time and space. This course deals with the introduction to water resources, the uncertainties in water resources, the selective overview of economics, and the introduction to systems.

457.322 토목지질암반공학 3-3-0

Engineering Geology in Civil Engineering

지반을 구성하는 중요한 재료이며 건설공학 측면에서 크게 활용되는 양반의 역학적 특성과 그 공학적 활용 방법을 강의하는 과목이다. 지반의 지질공학적 고찰과 함께 실제 생산성과 분류, 그리고 품목 등에 대한 설명 변화와 그 역학적 특성과 함께 강의하고, 양반에 대한 설명되는 또는 양반을 이용하는 중요한 지질공학의 분야, 암사면, 기초 등에 대한 이상 및 해석 이론 등을 강의한다.

The subsurface is composed largely of rocks, a material that has a high practical use in the field of civil engineering. The course is focused on understanding the mechanical properties and the engineering applicability of rock materials. In addition to investigating the geological characteristics of the subsurface level, changes in the properties of rocks according to weathering, formation and classification will be lectured. Engineering structures that are constructed within the bedrock or those that use rock as a construction material such as tunnels, rock slopes and foundations will be covered.
적합한지를 판단하기 위한 중요한 척도로 사용된다. 특히 21세기에 들어 미생물의 농도에서도 생물계에 심각한 영향을 미치는 신규 오염물질 등이 점점 늘어나고 있기 때문에, 수질 관리의 중요성은 점점 커지고 있다.

대한민국에서는 상수도와 헬스케어 시설, 목재 공장, 제조공장, 농장, 가축장, 화학공장, 화력 발전소 등에서 발생하는 신규 오염물질에 대한 연구가 활발히 진행 중이다. 이러한 오염물질은 대기, 수질, 대지, 생물 등에 미치는 영향이 다양하기 때문에, 그 영향을 파악하고 대처가 필요하다.

함께 학습하는 것의 중요성

학교에서는 학생들에게 수질 환경에 대한 기본적인 지식을 제공하는 것이 중요하다. 학생들은 수질 환경에 대한 이해를 바탕으로, 수질 오염의 원인과 대처를 알 수 있으며, 이를 바탕으로 논의와 논쟁이 이루어질 수 있도록 돕는다는 관점도 있다.

수질 환경 연구

수질 환경 연구는 과학적 지식과 배경을 바탕으로 올바른 판단과 대처가 가능하도록 한다. 또한 이러한 주요물질의 측정법 및 그 원리를 다루고, 이에 기초하여 대처가 가능하도록 한다.

수질 환경 연구는 다양한 현상에 대한 이해를 돕고, 이를 바탕으로 논의와 논쟁이 이루어질 수 있도록 돕는다는 관점도 있다.

457.403 도로공학 3-3-0

Highway Engineering

도로설계에 있어서 교통공학적인 면에서 고려해야 할 것이 무엇이던지 그에 따라 필요한 교통사항으로서 도로상의 교통량을 추정하고 도로의 용량, 계획 및 유지관리관련 및 주요시설설계, 공간의 배합, 평균속도와 구조에 관한 내용을 다룬다. 또한 설계적인 측면에서 평면 및 입체교차설계, 점진법 분류 및 합류구간설계, 도로 설계 등에 대한 연구도 다루게 된다.

상태에 따라 국가 및 지역에서 발생한 다양한 현상에 대하여 되짚어볼 수 있다.

National and Regional Planning

국토 및 지역계획은 도로공학과의 관계에서 분리되어서 발생한 것이라, 수질 환경에 대한 이해를 바탕으로 논의와 논쟁이 이루어질 수 있도록 돕는다는 관점도 있다.

457.404 국토 및 지역계획 3-3-0

National and Regional Planning

도로공학과의 관계에서 분리되어서 발생한 것이라, 수질 환경에 대한 이해를 바탕으로 논의와 논쟁이 이루어질 수 있도록 돕는다는 관점도 있다.
This course deals with characteristics and theories about traffic flows on various transportation facilities. Three major attributes of traffic flow, flow, speed, and density, are discussed from the view points of microscopic and macroscopic aspects. Also the relationships between these three attributes such as traffic flow models, shock wave, and queueing theory, are dealt with. These characteristics are major factors in planning, design, and operation of transportation facilities.

457.407

Design of Transportation Systems

This subject covers the environmental contamination of soil and groundwater, which came to the front as serious environmental problems, and introduces remediation methods. Students will study the classification of contaminants, the source of contamination, the transport process of contaminants, and the investigation methods of contaminated sites. In detail, students will deal with water pumping treatments, bioremediation, and soil vapor extraction in the remediation processes.

457.410

Remediation for Contaminated Subsurface

This course deals with the major disciplines of environmental engineering including water and wastewater treatment, hazardous waste treatment, and soil and groundwater remediation. The attendees will obtain basic experimental skills and their design ability to understand and improve the functions of environmental engineering systems. Students will also learn interdisciplinary experimental methodology.

457.411

Integrated Design of Civil Engineering Systems

This course is intended to the graduating students who finished overall theoretic civil engineering classes. We let the students directly experience the design and (virtual) construction procedure which require knowledge about various specific sections in civil engineering. We set the goal to bring up competent persons who can adapt themselves to the field right after graduation.
Design of Steel Structures

본 과목은 교량, 건축물 및 다른 유형의 강구조물들의 설계 개념과 상세 분야 설계에 대한 해박한 지식을 제공한다. 이 과목의 주 목적은 학생들로 하여금 여러 시장 기준(도로성 설계기준, 강구조 설계기준, AISC 등)에 따른 안전, 압축, 힘, 변형 그리고 안정성 등의 설계법을 학습하게 하는 것이다.

The course covers the design concept of bridges, buildings and other steel structures, and the detailed design of their structural members. The main aim of this course is to familiarize students with the detailed design of connection members as well as structural members under tension, compression, flexure and torsion according to various design standards (Standard Specifications for Highway Bridges, Design Standards for Steel Structures, AISC, etc.).

Civil and Environmental Planning for Climate Change Adaptation

건설환경공학은 지구온난화에 의한 기후변화의 영향이 가장 큰 분야 중 하나이다. 본 강좌에서 기후변화 대응기술의 세부적인 설계, 전망, 적응을 소개한 후 수자원, 항해, 생산, 교통, 방재, 도시계획 등 건설환경 산업에 기후변화가 미치는 영향을 평가하고 이에 대한 미래 적응기술을 중심적으로 다룬다.

Civic & environmental engineering is one of the areas that are the most affected by climate change of the global warming. This course introduces the climate change preparation techniques such as projection, mitigation, and adaptation and then focuses on the impact assessments and the future adaptation techniques that are necessary to the civic & environmental industries such as water resources, coastal, ecology, transportation, disaster prevention, and urban planning.

수질오염제어

(3-3-0)

Water Pollution Control

 인간 활동으로부터 발생하는 수질오염으로부터 인간과 생태계의 건강을 보호하기 위한 하수 및 우수의 적절한 수질, 수용, 처리, 방류에 대하여 학습한다. 하수 및 수자원에서 유출한 오염물질의 흐름을 회수하여 물이용의 지속가능성을 활성화시키기 위한 방법론을 고찰한다. 하수 및 우수의 처리 과정에서 발생한 오염물질의 처리 및 에너지, 자원 회수로 관련된 각 단계공정의 계획과 설계, 운전 및 유지관리에 관한 구체적 내용을 공학적인 원리에 기반하여 교육한다. 지속가능한 물이용을 위한 에너지 및 자원 회수의 새로운 기술을 학습하고 몰입의 지속가능성을 보다 향상시키기 위해 극복하여야 할 문제와 앞으로의 과제에 대하여 논의한다.

This course introduces dynamics and fundamental mechanics related to water. It covers the application of fundamental hydraulics to planning/design of irrigation and drainage systems. The course provides relevant experiments and practices.

하천설계 및 관리

(3-3-0)

River Design & Management

본 과목에서는 기초수리학 및 실험 과정과 수리학 및 실험에 섬 배우게 되는 교량 및 하수에 관한 기초적인 지식을 바탕으로 하여 수공구조물 설계를 공부한다. 본 과목에서는 하천공학과, 하천시스템, 하천환경적, 하천수질 및 하천구조물 설계에 필요한 기초이론을 취급하고, 이론에 근거한 하천구조물 설계를 공부한다. 해당 분야에서는 채역 및 하수로에 관한 이론을 연구하고 댐구조 설계를 공부한다.

In this course, students will learn design methodology of hydraulic structures based on the fundamental knowledge of movement of fluid and water studied in the courses of Elementary Fluid Mechanics and Hydraulics. In the first part of the course, outlines of river engineering, surveys of river system, river morphology, sediment transport theory, river water quality analysis will be treated, and then design of river structures will be studied. In the dam engineering field, students will learn theories of dam and spillway, and then design of dam structures.

수리학 및 실험

(3-3-2)

Hydraulics and Lab.

물에 대한 기본적인 역학 및 운동학적 지식을 학생들에게 습득 시킴으로써 이를 관계배수처리의 계획, 설계 및 농업용수자원의 개발에 유용할 수 있는 능력을 제고한다. 본 과목에서는 강의 중심의 이론보다는 실제 문제 해결을 위한 실험, 실습에 초점을 맞추어 과목이 운영될 것이다.

This course introduces dynamics and fundamental mechanics related to water. It covers the application of fundamental hydraulics to planning/design of irrigation and drainage systems. The course provides relevant experiments and practices.
이론을 소개한다. 기준점 측량에서는 거리측량, 수준측량, 각 측량 등의 이론과 응용을 학습하며, 트래버스 측량과 삼각측량, 고저차 수준측량을 다룬다. 세부측량에서는 평판측량, 시기측량, 지형측량, 노선측량과 면적과 체적계산 등을 학습한다. 응용측량은 농업토목 분야의 응용측량내용과 공사 측량 등을 학습한다. 실습에서는 평면측량의 각 방법을 현장에서 실제로 적용하며, 현장 응용능력을 배양하는 데 그 목적이 있다.

This course introduces basic principles and applications of various levels of survey methodologies. Specific topics will include control survey, detail survey, photogrammetry and remote sensing, and catography.

### 수문학 및 실험 3-2-2
Hydrology and Lab.

수문학은 물의 과학과 공학수학의 입문과정으로 수문현상의 각 과정에 대한 측정방법과 자료의 분석기법을 다룬다. 주요내용은 기상과 수문, 강수, 증발과 증산, 지하수와 하천류량 등 다. 유출해석방법으로 수학적인 강수-유출관계의 해석 이론과 단위 유량도와 합성단위도 등을 다루며, 확률론적인 수문해석기법에서는 확률이론에 기초한 연홍수량과 강수량 등 수문자료의 변동해석을 다룬다. 실습에서는 각 강좌별로 수문자료의 측정과 분석과 관련한 프로젝트 중심의 진행으로, 응용기술을 학습한다.

This course covers the basics of hydroscience, measurements and data analyses for each hydrologic cycle. Specific topics will include runoff and probabilistic analyses of hydrologic data such as annual flood and rainfall data.

### 철근콘크리트공학 3-3-0
Reinforced Concrete

철근콘크리트공학은 재료 및 구조학의 기본원리를 바탕으로 콘크리트의 재료 특성 및 철근콘크리트의 부재와 구조물의 설계원리를 이해하고 구조해석 및 설계이론을 습득하여 철근콘크리트를 이용한 구조물의 설계능력 함양하는 것을 목적으로 한다.

This course studies fundamental facts and theories about reinforced concrete, along with its analysis and design methods. Basic knowledge on material engineering and structural mechanics is required.
M1594.0000400  Practice of Energy Resources Engineering

This introductory class covers basic principles and applications of energy and resources engineering in natural environments. Lectures about related industry and policy issues are also delivered. Faculty members of the department participate in Q&A sessions and discussion sessions. This course is linked to ‘Practices of Energy Resources Engineering’ which is another mandatory class for freshmen. Students in this class learn and practice how to design and select production facilities including equipment design for drilling and production using given geological, well log, core, and production data. They learn how to design and select production facilities for separation of produced fluids and to evaluate inflow and outflow performance between reservoirs and wellbores. This course covers principles of basic well log tools and how to interpret the well log data as gamma ray, sonic, neutron porosity, resistivity, and density logs. In this course, students practice interpretation of real field well log data.
In this course, students will learn about various concepts of chemical reaction theories that are fundamentally required for engineering application. By dealing with the property of gas, the 1st and 2nd laws of thermodynamics, phase change of materials, fundamental gas kinematics, molecule movement such as diffusion, reaction velocity and chemical equilibrium, this course provides theoretical knowledge that is fundamentally required for analyzing chemical phenomena observed in the field of energy resources engineering.
The raw materials extracted from the earth are highly impure and must be upgraded before they are of use to society. The refining of material commodities involves a broad variety of science and technology, associated with the production, handling and separation of solid particles. This course covers physical separation of valuable minerals from ores and particle systems including numerical modeling with practical experiments on the topics above.

465.304 Numerical Analysis for Energy Resources

This course teaches basic numerical techniques for energy resources engineers. It covers iterative methods to solve non-linear equations, numerical integration, and stochastic simulation for modeling uncertainty. It also covers FDM and methods to solve matrix equations. Students will learn practical numerical techniques by class projects and MS Excel Visual Basic Applications.

465.306 Applied Geochemistry

This course focuses on the distribution and migration characteristics, and dispersion patterns of chemical elements and isotopes in geochemical samples such as rock, soil, drainage, vegetation, and gases. This course also covers exploration geochemistry of minerals and energy resources, and the principles of environmental geochemistry related to heavy metal contaminations. Thus, this course consists of isotope geochemistry, geochemical survey and sampling, geochemical analysis, statistical treatment and interpretation of geochemical data, rock-soil-drainage-vegetation-gas exploration geochemistry and the basic principles of environmental geochemistry.

465.308 Subsurface Image Processing

This course addresses the methodologies that make subsurface images using the data acquired from various exploration techniques. It will cover the imaging of velocity field, resistivity and density by using the data from the seismic, electric, electromagnetic, or gravity survey. This course includes the understanding of the data processing techniques such as filtering.

465.311* Rock Mechanics

This course covers the physical and mechanical properties of rock as well as stress distribution and deformation characteristics subject to external loads. It also introduces the time-dependent behaviors and non-linear stress-strain relationships. In the laboratory session, students conduct a series of hands-on experiments such as for uniaxial compressive strength, Young’s modulus, Poisson’s ratio of rock, etc.

465.313* Petroleum and Gas Engineering and Experiment

This course addresses engineering theories on the development of petroleum, gas, and ground water. Specifically, it covers rock properties, mechanisms for distribution of fluids, fundamental behaviors of hydrocarbon fluids, reservoir engineering, and EOR. This course includes experiments on the topics above.

465.315 Geostatistics

This course covers basic statistics for spatial analysis in the first half. Then, students will learn variogram and its modeling for spatial analysis with separation distance. For the estimation of unknown values, this class addresses several kriging methods such as simple kriging, ordinary kriging, and non-kriging techniques such as polygon method.
공과대학(College of Engineering)

465.319 신재생에너지 3-3-0
Renewable Energy

중요성이 높아지고 있는 신재생에너지의 공학적 특성, 원리, 배경기술, 현재, 그리고 이들의 상호관련성을 배운다. 또한 태양열, 풍력, 조력, 지열, 바이오매스 등 다양한 신재생에너지를 경제적인 관점에서 평가점수를 분석한다.

This course covers engineering aspects, principles, background technology, limitations, and cross relationship of each renewable energy. It analyzes economical advantages and disadvantages of renewable energy sources such as solar, wind, tide, geothermal, biomass, etc.

465.320 지질공학 3-3-0

Engineering Geology

지반을 구성하고 있는 다양한 암석, 흙에서 발생하는 풍화 및 파괴동 등의 지질현상 및 지반조사기법에 대한 이해를 통해 에너지개발, 건설 부지에 대한 지질적 재해요소를 분석한다. 실험을 통해 지반의 구조를 해석하는 구조지질기법의 공학적 응용, 지층 구조의 공학적 해석기법을 배운다.

Engineering assessment technique and solutions are taught for potential geohazards at energy development and construction sites in terms of both geological phenomena such as weathering and failure of various rock and soil. Engineering application of structural geological techniques and subsurface interpretation techniques are the main subject of laboratory classes.

465.326 암반공학응용 및 설계 3-3-0
Rock Mechanics for Mining

암석역학의 기본이론에서 출발하여 보다 심화된 이론들을 공부하며 지하광산의 안정성해석 및 설계에 초점을 맞추어 강의를 진행한다. 주요 주제로는 응력을 변화하고 암반구조와 분류, 암석강도와 변형성 등의 암반공학 이론과 층상암반에서의 굴착, 블록암반에서의 굴착, 채광 및 지보 등이 있다.

This course introduces the advanced principles of rock mechanics as well as fundamental theories applied to stability analysis, design and construction of underground mines. It covers the topics such as stress and strain, rock mass classification, rock strength and deformation, excavation design in massive, stratified or blocky rock mass and mining methods.

465.331 에너지원계탐사 3-3-0
Remote Sensing for Energy Resources

원격탐사의 원리 및 기술에 대한 배운뿐만 아니라 위성영상의 분석을 통해서 에너지자원의 분석을 해석하고, 이를 활용해서 에너지자원작용을 단계별로 해석하는 실무적인 기술을 배운다. This course teaches basic principles of remote sensing and its applications for energy resource exploitation. There is Lab work using commercial softwares with satellite images.

465.333 파동과 지진공학 3-3-0
Wave and Earthquake Engineering

본 과목은 파동과 지진공학의 기본이론을 이해하고 지지역에 발생하는 대표적인 파동과 현상에 대한 특성을 다룬다. 파동과 지진공학의 기본을 이해하며 이를 통해 토목공학적 기법을 기술하는 지반의 전과 특성을 학습한다.

This course deals with the fundamental theories on the wave propagation and the properties of the earthquake, which is one of the representative wave phenomena. Through the understanding of the wave propagation based on both ray theory and elasticity theory, it deals with the properties of earthquake propagation.

465.404A 에너지자원공학 독립학습 2-2-0
Independent Studies on Energy Resources Engineering

본 과목에서는 학생과 지도교수의 1대1로 에너지자원공학 분야의 자주주제를 함께 산학, 산학적, 학교적, 학교적 학습하여 그 이해도를 높임을 목적으로 한다. 실제 문제를 분석하고 풀어보는 문제을 산학, 산학적, 학교적, 학교적 학습을 통해 학습한다.

This course is to provide a chance to an in-depth personal study for selected topics on energy resources engineering. Students are open to select any research topics to be analyzed with their supervisors and a thesis is required as a result of the study.

465.406 해외자원투자실습 3-3-0

Evaluation and Investments for International Energy Resources

현재 세계 각국은 원유, 천연가스 등의 자원을 확보하기 위해 보이지 않는 경쟁을 벌이고 있다. 본 과목에서는 해외자원개발에 대한 관심이 높아지고 있다. 본 과목에서는 해외자원개발에 대한 개념과 원리, 해외자원개발의 공학적 기법, 정책과 제도, 태양열, 천연가스의 매장량을 평가하는 공학적 기법, 학생들의 관심사에 따라 하보로 투자에 대한 의사를 결정하는 실무중심의 지식을 습득할 수 있다.

Many countries are competing with each other to acquire international energy resources. Due to the importance of energy, we also have interests in international oil and gas businesses. This course teaches engineering techniques to calculate reserves and legal systems for global energy business. Students will learn theory and field-based case studies for making a decision for investment in global energy resources.

465.408 국제에너지시장분석 3-3-0
Analysis of International Energy Markets

본 과목은 국제에너지시장의 예측 및 분석을 위한 분석기법을 학습하고 에너지시장의 대표적인 특성인 높은 가격변동과 시장의 지역화 문제를 산학적으로 해석한다. 시계열 계량경제기를 이용한 예측을 통해 섞은 분석기를 학습하며, 실제자료를 활용한 팀별 분석실습과 토론학습을 진행한다.

This course discusses issues on international energy markets such as high price volatility and regionalization. Time-series econometric methods are introduced as the main analytical tool. Rigorous programming, team projects and discussion sessions are provided.
465.413
Energy Economics

This course discusses economic aspects of energy industry and markets and the basic economics theories on energy and energy technology. Topics covered are analysis of externality, market failure and exhaustion of resources as well as social benefits of energy development and technology R&D, and structures of energy markets and industry.

465.417
Geophysical Data Analysis

Geophysical data analysis is to investigate subsurface objects or position, size and shape of strata on the basis of the response curve through the theoretical or empirical analysis. This course deals with the interpretation of geophysical data based on the geological knowledge, the analysis and the comparison with the solution obtained by the inverse theory through the numerical analysis.

465.419
Clean Coal Technology

Clean Coal Technology aims to enhance both the efficiency and the environmental properties and reactivity of coal, and clean coal technologies introduces the origin and formation of coal, physical-chemical properties and reactivity of coal, and clean coal technologies designed to enhance both the efficiency and the environmental acceptability of coal use.

465.420
Geothermal Energy

Geothermal Energy is a technology developed for reducing such as pollutants occurred by coal. This class introduces the origin and formation of coal, physical-chemical properties and reactivity of coal, and clean coal technologies designed to enhance both the efficiency and the environmental acceptability of coal use.

465.424
Design of Tunnel and Underground Space

Design of Tunnel and Underground Space

465.435
Energy Environment Engineering

This course deals with the engineering techniques for design and construction of traffic tunnels and large scale underground spaces such as subways, road tunnels, and underground sports complexes. It focuses on the techniques for tunnel excavation, reinforcement and ventilation, and introduces various designs of underground structures for industry and inhabitation.

465.441
Drilling Engineering

Drilling Engineering
자원개발공학

자원개발의 과정은 광상의 위치 및 형상 확인, 채광법의 선택, 굴착 및 지보, 생산, 이송, 부대설비 구축 등의 많은 단계를 포함하며, 각 단계별로 다양한 주제를 학습하여야 한다. 본 교과목에서는 지하 광상, 지표 광상의 채광법을 선정하고 광산을 설계하는데 필요한 지식을 학습한다. 동시에 굴착, 지보, 운송 방법에 대하여 학습한다. 광산 설계를 위한 자동화 프로그램을 구동하여 학생들이 실제로 현장에서 발생하는 생산 과정을 사전에 시뮬레이션 하도록 한다.

Mining Engineering

The process of mine development involves different stages including determination of position and shape of ore deposit, selection of mining method, excavation and reinforcement, production, transport, and installation of auxiliary plants, which require knowledge in different aspects. This class teaches the knowledge for designing an underground and open pit mining system. An automated mining design software program is used to simulate the mining activities in the designing stage, on which student will obtain hands-on experience.
458.201*  
**Physical Chemistry 1**

The structure and the methods of manufacturing of hydrocarbons such as alkane, alkene and alkyne, (2) the nucleophilic substitution and elimination reaction of halogen compounds, (3) streechemistry, (4) ethers and epoxy compounds, (5) characteristics and manufacturing methods of alcoholic compounds.

458.205  
**Physical Chemistry 2**

This course provides the concepts of equilibrium electrochemistry and batteries.

458.202  
**Engineering Biology**

This course provides the basic concepts of organic chemistry, chemical reaction and kinetic electrochemistry. This lecture includes the basic theory of the dynamics of gases, ion transfer, mass diffusion and simple kinetics of chemical reactions. And complicated theories of the kinetics of photochemical reaction, autokinesis reaction, oscillation of reaction and chain reaction, kinetics of electrochemistry of adsorption on solid surface, catalyst reaction, overpotential, polarization, polarochemistry, batteries and corrosion are also provided.

458.203*  
**Organic Chemistry 1**

This lecture provides the basic concepts of organic chemistry, in that the geometric structure and the methods of manufacturing of chemical compounds and their reactivities. (1) the structure and the methods of manufacturing of hydrocarbons such as alkane, alkene and alkyne, (2) the nucleophilic substitution and elimination reaction of halogen compounds, (3) streechemistry, (4) ethers and epoxy compounds, (5) characteristics and manufacturing methods of alcoholic compounds.

458.206*  
**Elementary Lab for Chemical and Biological Engineering**

This course provides the basic technique for analysis of materials necessary for chemical experiment. This lecture also gives experimental techniques available for understanding physicochemical phenomena and changes, such as phase change, equilibrium and the law of thermodynamics, based on the theories dealt in the lecture of <physical chemistry 1 and 2>.

458.301*  
**Organic Chemistry 2**

This lecture provides the basic techniques of organic chemistry and the qualitative analysis of active sites by spectroscopy. (1) basic theory of the qualitative analysis of organic compounds by UV, IR, NMR and mass spectroscopy, (2) aromatic compounds and electrophilic substitution
reaction, (3) characteristics and manufacturing methods of organic acids, (4) characteristics of the compounds including the active sites of aldehyde and ketone, (5) compounds including amine sites, (6) organometallic compounds and their industrial applications, and (7) characteristics and kinds of heterocyclic compounds.

458.302* 응용생화학 1 3-3-0

Applied Biochemistry 1

 생명의 4차 기 본 물질로서 단백질, 탄수화물, 핵산, 지질 등 생 체고분자의 특성 및 구조-기능 관계를 이해하고, 이들 분자간 세포 내의 다양한 정보전달 및 상호작용에 따른 생물현상의 분자적 논리를 소개한다. 특히, 물질 대사를 통한 생명 에너지생산과 생체 고분자의 합성과정을 이해함으로써 생명의 기본원리를 환원적 시각으로 해석하고, 생리현상 및 환경물질의 응용 가능성에 탐색한다.

In order to understand the molecular logic of life, the life-defining macromolecules such as proteins, carbohydrates, nucleic acids, and lipids are introduced in terms of molecular characteristics, structure-function relationships, and their interactions and molecular communications. Emphasis will be given to metabolisms generating biological energy and synthesizing the macromolecules. This will provide a conceptual framework to analyze biological phenomena in molecular terms, and a foundation for their applications.

458.304* 열 및 물질전달 3-3-0

Heat and Mass Transfer

본 과목에서는 화학공정의 해석 및 설계에 필요한 열전달, 물질 전달에 대한 기본 지식을 습득하게 한다. 전도와 열전도, 대류 열전달, 비등, 응축, 복사 열전달, 엘토발, 열확산, 핵산, 핵산, 지질 등의 생합성 과정 및 이들 분자간 상호작용을 이해함으로써 이 물질들의 분자적 생성 가능성을 탐색한다. 3) 생명체의 중심원인 DNA, RNA 대사, 단백질의 합성 및 분해 과정을 분산적 근거를 바탕으로 해석하고, 이러한 생화학 반응을 기반으로 한 생명체의 유전자 변형 조건 기술을 삶의학적으로 다양한 생명시스템 내의 유전자 발현의 인위적 조절 가능성을 탐색한다. 본 과목을 통해 생화시스템의 기본원리를 생화학적 관점에서 해석하고, 다양한 생리현상 및 대사계통등의 대응적 응용 가능성을 탐색한다.

Molecular logics of metabolism and information pathways are introduced to understand biological system and to utilize the knowledge for engineering purpose. More specifically, the following topics are discussed: 1) Various central carbon metabolic pathways of the biological system and their regulatory mechanisms in terms of transcription, translation, and post-translation levels, 2) Synthesis and degradation mechanisms of macromolecules that are essential for the biological system such as carbohydrates, amino acids, nucleotides, and lipids, 3) Detailed mechanisms of central dogma related to DNA synthesis/degradation/replication, RNA synthesis/degradation, protein synthesis/degradation as well as the regulatory mechanisms of gene expression in molecular level. This course provides a conceptual framework to understand biological system in detail and a foundation for its applications in engineering biological systems.

458.305* 공정유체역학 3-3-0

Process Fluid Mechanics

유체이동의 배경이 되는 기본 법칙과 원리에 관한 학문으로서 화학공정의 해석에 필수적인 열전달, 물질 전달, 압력, 응력, 변형의 관계를 동시에 고려하는 동등식 및 운동식의 유도 및 해석방법과 공정 응용 및 근사법 등에 관한 기본 이론을 제공한다.

This lecture provides the laws and principles of fluid flow by the management of fluid flow phenomena by which flow patterns divided, and the equation of conservation based on mass, momentum and energy.

458.306* 화학생물합성실험 2-4-0

Chemical and Biological Synthesis Lab

본 과목은 유기화학 강의와 병행하여 nitration, sulfonation, diazotization, coupling reaction, Friedel-Craft reaction, oxidation, reduction, halogenation, saponification 등 여러 단위 공정들의 핵심을 이해하는 핵심 과목의 핵심을 도입하며, 핵심적 유기합성물질의 핵심분석 및 기기분석방법을 이용하여 이들의 응용성과 구조를 학습하도록 한다.

This course helps students understand the synthesis of or-
ganic compounds through a variety of unit processes, for example, nitration, sulfonation, diazotization, coupling reaction, Friedel-Craft reaction, oxidation, reduction, halogenation, and saponification. This course also makes clear what structures and properties of these compounds are all about.

**458.307**

**Chemical and Biological Process Lab**

The purpose of this course is to provide students with comprehensive knowledge related to major subjects such as chemical reaction engineering, hydrodynamics, heat transfer, and process control. The course covers the method of expression of results, indirect analysis, time analysis, and the method of computation. This lecture also provides the theory of quantitative analysis and experimental techniques for testing physical properties by electronic spectra, NMR, IR, magnetism, etc.

**458.308**

**Process Control and Design**

This course provides basic knowledge and control theories for the analysis and design of various control systems in chemical and biological engineering. The course offers basic understanding on various controllers (principles, structure, characteristics, and parameter estimation) and control system design methodologies from simple processes to complex chemical and biological processes.

**458.309A**

**Analytical Chemistry**

This lecture provides the theory of quantitative analysis and the method of computation. This lecture also provides the methods of expression of results, indirect analysis, titration, and managing experimental quantity.

**458.310**

**Chemical Engineering Thermodynamics**

This course deals with the thermodynamic properties of fluid, basic concepts of VLE equilibrium, fugacity, and activity. The objectives of this course are to provide students understanding of both phase and chemical equilibrium to calculate equilibrium state in chemical process and inspect energy efficiency.
The objectives of this course are to introduce environmental problems in modern society, such as water and wastewater pollution, air pollution, solid waste disposal, energy crisis, global climate change, LAC (Life cycle assessment). The engineering principle behind various environmental issues will be covered with the emphasis of conceptual understanding. The visual education materials will be fully utilized.

458.407 分离工程 3-3-0

Separation Processes

본 과목은 여러 가지 분리공정 중에서 특히 상과 상 사이에서 일어나는 분리공정을 다루게 된다. 따라서 이 과목은 이해하기 위해서는 액화학, 열 및 물질전달을 이해한 것을 전체에 보다. 각 상간의 평형에 대한 개념을 이해하기 전에 다음 물질전달이 일어나는 원리와 물질전달 계수에 대해 강의된다. 기체와 액체간, 액체와 액체간 및 기체와 액체간의 물질전달에 대한 개념을 강의하며 실제 분리공정으로서 기계분리, 중심, 액체추출, 고체추출 및 건조에 대한 원리와 응용, 그리고 이들에 관계되는 장치의 기초설계방 법과 장치의 내용에 대해 강의한다.

This course especially deals with separation process between phases in a variety of separation processes. Students have to be familiar with prerequisite subjects such as thermodynamics, heat and mass transport to understand this subject. This course also deals with not only the theory of separation process of mass transport but also mass transport coefficient. Topics include crystallization, distillation, liquid extraction, solid extraction, membrane separation, ultrafiltration, sedimentation, size reduction and mechanical separating operation.

458.407 환경생물공학 3-3-0

Environmental Biotechnology

미생물을 이용하여 오염물을 의한 자연환경의 질 악화를 예방하거나 안정시키는 기술을 다룬다. 공학(반응공학, 유체역학)을 미생물학과 접목하여 폐수로부터 유기물, 질소, 인 등의 오염물 제거, 메탄가스 생성, 응용수에서 미량독성물질 제거 등을 강의한다.

Environmental Biotechnology utilizes microorganisms to improve environmental quality. Using the principles of engineering (reaction engineering and hydrodynamics), microbiology and molecular biology, this course addresses how to i) remove organic contaminants, Nitrogen and Phosphorous, ii) generate valuable resources like methane gas, and iii) eliminate biological instability for drinking water production.

458.409 전기화학 3-3-0

Electrochemistry

전기, 전극반응의 속도론, 계면의 전기화학에 관한 근본추출, 결합을 세계, 메탄가스 생성, 응용수에서 미량독성물질 제거 등을 강의한다.

458.409 전기화학 3-3-0

Electrochemistry

전기, 전극반응의 속도론, 계면의 전기화학에 관한 근본추출, 결합을 세계, 메탄가스 생성, 응용수에서 미량독성물질 제거 등을 강의한다.

The objectives of this course are to provide the kinetics of electrode reaction, electrochemistry of surface and electric potential. This course also helps students understand photoelectrochemistry, voltammetry, etc.

458.405 환경공학개론 3-3-0

Introduction to Environmental Engineering

환경공학의 입문 과목으로 환경공학의 여러 가지 형태 즉 수질 오염, 대기오염, 폐기물오염, 소음 및 진동에 대한 기본적인 원리 및 개념적으로 소개하고 이들 문제의 인식과 해결을 위한 공학적 접근 방법의 필요성을 다룬다.

The objectives of this course are to provide the kinetics of electrode reaction, electrochemistry of surface and electric potential. This course also helps students understand photoelectrochemistry, voltammetry, etc.
The objectives of this course are to provide the basis of microbiology, biochemistry, biosynthesis and genetics including how to use biological engineering technology along with out-of-date technologies such as thermodynamics, transport phenomena, chemical reaction engineering, and automatic control.

**458.414A**  
Instrumental Analysis

- Organic and inorganic materials
- UV-IR spectroscopy, atomic absorption spectrophotometry, X-ray fluorescence spectrophotometry, nuclear magnetic resonance, and mass spectrometry in analysing organic and inorganic.

**458.421**  
Seminar

- Course provides opportunity to listen to seminars related to chemical engineering which are presented by invited speakers and helps students decide what to do in their future.

**458.423**  
Management in Chemical Industries

- Course provides opportunity to listen to seminars related to chemical engineering which are presented by invited speakers and helps students decide what to do in their future.

**458.424A**  
Undergraduate Research

- The objectives of this course are developing originality and creating excellent results through various steps such as selection of study subject, investigation and analysis of related reference, and performance and announcement of the study.
Cells are the fundamental units of life. This course intends to give an overview of the cellular components, structure, function, and mechanism. Based on the knowledge of cell biology, technologies used for cell culture, stem cell research, cancer research, and tissue engineering will be taught. The course will also deal with the medical and industrial applications of cells.
054.027 창업과 경제 3-3-0

Entrepreneurship and Economy

벤처는 21세기 산업을 이끌어가기 위한 핵심 산업중 하나다. 본 강의는 벤처기업을 설립하여 이를 성공적으로 성장, 발전시키기 위한 세부 요소를 다룬다. 창업이념을 정립, 비즈니스모델, 사업 계획, 경영전략, 투자유치, IPO전략 등 창업단계에서 기업단계에 이르기까지의 전 과정을 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 또한, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경험을 학생들과 공유한다. 교과서적인 이론보다 사업 현장의 다양한 노하우와 지식을 전달하는데 중점을 두는 본 강의는 창업단계부터 기업상장에 이르기까지의 전 과정, 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 또한, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경험을 학생들과 공유한다. 교과서적인 이론보다 사업 현장의 다양한 노하우와 지식을 전달하는데 중점을 두는 본 강의는 창업단계부터 기업상장에 이르기까지의 전 과정, 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 이외에도, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경험을 학생들과 공유한다. 교과서적인 이론보다 사업 현장의 다양한 노하우와 지식을 전달하는데 중점을 두는 본 강의는 창업단계부터 기업상장에 이르기까지의 전 과정, 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 또한, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경험을 학생들과 공유한다. 교과서적인 이론보다 사업 현장의 다양한 노하우와 지식을 전달하는데 중점을 두는 본 강의는 창업단계부터 기업상장에 이르기까지의 전 과정, 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 또한, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경험을 학생들과 공유한다. 교과서적인 이론보다 사업 현장의 다양한 노하우와 지식을 전달하는데 중점을 두는 본 강의는 창업단계부터 기업상장에 이르기까지의 전 과정, 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 또한, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경험을 학생들과 공유한다. 교과서적인 이론보다 사업 현장의 다양한 노하우와 지식을 전달하는데 중점을 두는 본 강의는 창업단계부터 기업상장에 이르기까지의 전 과정, 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 또한, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경험을 학생들과 공유한다. 교과서적인 이론보다 사업 현장의 다양한 노하우와 지식을 전달하는데 중점을 두는 본 강의는 창업단계부터 기업상장에 이르기까지의 전 과정, 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 또한, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경험을 학생들과 공유한다. 교과서적인 이론보다 사업 현장의 다양한 노하우와 지식을 전달하는데 중점을 두는 본 강의는 창업단계부터 기업상장에 이르기까지의 전 과정, 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 또한, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경험을 학생들과 공유한다. 교과서적인 이론보다 사업 현장의 다양한 노하우와 지식을 전달하는데 중점을 두는 본 강의는 창업단계부터 기업상장에 이르기까지의 전 과정, 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 또한, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경험을 학생들과 공유한다. 교과서적인 이론보다 사업 현장의 다양한 노하우와 지식을 전달하는데 중점을 두는 본 강의는 창업단계부터 기업상장에 이르기까지의 전 과정, 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 또한, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경험을 학생들과 공유한다. 교과서적인 이론보다 사업 현장의 다양한 노하우와 지식을 전달하는데 중점을 두는 본 강의는 창업단계부터 기업상장에 이르기까지의 전 과정, 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 또한, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경험을 학생들과 공유한다. 교과서적인 이론보다 사업 현장의 다양한 노하우와 지식을 전달하는데 중점을 두는 본 강의는 창업단계부터 기업상장에 이르기까지의 전 과정, 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 또한, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경험을 학생들과 공유한다. 교과서적인 이론보다 사업 현장의 다양한 노하우와 지식을 전달하는데 중점을 두는 본 강의는 창업단계부터 기업상장에 이르기까지의 전 과정, 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 또한, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경험을 학생들과 공유한다. 교과서적인 이론보다 사업 현장의 다양한 노하우와 지식을 전달하는데 중점을 두는 본 강의는 창업단계부터 기업상장에 이르기까지의 전 과정, 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 또한, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경험을 학생들과 공유한다. 교과서적인 이론보다 사업 현장의 다양한 노하우와 지식을 전달는데 중점을 두는 본 강의는 창업단계부터 기업상장에 이르기까지의 전 과정, 그리고 창업의 원동력인 기업가정신의 역할과 요소들을 다룬다. 또한, 팀 프로젝트를 통해 학생들은 스스로 창업이야기를 개발하여 사회화하는 연습을 한다. 한편, 외부강사로서 성공적인 벤처기업인 및 벤처캐피탈리스트 등 업계의 전문가들이 초빙되어 그들의 경...
4581.001 공학바이오 개론 3-3-0

Introduction to Engineering Biotechnology

공학바이오 연계전공에 참여하는 학과에서 개설하고 있는 바이오 관련 과목 전반에 관한 소개를 목적으로 한다. 바이오분자공학, 바이오전기공학, 바이오기계공학, 바이오재료공학의 전반적인 내용을 커버하기 위한 과목으로서 관련학문 교수들이 함께 강의한다.

This course serves as an introduction to the overview of the biotechnology-related subjects which are offered in the member departments of “Program in Engineering Biotechnology”. Topics covered include: biomolecular engineering, bio-electrical engineering, biomechanical engineering, and biomaterial engineering. Course lectures are given by professors with expertise in the presented topic area.
농업생명과학대학
College of Agriculture and Life Sciences
공통과목(Extradepartmental Courses)

500.203 유전학 및 실험 3-2-2
Genetics & Lab.
모든 생명체의 유전 및 발식이 기분이 되는 유전정보의 발현 및 세대간 유전정보를 전달하는 유전자기는 강화할 수록 유전학이 발전하는 유전학의 모든 분야, 벤더유전학, 양적유전학, 집단유전학, 세포유전학, 발달유전학, 분자유전학 부문의 기초적 이해를 들는 데 중점을 두는 이 과목은 국제개발협력에 대한 기본적인 기초과목이다. 이 과목은 국제개발협력에 대한 기본적인 개념과 동향에 대해 수록하는 기초 과목이다. 이 과목은 크게 (1) 국제개발협력의 개념, 이론 및 국제외의 주요 협력 동향 이해, (2) 국제개발협력의 주요 섹터의 교육과 인력개발에 대한 이해, (3) 국제개발협력에서의 TVET를 이해하고, 국내외 주요 협력동향에 대해 파악하는 것을 목표로 한다. 이를 통해 학생들은 국제 개발협력의 접근방법 및 농업의 역할과 중요성에 대한 기본적인 지식과 소양을 함양하도록 한다.

500.207 농업경제학개론 3-3-0
Introduction to Agricultural Economics
농정정사회학부 이외의 타 학과 및 학부생을 위한 과목으로써 농업생태와 관련된 기초이론 습득을 목표로 한다. 구체적으로, 농업생태학, 농업생태학, 농산물유통학, 농업정책학 등과 관련된 기초이론을 배우며, 개인 또는 집단별 과제 및 발표를 통해 우리나라의 현실 농업문제에 대한 기본적인 인식 제고를 도모한다.

500.209 바이오에너지개론 3-3-0
Introduction to Bioenergy
바이오에너지는 지속생산이 가능한 천연원재료로 부가되어 있다. 이 과목은 바이오에너지의 배너 및기능에서 중요성이 나와 확대되고 있다. 이러한 역할에서 농업은 국제 사회에서 매우 중요한 역할을 해야 한다. 이 과목은 국제개발협력에 대한 기본적인 개념과 동향에 대해 수록하는 '국제개발협력과 농업 1'의 심화과정으로서, 농업분야 국제개발협력의 중요성과 집중성 정보를 수록하는데 그 목표이다. 특히 학생들이 실제로 농업분야 국제개발협력의 현장에 참여하여 의료기계의 파악하고, 현장성 있는 개발방안을 모색하여 주간배경을 제안할 수 있는 경험을 제공하도록 한다. 이 과목은 국제개발협력에 대한 기본적인 인식과 심화과정을 배우게 된다.

51671.000400 국제개발협력과 농업 2 3-3-0
International Development Cooperation and Agriculture 2
과거 국제개발협력이 단순한 생존문제에 국한되었던 역사, 최근에는 지속가능한 성장, 환경, 인권제로 등이 중요한 이슈로 떠오르고 있다. 이러한 역할에서 농업은 국제 사회에서 매우 중요한 역할을 해야 한다. 이 과목은 국제개발협력에 대한 기본적인 개념과 동향에 대해 수록하는 '국제개발협력과 농업 1'의 심화과정으로서, 농업분야 국제개발협력의 중요성과 집중성 정보를 수록하는데 그 목표이다. 특히 학생들이 실제로 농업분야 국제개발협력의 현장에 참여하여 의료기계의 파악하고, 현장성 있는 개발방안을 모색하여 주간배경을 제안할 수 있는 경험을 제공하도록 한다. 이 과목은 국제개발협력에 대한 기본적인 인식과 심화과정을 배우게 된다.

51671.001100 국제개발협력과 인력개발 3-3-0
International Development Cooperation and Workforce Development
과거 국제개발협력이 단순한 생존문제에 국한되었던 역사, 최근에는 지속가능한 성장, 환경, 인권제로 등이 중요한 이슈로 떠오르고 있다. 이러한 역할에서 농업은 국제 사회에서 매우 중요한 역할을 해야 한다. 이 과목은 국제개발협력에 대한 기본적인 개념과 동향에 대해 수록하는 '국제개발협력과 농업 1'의 심화과정으로서, 농업분야 국제개발협력의 중요성과 집중성 정보를 수록하는데 그 목표이다. 특히 학생들이 실제로 농업분야 국제개발협력의 현장에 참여하여 의료기계의 파악하고, 현장성 있는 개발방안을 모색하여 주간배경을 제안할 수 있는 경험을 제공하도록 한다. 이 과목은 국제개발협력에 대한 기본적인 인식과 심화과정을 배우게 된다.

500.301A 통계학개론 및 실습 3-2-2
Introduction to Statistics and Lab.
통계분석을 통해 나온 결과를 정확히 이해하고 해석하는데 기초가 되는 통계학의 확립, 중심값이 이용, 가설검정, F-분포와 분산 분석을 하는 이유, 처리간 사례자 비교, 회귀와 상관, 빈도분석 등을 강화하여 이해시킨다.
This course provides basic knowledge for students to comprehend the output results from the computer analysis program. Topics covered include the set up and testing of the hypothesis, F-distribution and analysis of variance, comparison of the treatment means, regression and correlation, and frequency analysis theory.

500.305 식물분류학 및 실험 3-2-2
Plant Taxonomy & Lab.

This is an introductory course to the principles and practice of flower plant taxonomy. Emphasis is placed on student familiarity with terminology for identifying plants, as well as understanding the historical context and investigative procedures of taxonomists in designating a classification. Of particular importance is understanding the philosophical bases in taxonomy and the relevance of this field to other areas of biology.

500.307 농업법개론 3-3-0
Introduction to Agricultural Law

This introductory course to the agricultural information system (AIS) covers general theory and practice. We will study the concept and needs of AIS, types and frontiers of AIS, organizational perspectives of AIS, and the development and current status of AIS. This course also covers the technical approach to AIS including H/W, S/W, and N/W. We will discuss recent issues in AIS, including decision support perspectives of AIS, rural GIS, agricultural e-Business, AIS development and evaluation, and AIS policy and regulations.

500.308 환경과 농업 3-3-0
Environment and Agriculture

This course, a study on the correlation between the environment and agriculture, includes these points of interest: (1) the physical and biological environmental relationship to the natural ecosystem and agro-ecosystem, (2) the structure and function of ecosystems, (3) early development and current agricultural production systems, and (4) population growth and food perspectives. The processes of chemical pollution, the geochemical cycle, climatic change and its impact will also be studied in this course. The contribution of industry, urban life, intensive and extensive modern agriculture with air, water and land pollution, and the basic aspect of ecotology will be examined to promote environment-friendly agricultural methods.

500.309 농업정보체계론 3-3-0
Agricultural Information System

This course deals with WTO and GATT rules and disciplines relating to stock industry law, and the mountains law. This course also deals with the applications of engineering principles to design, develop and analyze processes using bio-catalysts. These processes may result in the formation of desirable compounds including chemicals, pharmaceuticals and energy or in the destruction of hazardous substances.
경력개발 계획을 수립하며 졸업 후 진로를 결정하는데 도움을 얻게 된다. 또한, 농산업 현장에서의 업무 경험은 학생들에게 농생명 환경과학에 대한 이해의 폭을 넓히고 농생명환경과학의 중요성을 깊게 느끼는데 도움을 준다. 학생들은 국내의 농산업 또는 생명환경과학 분야의 기업 및 공공 기관에서 120시간 이상 실습하고, 실습 후에 제출한 현장 보고서를 통해 학점이 부여된다.

이러한 실습은 학생들에게 농업과 생명공학 분야에 종사하는 다양한 사람들의 경험을 직접적으로 경험할 수 있는 기회를 제공한다. 이러한 실습은 학생들이 농업과 생명공학 분야에 대한 이해를 깊게 하는데 도움이 된다.

학생들은 실습 후에 제출한 현장 보고서를 통해 학점이 부여되고, 이를 통해 학생들은 실습을 통해 학업에 적용할 수 있는 실무력을 습득하게 된다. 또한, 이 과정을 통해 학생들은 과학적 사고 능력을 향상시킬 수 있으며, 이는 학생들이 향후 학업 및 직업생활에서의 성과를 높이는데도 도움이 된다.

이러한 실습 활동은 학생들이 기술적이고 논리적인 사고력을 향상시키며, 동시에 학생들의 창의적 사고를 촉진시킨다고 한다.

- 453 -
special lectures from alumni will be offered to help students plan careers after graduation of the Department.

500.172 응용생물화학개론 2-2-0

Introduction to Applied Biology and Chemistry

본 과목은 1학년 신입생을 포함한 학부를 선택하지 않은 학부생을 대상으로 하는 응용생물학과 학부탐색 과목으로서 응용생물학의 두 전공 중, 응용생물학과 응용생명화학 전공 전반에 걸친 개략적인 소개를 통해 응용생물학과에 대한 학부생의 이해를 높이는 것을 그 목적으로 한다. 식물생물학, 곤충학, 응용생명화학의 기본 지식과 대표적인 연구 내용을 강의하고 관련 응용분야와 현재 및 앞으로의 연구방향에 관해 개괄적으로 소개한다.

This course will provide broad and basic information on Applied Biology & Chemistry for the freshmen. Through surveying the basic studies of two academic divisions, Applied Biology and Applied Life Chemistry, the freshmen will be provided with academic knowledge as well as basic information on Plant Microbiology, Entomology, Applied Life Chemistry. In addition, related sciences, current researches and future perspectives will be also covered.

500.173 조경·지역시스템공학개론 2-2-0

Introduction to Landscape Architecture-Rural Systems Engineering

본 과목에서는 조경학 및 지역시스템공학의 개론에 대하여 강의한다. 조경 부분에서는 조경학을 전공하는 학생과, 조경학에 관심을 가진 학생들에게 조경학 전반의 기초를 소개하는 조경학 개론이 강의된다. 지역시스템공학 부분에서는 미래복지사회에 필요한 전환공간을 조성하고 유지하는 공학적 요소를 담당하며, 이에 관심 있는 학생들에게 지역시스템공학에 대한 소개와 이해를 돕기 위한 개론을 강의한다.

이 과목은 자연과 인간의 관계, 기후, 땅, 지형, 물, 식생, 경관 등 조경에서 다루는 주요 요소와, 단지 계획과 개발, 동산계획, 조경식재, 임해공간과 시각환경의 설계, 주거지 계획, 도시설계, 광역조경계획 등을 학습하고, 국내외 각종 유명 조경사례를 사찰며 자연과 문헌 등을 통해 공부하고, 현장답사도 실시할 계획이다. 지역시스템을 구성하는 물, 공기, 토지 등의 자연자원, 생산자원 관리, 농촌 공간 구성을 위한 공학 기술의 전반적인 소개와 수학자이스템, 지역 환경공학, 농촌시스템 공학, 자연자원 관리를 위한 컴퓨터 응용 등 다양한 주제에 대하여도 다루이며, 현장 경험을 통하여 실제로 구현된 사례를 살펴 볼 수 있도록 한다.

In this class, two introductory topics will be lectured that cover landscape architecture and rural systems engineering. Firstly, students will benefit from this introductory course on landscape architecture. Topics include the relationship among man and nature, climate, land, topography, water, vegetation, landscape characters, site planning and development, circulation, landscape planting, visible landscape, habitation, urban design, and regional landscape planning. Typical landscape works of domestic and foreign countries are to be introduced through audio/visual materials. Field trips are also planned as part of the curriculum.

Secondly, rural systems engineering is an essential area for enhancing future welfare and constructing better rural spaces providing engineering technologies. This introductory class will be lectured to assist students for nourishing rural systems engineering concepts including water, air and land management, production system development and rural space planning. This class includes variety of topics highlighting water resources system, environmental systems, rural facilities and information engineering for natural resources management. During the classes, students can take an opportunity to understand how engineering technology can facilitate rural area through a fried trip.
Crop Genetics

 모든 생명체의 유지 및 번식이 기반 되는 유전정보의 발현 및 세대간 유전정보를 전달하는 유전기관 강화하며, 급속도로 발전하는 유전학의 모든 분야, 변태유전학, 양적유전학, 집단유전학, 세포유전학, 발단유전학, 분자유전학 부문의 기초적 이해를 둘러싼 중점을 둔다.

This Crop Genetics course is intended for Ag-undergraduate students to increase their understanding of the basic genetic mechanisms to maintain and propagate living organisms. This lecture is focused on teaching basic knowledge of Mendelian Genetics, Quantitative Genetics, organisms. This lecture is focused on teaching basic knowledge of Mendelian Genetics, Quantitative Genetics, Population Genetics, Cytogenetics, Developmental Genetics, and Molecular Genetics.

Principles of Crop Production

작물의 생산은 작물의 환경, 재배기술 및 유전성의 조화에 의하여 좌우된다. 재배학은 작물의 유전성을 최대한으로 발휘할 수 있도록 작물의 환경을 조절하는 기술을 다룬 학문으로서 보양, 수분, 온도, 대기, 광 등 작물 환경과 작물의 생명발육의 관계에 대하여 이해를 도모하고 이에 기초하여 과학적 foundation에서 수확, 저장에 이르기까지 실제 재배기술에 대하여 합리적으로 강화하여, 또한 생육기계화재배, 환경 환심화재배 등에 대해서도 기본적인 내용을 강의한다.

This course covers crop growth and development, crop-environment interaction, crop production principles and management, and cropping system. This study on the principles of crop production relates crop growth processes to management practices.

Crop Physiology

작물의 생육에 관한 제반 생리작용을 강조한다. 생물조합단위에서부터 식물 및 작물단위까지의 차원에서 작물생육의 생리 및 생화학적 기능을 이해하고, 작물생육과 환경과의 상호작용을 이해하며, 작물생리 지표의 유전적, 재배관리에의 응용성에 커수록 운도한다. 특히, 작물의 수량성 및 품질, 내환경계제재배, 관련된 생리작용에 역점을 둔다.

The fundamental activities of plants as a functioning unit is introduced at cellular, plant and crop levels. Processes of cell growth, water uptake, nutrient acquisition, photosynthesis, N-assimilation, respiration, growth and development, hormonoal actions, photo-land thermo-responses and stress responses are discussed. There will be an emphasis on the physiological functions that determine yield formation and produce quality as affected by environment, and related to crop improvement.

Crop Ecology

지구상 생태계의 유형과 구성을 이해시키고 작물군집의 생태적 성격을 명확히 한다. 식량작물과 원예작물의 작물화과정, 세계의 작물생산지대를 조사하고 식량생산의 생태적 특성을 평가하고 토지의 이용에 대하여 공부한다. 작물군집의 지상부와 지하부 환경 을 이해시키고 작물집단에서의 생태공간과 생물생산, 화학 작물과 대사, 농경지에서 질소 등 무기성분의 순환, 농업에너지의 이용효율 을 비교하여 친환경적 재배배법을 논의한다.

This Crop Ecology is an introductory course in crop science. In the first half, rice that is a most important food crop providing 23% of global human per capita energy of 16% of per capita protein and being used as staple food for more than 50% of the world population is focused on the domestic and global production and consumption, cultivation history, morphology, growth and developmental processes, paddy soil and atmospheric environments, varieties, crop managements, post-harvest technologies.

Food Crop Science

This is an introductory course in crop science. In the first half, rice that is a most important food crop providing 23% of global human per capita energy of 16% of per capita protein and being used as staple food for more than 50% of the world population is focused on the domestic and global production and consumption, cultivation history, morphology, growth and developmental processes, paddy soil and atmospheric environments, varieties, crop managements, post-harvest technologies.

The second half briefly introduces the origin, classification, morphology, physiological and ecological bases of growth and reproduction, cultivar, growth environment, utilization, and production technologies of the other food crops including barley, wheat, corn, soybean, potato, sweet potato, etc.
5171.304 실험통계학 3-3-0

Experimental Statistics

통계의 기본 개념과 확률이론을 바탕으로 통계분석 결과를 정확히 이해하고 응용하는데 기초가 되는 수학과 가설검정, F-분포와 분산분석을 하는 이유, 치러 간 차이 비교방법, 회귀와 상관, 변도 분석과 관계가 있다. 또한 실험실의 기본원리와 방법을 소개하고 결과를 해석하고 응용하는 능력을 배양시킨다.

This course provides the basic knowledge needed to understand the output that results from computer analysis/programs through test of the hypothesis, F-distribution and analysis of variance, comparison for the treatment means, regression and correlation, and frequency analysis theory. Principles of planning for experimental design and analysis will be covered in this course.

5171.307** 작물육종학 3-3-0

Crop Breeding

본 강좌에서는 작물의 종질 품성을 위한 교배육종법, 잡종개체 육종법, 돌연변이육종법, 약체조제육종법, 조직해양법, DNA 마커 이용 선발법, 형질전환법 등 실용화는 다양한 육종방법의 이론적 기초와 응용, 유형유전자형의 선택방법을 습득하게 하고 실제 평가는 육성되기까지의 전 과정을 이해시키며 작물종중의 실험 및 문제점과 과정 등을 논의함으로써 작물육종 실무에 적용할 수 있는 능력을 배양하다.

The objectives of this course are for students to acquire knowledges on theory and practices of plant breeding methods including breeding by hybridization, heterosis breeding, mutation breeding, breeding by chromosome manipulation, tissue culture, DNA marker aided selection, plant transformation, to understand the entire process of plant breeding and the development of new varieties, to discuss the problems and topics occurring in plant breeding procedure, and finally to have the ability to work in plant breeding programs.

5171.309 농업기상학 3-3-0

Agricultural Meteorology

농업기상학은 농작물의 생산과 기상과의 상호관계에 대한 연구를 통하여 농업생산의 안정성 증대에 기여하고자 하는 학문이다. 본 강좌에서는 농기상의 기상환경, 농업기후, 농업기상재해, 식물의 기상과 관계 등에 대하여 기초적인 내용을 강의함으로써 이를 토대로 농업 각 분야에서의 농업기상지식 활용능력을 함양하고자 한다.

Basic concepts in Agrometeorology, including atmospheric environments for agriculture, measurements in at mospheric environments, agricultural climatology, climatic disaster, and microclimate modification will be discussed in this course. Applied topics include the impacts of global warming, ozone depletion, air pollution, and acid rain upon agriculture.

5171.310** 공예 및 사료작물학 3-3-0

Industrial and Forage Crop Science

육도와 기온이 확대되고 있는 다양한 산업을 제공하는 공예작물의 특성과 용도 산업적 가치 기반에 대해 강의하고 산업적 가치가 있는 다양한 작물들의 식물학적 특성과 종합평가, 재배방법, 산업적 가치사항 등에 대하여 설명한다. 식물재배의 임, 중기, 봄기 는 조치가격의 기본 사료로서 활용되고 조사라라도 토핑과 사료작

본 강좌는 작물생명과학 관련 실험과 실습으로 이루어진 통년 과목이다. 주요 식량작물의 과정에서 수확에 이르는 전계의 재배 과정에 대한 실습과 식량작물의 생산과 발육에 대한 관찰을 통하여 작물의 특성, 재배기술과 작물 생산에 관한 기본적인 지식을 습득하게 하여 작물생산분야의 식량 학습을 위한 기초를 다지게 한다. 또한 작물의 재배, 생리, 생태, 유전 및 생물학적 특성에 공통적으로 사용되고 있는 기초 실험기술의 습득과 활용능력을 배양함으로써, 이를 통하여 농장 또는 온실에서 자연의 작물의 생

This is an one-year course that teaches not only the basic
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the cultivation of medicinal crops for the safety of

importance of GAP (Good Agricultural Practice) and their

kinds, botanical characteristics, major compound and index

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absence of compounds with adverse effects have been an im-

plants. The identification and selection of chemotypes with

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또한 작물의 재배, 생리, 생태, 유전 및 생명공학에 공동적

으로 사용되고 있고 기초실험기술의 습득과 활용능력의 배양을 목

표로 하며, 이를 통하여 독자적으로 은산에서 자라는 작물의 생육,

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including identification and ecology of weeds, herbicide application and evaluation, selectivity of herbicides and screening for different crops, and herbicide behavior in soil, and identification of herbicide resistant weeds and crops will also be given.

**Courses for Non-major Students**

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<tr>
<th>Course Code</th>
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<tr>
<td>5171.002</td>
<td>Introduction to Crop Science</td>
<td>3-3-0</td>
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**Floriculture and Lab.**

This course provides the undergraduate students with the knowledge regarding characteristics of floriculture, domestic and international horticultural industry, classification and cultivar of floricultural crops, propagation, soil and fertilizer, cultivation technology, flowering control, postharvest handling, use of floricultural crops, breeding, business and marketing, and major floricultural crops. Lecture will be provided with audial/visual aids and lab experiments and field excursion will help students to get prepared for future professional career.

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<td>5172.201*</td>
<td>Floriculture and Field</td>
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**Plant Growth and Development**

This course is designed to offer the student a general background in the principle of fruit tree growth and development. With the concepts of structure, physiology, and functions of various fruit tree organs, this includes cultural and environmental control of growth and development, dormancy, flowering, and fruit setting, and techniques of propagation and planting, training and pruning, orchard soil management, pest control, physiological disorders, and fruit harvest and marketing. Characteristics of important fruit tree species and cultivars of fruit tree breeding will also be covered. In addition, this course provides experimental techniques for understanding the fruit tree growth and fruit development.

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<td>5172.204*</td>
<td>Plant Growth and Development</td>
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**Vegetable Science and Lab.**

Vegetables are important sections of crops. This course deals with the physiological principles that govern growth and development of vegetable crops. Topics included are techniques, problems, and trends in the culture, harvesting, storage, and marketing of the major vegetable crops. Production and management of vegetable crops under intensive and extensive cultural systems are also explained.

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<td>5173.301*</td>
<td>Vegetable Science and Lab.</td>
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5172.302A* 원예작물유종학 3-3-0

Horticultural Crop Breeding

본 과목은 원예(채소, 과수, 화훼)작물에 대한 폭넓은 응용의 원리와 과정을 이해하기 위하여 학습한다. 주 내용은 (1) 세포로운 종의 개발, 원예의 원예에 있어서 계획적인 사례 소개; (2) 세계 주요 식물의 운동(중과 식물 규모, 중과화학 동향 및 생명공학적 유전자 활용 현황); (3) 유전자에 있어서 유전적 변이의 중요성과 효과; (4) 선파의 의의와 효율성 제고(분자표지 활용 포함); (5) 각종 유전자 방법의 설명, 인공으로 화학의 생산 방안(호흡생장성 및 자가분화성 방법), 재료, 정성 및 가공; (7) 지식재산권과 식물품종 보호 제도; 및 (8) 원예작물 유종의 미래에 관한 학습한다.

This course covers (1) importance of horticultural breeding for prosperity of the industry; (2) global status of seed business (size of market and breeding companies) including practical application of biotechnology; (3) importance of genetic diversity and ways to increase them; (4) ways to improve selection in breeding including use of molecular markers; (5) explanation of various breeding methods; (6) production of F1 hybrid seeds using male sterility or self-incompatibility; (7) legal protection for plant varieties; and (8) the future of horticultural crops breeding.

5172.303 식물조직배양학 및 실험 3-2-2

Plant Tissue Culture and Lab.

본 강좌는 생물 정보학 기술을 이용해 특정 유전자를 선발하고, 이론의 실험적 변이를 통해 선발된 유전자가 생체 내에서 예측대로 발현되는지 여부를 실험으로 증명하고자 한다. 또한 이와 관련한 현재 진행되고 있는 식물유전자 연구 및 그 정보를 활용한 유전자 기능 연구와의 차이에 관하여 알아본다.

This lecture teaches basic theories and practices about successive molecular biologic experiments and tissue culture methods. Students will select a specific gene utilizing bioinformatics tools, and confirm whether the selected gene expresses as expected in vivo by above methods. The latest molecular biologic experiments and tissue culture methods such as molecular cloning, PCR, preparation of growth media, in vitro culture, and gene transfer to plant tissues will be practiced. Furthermore, this course provides informations about current status of plant genome researches and functional genomics research.

5172.304 종묘생산학 3-3-0

Plant Propagation

본 과목에서는 실제 작물의 번식에 응용할 수 있도록 종묘로부터의 유전변이와 영양기능이 조건부의 무성번식에 관한 기초적인 이론을 숙지하게 한다. 종묘의 형성, 방어, 품종 등의 대개념과 함께 실제 종묘의 생산과 유전변이의 복잡성에 대면 식물학적 식물의 복잡한 색상을 수학화하게 한다. 또한 주요 작물의 최근 무성 번식 방법에서 대체도 소개한다.

This course is designed to study factors related wastage and quality loss of horticultural products after harvest, including physiological and biochemical considerations as well as compositional and physical changes occurring during maturation and deterioration. Major principles involved in postharvest physiology are explained. Subjects to be covered in Postharvest Physiology are: respiration (significance, measurement, factors, climacteric, alternative pathway), ethylene (history, physiological effects, removing methods, measurement, biosynthesis, regulation, treatment), ripening (compositional changes, color, flavor, textures, nutritional changes) and temperature (refrigeration, heat source, injury, mechanism, preconditioning).
This course provides principles and applications of biotechnology in horticultural crop breeding. Topics include procedures for gene introduction and control of gene expression, as well as strategies for obtaining transgenic plants that are resistant to insects, diseases, and herbicides, or have improved nutritional or processing characteristics. Biosafety, social, legal, and international issues relating to plant biotechnology are discussed. Other topics are use of molecular markers and genomics information for crop improvement. The lab exercise provides students with the opportunity of techniques for gene introduction and control of gene expression, molecular marker development and various applications.

5172.404A  
Plant Metabolite Production  3-3-0

Plant Metabolite Production

This course is to study secondary metabolites in plants in-
including horticultural crops. Biosynthesis and importance of major secondary metabolites such as pigments, aromatic compounds, and other useful metabolites will be studied. This will help students appreciate the importance of horticultural crops as a tool to produce important secondary metabolites while studying its industrial application.

**M2744.00300** 식물세포 생물학 3-3-0

**Plant Cell Biology**

This course presents the cellular basis of plant growth and development for undergraduate students in the major of Horticultural Science and Biotechnology. Its objective is to provide students with an up-to-date understanding of the plant cell cycle, cell enlargement and cell differentiation processes, which is fundamental for improving plant growth and the production of special plant products. Thorough descriptions on the plant cellular compartments, cell division, dynamic growth and specialization are presented alongside the principles of advanced molecular techniques in genetics and visualization of the plant cell.

**M2744.00400** 식물과 환경의 상호작용 3-3-0

**Plant-Environment Interactions**

Plants are fixed organisms, yet they live in an extremely wide range of geographic locations under diverse climates. Plants are able to adapt to varying environmental conditions for growth and development. Therefore, understanding the plant response to diverse environments is important for the improvement of crop production and management. The objective of this course is to review the physical (temperature, light), chemical (air, water) and biological (living organisms) factors that compose the plant environment and to examine the influence of each of these factors on the plant life. This course will also survey the plant responses and adaptation strategies under stressful conditions to illustrate the plasticity of plant-environment interactions.

**Taknogko de Seungseonggukgyo hyoep**

**Courses for Non-major Students**

5172.001A 원예생명공학개론 3-3-0

**Introduction to Horticultural Science and Biotechnology**

원예란 환경 또는 시설 내에서 재배, 수분, 화학 등과 같은 원예작물의 반응을 고려하여 제조의 방법은 단순한 농업의 한 분야이다. 우리 주위에서 흔히 보는 각종 재배나 과일, 꽃, 나무 등은 모두 원예작물에 속한다. 이러한 다양하고 많은 원예작물에 대하여 비전공 학부생들이 대상으로 하여, 원예작물의 분류와 가치, 구조, 생육, 특성, 변형법, 재배관리, 생육조절, 병해충관리, 저장 및 가공, 육종 및 생명공학 적용 등에 관하여 학습한다. 따라서 원예작물을 대상으로 하는 과학을 전공하는 데 있어서 원예작물에 대한 기초지식을 갖도록 지도한다.

This course deals with horticultural science, a category in modern agriculture, which includes the intensive production of vegetables, fruits, and flowers in fields or greenhouses. Taxonomy, morphology, growth characteristics and regulation, propagation, cultivation and pest management, storage, food processing, breeding of horticultural crops, and application of biotechnology will be discussed. Through this course, students can understand the fundamental knowledge on horticultural crops closely related to our lives.

**산업인력개발학전공**

(Vocational Education and Workforce Development Major)

5173.201 산업인력개발론 3-3-0

**Introduction to Vocational Education and Workforce Development**

이 교과목은 향후 다양한 산업인력개발 분야에서 활동하는 데 필요한 기초능력을 육성하는 데 그 목적이 있다. 학생들은 이 교과를 통해 무한경쟁시대와 지식기반경제의 핵심이 되는 인적자원의 중요성을 인식하고, 산업인력개발의 사회적 성장, 이론, 프로세스, 정의, 목표, 원리를 이해하며, 산업인력개발 당사자로서의 역할과 그에 필요한 능력을 숙지하고, 우리나라 뿐 아니라 외국의 산업인력개발 실패를 파악할 수 있게 된다.

This course is designed to develop students’ basic competencies required to be engaged in the fields of vocational education and workforce development. It enables students to recognize the importance of human resources which are vital to unlimited competitive times and a knowledge based economy. Additionally students will understand the social context, theories, processes, definitions, philosophies, goals, and principles of vocational education and workforce development. Furthermore students will have a thorough knowledge of roles and abilities required for practitioners in the fields of vocational education and workforce development and grasp the actual state of vocational education and workforce development in foreign countries as well as in Korea.

5173.202* 살림, 진로, 직업 3-3-0

**Life, Career and Vocation**

자신의 삶에서 진로와 직업이 얼마나 중요한지를 이해하고, 자신의 행복한 삶을 위한 올바른 진로계획 수립기법을 파악하고, 이를 기초로 자신의 진로를 설계하고 이를 위한 준비를 할 수 있는 능력을 개발하고자 한다. 주요 내용으로는 행복한 삶, 직업계획에 대한 이해, 진로와 직업의 개념과 의의, 그리고 진로 계획 및 준
This course introduces the quantitative analysis of data for undergraduates majoring in vocational education and workforce development. The course covers the use of tables and graphs, the methods of summarizing and describing univariate distributions, and examining relationships between two or more variables, as well as statistical inference and hypothesis testing, correlation, regression, and analysis of variance. Also students will be required to perform statistical analysis using appropriate statistic packages.

5173.020*  산업인력개발 교수학습방법론 3-3-0

Teaching and Learning Methods in Vocational Education and Workforce Development

This course is designed to develop teaching and learning competencies needed for vocational educators, trainers and practitioners in school, industry, and other vocational education and HRD institutions. It will cover theories and best practices of the various teaching and learning approaches such as problem solving, problem-based learning, action learning, performance-based instruction, competence-based teaching and training, cognitive or skills apprenticeship, on-the-job training, modular instruction, learning communities and so on. With this course, students will understand the importance of lifelong learning, various characteristics of learners and various teaching methods so as to enable practical teaching methods and strategies to apply to various educational contexts.
농업생명과학대학(College of Agriculture and Life Sciences)  : 식물생산과학부(Dept. of Plant Science)

the development of a personal philosophy of vocational and technical education.

5173.304* 산업인력양성프로그램개발 3-3-0

Program Development in Vocational Education and Workforce Development

이 과목은 산업인력양성 프로그램 개발에 필요한 실무적인 기초능력을 배양하는 데에 그 목적이 있다. 학생들은 이 과목을 통해 산업인력양성 프로그램의 필요성을 인식하고, 산업인력양성 프로그램 개발의 상황, 개념, 이론, 모델, 프로세스를 이해하며, 산업인력양성 프로그램 개발 전략에 따라 기초적인 지식의 산업인력양성 프로그램을 개발할 수 있게 된다.

This course is designed to develop students’ practical and basic competencies required to design and implement training programs for human resources in organizations. It enables students to recognize the necessity of training programs for human resources in organizations, to understand context, concepts, theories, models, and processes of training program development, to grasp the actual condition of training program development, and to develop a basic level of a training program by practicing the training program development procedure.

5173.306 청소년지도론 3-3-0

Introduction to Adolescent Education

전반적인 청소년의 특성과 이해를 기초로 청소년을 교육/지도하는데 요구되는 기초적인 지식, 특히 (1) 청소년의 특성 및 발달, 발달과정, 발달이론, (2) 청소년 문화(성, 소소설, 매스미디어, 여가 및 단체활동 등), (3) 청소년 환경(가정,학교, 유해환경 등), (4) 청소년 문제(가족, 자살, 폭력, 약물남용, 성 등) 등에 대한 교육적 접근, (5) 청소년 상담 및 진로지도, (6) 청소년지도(계획 → 과정 → 평가, 관련기관/단체, 육성정책/관련법 등)에 대한 접근 등에 관한 학문적 이론 및 실세적인 칭식을 습득하여 평생교육사로서 청소년을 체계적으로 교육/지도할 수 있는 기본적인 자질 및 전문능력을 개발, 향상하는데 있다.

With the base of the general understanding of the adolescent, students will learn theoretical and practical knowledge in education of adolescents, especially (1) character and development of the adolescent, development theory, (2) adolescent culture (sex, companion, mass media, leisure and common activity, and so on), (3) adolescent environment (home, school, harmful environment, and so on), (4) educational approach for the adolescent problem (leaving home, suicide, violence, drug abuse, sex, and so on), (5) adolescent counseling and career guidance, (6) approach for the adolescent instruction (planning → process → evaluation, relation institution, policy and rules). It provides students with professional teaching skills and fundamental quality.

5173.307 인턴십 1-0-3

Professional Internship

이 과목은 학생들에게 진로에 대한 인식을 높이고 진로조사를 탐색하며 나아가 산업체현장에서 요구하는 중요한 기술에 대한 이해를 증진시키는데 그 목적이 있다. 학생들은 산업체개발 분야와 밀접한 관계가 있는 행정기관, 산업체, 연구기관, 생산현장, 기타 관련 장소에서 2주 이상 일하며 학교에서 배운 이론과 기술이 어떻게 활용되고 있는지를 실험하고 실제로 적용해 볼 수 있는 기회를 가지게 된다. 이러한 경험은 학습동기를 높여주고, 졸업 후 직업에 맞는 직업을 선택할 수 있도록 도와 줄 것이다.

This course is designed to raise students’ awareness about careers, to explore career requirements, and to understand important skills needed in the workplace. Students will examine how theories and skills learned in school are utilized, and have opportunities to apply them in real situations through working in the places related to vocational education and human resource development over two weeks. This experience will increase their motivation to learn, and help them choose the job suitable for their aptitude after graduation.

5173.401 산업인력개발평가론 3-3-0

Evaluations in Vocational Education and Workforce Development

이 과목은 산업체개발 현장에서 평가하는데 요구되는 기초능력을 배양하는데 그 목적이 있다. 학생들은 이 과목을 통해 산업체개발 평가가 조직과 개인을 안내하고, 산업체개발 평가의 정립, 정책, 목적, 이론, 프로세스를 이해하며, 산업체개발 평가에 대한 구체적인 방법을 실습하여 활용할 수 있게 된다. 특히, 조직, 작업 프로세스, 개인에 미치는 영향이 어떻게 될 것인가라는 관점에서 산업체개발을 평가하는 방법들이 제시된다.

This course is designed to develop students’ basic competencies required to evaluate vocational education and human resource development efforts in the workplace. It enables students to recognize the importance of evaluation in vocational education and human resource development, to understand philosophies, definitions, goals, theories, and processes of evaluation in it, and to utilize specific evaluation methods of vocational education and human resource development through practice. Especially, students are provided with evaluation methods of vocational education and human resource development from the perspective of impact on organizations, work processes, and individuals.

5173.402 산업체개발전문가론 3-3-0

Professionals in Vocational Education and Workforce Development

이 과목은 다양한 산업체개발기반에서 종사하는 전문 교육자 혹은 인력개발업무를 담당하는 전문가에게 요구되는 자질, 전문성, 역할 등을 이해하고 관련 능력을 향상하는데 목적이 있다. 정규 학교, 정부 기관, 기업체, 단체 등에서 활동하는 다양한 인력개발 전문가 전문과 사례, 전문성 발달 과정 및 이론, 관련 교육훈련 프로그램, 역할 모형(전문가상) 등을 다룬다. 특히 개별 학생들에게 효과적이고 능력 있는 인력개발전문가로서 기회를 제공할 것이다.

This course is designed to provide understanding of, and to develop competencies, expertises, and roles needed for educators, trainers, or practitioners in vocational education and HRD institutions. It will deal with various expert careers and cases, process and theories of the expertise, relatededuca- tion and training programs, and ideal role models in vocational schools, governmental institutions, industries, and organization agencies. It will provide individual students with an opportunity to become an effective competent human resource development practitioner.
This course is designed to deal with theories and practices related to both administration and policy for vocational education and human resource development at the program, local, provincial and national levels. It will also cover general concepts, organizational structure, administrative leadership, scope and contents, personnel, finance, facilities, accountability, assessment and so on. In addition, this course will focus on decision making, current status, diagnosis and improvement, prediction and effectiveness, and personnel, organizational development and content development at the local and national levels.

In this course, with the basis of a fundamental understanding of vocational education and HRD, students will be provided with E-Learning, the principles and procedures of E-Learning design, the learning and application and evaluation of E-Learning at industrial and educational sites.

One fundamental educational objective of the College of Agricultural and Life Sciences is to cultivate undergraduate student’s abilities to enter agriculture related business world and to succeed in their vocational world after graduation. Vocational world is changing rapidly and youth unemployment and early retirement gain more attention as important social issues. It is necessary for undergraduate students in the CALS to get multilateral information regarding vocational changes in agriculture related business world, to have chances to determine their own suitability for those occupations, and to recognize what kind of systemic preparations are needed to enter into those vocational world. This subject focuses on establishing a plan of competency development for successful vocational life. Especially, this subject aims to deliver practical field cases not to study related theories.

Agriculture and Life Sciences & Food Industry Entrepreneurship

One fundamental educational objective of the College of Agricultural and Life Sciences is to cultivate undergraduate student’s abilities to enter agriculture related business world and to succeed in their vocational world after graduation. The students have to learn entrepreneurship for creating profits and having social responsibility as an potential entrepreneur. This subject focuses on understanding the concept and theory of Agriculture and Life Sciences & Food industry. Especially, undergraduate students can learn theory of starting a business in food industry and understand a lot of business opportunities and needs in food industry. Furthermore, they can make a business plan and business model of agriculture and life sciences and food industry.

Workforce Leadership Development and Coaching

Coaches have increasing influence in education as the role of the coach is expanding in education. Coaches are viewed as facilitators of learning, not just transmitters of information. They are seen as partners, supports and resources for learners, not just teachers. Coaches are seen as partners, supports and resources for learners, not just teachers.

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change and be effective leaders. This course is designed to deliver various communication strategies which is necessary to foster a future leader in a field of vocational education and workforce development. Raising self-awareness, understanding the essence of the concept of leadership and implementing communicative strategies would enable students to learn to inspire not only themselves but also others.

M1671.001000*  
**Principle of Organization Development in Vocational Education and Workforce Development**

Youth and adults need to possess the skills and knowledge necessary to take related teaching methods. The course will help students to acquire learning styles, lesson planning, instructional materials and an introduction to Agricultural Education in relation to those teaching materials for agricultural high schools.

All the organizations are organisms. They seek continuous change to adapt to the surrounding environment and survive. However, the organization basically has inertia to insist on the current way of business and has a strong tendency to resist change. This course focuses on the concept, history, background, method and theory of organizational development so as to foster human resource development expert who can intervene in strategic organizational change.

500.E304*  
**Introduction to Agricultural Education**

This course provides experiences in terms of logic and essay writing for future teachers in the field of Plant Resources & Landscaping, Animal Resources, Agricultural Engineering, Agricultural Products Distribution, or Food Processing.

The main purpose of this course is to nourish students’ understanding of the characteristics of each vocational subject matter through analyzing vocational subject matters which is delivered in agricultural high schools. Students will study the history of vocational subject matters, the background and the objectives of each vocational subject matter, major teaching materials in each vocational subject matter, and the effectiveness of those teaching materials for agricultural high schools.
Soil Science

This course provides students with a comprehensive introduction to the field of soil science by examining the basic physical, chemical, and biological properties of the dynamic soil system. This also covers related environmental and agricultural issues such as management of soil resources to maintain the soil/water/plant resource base, waste disposal, forest and urban soils, soil remediation, and soil and water pollution. Students are expected to gain an understanding of the basic properties of soils, their interrelationships, how soils function as a dynamic system, and to evaluate the problems concerning soils and the management of ecosystems or human environments.

Pesticides

Pesticides are the bioregulators which control various organisms (including insects, microorganisms, and weeds). They kill, retard or enhance the living activity of organisms. This course deals with the characteristics, formulation, mode of action, metabolism, toxicology, selectivity and development of pesticides.

Genetic Biochemistry

Biochemical aspects in genetics and molecular biology are studied in this course to understand gene expression mechanism, especially at the level of mRNA translation and protein biosynthesis. The course will lead to basic concepts for understanding physiology and life phenomena at the cellular level. It provides fundamental understanding for molecular biotechnology, including recombinant DNA technology and metabolic engineering.

Soil Environmental Chemistry

This course is an introduction to the principal chemical constituents and processes occurring in soils, and aims to provide a conceptual framework for understanding chemical reactions in heterogeneous soil–air–water systems. Fundamental study of soil characterization and remediation to minimize pollution are presented.

Crop Protection (Applied Life Chemistry Major)

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<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Lecture</th>
<th>Laboratory</th>
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<td>Soil Science</td>
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<td>Soil Environmental Chemistry</td>
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농업생명과학대학(College of Agriculture and Life Sciences) :: 응용생물화학부(Dept. of Applied Biology and Chemistry)

5191.308* 생명유기화학실험 2-0-4

Organic Chemistry and Lab, for Life Science

유기화학의 기본적인 이해를 위한 유기화학 실험을 다루며, 생명화학과 관련된 실험 주제에 집중한다. 따라서 이 과목에는 기본적인 유기화학 조작뿐이 아니라, 유기화학의 기술과 개념을 이해할 수 있는 전반적인 유기화학, 생명화학의 심화가 포함된다. 구체적인 실험 내용은 다음과 같다. (1) 물질의 분리와 정제: 중류, 천علام 분리 (2) 물질의 동정: 크로마토그래피 및 헬리가공명 분광법 (3) 합성: Fischer esterification, Reductive amination, Killiani-Fischer synthesis, Reduction and oxidation, 동약합성

This lab. course is designed for students to acquire basic knowledge of organic chemistry through laboratory practice with emphasis in application and examples drawn from chemistry in life. The laboratory work thus includes basic organic chemical operations as well as organic chemical aspects of natural products chemistry, pesticide chemistry and biochemistry. Specific topics are as follows. (1) Purification and separation, (2) Identification of organic compounds through chromatography and NMR, (3) Syntheses.

5191.309 식물분자생리학 3-3-0

Plant Molecular Physiology

최근 급속히 발전하고 있는 분자수준의 생명과학 기술은 식물생리학의 내용과 방향에 큰 변화를 가져오며, 그 영역과 응용 범위를 한층 확대, 심화시키고 있다. 특히 분자생물학과 유전체학의 발달로 식물의 각종 생리 현상을 분자 수준에서 이해가 가능하게 되었다. 따라서 본 과목에서는 식물의 다양한 생리 현상을 분자 수준에서 학생들에게 교육하고자 하며, 나아가 이와 관련한 생명과학 축면에서의 응용 가능성도 함께 소개하고자 한다.

The contents and the direction of the plant nutrition physiology has been changed enormously due to the application of the fast—developing life science technology at the molecular level to the area. Accordingly, this course will address diverse topics of plant nutrition physiology to the students at the molecular level. In addition, the possible biotechnological application in plant nutrition will also be introduced.

5191.310* 생명분석화학실험 2-0-4

Analytical Chemistry Lab, for Life Science

이 과목에서는 학생들이 실험을 통해 생명과 환경 분야의 과목 과정에서 소개된 현상을 이해할 수 있는 기회를 제공하고자 한다. 이 과정을 통해 학생들은 용액에서의 화학과정에 관한 이론과 평형을 이용한 정량적인 화학반응에 대한 기본 지식을 이해하게 되며, 이에 실험의 번이 및 재현성, 화학분석을 위한 표준응용측정의 작성 및 기기분석 등이 있는 중요성을 알게 된다.

This course provides students with the opportunity of lab exercise in relation to life and environmental sciences. On completion, they gain an understanding of chemical equilibria, and quantitative determination of various analyses via chemical stoichiometry. They will learn the importance of experimental variability and reproducibility, the use of standard curves for the calculation of analytic concentrations and the principles of instrumental analysis including atomic adsorption analysis, ion chromatography, and so forth.

5191.412* 미생물생화학 3-3-0

Microbial Biochemistry

미생물의 귀하한 기능의 대부분은 생명학 실험에서 아직 미개발의 영역으로 남아 있으나, 최근의 유전자가공학 등 기초생물과학의 진보에 따라, 미생물이용을 위한 새로운 방법의 개발, 미생물의 특정기능의 강화 혹은 인공적 개발이 가능해지고 있으며, 그 결과는 농업, 의학, 환경, 에너지 등 각종 산업분야에 활용되고 있다. 본 강좌는 미생물의 생화학적 특성의 기본원리 및 방법론을 이해토록 하면서, 응용성 및 최근의 기술적 진보에 대해서도 다룬다.

Microbial biochemistry covers characteristics of microbial metabolism, molecular biological principle, biologically active compounds, and the production of those compounds, to name but a few. This lecture examines the fundamental microbial metabolism and facts that underlie current practical applications of microorganisms, structure and biosynthesis of the biologically active metabolites, environmental application of microbial functions, and examines future prospects for related technologies.

5191.413A* 응용생명화학실험 1 3-0-6

Applied Life Chemistry Lab. 1

본 과목에는 생명화학전공 학생들이 생명과학, 분자생물학, 생물화학, 식물생분학 및 유전체학, 천연분화학, 미생물생물학, 구조생물학, 농약학 및 독성학, 토양학 분야에서 새로운 방법에 구조해고하고 수용하는 실험의 목적을 이해하고 이를 강화할 수 있는 과목이다. 본 과목을 통해 학생들은 생명과학의 원리를 지식적으로 학습할 수 있으며, 나아가 실험을 이해하는 기자재의 작동원리나 사용 방법 등을 교육한다.

This course aims to level up the quality of the research and the thesis, required for the acquisition of the bachelor’s degree by undergraduate students in Life Chemistry Major, in one of the following selectable areas such as biochemistry, molecular biology, biophysics, plant nutrition and genomics, natural product chemistry, microbial biotechnology, structural biology, pesticide chemistry and toxicology, and soil science.

5191.414A* 응용생명화학실험 2 3-0-6

Applied Life Chemistry Lab. 2

본 과목은 <응용생명화학실험 1>의 심화 과목으로서, 생명화학 전공 학생들에 생명과학, 분자생물학, 생물화학, 식물생분학 및 유전체학, 천연분화학, 미생물생물학, 구조생물학, 농약학 및 독성학, 토양학 분야에서 하나를 선택하여 수용하고 있는 실험의 목적을 이해하고 이를 강화할 수 있는 과목이다. 본 과목을 통해 학생들은 실험 분야의 원리와 관리실현기술을 심화 학습동도하며, 나아가 실험을 이해하는 기자재의 작동원리나 사용 방법 등을 심화 교육한다.

This course is offered as the extended and advanced course for the Advanced Life Chemistry Lab 1, aiming to level up the quality of the research and the thesis, required for the acquisition of the bachelor’s degree by undergraduate students in Life Chemistry Major, in one of the following selectable areas such as biochemistry, molecular biology, biophysics, plant nutrition and genomics, natural product chemistry, microbial biotechnology, structural biology, pesticide chemistry and toxicology, and soil science.
생명현상은 생체 내에서 일어나는 물질 대사, 에너지 대사 등 매우 다양한 화학반응을 통해 가능해진다. 이러한 생명 현상의 근본을 이루는 생체 내 화학반응의 이론과 원리에 대해 체득하기 위해 이 과목에서는 생체 내 반응을 주도하는 효소의 순수분리, 효소 단백질 분석, 반응속도 측정 및 효소의 특성 규명, 효소 단백질의 아미노산 순서 결정 등 기초적인 측면의 생화학 및 분자생물학 실험을 수행한다.

Life phenomenon is made possible by a variety of chemical reaction including material and energy metabolisms, which is mediated by enzymes. To understand principles of chemical reactions in living cells which make life phenomenon on possible, basic experiments will be carried out in this class including enzyme purification, analysis of protein, enzyme, kinetic measurement and its characterization, amino acid sequence determination of enzymes.

<table>
<thead>
<tr>
<th>과목 번호</th>
<th>과목명</th>
<th>진도</th>
<th>종류</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1678.001</td>
<td>생화학 및 분자생물학실험 1</td>
<td>2-0-4</td>
<td>Biochemistry and Molecular Biology Lab 1</td>
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<tr>
<td>M1678.002</td>
<td>생화학 및 분자생물학실험 2</td>
<td>2-0-4</td>
<td>Biochemistry and Molecular Biology Lab 2</td>
</tr>
</tbody>
</table>

생명현상을 이해하기 위하여 생물체 구성성분의 화학적 성질을 살펴보고 이들의 분해 및 대사과정을 강의한다.

This course presents the basic principles of organic chemistry, including properties of elements composing organic molecules, and physico-chemical concepts in organic chemistry. Lectures on syntheses and reactions of organic molecules according to the class of compounds, and basic organic structural analysis will follow.

- 468 -
This course provides information about essential ecological processes such as interactions between organisms and the environment, energy flow, nutrient cycling, prey-predator interaction, competition, and coevolution. The basic concept of the ecosystem, community, population, and structure and function of ecosystems are taught.

519.253*  
Entomology & Lab.  3-2-2

Entomology & Lab.

This course introduces undergraduate students to the microorganisms and various aspects of viruses will also be taught. Ecology, and immunology will be covered. Fungal systematics and principles of cell biology, genetics, cell growth, microbial world with a special emphasis on bacteria. The basic concepts and principles of cell biology, genetics, cell growth, ecology, and immunology will be covered. Fungal systematics and various aspects of viruses will also be taught.

519.354*  
Applied Entomology & Lab.

Applied Entomology & Lab.

Entomology and various aspects of viruses will also be taught. This course introduces undergraduate students to the microbial world with a special emphasis on bacteria. The basic concepts and principles of cell biology, genetics, cell growth, ecology, and immunology will be covered. Fungal systematics and various aspects of viruses will also be taught.

519.250*  
General Microbiology

General Microbiology

This course introduces undergraduate students to the microbial world with a special emphasis on bacteria. The basic concepts and principles of cell biology, genetics, cell growth, ecology, and immunology will be covered. Fungal systematics and various aspects of viruses will also be taught.

519.252*  
Introductory Plant Pathology

Introductory Plant Pathology

This course reviews the types and importance of agricultural and medical insect pest species, and provides basic concepts required for the establishment of efficient pest management systems. Also discussed are various topics concerning natural product chemistry, molecular entomology, and insect pathology, and the application of such techniques to utilize insect resources as new biomaterials.

519.350*  
Clinical Plant Pathology & Lab.

Clinical Plant Pathology & Lab.

This course will examine the current state of knowledge in environmental microbiology related to agriculture through lectures and readings from the literature. Emphasis will be on common principles of microbial functions and species diversity in agricultural environment, pesticide biodegradation, pollution problems in agriculture, and interactions between microorganisms and plants.

519.353*  
Environmental Microbiology in Agriculture

Environmental Microbiology in Agriculture

This course will examine the current state of knowledge in environmental microbiology related to agriculture through lectures and readings from the literature. Emphasis will be on common principles of microbial functions and species diversity in agricultural environment, pesticide biodegradation, pollution problems in agriculture, and interactions between microorganisms and plants.
The purpose of this course is to provide a broad explanation of the physiology of plants (their functions) from seed germination to vegetative growth, maturation, and reproduction. This course is an introductory course and is scheduled to be lecture-based, with recent developments in the research of insect physiology and biochemistry encouraged to participate in short-term projects that are related to the topic.

5192.357A Plant Anatomy and Lab.

Plant anatomy is a basic field of plant science for the study of the internal structure of plants. In this class, internal structures of plant cells, types and morphological characters of cells in different tissues, primary and secondary development of tissue systems in plant development and growth, and structures of cells and tissues in leaves, stems, roots, fruit, and seeds are taught theoretically and through experiments using microscopy to promote the understandings on plants.

5192.358* Insect Diagnostics and Lab.

Insects comprise up to 75% of all recorded organisms, making them the most diverse and abundant group of living creatures on earth. Through this course, students are expected to learn the structure and function of internal organs of insects as well as physiological and behavioral mechanisms underlying their successful adaptions to the environment. This is an introductory course and is scheduled to be lecture-based, with recent developments in the research of insect physiology and biochemistry encouraged to participate in short-term projects that are related to the topic.

5192.359A Insect Physiology and Biochemistry

Insect physiology and biochemistry is an introductory course and is scheduled to be lecture-based, with recent developments in the research of insect physiology and biochemistry encouraged to participate in short-term projects that are related to the topic.
The course is designed to study the chemical and biochemical properties of insecticides and the basic toxicological principles and practical problems related with the interaction between insects and insecticides, thereby to acquire the knowledge necessary to ensure the safe and effective use of insecticides and to develop novel pest controlling agents. The course will focus on various topics including basic principle of toxicology, insecticide classification and property, insecticide resistance mechanism, bio- rational insecticide design, environmental toxicology, etc.

5192.456 Applied Microbial Ecology

The course is designed to provide senior-level students with a complementary background and current knowledge in the emerging field of environmental, agricultural, and molecular microbial ecology through lectures and readings from the literature. Emphasis will be on microbial activities in soil and aquatic ecosystems, their interaction with plants and animals, and the methodologies used to monitor the microbes and their activities.

5192.458 Eco-Friendly Insect Pest Management

This course will introduce the principles on insect pest management in the aspects of physical, chemical, and biological measures. Efficient prediction of disease development and development of novel strategies for disease control will be discussed. The class will review the history and current status of chemical and biological controls of plant diseases.

5192.460 Plant Disease Management

This course will introduce the principles on plant disease control in the aspects of physical, chemical, and biological measures. Efficient prediction of disease development and development of novel strategies for disease control will be discussed. The class will review the history and current status of chemical and biological controls of plant diseases.
Agricultural Economics

The main objectives of the course are to introduce basic theories and applications of firm management for maximizing revenues of the agricultural firm Major topics of the course include optimal allocation of firm resources, the impacts of the changes in input and output prices on firm decision making, and evaluation of firm performance.

Regional Economics

The major contents of the class contain the concepts and ideologies of regional development when it applies to the realm of region. In addition, the class studies survey method, economic base theory, demographic forecasting, etc. The class also emphasizes the ability of applying the theories into diverse empirical settings.

Quantitative Analysis in Agricultural Economics

The main objectives of the course are to introduce basic theories and applications of firm management for maximizing revenues of the agricultural firm Major topics of the course include optimal allocation of firm resources, the impacts of the changes in input and output prices on firm decision making, and evaluation of firm performance.

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 includ theories of dynamic optimization, interaction between the economy and environment, market failure in natural resource use, scarcity of natural resources, management of non- renewable resources, water resources, land, forestry and fisheries, and issues of food security, population and sustainable development.

5201.309 시장개발과 농산물무역 3-3-0

Globalization and Agricultural Trade

이 과목은 비교우대 이론을 중심으로 하는 전통적 무역이론과 블랙성을 주제로 하는 신무역이론에 대한 기초개념을 강화하고 이를 기초로 하여 농산물 무역 분석에 있어서의 핵심을 찾아낸다. 그리고 주요 농산물 무역정책에 흔한와 중심으로 삼켜본다. 강의의 대부분이 부분균형 분석에 의존하고 학생들의 현실문제 분석력 향상을 촉진하는데 중점을 둔다.

The goal of this course is to enhance the understanding of basic trade theories including classical comparative advantage theory and new imperfect competition theory and to enhance the understanding of major trade policies and their consequences. Although the topics have rather general application, specific focus will be on agricultural trade issues. With some exceptions, partial equilibrium models will be employed throughout the course. This course puts emphasis on improving the ability of students to apply the methods learned in the class to the real trade issues.

5201.311 인적자원경제학 3-3-0

Economics of Human Resources

21세기 지식기반사회에서 인적자원은 산업경쟁력 제고와 생산적 복지 증진을 위한 핵심요소이다. 본 과목에서는 경제학적 분석을 사용하여 인적자원의 경제적 의미와 역할, 인적자원 개발과 생산성 및 소득과의 관계, 기업 내 인적자원관리 (재정, 직무배치, 채용, 보상체계 등) 메커니즘, 농업 인적자원 등에 대해 분석한다.

Human resources are critical to securing industrial competitiveness and productive welfare in a knowledge-based society. This classes analyzes, in an economic context, the meaning of human resources and their role in the economy; the nexus between human resources development, productivity, and earnings; human resources management (worker selection, job assignment, training, compensation scheme, etc); and agricultural human resources.

5201.312 바이오에너지경제학 3-3-0

Economics of Bioenergy

전 세계적인 에너지 및 식량위기에 대처하기 위해 지구온난화현상을 완화할 수 있는 방안으로서 재생 가능한 바이오에너지의 중요성이 크게 증가하고 있다. 바이오 에너지를 생산하는 기술적/공학적 효율성은 물론이고 제품의 경제성에 대한 분석도 반드시 필요하다. 특히 바이오에너지 농산물 생산의 증가는 사료 및 식품용 농산물 공급에도 영향을 미치고 국가 경제 전체에도 큰 파급효과를 가질 것이라기 때문에 바이오에너지 산업과 기존의 에너지 및 농업과의 연계성을 위한 검토도 중요하다. 본 강의는 따라서 국내외 에너지 및 바이오에너지 산업의 현황, 바이오에너지 기술현황, 바이오에너지 경제성 분석, 바이오에너지 산업의 육성 방안, 바이오에너지의 환경효과, 국내외 관련 정책분석 등의 내용을 강의할 것이다.

A comprehensive overview of the bioenergy economics including world and domestic bioenergy industries, bioenergy technology, production of bioenergy material, economic evaluation of bioenergy technology, and related policies. Examines the environmental consequences of energy conversion including how renewable energy can reduce air pollution and global climate change. The impacts of bioenergy production on world and domestic food markets are also examined.
5201.401 경제발전과 농업 3-3-0

Economic Development and Agriculture

이 과목의 주목적은 경제 발전과정에서 농업부문의 역할과 농업 및 일반 경제발전 정책들에 대한 이해를 함양시키는데 있다. 주요 강의 주제는 농업 및 경제발전 이론, 국내 및 국제수준에서 수립되고 이용되는 다양한 농업발전과 경제발전 정책의 효과모델 등이다. 강의의 실질은 여러 가지 정책의 개념분석에 도움이 되는 계량분석 기법을 이용한다.

The purpose of this course is to enhance understanding of the role of agriculture in the course of general economic development and to enhance understanding of policies designed to promote agricultural and general economic development. To this end, the main topics of this course include theories of economic and agricultural development, analysis of agricultural and economic development policies at national and international level. In some parts of the course, quantitative analysis will be employed. Formulation of quantitative models of major agricultural and economic agents would help to define and conceptualize development policies.

5201.403A 시장경제와 농식품정책 3-3-0

Market Economy and Agro-food Policy

한국 농식품산업이 직면하고 있는 과제와 그 대응 정책을 이해하고, 농식품정책 분석방법론을 탐구한다. 이에 의해 먼저 국민경제의 성장에 따른 농식품 정책의 변천과정과 시장실패를 보완하는 효율지향 정책을 학습하고, 국내외적으로 많이 사용되고 있는 농식품 분야의 가격지향정책, 소득정책, 무역정책, R&D정책, 생산 활성화정책 등을 이해한다.

This class provides the basic theory and methodology of agro-food policy and studies the justification of utilizing the agro-food policy. The main contents of this course include the history of agro-food policy, agro-food policy for mitigating the various market failures, agro-food price and income policy, agro-food trade and R&D policy, and agro-food consumption policy in the era of WTO system and FTA.

5201.404 환경경제학 3-3-0

Environmental Economics

환경과 인간의 경제행위가 어떠한 관련을 맺고 있는가를 고찰하고 환경의 이용과 보전 간의 조화를 이루어 나가 수 있는 원리를 연구하는 것을 그 목적으로 한다. 환경과의 어떠한 특성에 의한 환경의 과도한 오염이 발생하는지 살펴보고 사회적으로 바람직한 환경비용을 유도하기 위한 여러 정책수단을 공부하며 환경오염이 가려지는 사회적 비용과 편익의 분석방법도 공부한다.

Theories and applications of environmental economics Topics include externality and market failure, theories of environmental policies, benefit-cost analysis of environmental policies, evaluation of Korean environmental policies, and issues of sustainable development, trade and environment, and the global pollution.

5201.405 상품선물과 옵션의 이론과 실제 3-3-0

Theory and Practice in Commodity Futures and Options

본 과목은 상품시장의 정의 및 기능, 국내외 상품시장의 동향발 변, 선물 및 현물가격 간의 관계있고, 상품시장에서의 가격위험을 관리할 수 있는 해정 방법과 전략, 상품선물 옵션, 상품선물시장규제 등에 관하여 조사를 한다.

A comprehensive course focuses on the basics of commodity futures and options market as well as strategies firms follow to managing their price risks Attention will be paid to the role of futures markets in a market economy as well as use of futures contracts in firm asset management Emphasis will be placed on the mechanics of futures trading, basis, fundamental and technical dimensions of commodity prices, hedging strategies, futures market regulation, and commodity futures market performance.
Understanding International Agricultural Development and Cooperation

The role of agri-food industry in world economy has been increasing considerably. The global agri-food industry, such as agro-food processing and food material industries, has been transformed into high value added industry, which is transformed into the high technology. New business models are currently emerging through the application and convergence of advanced high technology in the field of IT, BT, NT, ET, CT (convergence) in the agricultural sector. Marine biotechnology, agricultural biotechnology, and IT based precision farming are the key elements to the industrial development. This course will provide better understanding of the development possibilities and potentials in agro-bio industry to the undergraduate students in College of Agriculture and Life Sciences (CALS).

Understanding Global Agri-food Industry

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M2179.000100

Grain 2.202.202

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본 과목은 지속가능한 개발과 실행의 분석과 평가를 위한 경제학과의 개념과 이론을 소개 한다. 환경과 사회적인 이의화와의 이슈에 대응하여 습득하고 이를 극복할 수 있는 방안과 이들의 서비스에 대한 가치를 배르게杂 한다. 또한 기업과 정부 그리고 각 시민 단체들의 기능과 지속가능한 발전의 역할이 무엇인지 알아본다.

In this course, economic concepts and theories for analyzing and evaluating sustainable development and practices will be introduced. Students will study causes and potential solutions to environmental and social degradation, and learn the value of these services. Students will also study the functions of businesses, governments and civic groups and the role of sustainable development.
5202.410 공간경제 계량분석 3-3-0

Quantitative Analysis for Spatial Economics

본 강의에서는 공간 경제를 분석하는데 필요한 계량 방법론을 이해하고 적용하는데 주안점을 두고 있다. 강의에서 다루는 주요 주제로는 1) 공간경제모형의 개발과 정책적 해석, 2) 공간 데이터 분석, 공간 자료, 상호작용 및 간접효과 모형 등의 부분분석 방법론, 3) 종합적 방법론과 미시적동역학이 있다.

The emphasis of this course is to learn how to actually apply quantitative methods to spatial economic context of ‘real world’ scenarios. The major subjects include i) development of spatial economic model and policy implementation, ii) partial approaches such as complex analysis, spatial measures, and interaction/potential models, and iii) comprehensive approaches and spatial micro-simulation.

5202.414 식품마케팅 및 정보경영사례연구 3-3-0

Case Studies in Food Marketing and Information Management

본 교과목의 목표는 학생들에게 비즈니스 분석 기법을 식품 마케팅 및 정보 경영 분야의 다양한 비즈니스 케이스에 적용하는 것.

The objective of this course is to provide students with opportunities of applying business analysis methods to diverse business cases in the area of food marketing and information management. The cases to be handled will not be limited to the food business area, but also cover agricultural business, bio and catering business. Students who successfully complete this course will have fundamental knowledge and experiences so that they can carry out their career as a junior level of business analysis.

5202.415* 지역정보학연구 2-2-0

Research in Regional Information

본 교과목에서는 3, 4학년 학생들이 지역정보 분야의 연구를 수행할 수 있는 역량을 기르기 위한 이론, 방법 그리고 최신 주제를 학습하게 한다. 학생들은 적합한 연구를 수행할 수 있도록 교육의 지도를 받으며, 자신만의 주제를 선정하거나, 이에 준하는 인턴십을 통한 사례연구를 수행할 수 있도록 한다. 본 교과목을 성공적으로 이수함으로써 학생들은 지역정보 분야의 졸업 논문을 쓸 수 있는 역량을 가질 것이다.

The main objective of this course is to provide a comprehensive understanding of the area of regional information for senior students. Students learn theories, methods and current topics in the area of regional information. Students choose his/her own topic for research or may choo- se a case study after relevant industry field work. Advisor will guide students research so that they can develop it for their thesis.

M1683.000100 농식품 산업 정보 경영 3-3-0

Information Management for Agro-Food Industry

본 과목은 농식품 분야에서 자료의 수집과 저장 및 총출을 위한 데이터베이스를 어떻게 설계하고 관리하는 것인가에 대한 체계적인 방법론을 배운다. 다양한 사례 연구를 통하여 실무적인 지식과 경험을 쌓는다. 본 교과목을 통한 농식품 분야 경영자들이 합리적 의사결정을 향상할 수 있는 지원 시스템을 설계할 수 있는 능력을 배양한다.

This introductory course for the agro-food information system (AIS) covers general theory and practice. We will study the concept and needs of AIS, types and frontiers of AIS, organizational perspectives of AIS, and the development and current status of AIS. This course also covers the technical approach to AIS including H/W, S/W, and N/W. We will discuss recent issues in AIS, including decision support perspectives of AIS, rural GIS, e-Business in agro-food industry, AIS development and evaluation, and AIS policy and regulations.
M1683.000500 信息系统建模和设计
Information System Modeling for Agro-Food Industry

本课程旨在为学生提供开发实际信息系统的必要基础知识。课程内容包括信息系统的分析和设计方法，应用最新的DFD，ERD，OOP，CASE等系统分析和设计技术，旨在帮助学生理解和学习如何分析和设计信息系统的模型。学生将学习如何使用DFD，ERD，OOP，CASE等工具来实施模型。

M1683.001000 大数据分析
Informetrics for Agro-Food Industry

本课程提供农业和食品行业基本大数据分析的基础理论和工具。课程内容包括基本统计方法，数学统计，初步数据挖掘工具，经济分析和决策分析。学生将学会如何使用商业包理解和研究大数据分析。

M1683.001100 土地与住房市场分析
Economic Analysis of Land and Housing Market

本课程旨在为学生提供土地和住房市场分析的基础理论和方法。课程内容包括土地的定义和类型，土地市场的供需理论，土地利用规划和土地管理，土地公开和土地政策，土地开发计划的比较分析，土地开发项目的经济和财务可行性分析。

This class provides base knowledge for developing actual information systems in practical field. The purpose of the class is to understand the methods to analysis and design information systems for agro-food industry. Students will learn how to analyze the current information systems for agro-food industry and how to use the method to implement the model. They will learn the widely need tools including DFD, ERD, OOP, CASE for system design.

This class introduces theory and tools for the basic bigdata analytics for the agro-food industry. The class will include basic statistical method, mathematical statistics, introductory datamining tools, econometric analysis, and decision analysis. Students will learn how to use commercial package to understand the bigdata analytics.
Wildlife Science and Practice

The course aims to provide students with a basic understanding of general theory of ecology, population ecology, and biodiversity, biology course such as genetics and evolution ecological theories for better understanding and protection of behavioral characteristics of each population. To apply these ecology from which you can learn the social structure and

during the early term of this course, you will learn the general theory of ecology on taxonomy of mammals and birds, biogeography, and resource using pattern of wildlife. In the middle term of the course, you will learn population ecology from which you can learn the social structure and behavioral characteristics of each population. To apply these ecological theories for better understanding and protection of biodiversity, biology course such as genetics and evolution will be taught. In the late term, you will have the chance to biodiversity.

In the middle term of the course, you will learn population ecology from which you can learn the social structure and behavioral characteristics of each population. To apply these ecological theories for better understanding and protection of biodiversity, biology course such as genetics and evolution will be taught. In the late term, you will have the chance to biodiversity.

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M1698.001100 수목학  3-2-2

Dendrology

5241.213 산림생물학 및 실험  3-2-2

Forest Biology and Lab.

プログラムの効果的な管理を目的とし、技術的な要素、生態系、生物多様性、生物資源の利用など、生態学的な基礎を理解するために必要な能力を育成することを目的としています。

The first number means "credits"; the second number means "lecture hours" per week; and the final number means "laboratory hours" per week. 15 week make one semester.)
과제, 서식지 보호, 생식태수준에서의 접근, 생태계 관리 및 생태 복원에 대한 내용을 다루고자 한다. 2시간의 강의와 함께 2시간의 실습에서는 기존에 알려진 자료를 근거로 RAMAS, Excel, Populus 등의 프로그램을 이용한 실습을 통해 이론적 배경을 이해하고 이런 내용에 대해 토의하고자 한다.

Conservation biology has emerged during the last ten years as a major new discipline addressing the alarming loss of biological diversity throughout the world. This course is designed for learning conservation biology through understanding of many diverse fields, such as the general biology, ecology, genetics, wildlife biology, ethics, and environmental policy courses. This course is also intended to be a concise guide for professionals who may need case studies and discussions that are available in some articles and books. We will discuss what we mean by “biodiversity”, and examine the various threats to biodiversity that motivate conservation biology as a science. Also, we will explore different scientific and social approaches to conserving earth’s biodiversity. As you will see throughout the quarter, conservation biology is an applied science that draws on many scientific concepts and tools that you may have already learned about in other biology classes, such as Population growth, Genetic drift & effective population size, Age-structured matrix models, Island biogeography, Harvest, Metapopulation, Source-Sink dynamics, Recovery, Ecological management, Disturbance, Habitat management. Discussion sections are intended to provide you with an opportunity to discuss some of the issues raised in lectures with a smaller group of your classmates using exercises and practice using several computer programs, such as RAMAS, EXCEL, or POPULUS. Weekly meetings will include time to review lecture material as well as more focused discussions of other specialized topics.

5241.216 산림자원평가학 및 실습 3-2-2

Forest Resources Assessment and Practice

이 과목은 제1부에서 산림을 구성하는 요소들 그 규모에 따라 입목, 임목 및 산림으로 구분하여 inventory 조사의 개념과 접근 방법을 공부한다. 이를 위해 기초 산림통계 분석기법 및 임목측정 기법에 의한 대표자 산림의 측정 정확성을 제공하고, 실습을 통해 실무적 능력을 배양한다. 제2부에서는 SFM 관리란 산림조사의 개념과 접근체계에 대해 공부한다. 즉, 산림환경조사의 내용과 조사체계, monitoring & evaluation을 위한 forest resources assessment report의 작성체계를 공부한다. 또한 환경단위에서의 산림환경조사 조사자료의 취합과 종합적 분석을 위한 GIS의 개념과 도출체계를 다룬다.

This course consists of two parts: forest measurement and resources assessment for forested landscape. The first part covers the concept of national forest survey, measurement techniques for standing trees and forest stands, basic statistics for timber inventory survey, site productivity, growth—and—yield and log scaling. In the second part, covered are the basic concept and approaches of forest resources assessment, forest monitoring and evaluation, and GIS as the basic tool for integrating and synthesizing various spatial and temporal information.

5241.218 국제자연환경관리실습 1-0-2

International Field Study in Natural Environment Management

외국의 산림, 슈퍼, 목초지 및 자연환경의 관리 실험에 대한 현장학습과 외국 대학의 학습방에서 실시되는 현장학습에서 참여함으로써 자연환경관리 분야의 업망교수의 인식을 하여 외국 현장에서 자연환경관리에 관한 실습을 한다. 사용과정의 예로서 일본 북해도대학 산림학에 참여하는 것이 있고, 인도네시아 또는 필리핀 등의 외국의 관리실습에 참여하고 산림지역의 산림자원 이용 및 보전 실험을 조사하는 실습이 있다. 이러한 현장실습을 통하여 외국의 자연환경의 보전과 이용에 관한 현장학습을 통하여 국제자연환경 관리 분야의 현안을 터득하도록 한다.

This course provides students with opportunities to participate in field practicum in natural environment such as forests, wetlands, and ranges in foreign countries. One form of the field study is the field practicum of forest resources management offered by Hokkaido University, Japan. The other form is a field trip to tropical forests organized in collaboration with educational and research institutions in foreign countries such as Indonesia. The students are expected to learn the current issues in natural environment management at an international level.

5241.219 산림토양학 및 실습 3-2-2

Forest Soil and Lab.

본 강의는 산림토양학에 대한 기본적인 지식을 제공하는 것을 목적으로 한다. 학생들은 산림토양학의 특성을 이해하고, 토양의 구분과 분석 방법을 배우며, 산림생산성 유지와 산림토양 관리 방법에 관한 지식을 습득한다. 이 과목은 산림토양의 물리적, 화학적, 생물학적 형성 요인과 특성, 식생과의 관계, 지식수지, 산림생산성, 산림작업이 토양에 미치는 영향, 지속가능한 산림 관리를 위한 토양 관리에 대해 다룬다. 실험을 통하여 토양 내 pH, 수분, 유기물 함량의 측정과 여리 화학 물질의 분석 방법을 익히며, 산림토양의 측정과 토성, 구조 판별 등 기본적인 산림토양의 분류 방법을 배운다.

The course aims to provide a basic knowledge of forest soil. The course examines the physical, chemical and biological Properties of forest soil, the relationship between forest soil and vegetation, and forest soil productivity, and introduces the basic principles of forest site classification. Forest practices (harvesting, site preparation, stand tending) are examined to provide an understanding of their effects on soil properties. The forest soil management in terms of sustainable forest management is reviewed, along with methods to restore damaged forest soils. Field trips and laboratory exercises provide experience in techniques for assessing forest soil properties and classifying forest soil. The course emphasizes development of students’ ability to interpret soil characteristics related to ecosystem function.

5241.220 산림지리정보학 및 실습 3-2-2

GIS in Forest Resources and Practice

산림지리정보학 및 실습은 지리정보시스템(GIS)의 기본 개념과 다양한 업무분야의 적용에 대하여 학습하는 과목으로, 이를 위하여 강의, 개인 실습, 토론, 및 team project 수행 등의 학습방법으로 진행한다. 산림지리정보학 및 실습은 1) 공간자료의 구조 지도, 투영법, 지도 좌표계 등 GIS의 기본 개념에 대한 우선적으로 학습하며, 2) GIS 소프트웨어를 활용한 공간자료의 생성, 주제도의 작성, 편집 및 공간분석기법에 대해 학습하며, 3) 산림자재의 예측
This course deals with the basic background of Geographic Information Systems (GIS) and its applications to the forest-sector. This course will utilize lectures, practices, class discussion and team project to accomplish the course objectives. The objectives of this course are 1) to introduce students to the fundamental concepts of GIS such as spatial data structures, map projections, and coordinate systems, 2) to teach students how to utilize GIS software to import spatial data, create custom maps, query spatial database, and perform basic spatial analysis, and 3) to demonstrate how GIS can be used to manage the forest resources including themountain disaster prevention and mitigation planning, forest road design, and forest watershed management.

Economical Economics and Practice

A interdisciplinary approach is applied to the sustainable natural resources management while the principles of ecosystem health are introduced in the first place. The biophysical, philosophical, and economic theories are reviewed and applied to real issues in sustainable forest management. Some real cases are presented to show the analytical tools for assessing the biophysical, socioeconomic impacts of forest resource management and valuing ecosystems while the economic implications of economic use of ecological resources are discussed.

Forest Protection and Lab.

Students will learn the various symptoms resulted by freezing temperature, non-freezing low temperature, and high temperature and also the types of damages resulted by drought, flooding, snow, wind, and salty wind and the mechanisms of causing damages and tolerance and/or resistance to the damage causing factors and how to protect trees from those damage causing factors in the nurseries, gardens and forests. Students will also learn about the types and cause of forest fires, the influence of forest fires on forest trees, soil and ecosystem and forest fire prevention and fire fighting methods and equipments. This course also teaches the types and symptoms of damages of forests and trees due to air pollution including acid rain and global warming and the tolerant and sensitive trees to the pollutants. This course also introduces the various treatment methods of damaged trees including surgery of root systems and main trunk.

Ecotourism & Practice

Ecotourism is a useful concept for alternative development and management of ecologically sensitive area. Ecotourism helps the ideal of “Sustainable Tourism” being realized through following; 1. Protecting valuable natural resources and local culture, 2. fulfilling visitor’s needs of recreation, 3. developing economy of local communities. Students will learn definition of ecotourism, connection of benefit and conservation through ecotourism, index and criteria, marketing.
and several issues of ecotourism. Students will conduct on-site case studies on ecotourism development and management.

5241.317  
Forest Genetics and Tree Improvement & Lab.

This course introduces the principles of general and population genetics, the factors that cause genetic variations, the patterns of genetic changes and inheritance of both qualitative and quantitative traits of tree species. Students will also learn the principles and techniques of breeding methods and their application to tree species including selective breeding, hybridization breeding and introduction of exotics. Particularly, the methods of plus tree selection, provenance breeding, hybrid breeding and introduction of exotics.

The objective of Forest Field Practice for junior students is to learn practical techniques for forest ecology & forest environment management. Students participate in intensive 10-day outdoor classes and training programs at Southern Forest Field Practice.

Forest Engineering & Practice

This course is intended to provide a broad understanding of soil and water conservation engineering, forest road design and construction, and harvest technology of timber. This course offers a series of lectures on forest hydrology, the design of erosion control dams and structures, the restoration and revegetation of denuded lands, the design and construction of forest roads, and technologies and methods which are necessary for logging, bucking, skidding and yarding, log transportation. The students also study the relationship between forest engineering works and forest environment, such as the functionality of erosion control works, environmental impact assessment tool and environmental impact reduction tool of logging operation and forest road construction.

5241.412  
Wildlife Conservation and Management and Practice

This course emphasizes that wildlife are most effectively managed when wildlife habitats, populations of game animals. This course emphasizes that wildlife are most effectively managed when wildlife habitats, populations of game animals. This course emphasizes that wildlife are most effectively managed when wildlife habitats, populations of game animals. This course emphasizes that wildlife are most effectively managed when wildlife habitats, populations of game animals.

The main goals of this course are to provide the basic principles underlying conservation and management of wildlife; to introduce the social issues, legal institutions, and international conventions affecting wildlife; and to discuss options for conservation of endangered species and management of game animals. This course emphasizes that wildlife are most effectively managed when wildlife habitats, populations dynamically, and behavioral characteristics are considered simultaneously. Additionally, knowledge gained by examination of past causes of population decline and extinction can be used to limit or prevent declines in current and future wildlife populations. Because habitat destruction is the main cause of wildlife declines in the modern world, students will analyze local, national, and international environmental issues surrounding land use; class discussion will focus on the chal-
lengths associated with preservation of critical habitat for migratory birds. Upon completion of this course, students will have the breadth of ecological and social knowledge to effectively conserve and manage wildlife and their habitats.

5241.413 * 산림자원정책 및 실습 3-2-2
Forest Resources Management and Practice

이 과목에서는 국내외의 임업 현황과 임업환경의 변화, 산림자원정책 원칙 및 개념의 변화, 다목적 산림정책과 지속가능한 산림경영의 수행방안, 산림자원정책과 프레임워크를 위한 계획, 사례를 중심으로, 산림 및 야생동물, 자연환경, 사람들이 산림 및 환경에 미치는 영향을 조사하여 주요 환경과 관련 산림 및 자연환경정책의 과제와 발전 방향을 고찰한다. 산림자원 세금, 자원보호 및 자연환경정책의 영향을 미치는 관련법 내용을 살펴보고 우리나라 산림 또는 자연환경정책과 관련된 학생의 관심사를 반영하여 사례연구를 수행하여 발표한다.

This course provides a broad scope of background for forest management including current situation of domestic and international forestry environment, old and new paradigms of forest management, basic concepts for implementing multiple-use forest management and sustainable forest management, financial analysis for project evaluation, the concept of landscape-level, forest-level and stand-level forest planning, and forest management science for decision-making.

M1698.000600 산림정책학 및 실습 3-3-0
Forest Policy and Practice

산림 및 자연환경정책의 역사적 변화 과정을 살펴보고, 산림 및 자연환경에 관한 정책 과정을 이해할 수 있는 정책이론을 공부한다. 한편 우리나라의 산림 및 환경 정책 형성, 점검, 평가 과정에 직접적으로 관여하는 정책참여자들의 역할을 조명하여 봄으로써 산림 및 환경정책의 과제와 발전 방향을 고찰한다. 산림자원의 이용, 자원보호 및 자연환경정책에 영향을 미치는 관련법 내용을 살펴보고 우리나라 산림 또는 자연환경정책과 관련된 학생의 관심사를 반영하여 사례연구를 수행하여 발표한다.

The historical evolution of forest and environmental policy is reviewed first, and the theories of policy processes, such as policy formulation, decision-making, implementation, and evaluation, in relation to forest resources and the environment are introduced. The roles of players participating in the policy process related to forest and environmental issues are considered and the laws and regulations related to forest and the environment are reviewed.

5241.415 도서수목보호관리학 및 실습 3-2-2
Arboriculture and Lab.

도시와 도시 주변에 자라는 가로수, 공원수, 녹음수는 도시의 미학을 위하여 식재하기 때문에 정통적인 조리와 육림 기술로써 관리할 수 있다. 생물학적, 생증식학적 바탕으로 한 도서수목의 보호와 관리에 의하여, 수목의 구조, 생장, 도서수목의 선택, 가치지정, 수형 조절, 이식, 토양 관리, 생리학적 피해, 전염병, 해충 관리, 상처 치료와 외상수수, 녹음수, 가재 등 도서수목 관리에 필요한 실험 기술을 이론과 현장 실습을 통해서 습득하고 강의 한다. 수목보호기술자 자격시험 준비 혹은 수목병원을 개업할 수 있는 기술을 가르친다.

This class teaches the maintenance techniques of urban forests and shade trees. Biological approaches to maintaining health of street trees, park trees, and other shade trees will include following topics, such as structure and growth of trees, selection of shade trees, pruning, crown adjustment, trans-planting, soil management, physiological damage, disease and insect pest management, wound treatment, tree surgery, pesticide, equipment maintenance. After completion of this class, students will be prepared to apply for a qualification certificate for arboriculturist and possibly practice a tree clinic.

5241.416A 산림환경관리실습 2-1-2
Forest Environmental Management Practicum

- 산림환경관리 국가기관인 국립유림관리청이나 국립산림과학원, 국립수목원, 국립공원, 자연휴양림, 국내외 산림 관련 기업체, 그리고 국제산림관리기관 등에서 4주 이상의 인턴십을 실습하였을 경우에 적용제가 구축된 외국의 대학이나 해당 국가의 국가기관 수준 이상의 연구소 등에서 실습하는 경우에 지도교수의 추천, 지도교수, 평가등 전제하에 산림과학예과를 수료하고 근로자로 학사 학위를 받는 과목이다.

This class is designed for students to get practical knowledges and experiences in forest and forest environment management and forest researches at national forest management offices or national forest research institute or similar institutes in other countries. This course requires students to have at least 4 weeks of training or practice to get credit. Grade will be given based on the evaluation by the director of the institute and the report submitted by student.
portance of protected areas and the increased use of new social and financial mechanisms to compensate local and national governments for the costs they bear to provide benefits to broader society, such as payment for ecosystem service schemes (PES) and global markets for services, as crucial factors in achieving CBD goals on protected areas.

5241.419A International Forestry

The aim of this subject is to understand and practice forest technology, and to give an overview of modern international forestry to make active students' participation in learning process. Additionally, the major goal of this English-language course is to provide basic theories on the effects and chemical reaction mechanisms when physical and chemical modifications were processed on the components of wood. Furthermore exploration and application of useful genes is taught to integrate into tree breeding program for increase of forest productivity.

M1698.000400 Forest Entomology and Lab.

This course provides basic chemical properties of wood and chemical properties and biosynthetic pathway of cellulose, hemicellulose, lignin and extractives. Also, this course provides basic theories on the effects and chemical reaction mechanisms when physical and chemical modifications were processed on the components of wood.

5241.419B Forest Biotechnology and Lab.

The aim of this subject is to understand the effect of several insect pests on forest, garden, and street trees, and learn several control methods for managing the population of forest insect pests. For this purpose, morphological and ecological characteristics of each developmental stage, over-wintering stage, and damage habit of forest insect pests will be introduced with the basic knowledge of insect taxonomy, morphology, physiology and ecology. This course also introduces several kinds of control methods such as chemical, biological, physical and silvicultural control methods practically used in field.
5242.203

Wood Anatomy and Lab,

The purpose of this lecture is to provide basic principles on chemistry and engineering to enhance the power of understanding on chemical engineering process of environmental papermaking technology as well as bioenergy. The contents of this lecture are mainly composed of fundamental theories about inversion process of lignocellulosics. The basis of this lecture is to provide the basic principles of pulping, refining, screening and cleaning processes, and emphasis on stock furnish, processes and machinery. It covers the introduction of the stock preparation processes consisted of stock furnish, processes and machinery. It covers the introduction of the stock preparation processes.

5242.204

Wood Physics and Lab,

This course deals with physical properties and mechanical properties of wood. The subject consists of specific gravity of wood and cell wall substance, porosity and solidity of wood, moisture movement in wood, hygroscopicity, shrinking and swelling, thermal and electrical conductivity, acoustical properties, strength and stiffness of wood, and factors affecting mechanical properties.

5242.208

Chemistry and Process in Environmental Materials

The purpose of this lecture is to provide basic principles on chemistry and engineering to enhance the power of understanding on chemical engineering process of environmental materials, such as chemical analysis of biomass components, pulping chemistry, papermaking process and bioenergy conversion process of lignocellulosics. The contents of this lecture are mainly composed of fundamental theories about instrumental analysis/analytical chemistry for wood component analysis and fluid unit operation/mass balance for pulping/papermaking process as well as bioenergy.

5242.302

Pulping Technology and Lab.

This course deals with the historical review of the pulp and paper industry and deals with the current status and future prospects of the industry. In addition, It deals with characteristics of woody and non-woody fibers, key equipment, wood preparation process, mechanical pulping process, chemical pulping, bleaching, and chemical recovery process with emphasis on the kraft process through lectures and experiments.

5242.303

Bio-Composite Materials and Lab.

This course deals with the papermaking technology with emphasis on the kraft process through lectures and experiments. This course introduces the preparation processes of pulps and papers, including kraft, mechanical, and chemical pulping methods, and covers the properties of pulps and papers. It also covers the properties of pulps and papers and their applications.

5242.304

Wood Machining Processes and Lab.

This course deals with the papermaking technology with emphasis on the kraft process through lectures and experiments. This course introduces the preparation processes of pulps and papers, including kraft, mechanical, and chemical pulping methods, and covers the properties of pulps and papers. It also covers the properties of pulps and papers and their applications.
5242.306 Paper Chemistry and Lab.

This course deals with the fundamental principles of colloid and surface chemistry and their relationship with the interaction of papermaking materials and chemical additives in the wet end of a paper machine system. The topics of retention of fine solids and dewatering are addressed in detail. Application of the various wet end additives including sizing agents, fillers, dry and wet strength resins and others will be described.

5242.308 Engineered Wood and Lab.

This course provides fundamental knowledge of engineered wood for construction and structural elements. We evaluate a quality of engineered wood and grading. And through the experiment, procedure of making the engineered wood will be understood.

5242.309 Wood Drying and Lab.

This course deals with objectives of drying, properties of wood related to drying, evaluation of drying stress and defects, drying methods such as air drying, kiln drying and special drying of wood. The subject on kiln drying consists of kiln types and features, kiln auxiliary equipment, stacking and loading, sample board, drying schedule and operation of dry kiln. The subject on special drying consists of introduction of high temperature drying, vacuum drying, high frequency drying, plate drying and dehumidification drying.

5242.311 Natural Forest Products Chemistry

This course deals with objectives of drying, properties of wood related to drying, evaluation of drying stress and defects, drying methods such as air drying, kiln drying and special drying of wood. The subject on kiln drying consists of kiln types and features, kiln auxiliary equipment, stacking and loading, sample board, drying schedule and operation of dry kiln. The subject on special drying consists of introduction of high temperature drying, vacuum drying, high frequency drying, plate drying and dehumidification drying.

5242.313 Field Practice and Seminar in Wood and Paper Industry

The purpose of this subject is to have an experience on the major related industries through on-the-job training, it also enhances the exchange between the academic field and the real world industry. The students can obtain various real world experiences and knowledges. In addition, the invitation lecture, Writing and presentation skills for undergraduate students, Korean/English resume, cover letter and interview skill workshops will be held for the competitiveness of students.
5242.403* 목구조학 및 실습 3-2-2
Timber Engineering and Lab.

실제하는 목조주택의 설계도를 가지고 직접 축조 모형을 제작함으로써 목조 주택설계에 관한 세부적인 구조 지식을 배양하며, 목조 주택의 기본적인 구조를 이해한다. 또한 하중이나 힘 가해졌을 시 구조물의 기능을 해석하고 합판, 전단액, 접합부 등 목조 구조물에 관한 기초지식을 제공한다.

We can make a scale-down model of a plan for real wood houses by oneself. It is helpful to cultivate the detail structure's knowledge over wood houses and understand to basic structures of wood houses. Also we will analysis the behavior when load and force is loaded to the wood structures.

51699.000100 목재보존 및 입산바이오에너지 3-3-0
Wood Preservation and Forest Bioenergy

전환경 소재인 목재를 구조용재, 가구용재, 토목용재 등의 목적으로 사용하기 위해서는 장기적인 목재 보존 처리가 필수적이다. 보존 처리는 내구성만을 높이고 치수안정성을 유지할 수 있으며 물리, 화학적 성질의 보완을 가게 한다. 따라서 목재 보존에 관련되는 주요 산림생물종 종류 및 특성, 분해과정, 효소, 미생물, 염증, 증류 및 방화, 목재보존제 종류 및 특성, 보존 동향 및 처리 방법(고독성 방부제 방부처리법), 그 외에 목재부후기의 환경적 이용 등에 대하여 강의하고자 한다. 또한 현재 목재 자원을 기반으로하는 바이오에너지용, 바이오오일의 생산 및 특성과 바이오오일이 나라의 개발, 생산, 특성, 고부가가치화에 대하여 강의하고자 한다.

Wood preservation for the purpose of effective long-term utilization of woods, environmental friendly material, can improve the durability and dimensional stability, and makes it possible to compensate for disadvantageous chemical and physical properties. This course will deal with kinds of wood rot fungi, biodegradation mechanism, basic theory of enzymes, enzyme production and purification, biodeterioration characteristics, wood preservatives, preservation processes, and finally utilization of wood rot fungi. Also, production and characteristics of bioethanol and biooil originated from lignocellulosic source will be lectured.

5242.405A 종아물성학과 지류패키징 및 실험 3-2-2
Paper Physics and Packaging and Lab.

종이의 다양한 물성의 가본 원리 및 각 측정법에 대해 이해하고, 포장 재료로서의 종이의 특성과 후 가공 공정에 대한 지식을 습득하는 것을 본 과목의 목표로 한다. 이를 위해 종이의 구조적, 기계적, 화학적 성질 및 환경에 따른 종이의 물성변화에 대해 다루며,류 포장의 중요성, 활용 및 후가공에 대해 다룬다.

The aim of this course is to obtain the knowledge on the principles and measurement techniques of paper properties, and requirements of paper and paperboard as packaging materials. It covers measurement and characterization of the structural, mechanical and optical properties, effects of environment on the properties of paper and board and the interrelationship between paper manufacturing process and properties. And it includes the properties of paper and board used in packaging, utilization, and converting process.

- 487 -
In this course, students will study the chemical aspects of food composition, the physicochemical and functional properties of food constituents, and the chemistry of changes that occur during processing, storage, and utilization.

### Food Microbiology

Students will study the basic principles and application of microbiological techniques to understand the physiology, biochemistry, and genetics of microorganisms. In this course, students will discuss the structures and metabolic activities of microorganisms in order to acquire basic knowledge of food microbiology. In addition, they will study the features of various microorganisms related with food.

### Food Engineering

In this course, students will study and discuss the metabolic pathways important to the production of amino acids, proteins, vitamins, alcohols, bioactive compounds, enzymes, fermented foods, and functional foods derived from microorganisms.

### Food Analysis Lab.

This course is designed to provide information on procedures to control biological, chemical, and physical hazards and assure the safety of foods. Topics include discussions on the government regulation, Hazard Analysis Critical Control Point (HACCP) concept, good manufacturing practices, prerequisite programs, and the application of current technologies to reducing the risk of food-borne illnesses. The topics will cover control biological, chemical, and physical hazards, and their relationships to processes and their applications.

### Food Hygiene

This course is designed to provide information on procedures to control biological, chemical, and physical hazards and assure the safety of foods. Topics include discussions on the government regulation, Hazard Analysis Critical Control Point (HACCP) concept, good manufacturing practices, prerequisite programs, and the application of current technologies to reducing the risk of food-borne illnesses. The topics will cover control biological, chemical, and physical hazards, and their relationships to processes and their applications.
5251.402

**Food Biotechnology and Bioengineering**

Food biotechnology and bioengineering applied to various foods, processing of grains, legumes, fruits, vegetables and lipids.

In this course, students will be introduced to principles of biotechnology and bioengineering applied to various foods, and to examples of such applications.

5251.403

**Food Biotechnology Lab.**

Studying the basic laboratory course in food biotechnology. The goal of the course is to familiarize students with the foundations of food enzymology, functional foods, fermentation, food microbiology, and food safety, particularly, the fundamental concepts at molecular level. Students will be encouraged throughout out this course to develop the ability to think like a food scientist involved in the presumed research and development unit of food—biotechnology industry.

5251.404A

**Food Processing and Preservation 1**

Food processing and preservation of the basic laboratory course. In this course, students will learn the principles and applications of food processing and food preservation by studying physical, biochemical and microbial principles and technologies in food processing and food preservation. The main topics include the fundamental principles of food processing and preservation, and processing of grains, legumes, fruits, vegetables and lipids.

5251.406

**Food Processing and Engineering Lab.**

In this course, students will study the basic laboratory techniques required for food processing.

5251.407A

**Food Processing and Preservation 2**

In this course, students will be introduced to principles of microbiological, physicochemical, and biochemical characteristics of animal products. Food safety and quality will be emphasized in the application of a biochemical approach to addressing foodborne hazards.

5251.408

**Food Biochemistry Lab.**

Introduces basic analytical techniques for food compositions and food borne hazards. Lab includes study of the biochemical characteristics of food endogenous enzymes and food components, and the physiological characteristics of representative food-poisoning microorganisms.

5251.410

**Food Enzyme Technology**

Biology and biochemistry of enzyme proteins, cellular biosynthesis for enzyme activities, and basic knowledge of enzyme kinetics, isolation and purification techniques of enzymes, and enzyme modification by genetic engineering/protein engineering.

5251.411

**Food Hygiene Lab.**

Introduces basic analytical techniques for food compositions and food borne hazards. Lab includes study of the biochemical characteristics of food endogenous enzymes and food components, and the physiological characteristics of representative food-poisoning microorganisms.

Based on the understanding of the principles of food processing and preservation, this course covers microbiological, physicochemical, and biochemical characteristics of animal raw materials including milk, meat, poultry, egg, and marine products, and processing principles of separation, concentration dehydration, cooling, freezing, canning, and fermentation to produce dairy, meat, poultry, egg, and fishery food products and characteristics of these animal food.

5251.408

**Food Biosciences Lab.**

Studying the basic laboratory course in food biotechnology. The goal of the course is to familiarize students with the foundations of food enzymology, functional foods, fermentation, food microbiology, and food safety, particularly, the fundamental concepts at molecular level. Students will be encouraged throughout out this course to develop the ability to think like a food scientist involved in the presumed research and development unit of food—biotechnology industry.
5251.412*  기능성식품학 3-3-0

Functional Foods

Functional food is a healthy food claimed to have a health-promoting or disease-preventing property beyond the basic function of supplying nutrients. This class focused on health-promoting or disease-preventing property of functional foods. This class also provides the impact and the recent research trend on the development of functional foods.

5252.201A* 동물영양학 및 실험 3-2-2

Animal Nutrition and Lab.

Animal nutrition interprets the relationship between fodder and living animals and covers the intake of food, digestion, metabolism, excretion and all syntheses essential for the maintenance, growth, and reproduction of animals. The demand for food from animals continues to grow as human populations increase and economic status improves. In this class, students will be introduced to the function of animal nutrition in modern agriculture and society, nutrients, the principles of nutrition, the role of animal nutrition metabolism, and the formulation of diets with various available feedstuffs. As students acquire knowledge of animal nutrition, animals will be better-fed than ever and the efficiency of animal production will be raised, resulting in improved foodstuffs.
동물세포공학 및 실험 3-2-2

Animal Cell Biotechnology and Lab.

동물세포공학 및 실험이동물체내 세포 및 생식세포의 특성에 대한 저작물을 학생들에게 제공하고 생명공학 연구 분야에서 가장 많이 사용되는 동물세포 및 생식세포를 이용한 각종 기법들을 소개한다. 본 연구 강좌를 통해 학생들은 동물세포배양기술, 세포의 생리 및 세포학적 특성, 동물세포를 이용한 유전자공학의 생리 및 생식세포의 기원 및 발전, 최근의 발전동물학 및 세포공학의 원리에 대하여 학습하며, 실험을 통하여 관련된 최신 연구기법에 대하여 숙지할 수 있는 기회를 가진다.

Lecture of animal cell biotechnology & Lab. provides the knowledge on the biological character and physiology of animal cells in various tissues and the knowledge on the technologies to manipulate gametes and embryos. Through this lecture, the students can acquire the physiological character and physiology of animal cells in various tissues and the knowledge on the techniques to manipulate gametes and embryos. In addition, the student can experience the peer skills in the area of cell and developmental biotechnologies.

Bioinformatics and Genomics of Animal & Lab.

본 과목은 실험 데이터를 모아 동물 데이터베이스 및 데이터베이스에서 필요한 정보를 제공한 것으로 인간 및 동물의 생물학적 특성을 바탕으로 생명현상을 이해하는 학문이다. 따라서 본 과목에서는 유전자 표지인자를 이용한 동물분자 육종, 사람의 유전자정보를 바탕으로 동물의 증간 비교 지도 작성, 단일 염기다형(SNP)의 해독기술, 특정 염색체영역에 있는 유전자 및 질병의 검색 및 Lab informatics 등에 대하여 강의한다.

In this course, students will study the management, analysis and interpretation of massive amounts of data obtained from experiments on genomics and life phenomena based on the sequence of nucleotide pairs in humans and animals. The topics will cover these areas: the molecular breeding of animals using genetic markers; comparative genome mapping; interpretation of SNP; detection of the genes that control the sequence of nucleotide pairs in humans and animals. The course will provide basic and applied aspects of Animal Biotechnology. This will include basic molecular biology such as restriction enzymes, gene cloning, PCR, blotting, etc. Also, the concepts and applications of current Biotechnology to Animal Science and industry will be dealt with during the course.

Animal Genetic Engineering and Lab.

이 과목에서는 동물유전공학의 기본적인 개념 및 응용이론의 범위에 대하여 소개할 예정이다. 예를 들어 유전자공학기술의 기본이 되는 제한효소, 유전자 클로딩, PCR 기법, blotting 기법 등을 소개하고 응용이론의 범위는 동물산업과 학문적인 측면에서 현재 생명공학의 진보된법과 응용에 대하여 과장 중에 소개할 예정이다.

Reproductive Physiology is the basics of how animals can reproduce through gametes. In this class, the basics of reproduction, such as basic anatomy, endocrinology and gamete biology will be discussed. Also, the physiology of sexual maturation, estrus cycle, fertilization, development, pregnancy and implantation will be covered and application of reproductive technology, such as artificial insemination, embryo transfer, gamete manipulation and cure.

Animal Reproduction and Lab.

동물유전공학은 동물이 생식세포를 통하여 번식하는 과정을 연구하는 학문이다. 본 과정에서는 동물유전공학의 기본적 기초생식기, 생식 내분비, 생식세포 등이 다루어질 것이고 성숙, 발정 및 발정구조, 수정과 배, 발달과 발달, 입신과 분만 등도 소개할 예정이다. 또한 번식생리학을 이용한 기법으로 인공수정, 수정란 이식, 재외수정 및 생식세포 조작 등을 소개할 것이다.
The course is to provide a complete background to the functions of the organs, cells and predominant molecules of the immune system involving innate and adaptive immunity. These basic principles would offer a platform for understanding the mechanisms of normal immune function in combating infection and further action mechanism for the protection following infection or vaccination. The lecture will also cover the molecular- and cellular-based immunity including structure and function of the antigen/antibody, effector mechanisms, complement, major histocompatibility complexes, antigen processing/presentation, B- and T-cell receptors, antibody formation and immunity, cytotoxic responses, and regulation of the immune response. Students are also introduced to the technological and applied aspects of immunology, which include conceptual and technical approaches including immunoassays and flow cytometry. Special topics may include immunomodulation and vaccination, immunotherapy, and autoimmunity. Advantages are sought for students with prerequisite courses on Biochemistry, Molecular Biology and/or Advanced Cell Biology. The lecture will be given in English.

- 492 -
Livestock Production and Global Warming

UN FAO (2006) reported animal agriculture produced 18% of greenhouse gas, which is the most. In addition, livestock is an important sector because it has a significant impact on biodiversity, and the course includes sustainable livestock production by looking at scientifically both the bright side and dark side. The course includes livestock in the field, and conventional sciences are important for developing peer Bio-technology and Life Sciences.

Domestic Animal Production and Lab.

This course offers an overview of breeding, feeding, management and features of farm animals based on industrial
aspects. The course deals with three types of domestic animals: poultry, small animals and large animals. In the first part, students will learn the classification, characteristics, breeding and management of poultry. The contents of the second part are the breeding, reproduction, feeding, management and disease control of pigs, sheep and goat. At the end, students will study and practice breed improvement, breeding, facilities and management of large animals such as cattle.

Feed Science and Lab.

Today, feed formulation by species and analysis of animal feed consequently they understand how to control the quality of animal feed.

Moreover, students learn the characteristics of feeds by species and recognize recent introduced feed supplements, ingredients and feed processing technologies.

Animal Breeding & Genomics & Lab.

The objective of this course is to present principles of animal genomics applied to traditional breeding approaches, as well as an introduction to Mendelian genetics and population genetics topics related to animal breeding. You are expected to have a basic understanding of genetics and statistics.

Animal Molecular Nutrition

Significant advances in understanding of human and animal genome structure have been made, and nowadays it is possible to understand nutrient-gene interaction at molecular levels. This course provides regulatory mechanisms of gene expression by nutrients, including carbohydrate, fatty acids, protein/amino acids, minerals, and vitamins, nutrient signaling pathways, and recent advances in nutrient-gene interaction in ruminants. Students will be able to have opportunity for deep understanding of animal molecular nutrition. Students can apply acquired knowledge to develop personalized nutrient requirement for specific physiological/developmental stages, and to identify more efficient methods for increase in production/quality of meat and milk and decrease in environmental waste in ruminants.
lecture is for any grades of undergraduate study including freshmen, sophomore and the applicant for graduate school of biotechnology. Through this course, basic knowledge on the basis of science, scientific history, research skill, statistics, research ethics, quality assurance and control, intellectual property, and scientific writing will be provided. This lecture is a team teaching of the lectures working in the fields of agriculture and life sciences, and medical sciences.

M1702.000400 동물생명공학논문연구  1-0-2
Research on Animal Biotechnology

The objective of the course is to teach the senior undergraduate students on the process of experimental research in the laboratory and to learn how to write the thesis. The senior undergraduate students will periodically present the experimental results based on the theories they have developed in each laboratory at the department. The final research results will be presented and evaluated before the graduation, and submitted as a graduation thesis.
바이오시스템공학전공(Biosystems Engineering Major)

5261.221* 생물재료역학 3-3-0

Material Engineering for Biological Application

이 과목은 식물재료 또는 생물재료를 응용하기 위한 재료역학 기초능력을 배양하기 위한 것이다. 다수의 주제로는 생물재료의 구조적 특성, 재료의 물리적 특성, 운동량 변형, 압축, 비틀림, 물체 내부운동량과 평형, 치질, 모하르(Mohr’s circle) 및 운동학에, 가상(virtual work)과 같은 재료역학 기본개념을 다루며 이를 응용하기 위한 기초 설계능력을 배양한다.

This course provides basic material engineering knowledge for managing and processing animal, plant and other biological material. This course deals with structural characteristics of bioproducts and materials as well as basic engineering concepts such as physical properties of material, strain and stress, axial deformation and torsion, stresses in engineering concepts such as physical properties of material, logical material. This course deals with structural character-

5261.222 동력역학 3-3-0

Dynamics

역학, 질량, 강체, 운동, 힘, 일, 역적, 운동량 등 동력학의 기본 개념을 다룬다. 결과의 가정 및 공학 운동에 대한 기본원리를 소개하고, 자연의 제2법칙, 일과 에너지, 역적 및 운동량의 원리를 적용하여 힘과 운동의 관계를 이해하고 가상 운동량식의 유도 과정을 다룬다.

This course treats basic concepts of Engineering Dynamics including vectors, particles, rigid bodies, forces, works, impulses and momentums. It introduces plane and space motions of particle and rigid bodies, their force-motion relations, and derivation of equations of motions using principles involving Newton’s Law of Motions, work and energy, and impulse and momentum.

5261.223C 생체분자공학 3-3-0

Introduction to Biomolecules

이 과목은 농생태 바이오시스템 공학 전공에서 대상으로 하는 식품작물, 농·축산 식품 및 식물시스템의 주요 구성 요소에 대한 화학적 구조 및 물리화학적 특성을 가르치기로 소개하고, 이를 통하여 공학적 활용을 위한 생명시스템에 대한 이해를 증진시키며 일차적인 목표를 두고 있다. 주요 생체 구성 물질 단백질, 탄수화물, 지질, 핵산을 중심으로 하여 화학적 구조와 다양한 유도체, 운용 사례 등을 다룬다.

This class primarily focuses on the chemical structure and physicochemical properties of biological substances composing plant and animal systems that are objectives in Biosystems Engineering Major. Through the lecture, students are expected to understand better the biological systems and their applications. Topics cover major biological components such as protein, carbohydrates, lipids, and nucleic acids with their structure, various derivatives, and industrial applications.

5261.224 바이오시스템공학전공 3-3-0

Biology for Biosystems Engineering

생물시스템공학에 필요한 공학적인 응용에 필요한 생물학 지식을 다루는 과목으로서 이 과목은 생체계측, 생물영상처리개론, 생

화학적 구조 및 물리학적 특성을 가르치기로 소개하고, 이를 통하여 공학적 활용을 위한 생명시스템에 대한 이해를 증진시키며 일차적인 목표를 두고 있다. 주요 생체 구성 물질 단백질, 탄수화물, 지질, 핵산을 중심으로 하여 화학적 구조와 다양한 유도체, 운용 사례 등을 다룬다.

This course provides basic chemical structure and physicochemical properties of biological substances composing plant and animal systems that are objectives in Biosystems Engineering Major. Through the lecture, students are expected to understand better the biological systems and their applications. Topics cover major biological components such as protein, carbohydrates, lipids, and nucleic acids with their structure, various derivatives, and industrial applications.

5261.225* 유체역학 및 기계 3-3-0

Fluid Mechanics and Machinery

이 과목은 바이오시스템공학에 필요한 유체역학의 기초를 설명하고 이를 응용하기 위한 기초를 제공하기 위한 것이다. 유체의 종류와 특성, 유체내의 압력분포, 운동량보존, 에너지보존, 차원해석, 관내 유동에서의 압력강하, 침입 물체에서의 힘과 운동량을 얻는 방식과 같은 기본적인 역학 개념을 소개하며 이에 기초하여 유체 계측기의 원리, 쿠퍼, 쿠퍼, 공기동력학의 작동원리와 설계에 관련된 이론을 소개한다.

This course provides basic fluid mechanics and its application for biosystem engineering. Topics of this course are fluids and their properties, pressure distribution in fluid, conservation of energy and momentum, viscous flow in duct or tube and pressure drop, drag and lift in immersed objects, and compressible flow. Based on the basic concept, this course also introduces principles and design of fluid measurement devices, pumps, fans, air compressors etc.

5261.228 바이오열역학 3-3-0

Bio-thermodynamics

열력, 일, 에너지에 대한 기초 개념을 이해하고 열에너지의 이용를 극대화하기 위한 열역학 시스템의 설계능력과 성능분석을 위한 기초학과 이론을 습득하고, 이를 농산물 저장, 건조, 운송, 쿨링, 천연물에 적용하고 생명공학이나 품질대사, 자연환경 에너지의 분석, 폐기물 처리 등에 적용하는 능력을 배양한다.

Concepts of work, energy and heat, basic engineering technology related to thermal system are covered. Applications are focused on environmental energy equilibriums, and measurement coupled with thermodynamics of enzyme–catalyzed reactions and metabolism. Engineering design concepts for storage, drying, transportation, and cold–chain of agricultural and animal products, biological food resources, and waste treatment are introduced.

5261.321* 생체열·물질전달 3-3-0

Heat and Mass Transfer in Bioproducts

농산물과 식품을 비롯한 생물체 내에서 일어나는 열전달과 물질전달은 주로 과목으로, 열전달과 물질전달에 필요한 전도, 대류, 복사, 확산, 분리가의식을 이해하고 이에 바탕을 둔 가열, 살균, 건조, 증류, 등 생체를 대상으로 한 다양한 공정을 설명한다. 또한 생물체 또는 세포, 조직 단위에서 생체열물질전달 현상의 이해를 다룬다.

This course deals with heat and mass transport phenomena in Bioproducts. Topics are theories on conduction, convection, radiation, diffusion, and separation as well as applications to various bio-process, such as heating, sterilization,
농업생명과학대학(College of Agriculture and Life Sciences)

5261.325 농업동력 및 트랙터 3-2-2
Farm Power and Tractors

농업에 이용되는 동력원의 종류, 내연기관의 구조 및 원리 
성능 및 시험법, 농업용 트랙터의 구조・기능에 따른 성능 및 시험법을 다룬다.

이 교과목은 학부생을 대상으로 바이오시스템 공학의 정밀농업 
의 공학적 원리와 설계를 다룬다. 경운, 양수, 약제살포, 일체배출 
량 조절, 단위체 이송, 생체조절, 수확, 늑골 등의 원리와 해석방 
법, 정밀농업기술의 설계 등을 다룬다. 또한 농업기술 설계에 있어서 
는 농업공학의 특성과 원리, 농작물의 무하특성, 표준설계, 안전설 
계, 에너지학 설계 등에 대한 기본 원리와 이론을 배우고 변속기, 
작업기 연결장치, 유압장치, 전동장치 등 농업기술의 주요 장치 
와 기구에 대한 설계방법을 다룬다.

이 교과목은 다중 정보기술과 시험법 및 설계, 분산분석 등의 공학자 
의 정밀농업 시스템의 종류와 구조, 설계의 원리와 해석방법, 
기술의 성능 및 시험법을 다룬다. 다중 정보기술의 종류와 구조, 설계의 
원리와 해석방법, 설계의 성능 및 시험법을 다룬다. 

5261.326* 바이오시스템제어 및 실험 3-2-2
Biosystems Control and Lab.

바이오시스템의 모델링과 제어를 위한 기초과정으로서, 제어 
시스템의 종류, 전달함수, 수학적 모형화, 물리적 모형, 신호내포, 신호 
형태, 그리고 수학적 모형화의 해석방법, 수학적 모형화의 해석방 
법, 전자기기 설계 및 제어의 핵심과제들을 다룬다.

이 교과목은 다중 정보기술과 시험법 및 설계, 분산분석 등의 공학자 
의 정밀농업 시스템의 종류와 구조, 설계의 원리와 해석방법, 
설계의 성능 및 시험법을 다룬다. 다중 정보기술의 종류와 구조, 설계의 
원리와 해석방법, 설계의 성능 및 시험법을 다룬다. 

5261.323 농업기계분석과 설계 3-2-2
Analysis and Design of Agricultural Machinery

동력학, 기계역학, 식물생산학, 생물학 등에 기초하여 농용작업기 
의 공학적 원리와 설계법을 다룬다. 경운, 양수, 약체살포, 일체배출 
량 조절, 단위체 이송, 생체조절, 수확, 늑골 등의 원리와 해석방 
법, 정밀농업기술의 설계 등을 다룬다. 또한 농업기술 설계에 있어서 
는 농업공학의 특성과 원리, 농작물의 무하특성, 표준설계, 안전설 
계, 에너지학 설계 등에 대한 기본 원리와 이론을 배우고 변속기, 
작업기 연결장치, 유압장치, 전동장치 등 농업기술의 주요 장치 
와 기구에 대한 설계방법을 다룬다.

이 교과목은 다중 정보기술과 시험법 및 설계, 분산분석 등의 공학자 
의 정밀농업 시스템의 종류와 구조, 설계의 원리와 해석방법, 
설계의 성능 및 시험법을 다룬다. 다중 정보기술의 종류와 구조, 설계의 
원리와 해석방법, 설계의 성능 및 시험법을 다룬다. 

5261.324 전기전자응용 및 실험 3-2-2
Application of Electrical and Electronics Engineering and Lab.

전기전자공학의 기초인 저류 및 교류의 회로 분석, 변도체, 다 
아오토, 트랜스리스(BJT, MOSFET), 콘슈트립, Op-Amp 등의 
기초지식과 PSPICE를 이용한 전기전자회로 분석법을 습득하게, 
농업생물시스템의 제어, 계측, 자동화 및 자동화, 기기분석에 필요 
한 전기시스템의 이해, 전기전자회로 설계, 구성 및 적용능력을 배 
양하는 것을 목표로 한다.

이 교과목은 다중 정보기술과 시험법 및 설계, 분산분석 등의 공학자 
의 정밀농업 시스템의 종류와 구조, 설계의 원리와 해석방법, 
설계의 성능 및 시험법을 다룬다. 다중 정보기술의 종류와 구조, 설계의 
원리와 해석방법, 설계의 성능 및 시험법을 다룬다. 

5261.323* 생물체성공학 및 실험 3-2-2
Engineering Properties of Bioproducts and Lab.

농산물, 임산물, 축산물 등을 비롯한 생명체와 식품원료, 심유원 
료 등의 이공학적 특성은 이들 신플의 가능 및 취급 기계의 설계 
에 필수적인 요소이다. 이 강좌에서는 생명체와 식품원료의 이공학적 특성, 
 즉 기계적 특성, 열적특성, 전기적 특성, 전기적 특성의 기초 분석과 
이들 특성의 측정 및 분석법을 강의한다.

이 교과목은 다중 정보기술과 시험법 및 설계, 분산분석 등의 공학자 
의 정밀농업 시스템의 종류와 구조, 설계의 원리와 해석방법, 
설계의 성능 및 시험법을 다룬다. 다중 정보기술의 종류와 구조, 설계의 
원리와 해석방법, 설계의 성능 및 시험법을 다룬다. 

5261.324 바이오시스템실험 2-0-4
Experiments for Biosystems

바이오시스템 공학도로서 필요한 생명물학적 화학적 반응과 분석에 
대한 실험기를 다루는 과목으로, 생명체의 구조 관찰과 이해, 
기초적인 화학기술의 원리와 방법의 습득, 생명물학적 반응과 마생 
물의 생육사정을 목표로 한다. 구체적인 내용으로는 화학작용의 
제조, 화학작용, 탄수화물, 단백질 및 지질 등류기물 분석, 식물, 동 
물세포 조직 및 마생물의 변이기 관찰, 마생생물배양, 요소분석 등이 
다루어진다.

이 교과목은 바이오시스템 공학도로서 필요한 생명물학적 화학적 반응과 분석에 대한 실험기를 다루는 과목으로, 생명체의 구조 관찰과 이해, 기초적인 화학기술의 원리와 방법의 습득, 생명물학적 반응과 마생물의 생육사정을 목표로 한다. 구체적인 내용으로는 화학작용의 제조, 화학작용, 탄수화물, 단백질 및 지질 등류기물 분석, 식물, 동물세포 조직 및 마생생물의 변이기 관찰, 마생생물배양, 요소분석 등이 다루어진다.

이 교과목은 바이오시스템 공학도로서 필요한 생명물학적 화학적 반응과 분석에 대한 실험기를 다루는 과목으로, 생명체의 구조 관찰과 이해, 기초적인 화학기술의 원리와 방법의 습득, 생명물학적 반응과 마생물의 생육사정을 목표로 한다. 구체적인 내용으로는 화학작용의 제조, 화학작용, 탄수화물, 단백질 및 지질 등류기물 분석, 식물, 동물세포 조직 및 마생생물의 변이기 관찰, 마생생물배양, 요소분석 등이 다루어진다.

This course deals with basic chemical and biological experiments, which is necessary for biosystem engineers. The objectives are observation of the structure of biological cell, tissue, understanding of basic chemical experiments, and measurement of biological reaction and microorganism growth. The detailed contents include preparation of buffer solution, chemical titration, analysis of organic compounds such as carbohydrate, protein, and lipid, microscopic observation of plant/animal cell, tissue and microorganism, microorganism culture, and enzyme reaction.
automation, including the global positioning system (GPS), geographic information system (GIS), and variable rate applicators (VRA), as well as statistical methods, such as regression analysis and analysis of variance (ANOVA), used to effectively analyze data on biosystems samples. Students are expected to enhance their practical abilities in biosystems IT and data analysis by actually taking biosystems samples on-site and performing data analysis using engineering statistical programs.

5261.330 기계요소설계 3-3-0

*Design of Machine Elements*

This class provides an introduction to the principles of machine design including material selection, manufacturing, structure, stress analysis, etc. by applications of mathematics, engineering mechanics, mechanics of deformable bodies and material science. It also treats the methods of design and selection of important machine elements including threads, screws, bolts, nuts, keys, pins, shafts, bearings, gears, brakes, couplings, belts, chains, and welds.

5261.402 바이오센서·생체계측 및 실험 3-2-2

*Biosensors, Bio-instrumentation and Lab.*

This course covers the technologies to measure growth conditions, environmental and quality factors of living creatures. The topics are principles of measurement, signal acquisition, process, noise, growth factors of animal and plants, environmental conditions of plant and animal, various bioinstruments, and practices of measurements.

5261.423 마이크로프로세서응용 3-2-2

*Microprocessor Application*

This class provides an introduction to the principles of digital circuits, logic gates, flip-flop circuits, the microprocessor, and microcomputers. Experimental practices are conducted every week for understanding the principles. The term project is assigned to check the design and application potentials for group work. Practical applications in agriculture are emphasized in this class.

5261.424 수확후 공정공학 및 실험 3-2-2

*Post-Harvest Process Engineering and Lab.*

This course provides an introduction to the basic theory, design and operational principles of processing machineries are introduced for cleaning, sorting, size-reduction, milling, air conditioning, drying of cereal grains and food stuff, refrigeration, storage and rice processing complex system.

5261.425 생물환경시스템설계 3-2-2

*Bioenvironment System Design*

This course deals with relationships between living plants/animals and environment and their applications in bioproduct. Basic knowledges will be applied to specific cases such as growth chamber, green house, animal farm, experimental plant/animal facilities. Main issues in controlling and measuring of growth condition, environment and quality factors of living creatures.

5261.427 바이오시스템공학연습 1-0-2

*Practice in Biosystems Engineering*

This course aims to improve students’ writing and presentation skills, that is required as a professional engineer and to give guides on their graduation thesis. Making slides, time sharing, attitude for presentation, writing techniques, literature search/revie/citing techniques for thesis are prodied and discussed. Every students has chances to present his/her own topic and to get mutual evaluation. Also, student should select one laboratory in the biosystem engineering major, participate in research and present his thesis under the guidance of a professor and collaboration of urban communities, and environmental justice. Roles of and interactions among urban environment, city systems, and urban communities will be explored. Currents in urban health research, urban health...
5261.429

Biomechanics and Lab.

This course deals with an application of basic principles of solid and fluid mechanics to living systems in analyzing musculo-skeletal movement and flow behavior of blood, and real-world applications in biomedical engineering field. Also, objective measuring tools, such as kinematic analysis and electromyography are covered. Engineering mechanics, fluid mechanics, and biology related courses are prerequisites.

5261.430

Seminar in Biosystems Engineering

This course provides information of industries status and current technologies in biosystems engineering to students and gives students chances of discussing their interests and questions with the invited experts in various biosystems engineering. This course aims to help students to understand real situations of our society and industries and to make decision in their own future plan; studying further in graduate schools or finding a job opportunities.

5262.278*

Introduction to Biomolecular Engineering

5262.280*

Mechanics of Biomaterials

5262.286A*

Introduction to Biobased Materials Engineering

This course provides the professional knowledge of the processing from the raw materials to products and applications based on the principles of fiber and polymer materials science. First, the structural characteristics of fibrous polymer materials (microscopic, morphological, fine structure) are given in the lecture for the structure–property relationship. Second, the physical and chemical structure, chemical reaction, property and applications of fiber materials are covered for natural polymeric fibers (cotton, flax, wool and silk) and synthetic polymeric fibers (nylon, polyester etc.).
Polymer Chemistry 1

This course will involve the physical and chemical characteristics of polymer materials. Students will discuss the radical and ionic polymerization mechanism of vinyl polymers as well as practical uses and new application fields.

Polymer Chemistry 2

In this continuation of <Polymer Chemistry 1>, students will explain the step and ring-opening polymerization of non-vinyl polymers. Topics will cover synthesis mechanism and the application of principal materials such as polyether, polyester, and polyamide as well as the synthesis procedure of thermosetting materials such as phenol, urea, and melamine. Also studied will be natural and other polymers.

Biopolymers 1

The aim of this course is to provide fundamental knowledge of biopolymers to students. Basic chemical properties of polysaccharides (cellulose, starch, alginate, chitin and chitosan), polyesters (polylactic acid, PHA) and polyamides (silk, collagen, elastin, polyglyutamic acid) will be introduced. It includes monomer compositions, synthesis and basic properties of each polymers. In Biopolymers 1, it will focus on the polysaccharides and polyesters.

Biopolymers 2

In this course, we will continue to introduce the properties of each biopolymer. Students will learn more about the applications of biopolymers in various fields.

Physical Properties of Polymeric Materials
Basic SI units and dimensions of physical quantities will be defined. Chemical structure, microstructure, macrostructure of polymeric materials will be introduced. Dealt in this course will be tensile properties, fiber length variation and viscoelastic properties of polymeric materials. Mechanical models and some theories will be introduced to discuss the physical properties with experimental data collected.

Fundamentals in Biomaterials Design and Lab.

To develop a novel biomaterials, it is necessary to understand the basic requirements in each applications. In this course, students obtain the knowledge of actual applications based on the polymer chemistry. It covers the polymer structure and properties according to the synthetic methodology as well. Molecular weight, polymer solution, physical-chemical structure, morphology and other characteristics are discussed from the aspect of physical chemistry. Theoretical mechanism of biofunctionality including tissue cell attachment, enzyme fixation, selective attachment of organic materials, biocompatibility, drug delivery system and selective permeation is lectured in the course.

Synthesis of Biopolymers

Biopolymers are important materials in various fields. Generally they are extracted from known sources by various methods. Recently they are synthesized by the aid of advanced technology from biotechnology. The aim of this course to understand fundamental principles of biological pathway of biopolymers. It also includes fundamental technologies of biotechnology such as fermentation. Polymers that are interested in this course are polystyrene, polyacrylamides and proteins.
Landscape Architecture Major

5271.211A  Landscape Drawing and Media

This studio focuses not only the traditional drawing but also the various short-term projects. It also experiments media for landscape (re)presentation through lectures and field observations.

5271.212A  Landscape Plant Materials

Students will develop understanding and skill in the following areas through lectures and field observations:
1. Identification of landscape plant species on the basis of leaf, stem, fruit, flower, piece, bark, and whole plant characteristics.
2. Ecological roles of selected plants in cultivated landscape environments.
3. Basic knowledge of ornamental characteristics and environmental adaptability of important native and introduced plant species relating to their use in specific landscape situations.
4. Correct usage of scientific names and terminology to describe plant taxa.
5. Develop a working knowledge of potential limitations and hazards associated with the use of certain plant species in the landscape.
6. Ability to obtain cultural and descriptive information on plant materials from literature and human resources.

5271.213*  Space Design

Programs in landscape architecture. It emphasizes on understanding and use of charting, two-and-three-dimensional computer-aided drafting and design technology for executing landscape design development, evaluation, and presentation tasks.

5271.214A  GIS and Quantitative Analysis

This class aims for students to comprehend Geographic Information System (GIS), which is the basic tool for landscape design, and the method of quantitative analysis. The first session is about GIS. It includes not only the basic concept of GIS but also the way to apply GIS to specific spatial analysis. Students can absorb it by actual practice of terrain and suitability analysis. The second session is about quantitative analysis which contains the basic statistical analysis. In this session, students can also learn how to write questionnaires needed for investigating people’s growing awareness of landscape.

5271.221B  GIS and Quantitative Analysis

GIS와 계량분석 실습 3-2-2

Practice of GIS and Quantitative Analysis

Programs in landscape architecture. It emphasizes on understanding and use of charting, two-and-three-dimensional computer-aided drafting and design technology for executing landscape design development, evaluation, and presentation tasks.

5271.224A  Landscape Engineering

Introduction to engineering techniques needed for landscape planning and design: site grading and earth works,
transportation and circulation design, site hydrology, storm water management and erosion control, the strength of materials, basic statics and mechanics, construction details of simple structures, landscape irrigation design, outdoor lighting design, design of pools and water features, and so on.

The objective of this course is to discuss the scientific and analytical data production methods and principles required for successful landscape planning and design that harmonizes human beings and the surrounding nature as ecosystem elements. This course consists of two major parts. The first part covers the approaches and understandings to the landscape ecology. The various concepts and approaches in landscape ecology, and basic landscape ecological principles from the spatial unit of landscape to Biotope will be covered throughout the course. In the second part, various landscape ecosystems and the applications will be specifically discussed. Based upon the principles in ecological regional classification and regional landscape system, the landscapeecological application to rural and urban ecosystems will be discussed. Field studies and GIS/remote sensing studies are the integral part of this course to give a concrete and practical description of landscape ecology.

This course aims to explore cultural history of landscape architecture in the Western world to study mainstreams of landscape theory and methodology. It is based on environmental design theory and methodology. This course is a design studio for practicing the integrated environmental design theory and methodology. It is based on the strategic design intelligence and the network of landscape, architecture, and urbanism. The studio focuses on the urban regeneration dealing with the sites such as redevelopment areas, post-industrial sites, landfills, brownfields, abandoned railways, post-military bases, and etc.

Landscape Ecology

Landscape Architectural Planning Studio

Integrated Environmental Design

Ecological Analysis in Landscape Studies

Landscape Architectural Planning Studio
This course is of great help for students in developing their skills as an environmental planner by practicing data collection, analysis, evaluation, and planning. The course covers the definition of Environmental Restoration Planning (ERP), the process and examples of ERP, and recent tasks for better ERP.

5271.324* 조경설계 1 3-1-4

Landscape Architectural Design Studio 1

This course builds on the experience in previous courses and the theoretical research. This course will explore landscape design of the current issues in landscape architecture such as public space design, residential design, campus design, community participatory design etc.

5271.413* 지속가능환경계획론 3-3-0

Theories of Sustainable Environmental Planning

The course aims to further develop landscape design processes and skills and to undertake the application of design theory to design projects. The content includes development and designing Landscape; principles and conceptual strategies for organizing and articulating landscape spaces, surfaces, elements, and materials; and application to landscape design exercises.

5271.411 도시조경론 3-3-0

Theories of Urban Landscape Design

The course helps students to acquire practical skills under expert guidance and thereby map out their career path. The practice of landscape is diverse, which is ranged from design to construction. Students can choose one field related to their own interest and work at the office, institution, laboratory and so on. After given on-the-job training, students hand out reports and present what they learned at class.

5271.323A 동양조경의 역사와 이론 3-3-0

History and Theory of Oriental Landscape Architecture

This course aims to seek ecological techniques that widen perspectives on parks in urban area. To this end, problems in existing urban park green area are identified and ways to resolve them are presented utilizing newly emerging techniques.

5271.322A 조경현장실습 3-2-2

Landscape Architecture Field Works

The course is designed to help students learn the history and theory of landscape from its origins to present in the Eastern civilizations on relation to nature (physical environment, climate etc.) and culture (religion, arts, technology, etc.). The course attempts to establish how Oriental Landscape Architecture has arrived at its present state of evolution and also investigates how to apply the major thoughts to current and future landscape planning and design. The course comprises a series of lectures, each of which will be illustrated with slides, and field trips.
This class aims for students to grow their ability to do research on the field of landscape architecture. Students would learn how to conduct research on their own interest with the great aid of faculties. By completing the course with success, students are able to write their graduation thesis without difficulty.
Engineering Mathematics 1 introduces basic and advanced mathematics used in engineering. The aim of the course is to develop an awareness and an appreciation of the role of mathematical principles, methods, and modeling.

This course deals with mathematical methods, and modeling. The aim of the course is to develop a student's ability to creatively design structures. The course will introduce the principles necessary for the study of the responses of materials or structural elements against applied forces using Classical Statics Theory and the basic procedures for solving problems in Statics. The ultimate goal of this class is to equip students with the necessary engineering skills will be acquired through the study of the responses of materials or structural elements against applied forces using Classical Statics Theory and the basic procedures for solving problems in Statics.

Fundamental knowledge and theories of Statics are discussed in order for the students to achieve understanding of the basic procedures for solving problems in Statics. Necessary engineering skills will be acquired through the study of the responses of materials or structural elements against applied forces using Classical Statics Theory and the basic procedures for solving problems in Statics. The ultimate goal of this class is to develop a student's ability to creatively design structures.

Computer Drawing for Rural Design

This course will provide the principles related to environmental pollution issues in rural environment, characteristics of water pollution, water quality analysis, and water treatment technology to undergraduate students major in the Rural Systems Engineering and to undergraduate students interested in environmental engineering. The topics covered in the course will include water pollution phenomenon, analytical methods for water quality, water regulations a and laws, drinking water treatment techniques, wastewater treatment techniques, drinking water processes, and wastewater treatment processes.
This subject is application of engineering fundamentals to the selection and design of equipment and system to carry out production operations in rural system construction. It consists of introduction and overview of materials, agricultural construction resources, and field operations required for constructed facilities, critical path method and PERT scheduling techniques for construction management and scheduling networks, resource allocation leveling and optimization.

5272.324 Construction Materials and Lab.

Rural Water Resources Systems Engineering

This course will cover design methodology of rural water resources planning and dam structures based on the fundamental knowledge in the courses of Hydrology, Hydraulics, Soil mechanics, and Structure analysis. In the first part of the course, outlines of rural water resources systems engineering, planning for irrigation and drainage systems, and design of rural water resources systems will be covered. In the dam design field, theories of dam and spillway, and planning of dam structures will be studied. It is compulsory for all students in this class that students must register the class "Design of Rural Water Resources Systems".
In this course, we deal with all the environmental factors and an outline for controlling management for complex designed systems related to environmental producing systems. We must keep in mind how well we can balance out the physical surroundings with bio-systems because it is important to be aware lots of matters connected with the subjects such as physics, biology, engineering methods and so on. Also various examples of applications are included in this class.

5272.415* 지역기반조성공학 및 설계 3-2-2
Rural Infra-Structure Engineering and Design

This course covers advanced techniques of ground, softening, retaining wall, pile, pier, and caisson, etc. Also, this course covers the analysis and design of structural stability related to environmental producing systems. We must keep in mind how well we can balance out the physical surroundings with bio-systems because it is important to be aware lots of matters connected with the subjects such as physics, biology, engineering methods and so on. Also various examples of applications are included in this class.

5272.416* 지역시스템공학 3-3-0
Rural Systems Engineering

This course covers the concerns of natural resources based on the biological and engineering principles. The hydrological cycle, and sediment and nutrient transport processes in rural and agricultural lands are to be covered exclusively. Engineering methods to estimate soil losses, sediment yields, and other nonpoint source (NPS) pollutants from fields and watersheds, and to reduce NPS loads are also discussed. Terracing, land drainage, agricultural management practices, and other viable alternatives to control NPS loading are explored. It also offers present state--of--the--arts in natural resources conservation projects such as land consolidation, reclamation, and agricultural and rural development projects. It consists of lecture and discussion, and project--based practices to help apply theories and principles to the design problems related to NPS pollution management.
농업생명과학대학(College of Agriculture and Life Sciences)

조경 ⋅ 지역시스템공학부(Dept. of Landscape Architecture and Rural Systems Engineering)

농업생명과학대학에서 다루는 시스템 모델링기법과 지역시스템 구성 시설에 대한 설계를 위한 전반적인 공학 지식을 강의한다. 본 교과목의 수강자는 반드시 지역시스템 설계 및 실습을 같이 이수하여야 한다.

Rural systems are complex of various structures for production, life and environment. To design and manage of rural systems, integrated engineering knowledge is required including data collection, design, resource management and allocation and operation. In this class, engineering techniques including rural system components, modeling and design of rural system structures will be lectured. It is compulsory for all students in this class that students must register the class “rural systems design practices”.

5272.417 지역시스템설계 및 실습 3-0-6
Rural Systems Design and Practice

본 교과목에서는 지역시스템공학 과목에서 강의된 지역시스템의 구성요소, 시스템공학에서 다루는 시스템 모델링기법과 지역시스템 구성 시설에 대한 설계를 위한 전반적인 공학 지식을 바탕으로 공학기술을 실제에 적용할 수 있도록 지역시스템설계 및 실습과정에서 팀 프로젝트를 수행함으로써 실제 문제에 대한 적응 능력을 갖도록 한다.

Based on the engineering techniques including rural system components, modeling and design of rural system structures lectured in the rural systems engineering class, practical design capability for rural system structures through the term project will be implemented to develop the applicability as the rural system engineers.

5272.423* 그린지역계획론 3-3-0
Green Rural Planning

본 강좌에서는 지역 사회의 계획에 필요한 기초 이론을 다루는 과목으로, 이 강좌에서 다루는 주요 주제는 전원농촌계획을 위한 지역계획의 의의와 발전과정, 지역계획론의 기초 이론, 지역사회 공간의 토지 이용 계획, 수자원 계획, 하수처리 계획, 교통계획, 도로 계획, 전원 마을 계획, 부촌자의 이용과 보존 계획, 농업과 기타 산업 기본계획, 그리고 농촌사회의 활성화 계획에 관한 강의한다. 본 강좌에서는 이론을 중심으로 강의하며 실습 프로젝트를 통하여 이론을 응용할 수 있도록 한다.

This course will provides a basic theorem for rural planning. The topics covered in the course will include introduction of rural planning, evolution of rural planning, water supply and wastewater disposal planning, traffic and rural road planning, planning of rural key settlements, planning of natural resources for the utilization and protection in rural region, basic planning of rural and industrial developments in rural regions, activation planning.
debate between anthropocentrism and ecosetticism, as well as the one between individualism and holism, from a philosophical standpoint.

538.303
Society and the Environment in Global Era

This course is for understanding how the environment in-
fluences to human psychology. First of all, students will learn about basic psychological theories and methodology. After that, they will explore the influence of civil environment such as noise, high rise building, and crowding on human mental health. Also, restorative effect of green environment will be introduced. Student will be given the project so that they can explore how we could improve our real environment for better psychological well-being.

538.305 지구환경과 에너지문제 3-3-0

Global Environment and Energy Issues

This course is aimed at examining various theoretical researches and business cases regarding five topics related to business strategies including business ethics, social responsibilities, environmental management, and innovation management, based on a new Business paradigm, sustainable management. The course consists of lectures, guest speeches, and group activities in class. Although sustainable management is a new research subject, by taking this course, the participants can have more profound understanding of the established streams of the strategic management researches and, therefore, find a interesting subject for the future research. Moreover, the participants will be able to understand the concept of sustainable management and gain an insight into new research themes in strategic management as well as shifts in management practices. In addition, by studying how firms assure their competitiveness and sustainability through sustainable management as a response to changes in stakeholders, shifts in the main purpose of firm existence, and business environmental changes, the students taking the course will have a comprehensive understanding about process of business management paradigm.

538.306 기업과 사회적 책임 3-3-0

Sustainable Business Management

This course is aimed at examining various theoretical researches and business cases including business ethics, social responsibilities, environmental management, and innovation management, based on a new Business paradigm, sustainable management. The course consists of lectures, guest speeches, and group activities in class. Although sustainable management is a new research subject, by taking this course, the participants can have more profound understanding of the established streams of the strategic management researches and, therefore, find a interesting subject for the future research. Moreover, the participants will be able to understand the concept of sustainable management and gain an insight into new research themes in strategic management as well as shifts in management practices. In addition, by studying how firms assure their competitiveness and sustainability through sustainable management as a response to changes in stakeholders, shifts in the main purpose of firm existence, and business environmental changes, the students taking the course will have a comprehensive understanding about process of business management paradigm.

538.307 환경경영과 지속성분석 3-3-0

Environmental Management and Sustainability Analysis

This course is aimed at examining various theoretical researches and business cases including business ethics, social responsibilities, environmental management, and innovation management, based on a new Business paradigm, sustainable management. The course consists of lectures, guest speeches, and group activities in class. Although sustainable management is a new research subject, by taking this course, the participants can have more profound understanding of the established streams of the strategic management researches and, therefore, find a interesting subject for the future research. Moreover, the participants will be able to understand the concept of sustainable management and gain an insight into new research themes in strategic management as well as shifts in management practices. In addition, by studying how firms assure their competitiveness and sustainability through sustainable management as a response to changes in stakeholders, shifts in the main purpose of firm existence, and business environmental changes, the students taking the course will have a comprehensive understanding about process of business management paradigm.

538.308 장수기업전략 3-3-0

Strategy for Corporate Longevity

This course is aimed at examining various theoretical researches and business cases including business ethics, social responsibilities, environmental management, and innovation management, based on a new Business paradigm, sustainable management. The course consists of lectures, guest speeches, and group activities in class. Although sustainable management is a new research subject, by taking this course, the participants can have more profound understanding of the established streams of the strategic management researches and, therefore, find a interesting subject for the future research. Moreover, the participants will be able to understand the concept of sustainable management and gain an insight into new research themes in strategic management as well as shifts in management practices. In addition, by studying how firms assure their competitiveness and sustainability through sustainable management as a response to changes in stakeholders, shifts in the main purpose of firm existence, and business environmental changes, the students taking the course will have a comprehensive understanding about process of business management paradigm.
기과 사회의 정기적 공존과 다양성에 관련된 다양한 이슈들에 대한 학습을 하게 될 것이다.

This class has three objectives: (1) understand basic concepts and theories in regard to corporate longevity, (2) learn about the history of Korean commercial corporations and the common characteristics of Korean long-lived companies, and (3) conduct case study to explore how to build long lasting companies. Through this course, students will learn the dynamics of corporate evolution, especially on birth and death, and also may broaden their knowledge regarding issues on corporate social responsibility as well as stakeholder management.

자연과 환경에 대한 이해, 자연환경의 상황에 대한 파악을 위한 분석의 원리와 방법, 생태계 관리에 필요한 정보의 수집 및 분석, 그리고 환경관리를 위한 계획 수립 기법을 장려하고 실습함으로써 환경문제의 현상을 이해하고 해결 대안을 탐색할 수 있는 기초 소양을 배양함.

This course aims to provide students with understanding of natural ecosystems structure and environmental problems related to natural ecosystems by analysing the situations of natural ecosystems and environmental impact of human activities and global change such as climate change. The students are expected to be equipped with skills of collecting and analyzing information on ecosystems change and environmental impacts and know-how of planning environmental management.

자연의 경관 관련 정보유형

This course analyzes how environmental policy is like other policy realms – in terms of the general political, legal and social context in which it is designed and implemented; and, what sets it apart, in terms of its technical content, its underlying risk assessment, its reach beyond national borders, the scale and irreversibility of some of its consequences, and the value and resource conflicts it faces. The course will stress aspects common to such decision making, including stakeholder identification, recognition of various sources and types of information, various approaches and processes for making joint decisions, and for resolving issues in contention, interactions with the administrative and political structures.

538,309 환경분석 및 계획 3-2-2
Environmental Analysis and Planning

538,401 기후변화협약과 환경기술 3-3-0
Role of Environmental Technology Development on Climate Change

538,402 환경정책입문 3-3-0
Introduction to Environmental Policy

538,403 생활 속의 생태학 3-2-2
Ecology in Ordinary Life

538,404* 환경경영실습(인턴과정) 3-2-2
Environmental Management Practicum (Internship)
가능한 경제구조를 만들어 갈 수 있는 환경친화적 대안을 평가할 수 있는 방법을 배우고 현실의 과제에 적용하여 방법의 실천적 의미를 파악한다. 지속가능한 소비이론, 청정생산, 전과정평가(Life Cycle Assessment), 물질흐름분석(material flow analysis), 생태발자국(ecological footprint)분석 등의 방법론을 배워 제품, 기업, 정부, 국가 등의 생태적 지속성지수 개발 및 평가 등을 다룬다. LCA, MFA, 생태발자국 등의 방법론을 실제로 생산 소비되는 제품 또는 토지이용체계 등에 적용하여 보는 실습과제를 수행한다.

Concept and methodologies for clean production and sustainable consumption for sustainable economy are introduced in order to evaluate the environmental impact of production systems and consumption activities. Theories of sustainable consumption and clean production will be reviewed with results of empirical studies employing analytical tools such as life cycle assessment, material flow assessment and eco-footprints. Students will be asked to apply one of such analytical tools to a production or consumption system as a practical project.

538.406 국제환경기구론 3-3-0
International Environmental Organizations

산림파괴, 생물다양성 감소, 기후변화를 포함한 지구환경문제에 있어 국제협력의 중요성이 부각되고 있다. 본 과목은 지구환경문제에 있어서 국제협력의 필요성과 이의 실현을 위한 국제기구의 탄생 배경, 국제환경기구의 역할과 발전 과정, 국제환경기구의 활동내용 분석을 통하여 지구환경 기후변화에 대한 이해를 제고시키며 환경전문가로서의 기초적 소양을 배양하는 데 목적이 있다.

The importance of global environmental organization is emerging more stressed to many global environmental issues including tropical deforestation, biodiversity loss and climate change. This subject aims to provide students with basic understandings of international environmental organizations such that they can develop their potentials as environmental professionals through analysis of the backgrounds of international environmental governance, progress of international environmental agreements and, their role and contributions to global environmental governance.

538.407* 환경경영세미나 1-0-2
Environmental Management Seminar

환경문제와 지속가능성에 대한 이해를 바탕으로 지속가능한 사회를 만들어 가는데 필요한 정책과제 혹은 기업의 환경경영에 대한 연구문제를 설정하고 해결책안을 모색하는 연구를 수행하는 과정을 지도한다. 이 세미나를 통하여 졸업논문연구 계획서를 완성하게 된다.

This course aims to provide students with understanding of identify a research idea on environmental problems and methodologies to be employed in their thesis researches. The students are expected to present their research plan in detail at the end of course.
미 술 대 학

College of Fine Arts
In this course, students will learn various brush and ink techniques for ink wash painting, which is one of the key elements of Oriental aesthetics. Students will examine various line-drawing techniques and ink techniques and learn about properties of different background materials including Hanji, Xuanzhi and silk as well as brushes and ink. This course will also help students to have a deeper understanding of ink wash paintings, including its historical development, aesthetic elements of Oriental aesthetics. Students will examine various techniques for ink wash painting, which is one of the key methods to express the original and creative ideas based on their understandings and practices on background materials including papers and silk, use of glue as an adhesive, gluing techniques, and techniques of using different pigments and dyes.

This is a basic sculpture studio course for students to learn clay modeling techniques in making sculptures. Through the semester, students explore the process of clay modeling, molding making and casting with plaster and silicone. By creating sculptures using a variety of materials students learn how to express their ideas through their artwork.
will learn how to handbuild, wheel throw, and learn the basics of ceramic techniques and gain the ability to develop ideas from these techniques. Students will further understand aesthetic, technical, and functional aspects of craft.

M2182.001200 기초공예디자인 2-1-2
**Basic Metalwork**

This is a course for the 1st year art students. Students will acquire knowledges on the basic fundamentals of metalcraft techniques including cutting, shaping, joining, surfacing and finishing, and will also gain the ability to develop ideas from these techniques. Through this learning process, students will further understand aesthetic, technical, and functional aspects of craft.

M2182.000500 기초사각디자인 2-1-2
**Visual Design Foundation**

The purpose of this course is for students of the college of fine arts to cultivate the visual design foundation. The students will study the basic theories and principles how to communicate with visual language. Designing skills of visual communication such as creating, modifying, typography (editing using letters), symbols, pictures, photos, and pictograms (informative illustration) will be explored as well. In addition, the students will practice and experiment with graphic tools such as Adobe Photoshop and Illustrator.

M2182.000600 기초공업디자인 2-1-2
**Industrial Design Foundation**

The purpose of this course is for students of the college of fine arts to cultivate the industrial design foundation. The students will study the basic theories and principles how to design products through intuitive and creative planning. Technical skills of designing objects for enhancing the quality of life such as creating, modifying, editing will be explored as well. In addition, the student will practice and experiment with 3D graphic tools such as Rhinoceros, 3DS MAX, Alias, and Maya.
This course is a basic overview of the history of Asian art including Chinese and Japanese art with the aim of understanding the history and basis of Asian art.

600.230 한국미술사 3-3-0

History of Korean Art

This course surveys the history of Korean art up to the modern period.

600.228A* 한국미술과 문화 3-3-0

History of Korean Art and Culture

This lecture aims at understanding Korean art in the broader context of Asian art including Indian, Chinese, and Japanese art. Traditional Asian techniques, and aesthetics, such as the concept of beauty, space, and iconography are discussed as they are manifested in visual images. An examination of contemporary art will reveal how the tradition is sustained in a visual expression that is uniquely Korean. The ultimate purpose of this course is to familiarize students with the visual language applicable to different genres of art and to view art as a reflection of culture as a whole.

600.313 한국근현대화조사 3-3-0

History of Modern and Contemporary Korean Painting

This course surveys the history of Modern and Contemporary Korean painting from late-Joseon period to the present. It examines the ideological conflicts and the pervasive influence of Japanese colonial era, Korean War, and adoptions of modernist art from Japan, the United States, and Europe on the development of Contemporary Art in Korea. Students will understand and seek critical perspective of Modern and Contemporary Korean art.

600.225A 동양미술사 3-3-0

History of Chinese Art

This course provides students with an overview of the history and basis of Asian art including Chinese and Japanese art with the aim of understanding the history and basis of Asian art.
Students will develop concepts for crafts and design education by comparing educational organizations, activities, and materials. The relationship between Crafts and Design education, and Crafts and Design materials is studied with an emphasis on exiting Crafts and Design education in schools.

600.E309A 디자인·공예교육론 3-3-0

Theories of Crafts and Design Education

디자인·공예교육의 원리, 내용, 방법, 교재에 관한 이론들을 폭넓게 살펴며, 디자인·공예교육에 미치는 영향을 교육현장에 중점을 토론한다.

This course covers a wide range of theories on the principles, features, methods, and teaching materials of fine arts education. It also teaches Crafts & Design teaching methods by analyzing many programs provided as new models of Crafts & Design education.

600.404B 미술교과논리 및 논술에 관한 교육 3-3-0

Taining in Art Education Theory and Essay

본 과목은 미술교육에 관한 비평적 토론과 글쓰기를 통해서 논술과 관련된 미술 교육의 문제를 연구한다. 전통과 현대 미술, 미술교육에 관한 비평적 글쓰기를 다양한 관점에서 학생들이 실습하도록 한다.

This course explores the problems of essay-related art education through class discussion and writing. Students will practice critical writing from diverse viewpoints about traditional and contemporary art, and art education. It is open to students whose career path is to teach in the field of art.

M1767.000100 공간예술의 이해 2-2-0

Understanding of Spatial Art

본 과목은 학부 학생들을 대상으로, 조각과 디자인, 건축, 미술 관학, 도시 계획, 조경과 같은 인접 학문과 예술 분야를 상호 교차하여 ‘공간과 예술’을 이해하기 위한 강의이다. 학제 (interdisciplinary) 이론과 사례 연구로 이루어지는 본 과목은 교과 내용을 통해 학생들은 복합화, 다양화하는 주제 속의 현대미술에 이론과 창작 실기 면에서 타당하게 접근할 수 있을 것이다.

This course is for undergraduate students who want to be introduced to ‘space and art.’ It takes a cross-disciplinary comparative approach to sculpture, design, painting, architecture, theater, urban planning, and landscape architecture. Students will be introduced to interdisciplinary theories and case studies. The course provides an easy approach to the increasingly more complex and multi-dimensional nature of contemporary art.
M1765.000200  
Traditional Painting Techniques 1

Basics of Drawing and Painting 1

This mandatory basic course for students majoring in Drawing and Painting covers the fundamental ideas and concepts of Drawing and painting as well as the characteristics of ink wash painting. In this course, students will learn about 18 different line drawing techniques, Cunfa and ink techniques. They will also use various types of brushes, inks, materials, and different types of papers, including Hanji, Xuanzhi and silk to understand their properties. Students will also examine ways for the contemporary application of Oriental aesthetics and creative ink wash expressions according to their own view and concept development.

M1765.000300  
Traditional Painting Techniques 2

Basics of Drawing and Painting 2

This mandatory basic course for students majoring in Drawing and Painting covers the fundamental ideas and concepts of Drawing and painting as well as the characteristics of ink wash painting. In this course, students will learn about 18 different line drawing techniques, Cunfa and ink techniques. They will also use various types of brushes, inks, materials, and different types of papers, including Hanji, Xuanzhi and silk to understand their properties. Students will also examine ways for the contemporary application of Oriental aesthetics and creative ink wash expressions according to their own view and concept development.

601.201A  
Traditional Painting Techniques 1

Traditional Painting Techniques 1

601.202A  
Traditional Painting Techniques 2

Traditional Painting Techniques 2

601.203A  
Traditional Sumuk Techniques 1

Traditional Sumuk Techniques 1

601.204A  
Traditional Sumuk Techniques 2

Traditional Sumuk Techniques 2

- 521 -
이런 환경을 통해 학생들이 새로운 방향성을 모색하는 계기를 마련한다. 또한 특성에 따라 비디오 자료를 통해 공부하고, 실험과 이론을 병행한다. 그 밖에 제작법 등을 습득하는 과정이다. 

이번 수업은 학생들이 새로운 방향성을 모색하는 계기를 마련한다. 또한 특성에 따라 비디오 자료를 통해 공부하고, 실험과 이론을 병행한다. 그 밖에 제작법 등을 습득하는 과정이다.

601.214A 화재재료와 기법 2-0-4

Painting Materials & Techniques

수목재료의 특성과 기법을 이해하고 습득하는 과정이다. 다양한 방법과 작업, 프로드, 펀딩 등 방식에 대한 이해를 높이고, 수목 재료의 특성을 반영한 실험적 기법들을 모색한다. 편의상 비롯한 동양 전통 화재재의 특성에 대해 본격적으로 배우기 시작하는 수업이다. 물과 액체로 이루어져 사용하고 이해하기 쉬운 효과를 내는 방법에 대한 다양한 실험을 함. 학생의 작품 제작이 가능하도록 발전되고 있다.

In this course a variety of paper-making techniques, including the art of traditional Korean paper-making and book-binding techniques for album leaves, are taught. Natural dyes will be used. This is the first course that teaches specific techniques involved in preparing surfaces using traditional methods. Various raw materials will be experimented with and students can apply these techniques to their own work.

601.215 신조형 1 2-0-4

New Concepts in Form 1

개성적 시각과 비판으로 다양한 매체를 활용한 실험형이 가득한 전반적인 실험형과 표현 가능성을 확장하기 위하여 실험과 이론을 병행한다. 이론 수업에서는 한데 주요 작가들의 작품들을 참고로써 실제 비디오, 클라우드 등에 해당되는 특성과 도어와 연구를 통해 현대화의 개성적인 표현 형식에 대해 이해하고 실험한다. 실제 수업에서는 학생들이 새로운 방향성을 모색하는 계기를 마련한다.

This course helps the students develop originality and creativity by experimenting with diverse media. Major contemporary artists will be introduced through books, videos,
slide films, etc. Students are required to participate in critical discussions about these artists and study current trends in the contemporary art in relation to their own works. The aim of the course is to enrich the stylistic diversity of student’s work.

**601.216 신조형 2 2-0-4**

*New Concepts in Form 2*

<신조형>의 심화과정으로, 다양하고 개성적인 표현방식을 확장한다. 평면을 비롯한 공간에서의 자유로운 연출을 시도한다. 독창적인 조형적 실험과 표현 기법을 확장하기하여 실제의 이론을 발전한다. 이론 수업에서는 현대 주요 작가들의 작품들을 참고로 및 비디오, 슬라이드 등의 영상 자료를 통해 공부하고, 이에 대한 분석적 토의와 연구를 통해 현대화화의 개성적 표현양식에 대한 이해를 심화시킨다. 실기수업에서는 학생들이 새로운 방향성을 탐색하는 계기를 마련한다.

This is an advanced course of New Concepts in Form 1. Students will explore the scope of artistic expression in two-dimensional surface and three-dimensional space. Continuing from the previous term, this course will introduce major contemporary artists through books, videos, slide films, etc. Students will be required to participate in critical discussions about these artists and examine trends in the contemporary art in relation to their own work.

**601.305A 벽화기법 1 2-0-4**

*Mural Painting 1*

전통벽화의 다양한 유형과 기법들을 고찰해보고 표현방법들을 의식하도록 한다. 벽화의 바탕조성과 안료, 접착제 등에 관하여 연구하며, 특히 보존과학과를 연계하여 연구하도록 한다. 이와 같이 세계 각국의 벽화와 비교하여 한국의 벽화에서 나타나는 특징에 대하여 연구한다. 지리적 환경과 사회·역사적 배경에 따라 벽화의 재료 및 기법이 달라지는 양상을 공부한다. 아울러 분묘미술로서 벽화에 나타나는 도상을 통해 전통적인 세계관과 인간관에 대해 고찰해 보는 기회를 갖는다.

Students taking this course will learn the methods of traditional mural painting from preparing the surface to applying the pigments and adhesives. The course material will be extended to incorporate creative expression and practices of restoration. The characteristics of Korean murals will be brought to light and compared to murals from other regional and cultural backgrounds. In addition, the course examines the iconology of murals to provide a glimpse into the view of life, death, and religion of ancient Koreans.

**601.306A 벽화기법 2 2-0-4**

*Mural Painting 2*

벽화기법의 다양한 표현방법에 대한 종합적이고 심화된 실험과 연구를 바탕으로 개인의 창작과 관련된 전통적인 재료와 기법을 복합적으로 활용하여 표현한다. 전통 벽화의 기법과 시각예술의 주된 매체가 한데 최고화해서 새로운 영양을 제공하려는 방안을 모색해 보는 것이 이 수업의 주 과제이다. 학생들은 지금까지 배운 전통재료와 기법을 바탕으로, 개인적 작품을 통해 전통벽화의 현대적 재해석을 시도해본다.

This is an advanced course for seniors. Students are encouraged to incorporate various techniques used in murals to produce their own expression. Creative renewal of traditional media is the main interest of this course. With the skills acquired from previous courses, students will concentrate on how the materials and techniques could take on a new meaning in contemporary Korean art.
601.319 Studio Practice: Creative Process Exploring

In this course, students explore various process of the plastic arts with the aim of developing individual expression in their studio work. Students are required to actively question and develop the elements that form the foundation of their work and their individual expression. Examining expressions of the plastic arts from different regions and periods will be discussed in class to help students understand different viewpoints. The course allows for pursuing a subject of personal interest and diverse topics.

601.320 Studio Practice: Creative Work and Analysis

In this seminar students analyze and critically examine the works of students. Students are required to give presentations, preferably in a digital format, to their ideas and develop critical awareness. Students are required to give presentations and class discussions about concepts, styles, materials and techniques are designed to help students develop the elements that form the foundation of their work and experience a process of introspection with their work. 

601.405A Mixed Media 1

This course surveys the major artistic traditions of China, Japan, and Korea with a particular focus on their similarities and differences through examining the modern and contemporary paintings. Examined are the stylistic and thematic developments of the art of these three countries in relation to the historical and social milieu in which they were produced. Students will also examine the paintings in the larger context and through universal perspectives.

601.406A Mixed Media 2

Mixed Media 2 is an advanced studio course in the construction and manipulation of mixed media. The course aims to provide students with a comprehensive understanding of mixed media and its applications in the studio setting. Students are required to actively question and develop the elements that form the foundation of their work and their individual expression. Examining expressions of the plastic arts from different regions and periods will be discussed in class to help students understand different viewpoints. The course allows for pursuing a subject of personal interest and diverse topics.
의 한국화화사의 주요 양식, 작가와 작품을 양식사적인 흐름을 당
대의 정치, 사회, 경제, 문화적 관점과 연결시켜 좀더 심화하여 살
펴본다.

This course surveys the history of Korean Painting to pro-
vide students with an overview of the artists, artwork, and
stylistic trends of Korean art from the prehistoric times to
the modern and contemporary eras, and connects the work to
the political, socioeconomic, and cultural backgrounds of the
day.

601.321 창의성과 미술교육  3-3-0

Creativity and Art Education

21세기 지식 정보화 사회에서 국가경쟁력 핵심이 우수한 인재
양성에 있다고 판단하여 창의성이 미래 인재들의 핵심역량으로 논
의되고 있다. 특히 창의성 논의에서 예술의 역할이 강조된다. 따라
서 이 강좌에서는 창의성교육의 현주소를 사회구조, 교육과정, 교
수-학습 측면에서 검토하고 창의성교육에 미술의 역할과 기능에
관해 논의한다. 미술에서의 창의적 요소, 창의성 판별, 창의성을
위한 융복합적 접근에 관하여 고찰한다.

Based on the judgment that the key to national com-
petitiveness lies in the fostering of outstanding and talented
people in the knowledge information society of the 21st cen-
tury, creativity has been discussed as the key competence of
talented people in the future. Particularly in discussions on
creativity, the role of art has been emphasized. This course
therefore will review the current state of creative education
in terms of social structures, curricula, and teaching and
learning and discuss the role and function of art in creative
education. Creative elements, discernment of creativity, and
convergent approaches for creativity in art will be examined.
Painting Fundamentals 1

This course is the first step to enhance their creativity. Students newly approach to various elements and principals of visualization based on related theories, understand basic materials and techniques, as well as explore their own subjects and themes. Students’ works will be reviewed through discussion and critique by peers, which develop their ability to analyze, criticize, and appreciate art works.

Painting Fundamentals 2

This is an advanced Painting Fundamental course for the freshmen in the Department of Painting as the first step to enhance their creativity. Students newly approach to various elements and principals of visualization based on related theories, understand basic materials and techniques, as well as explore their own subjects and themes. Students’ works will be reviewed through discussion and critique by peers, which develop their ability to analyze, criticize, and appreciate art works.

Drawing 1

This course will enable students to broaden their expressive capabilities in painting by examining and comparing diverse materials, painting methods, and styles of painting. They will also improve their skill in the portraying the human body, still-life, and landscape.

Drawing 2

In this course fundamental elements of drawing are identified and the observation skills of students developed. Students will also learn to select the most effective material for their work based on their subjective interpretation of objects.
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</table>

### Moving Image 1
본 과목은 이미지의 시간성과 움직임 등으로 이루어지는 시간 성 조형 작업에 대한 기초 수업이다. 드로잉, 영상 촬영과 편집 및 사진 등으로 무언가 이미지와 향상들을 만들고 작업 주제와 개념을 표현하는 실습을 한다. 영상 및 관련된 매체 및 도구들을 기초부터 익히고, 영상 예술과 관련된 작품들과 이론들도 전반적으로 살펴본다.

This is a fundamental course about the moving image, in the context of time and motion. Various drawings, video shooting and photographs will be used to create moving images based on concepts and themes of images and objects. Students will learn the basics of video media and digital tools, as well as being introduced to the history of works in media art.

### Moving Image 2
본 과목은 영상과 마찬가지로 영상과 관련된 기초적인 매체 및 도구들을 지속적으로 익히면서 시간을 활용하는 작업이이다. 영상촬영, 사진 및 드로잉 작업 등을 이용하여 다양한 표현 방식을 실습한다. 현재 미술에서 전개되고 있는 영상 필름 및 다양한 영역의 비디오 미디어 예술 작품들을 감상하고, 각각 작업에 필요한 작가 연구 및 주제와 개념 등을 표현 하도록 한다.

Like <Moving Image 1>, this course is a fundamental class for time-based media tools and methods. By shooting videos, and using digital photography, animation, and drawing, students will practice various methods of expression through the medium of the moving image. Related films and video media art will be examined and referenced. Students will be required to develop a concept and theme for their own moving image project.

### Photography 1
사진의 기초과정으로 사진의 기초적인 원리와 성격에 대해 이해한다. 다양한 대상, 장면, 장소 등을 대상으로 자신의 시각을 어떻게 사진적인 방법으로 표현할 수 있는지를 실습하며 사진제작의 기본적인 과정을 익힌다.

As a fundamental course in photography, students will explore the basic principles and processes of photography, and how to express their view to make a photographic image of various subjects.

### Photography 2
다양한 관점의 사진을 실습하며 표현방법의 한계를 확장한다. 아울러 디지털 과정을 통한 사진작작방법과 사진작품의 활용을 통해 이미지의 관상, 생활, 변형 등을 익히고 평가를 통해 의도와 표현의 타당성 확인한다.

This course introduces to students to the principles and practices of various photographic techniques, such as working in medium- and large-format photography. They will also learn how to transform photographic images using a digital processing and other tools.

### Mixed Media and Installation 1
다양한 재료와 복합적인 기법을 활용하여 새로운 표현의 가능성을 모색하고 확대한다. 유형과 수성의 이질성, 그리고 기하학의 복합성, 기성 이미지의 도입 등 매체와 기법의 조합을 통하여 내용과 형식의 복합적 표현방법을 연구한다.

In this course the possibilities of new forms of expression are explored and expanded on by using different materials and composite techniques, such as the heterogeneity of oil and water, composites of drawing and printing, and the incorporation of conventional images.

### Mixed Media and Installation 2
두 가지 이상의 재료와 기법을 이어서 이차원과 삼차원의 복 합적 공간을 표현한다. 그런 평면을 입체로 구성하거나 오브제 의 도입을 통하여 표현상의 사물성을 개념화하며 건축적 공간과의 관계표현을 모색한다.

A work that is a composite of two- and three-dimensional space by combining different materials and techniques is the goal of this course. Either 2-dimensional drawings are constituted into three-dimensional structures, or objecthood is conceptualized by introducing objects that seek to find their relationship with an architectural space.

### Theories in Contemporary Artists and Artworks 1
본 교과목은 서양 근현대미술사를 수강한 학생들이 서양의 중 요한 현대 미술가들의 작품이 어떻게 제작되었고 해석되었는지를 심도 있게 연구하여 자신의 작업에 반영할 수 있게 되는 목적으로 한다. 수강생들은 현재 미술사에 축적된 미술작가들을 그들이 속한 미술 경향을 물론 그들의 산 사회의 정치, 사회적 배경과 연 결시켜 분석하며 에세이로 발표함으로써 자신의 작품에 대한 객관적 시각과 그것을 글을 통해서 비판적으로 표현하는 방법과 기술 을 습득하게 될 것이다.

This course is opened for the students who have completed courses in the history of Western Modern and Contemporary Art. The course focuses on the theoretical analysis of important artists and how their work has been produced and interpreted. Participants will write and present an essay about the work of an artist in terms of style, but more importantly in terms of its social and political context. The aim of the course is to develop students’ ability to verbally articulate a more critical view of their work and reflect on the experiences in the production and presentation of their work.

### Theories in Contemporary Artists and Artworks 2
본 교과목은 작가와 작품론 1에 수강한 학생들의 작품이 문화의 중요한 현대 미술가들의 작품이 어떻게 제작되었고 해석되었는지를 심도 있게 연구하여 자신의 작업에 반영할 수 있게 되는 목적으로 한다. 

This course is opened for the students who have completed courses in the history of Western Modern and Contemporary Art. The course focuses on the theoretical analysis of important artists and how their work has been produced and interpreted. Participants will write and present an essay about the work of an artist in terms of style, but more importantly in terms of its social and political context. The aim of the course is to develop students’ ability to verbally articulate a more critical view of their work and reflect on the experiences in the production and presentation of their work.
This course enables participants to acquire the basic structure of the creative process and the relationship between content and form. This will be achieved through engaging in different creative perspectives, planning, approaches, and expressions. Through comprehending contemporary discourse, participants will be encouraged to develop their own artistic identity and sensibility while pursuing the realities of creation through the media of their choice. Individual planning and diverse experimentation are emphasized throughout the course.

602.339  
Studio Practice: Visualization of Concepts

602.340  
Studio Practice: Meaning and Context

602.341A  
Studio Practice: Media and Expression

602.336A  
Studio Practice: Figuration and Expression

602.337A  
Studio Practice: Concept and Process in Artistic Practice

602.338  
Studio Practice: Scheme and Proceeding
602.432 영상 3 2-0-4  
**Moving Image 3**

본 과목은 영상영화 뿐 아니라, 영상 설치, 인터랙티브 영상 등 미디어 아트의 확장된 영역을 탐구하고 이와 관련된 작업을 실습하는 수업이다. 영상 미디어의 사제성, 공간성 등을 보다 깊게 탐구하여 자신의 작업 개념과 주제들을 명료히 하고, 다양한 표현 방식을 자유롭게 실험한다. 이를 위해 영상매체예술과 관련된 다각적 매체들의 도구들에 의존하고, 현대 미술의 조류에서 전개되고 있는 미디어 아트의 작품들도 살펴본다.

In this class students practice moving images, video media, and interactive installation. By examining the meaning of time and space in the context of time-based media art, students will create and experiment based on their own concept and theme. They will practice video shooting, editing, and digital programs and be exposed to a survey of media art in the wider context of contemporary art.

602.435 영상 4 2-0-4  
**Moving Image 4**

본 과목은 영상 3과 마찬가지로, 시간성 매체의 표현 방식과 영역을 확장하며 실습하는 수업이다. 신글체임비디오, 영상 설치 및 인터랙티브 영상 등 영상매체의 다양하게 확장된 영역과 그 가능성을 실습하고 현재 미술에서 차지하고 있는 미디어 아트의 이론들과 작업들도 살펴본다. 학생들은 자신이 표현하고자 하는 주제와 개념을 개진하고 관련된 영상 매체들을 자유롭게 실험하도록 한다.

As in <Moving Image 3>, students in this course will expand the methods and expressions in time-based media art through the practices of single channel video, video installation, and interactive video media. Works of media art will be surveyed in the context of contemporary art. Students will experiment with various media, tools, and methods to express their own concepts and themes.

602.433 사진 3 2-0-4  
**Photography 3**

사진 자체의 표현성에 주목해 보다 심화된 작업을 시도하면서 화면미술의 사진에 대한 개념적 수용을 함께 고찰한다. 다양한 사진기법의 습득 및 형식 실험을 통해 사진을 시간예술의 능력 범주에서 이해하도록 유도한다. 예술이념으로서 사진의 표현 가능성을 작품제작실습을 통해 탐색한다.

This course engages students in advanced practices of photography with a focus on expression and examines the conceptual adoption of photography in contemporary art.

602.436 사진 4 2-0-4  
**Photography 4**

사진과 회화, 사진과 영상 등 매체간 통합적 사고를 발전시키고 개념들과 방식의 확장을 이룬다. 개인별로 독창적인 주제의 설정과 그에 적합한 표현 방식을 모색하며 그것은 동시대 사진 영향의 모든 기법, 새로운 시도 전파에 걸쳐 일어났다. 가시적, 추상적 혹은 실상적인 대상을 방대한 영토에 따라 자유롭게 표현한다.

This course explores expanded concepts and ideas of photography through an interdisciplinary process of examining the relationship between photography, painting, and video. By using different materials, techniques, and experiments in contemporary photography, this course emphasizes the development of the uniqueness of each student to find their own theme and form of expression.
History of Modern and Contemporary Western Art

This course surveys the history of Western art from the beginning of the 19th century to the end of the 20th century. Art students with a basic knowledge of Western art history are not examined stylistically, but in relation to the political, economic, and cultural conditions of the artist, work of art, and style. The aim of the course is for participants to develop their own artistic position and practice in relation to the political, social and cultural environments in which they find themselves.

Current Issues in Contemporary Art 1

This course is open to students who have completed courses in Western, Korean, and Asian art history from the ancient times to the early 20th century as a prerequisite to courses in Western, Korean, and Asian art history from the second-half of the 20th century to the present. The aim of the course is for students to establish a theoretical basis and praxis for their own work.

History of Modern and Contemporary Korean Art

This course surveys the history of contemporary art in Korea from the time Korean artists introduced Western art to Korea to the present. Korean art and artists will be examined in relation to the political context of Korea and the international art scene. The aim of the course is to help art students locate their own work within a greater historical and social consciousness of Korean art and its relationship to Western art.
understand the meaning of sculpture in contemporary art.

This is a mandatory basic sculpture studio course for students in the sculpture department. In this course, students explore basic sculptural materials and techniques in order to express their ideas and concepts in creating sculpture. Throughout the process of exploring various materials students learn the principles of form, structure and space and begin to understand the meaning of sculpture in contemporary art.

Sculpture Fundamentals 1

This course is usually the human head. Already familiar with the quality of each type of wood, students will endeavor to grasp the movement within the material and express a perceived concept.

Sculpture Fundamentals 2

In this course, students will endeavor to understand the anatomical structure of the human body by using a statue as the subject. They will also practice modelling three-dimensional statues.

Sculpture 1

In this course, students will explore basic sculptural materials and techniques in order to express their ideas and concepts in creating sculpture. Based on the history of art, students will be introduced to many contemporary artists. By exploring the relationship between the content and method of their artwork, students begin to understand the meaning of sculpture in contemporary art.

Sculpture 2

In this course, students will endeavor to understand the characteristics of the surface, volume, proportion, balance, and movement. Expressing them through modeling techniques will be the primary aim of the course.

Welding and Forge 1

In this course, students will endeavor to understand the characteristics of the surface, volume, proportion, balance, and movement. Expressing them through modeling techniques will be the primary aim of the course.

Welding and Forge 2
In this course, students will take a geometrical form as their subject matter, explore the special effects of metals, and express their ideas.

Studio Practice: Figure

603.421

Student Practice: Jeremy 2-0-4 (without 4th, 4th possible)

By focusing on the geometry of a subject matter, students will explore the special effects of metals and express their ideas.

603.427

Student Practice: New Form

Studio Practice: Carving

603.422

Student Practice: Carving 2-0-4 (without 4th, 4th possible)

Under the influence of geometry, students will study the special effects of metals and express their ideas.

603.428

Student Practice: Time based Art

Studio Practice: Installation

603.425

Student Practice: Installation 2-0-4 (without 4th, 4th possible)

By focusing on the geometry of a subject matter, students will explore the special effects of metals and express their ideas.

603.426

Student Practice: Expression & Interpretation

Studio Practice: New Form

603.427

Student Practice: Jeremy 2-0-4 (without 4th, 4th possible)

By focusing on the geometry of a subject matter, students will explore the special effects of metals and express their ideas.

603.428

Student Practice: Time based Art

Studio Practice: Installation

603.425

Student Practice: Installation 2-0-4 (without 4th, 4th possible)

By focusing on the geometry of a subject matter, students will explore the special effects of metals and express their ideas.

603.426

Student Practice: Expression & Interpretation

Studio Practice: New Form

603.427

Student Practice: Jeremy 2-0-4 (without 4th, 4th possible)

By focusing on the geometry of a subject matter, students will explore the special effects of metals and express their ideas.
### 603.413  현대조각론 1  2-2-0

**Topics in 19th and 20th Century Sculpture**

This course explores the theoretical, historical, and critical contexts of modern sculpture. It focuses on relating concepts of sculpture to the philosophy underlying the development of various 19th and 20th century art styles. Issues addressed in this course include gender, ‘primitivism’, and the politics of colonialism and international warfare, post-WW II consumerism, internationalism, and the role of the art critic in shaping a canon for twentieth-century art.

### 603.414  현대조각론 2  2-2-0

**Topics in Contemporary Art**

This course presents the artistic movements and art works emerging in reaction to Modernism and the impact of critical theories on the late 20th and early 21st century art. Included is art in a variety of media including the bodies of humans and animals, installation, film, video, and performance art.

### 603.417  점토조각연구  2-1-2

**Clay Sculpture**

This course is intended for students to develop and broaden the range of their skills and expression through building and firing clay figures. Pinching, coiling, scooping and molding techniques will be introduced as well as surfacing and slip techniques. Various kinds of clay and example works will be reviewed to generate and nurture personal expression.

### 603.420  3D 미디어 구현기법  2-1-2

**3D Media Sculpture**

In this course students will learn to use software programs such as Rhinoceros and 3D printers to create three-dimensional works. They will be introduced to the basic principles of these tools and will learn how to use them to create their own sculptures.

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### 603.418* 조각입문세미나1  2-2-0

**Introductory Sculpture Seminar 1**

This is an introductory seminar course for sculpture students to discover their own interests and to understand their work in relation to the history of art. Through critiques and group discussions students will begin to develop and research ideas and build confidence about their own ways of expression.

### 603.419* 조각입문세미나2  2-2-0

**Introductory Sculpture Seminar 2**

This is an introductory seminar course for sculpture students to discover their own interests and to understand their work in relation to the history of art. Through critiques and group discussions students will begin to develop and research ideas and build confidence about their own ways of expression.

### M0000.011300 조각가연구세미나  3-3-0

**Contemporary Sculptors Seminar**

In this course the working process and life of sculptors will be examined through readings, lectures, and a series of seminars with invited artists. Student work will be analysed in terms of current issues in contemporary art. The class will also visit galleries and artists.
Design and Culture

This course examines human values, lifestyles, and behaviors that form the basis of design, and investigates the similarities and differences in culture and design stemming from different times and places.

Theories of Design

This course teaches the origins and characteristics of modern design by examining the social, cultural, technological, and environmental contexts of modern design. Students will also study futuristic values that each field of design should aim for in the context of today's design education system and find their own design methods.

Design Portfolio

Students will study the necessary tools and scripting interfaces to go beyond the limited functionality of the related applications, and they will learn to use scripting languages such as Grasshopper, Python, and Unity for creating 3D models and virtual reality images using 2D and 3D design elements such as photos, video animations, objects, and space. Students will also have the opportunity to develop their own expression by designing projects using diverse media.

Basic Modeling and Prototyping Practice

This course teaches an overall design research methodology for design-related tasks. This includes survey techniques, interview techniques, and data research methods among many. Students will also learn about statistics, in order to utilize the basic data statistics techniques for efficient preference and satisfaction surveys.

Media Presentation

This course focuses on 4D industrial design computation skills that combine the dimension of time and interaction dimension with 2D and 3D design. Students will gain basic knowledge and programming languages such as Grasshopper, Python, and Unity for creating 3D-based motion and virtual reality images using 2D and 3D design elements such as photo images, video animations, objects, and space. Students will also have the opportunity to develop their own expression by designing projects using diverse media.
posals for a personal project, submitting to design competitions, and/or applying for crowdfunding. These are critical techniques in design academia and will give students the skills required to build their professional design career and portfolio.

M1774.001000 디자인실습 3-2-2

Design Practice

This is a flexible course of study, designed to encourage discussion amongst the student body, regarding topics and issues relevant to Design in industry and society. This will be supported by visits from key individuals working within the field, both academics and practitioners, who will participate in the respective debates and stimulate the students in the development of their critical faculties.

M1774.001200 디자인사고및연구 2-1-2

Design Thinking and Research

The goal of this course is to study the process of design thinking as it is commonly understood, and develop in students an awareness of their own process. It will also focus on developing research skills and methods necessary for any design project, both in academia and in the commercial world. They will also be introduced to methods for projecting plausible futures based on current trends.

M1774.001300 디자인비즈니스 2-1-2

Design Business

This course focuses on the elements and principles of visual media and as a tool for visual expression. Students will examine how typographic language functions as a medium for different uses and expressions, and changes with the nature of the information being transmitted. Students are encouraged to experience different methods of communicating information with different forms of typography through a study of the history of alphabets and development of print media.
6125.2202 

Animation

Animation

Animation

Students are required to learn the various fundamental laws and effective techniques of developing stories, traditional animation techniques, and computer animation. This studio class takes a hands-on approach to the production of animation including planning, content development, using equipment, developing the animation, and examining case studies. Students may work individually, or in groups in order to come up with creative and expressive solutions and narratives. Students with no previous experience are eligible to take this class.

6125.3101

Editorial Design

Editorial Design

In this course students will analyze the characteristics and properties of typography, color, photographs and illustrations that constitute the layout elements of editorial design. Students will take on their own projects to construct messages or images with these layout elements to create coherent editorial designs that communicate accurately. Understanding grids, printing and binding techniques are required. Students will choose a theme of their choice by collecting the content and images of the book, and making necessary changes to the layout to create a book.

6125.3102

Illustration

Illustration

In this course students will learn how to visualize and express impressions from an object in a variety of ways through practicing realistic and abstract expressions such as lines, forms, contrast, texture etc. This course focuses on the creative development of various visual expressions through understanding how to select materials and express an object.

6125.3108 

Public Communication Design

Public Communication Design

Subjects for these studios cover the spectrum of Public Information Design. Related topics may be theoretical or practical, as well as considering materials and the design process.

6125.3201

Interactive Information Design

Interactive Information Design

This course examines how, in this age of information, students can make new images using digital media in a multimedia environment. Different communication media are examined and methods of expression and technologies to represent the mass information are researched. Methods of interaction for effective communication is investigated through developing individual projects with an emphasis on creative and individual expression. New technologies and solutions to problems will be learned in seminars.

6125.3301

Media Design Programming

Media Design Programming

This course focuses on multiple approaches to programming. Students will learn to formulate, design and produce personal stories using computer language.

6125.3303

Media Interaction Design

Media Interaction Design

This course will analyze the characteristics and effectiveness of different advertising media in the context of
the distribution system of products. Students will learn how Advertising Design is tailored to suit the properties of different media. They will conduct in-depth research of the production process of Advertising Design and practice effective presentation techniques. Students will also investigate the moral responsibilities of designers in the age of mass media and advertising.

6125.3204 AV디자인 3-2-2
Audio Video Design

Some of the key aspects will be taught in this course, including the systematic processes and creative expression.

This course examines the fundamentals of sound and introduces students to using sound practically and creatively. Students will be taught to properly record sound for production. Course material will cover sound theory, including the differences between sounds and pictures, and the value of perspective in sound.

6125.4108 시각디자인프로젝트 1 3-2-2
Visual Communication Design Project 1

This course is for students who have experience in brand design and would like to create a graduation project. Students will work individually, or in groups to create a final project that will be presented and critiqued. This class is for students who have taken Visual Communication Project 1 and would like to create a graduation piece. Identity design is not only creating an identity for a group or an organization, but further more, creating visual identity for products, events, buildings, and other services. Students will work on projects and create work that specifically relates to this theme. At the end of the semester, students will open a graduation exhibition. Students will be advertising, install their work and open a graduation exhibition.

6125.4208 시각디자인프로젝트 2 3-2-2
Visual Communication Design Project 2

This course is for students who have taken Visual Communication Project 1 and would like to create a graduation project. Students will work individually, or in groups to create a final project that will be presented and critiqued. This class is for students who have taken Visual Communication Project 1 and would like to create a graduation piece. Identity design is not only creating an identity for a group or an organization, but further more, creating visual identity for products, events, buildings, and other services. Students will work on projects and create work that specifically relates to this theme. At the end of the semester, students will open a graduation exhibition. Students will be advertising, install their work and open a graduation exhibition.

6125.4301 미디어디자인프로젝트 1 3-2-2
Media Design Project 1

This course is for students who have experience in brand design and would like to create a graduation project. Students will work individually, or in groups to create a final project that will be presented and critiqued. This class is for students who have taken Visual Communication Project 1 and would like to create a graduation piece. Identity design is not only creating an identity for a group or an organization, but further more, creating visual identity for products, events, buildings, and other services. Students will work on projects and create work that specifically relates to this theme. At the end of the semester, students will open a graduation exhibition. Students will be advertising, install their work and open a graduation exhibition.
Students will learn the process of exhibition openings by ad-
dition. At the end of the semester, students will open a graduation exhibition. A final work consisting of ideas and plans.

This course is for students who have had experience in mo-
tion design graphic. In this class, we will be using moving images to convey a specific message. This class for students who have completed the previous moving image design class. We will be focusing on the planning and completion on system production rather than the techniques of filming and editing. At the end of the semester, students are required to complete final work consisting of ideas and plans.
Design Process & Methods

This course is for students to cultivate innovative design planning skills. Students will conduct in-class projects based on an understanding of the design planning process and methodologies used in the design process, from generating ideas to releasing products to the market. Students will learn a range of skills for managing an organization, brand, service, and portfolio for optimizing design projects. Students will also investigate the structure and work processes that create successful design environments.

Product Design

The objective of this course is to convey the basic design thinking skills through intuitive insight followed by, and creative and strategic planning and implementation. This course will expose students to rapid prototyping technologies to implement ideas and the methods for researching the user needs for the products being designed. Students will learn design planning and implementation skills necessary for creative and experimental product design. During this course, students will gain a deep understanding of all aspects of the design process, from product planning to manufacturing requirements and processes.

Living Space Design

This is a foundation for space design studio. Students will design a private space and develop the project through various phases from planning, concept development, drawing, and space models. In addition, students will learn how to effectively and convincingly present their space design concepts and projects.
psects of the transportation design process.

M1774.002300 サツルインテラクシーサイエンティフィック 3-2-2

Tangible Interaction Design

The quality of interaction, design, and service design is changing; it has become more integrated and invisible. The purpose of this course is to exercise the planning, designing, and implementation of integrated interaction design to enable communication between people and their environments.

M1774.002400 도시공간디자인 3-2-2

Urban Space Design

This is a required course for student to graduate. Students must have taken Product System Design Project 1 to enroll in this class and participate in the mandatory graduation exhibition. Students will execute their plans and complete their space projects for the graduation exhibition. By completing this course, students will have acquired the basic skills required of an integrated designer working in the design community.

M1774.002500 제품시스템디자인프로젝트 1 3-2-2

Product System Design Project 1

This is a required course for student to graduate, and pre-requisite for Product System Design Project 2. The purpose of this course is for students to research, plan, and organize their projects for the graduation. The course will cover design planning, design development, and representation.

M1774.002800 제품시스템디자인프로젝트 2 3-2-2

Product System Design Project 2

This is a required course for student to graduate. Students must have taken Product System Design Project 1 to enroll in this class and participate in the graduation exhibition. Students will execute their plans and complete their projects for the graduation and present their design projects at the graduation exhibition. By completing this course, students will have acquired the basic skills required of a product system designer working in the design community.

M1774.002700 공간디자인프로젝트 1 3-2-2

Space Design Project 1

This is a required course for students to graduate, and pre-requisite for Space Design Project 2. The purpose of this course is to research, plan, and organize their space project. The course will cover design planning, design development, representation, and implementation and planning for displaying projects in the graduation exhibition.

M1774.003100 공간디자인프로젝트 2 3-2-2

Space Design Project 2

This is a required course for students to graduate, and pre-requisite for Space Design Project 2. The purpose of this course is to research, plan, and organize their space project. The course will cover design planning, design development, representation, and implementation and planning for displaying projects in the graduation exhibition.

M1774.003500 운송기기디자인프로젝트 1 3-2-2

Transportation Design Project 1

This is a required course for student to graduate, and pre-requisite for Transportation Design Project 2 and the mandatory graduation exhibition. The purpose of this course is for students to research, plan, and organize their transportation project considering the future commuting and mobility. The course will cover design planning, design development, implementation, and planning for displaying projects in the graduation exhibition.

M1774.002900 운송기기디자인프로젝트 2 3-2-2

Transportation Design Project 2

This is a required course for student to graduate, and pre-requisite for Transportation Design Project 2. The purpose of this course is for students to research, plan, and organize their transportation project considering the future commuting and mobility. The course will cover design planning, design development, implementation, and planning for displaying projects in the graduation exhibition.
projects considering the future commuting and mobility issues. They present their design projects at the graduation exhibition. By completing these processes, students will accomplish the basic quality as a transportation designer to work in the design community.

**M1774.002600 졸업전시프로그램과리레이션1 3-2-2**

Graduation Project Publication 1

Graduation Project Publication 1 involves students to develop their work through writing and publish their work together with product system, transportation, and/or space design projects. The premise of the course is to help students to form dynamic and dialectic practice that helps designers in their practices of making and producing tangible things and spaces. Students will have to engage in accumulating, curating, framing, and publishing both in broadcasting and sharing with their peers.

**M1774.004500 졸업전시프로그램과리레이션2 3-2-2**

Graduation Project Publication 2

Graduation Project Publication 2 involves students to develop students work through writing and publish their work together with product system, transportation, and/or space design projects. The premise of the course is to help students to form dynamic and dialectic practice that helps designers in their practices of making and producing tangible things and spaces. Students will have to engage in accumulating, curating, framing, and publishing both in broadcasting and sharing with their peers.

**611.2127 목공예 1 3-2-2**

Woodworking 1

Woodworking 1 involves students to develop students work through writing and publish their work together with product system, transportation, and/or space design projects. The premise of the course is to help students to form dynamic and dialectic practice that helps designers in their practices of making and producing tangible things and spaces. Students will have to engage in accumulating, curating, framing, and publishing both in broadcasting and sharing with their peers.

**611.2128 목공예 2 3-2-2**

Woodworking 2

Woodworking 2 involves students to develop students work through writing and publish their work together with product system, transportation, and/or space design projects. The premise of the course is to help students to form dynamic and dialectic practice that helps designers in their practices of making and producing tangible things and spaces. Students will have to engage in accumulating, curating, framing, and publishing both in broadcasting and sharing with their peers.

**611.3001A 현대공예론 3-3-0**

Theories of Crafts

Theories of Crafts involves students to develop students work through writing and publish their work together with product system, transportation, and/or space design projects. The premise of the course is to help students to form dynamic and dialectic practice that helps designers in their practices of making and producing tangible things and spaces. Students will have to engage in accumulating, curating, framing, and publishing both in broadcasting and sharing with their peers.

**6123.3001 공예작가론 1 3-3-0**

Theories Craft Artists 1

Theories Craft Artists 1 involves students to develop students work through writing and publish their work together with product system, transportation, and/or space design projects. The premise of the course is to help students to form dynamic and dialectic practice that helps designers in their practices of making and producing tangible things and spaces. Students will have to engage in accumulating, curating, framing, and publishing both in broadcasting and sharing with their peers.
The goal of this course is to familiarize students with various aspects and artists in contemporary craft. By understanding the movements and issues that modern craft artists confront, and understanding the lifestyle and attitude of craftsmen, this class leads students to a greater understanding of historical flows, and helps them define a direction for their own work.

6123.400A 공예작가론2 3-3-0

Theories of Craft Artists 2

The goal of this course is to familiarize students with various aspects and artists in contemporary craft. By understanding the movements and issues that modern craft artists confront, and understanding the lifestyle and attitude of craftsmen, this class leads students to a greater understanding of historical flows, and helps them define a direction for their own work.

6123.2113 물레성형 1 3-2-2

Wheel Throwing 1

The course examines and conducts research on the problems in design and craft education through critical writing and debate. The aim is to raise students’ ability to adhere to their own critical viewpoint based on a fundamental understanding of the field by practicing critical writing skills that address various perspectives and issues in design and craft education.

M1788.001200 자유성이형기법 (3-2-2)

Handbuilding

This course intensifies the process developed in Theories of Craft Artists 1. It will lead students to develop their critical thinking abilities as they pertain to contemporary craft art and craft society. Students will get hands-on experience on how creativity works in the working field and will learn how to establish their own position and views about craft.

6123.2114 물레성형 2 3-2-2

Wheel Throwing 2

The course examines and conducts research on the problems in design and craft education through critical writing and debate. The aim is to raise students’ ability to adhere to their own critical viewpoint based on a fundamental understanding of the field by practicing critical writing skills that address various perspectives and issues in design and craft education.

M1788.001100 공예기초 1 2-1-2

Introduction to Craft 1

This course is to understand the history of craft and to explore the properties and technical characteristics of it. Students are introduced to various genres of ceramic art and metalworks and will explore the possibility of utilizing them as media. Throughout this course, students will learn the fundamentals of craft materials and its production methods, further offering basic knowledge and perspectives for those willing to specialize in the field.

M1788.001000 공예기초 2 2-1-2

Introduction to Craft 2

This course is to understand the history of craft and to explore the properties and technical characteristics of it. Students are introduced to various genres of ceramic art and metalworks and will explore the possibility of utilizing them as media. Throughout this course, students will learn the fundamentals of craft materials and its production methods, further offering basic knowledge and perspectives for those willing to specialize in the field.

M1788.001100 공예기초 1 2-1-2

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M1788.001200 자유성이형기법 (3-2-2)

Handbuilding

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The course examines and conducts research on the problems in design and craft education through critical writing and debate. The aim is to raise students’ ability to adhere to their own critical viewpoint based on a fundamental understanding of the field by practicing critical writing skills that address various perspectives and issues in design and craft education.

M1788.001100 공예기초 1 2-1-2

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6123.2110 陶瓷与文化 1 3-2-2

Ceramics and Culture 1

This course examines ways to achieve the organic integration of art, science, and technology demanded by industrial society. Students will learn rational planning of production ceramics and gain a first-hand understanding of the production process from the concept and production techniques. They will learn how to make plaster molds and items that can be made from the molds. This course provides students with the opportunity for specialized investigation of ceramics through reviewing and understanding the traditions and history of ceramics. Students will be exposed to the social, cultural, environmental trends in modern ceramics and ceramic arts providing them with an understanding and basic literacy necessary to expand the basic knowledge and understanding of everyday ceramics.

6123.3103 产品陶瓷 1 3-2-2

Product Ceramics 1

This course provides students with the opportunity for specialized investigation of ceramics through reviewing and understanding the traditions and history of ceramics. Students will be exposed to the social, cultural, environmental trends in modern ceramics and ceramic arts providing them with an understanding and basic literacy necessary to expand the basic knowledge and understanding of everyday ceramics.

6123.3104 产品陶瓷 2 3-2-2

Product Ceramics 2

This course covers the fundamentals of glazes and their application. Students are required to acknowledge the nature of glaze by testing various glazes and actually make a glaze. The course also includes using and actually making plaster molds, and slip injection modeling is the goal of this course. The design process of ceramic production involves rational planning of production and its application. They will also experiment with Line-Blend, Triaxial-Blend. Students are required to acknowledge the nature of glaze by testing various glazes and actually make a glaze. The course also includes using and actually making plaster molds, and slip injection modeling is the goal of this course.

6123.3115 传统陶瓷 1 3-2-2

Traditional Ceramics 1

6123.3116 传统陶瓷 2 3-2-2

Traditional Ceramics 2

6123.3117 陶瓷材料研究 1 3-2-2

Ceramic Materials 1

6123.3118 陶瓷材料研究 2 3-2-2

Ceramic Materials 2
The goal is for students to develop a new expression, materials, and techniques for their own working process that will lead to a new formative language.

### 6123.4111 도자조형 1 3-2-2

**Formative Ceramics 1**

This course deepens the content covered in Formative Ceramics 1. Working on individual themes, students learn how to incorporate a scientific understanding of ceramic materials and knowledge of working techniques in creating ceramic art. Ceramics 4 is the final course that should be taken after completing Ceramics 1, 2, and 3. Students are expected to understand techniques used in ceramic art through continuous practice and manufacture, create forms that express their theme, and show individuality and creativity in their art work.

### 6123.4112 도자조형 2 3-2-2

**Formative Ceramics 2**

This course deepens the content of Formative Ceramics 1. Working on individual themes, students learn how to incorporate a scientific understanding of ceramic materials and knowledge of working techniques in creating ceramic art. Ceramics 4 is the final course that should be taken after completing Ceramics 1, 2, and 3. Students are expected to understand techniques used in ceramic art through continuous practice and manufacture, create forms that express their theme, and show individuality and creativity in their art work.

### 6123.4113 도자산업 및 유통 1 3-2-2

**Ceramic Production and Marketing 1**

This course deepens the knowledge students gained from their research in Product Ceramics 1 and 2. Through research on production methods, understanding industrial production and production fulfillment that determines the market price of packaging, and portfolio making, etc., a theoretical course will unfold.
6124.4114 專題演習及動手實作 2 3-2-2
Ceramic Production and Marketing 2

Students are encouraged to examine its creative possibilities through designing and making metal work courses.

6124.2104 鑽石工 2 3-2-2
Jewelry 2

Students are expected to present their design ability and personal expression with metal required as they advance through the course.

Based on the foundation of constructive theory covered in Ceramic Production & Marketing 1, students will develop comprehensive craft-making abilities through greater understanding of the flow of manufacturing and sales, on-site practical experience, making decisions about product costs, marketing methods, etc. through contact with professional ceramic galleries and their connection to exhibitions and sales.

金屬工法师职业(Metalsmithing Major)

6124.2115 鑽石工法制程 1 3-2-2
Metals and Techniques 1

This is an advanced course of practicing applied techniques. Students will study the possibilities and potential of jewelry through various conceptual frameworks, designs, and making processes. Basic metal craft techniques, materials, and techniques will be applied to jewelry. Students are expected to obtain most of the basic skills of making and understanding of materials used in creating jewelry.

6124.2116 鑽石工法制程 2 3-2-2
Metals and Techniques 2

This class will introduce the students to study nonferrous metals used in Metalwork & Jewelry, students learn each technique in accordance with the materials. In the later part of the course, students are expected to organize of express forms with the skills and techniques based on metal work and practice the basic techniques which enables them to do so. This course is focused on giving the students familiarity of the materials rather than letting them express their originality or individuality.

6123.1101 鑽石工法制程 1 3-2-2
Metal Formation 1

This is an introductory course designed to expose the student to the basics and fundamentals fo the metals/jewelry field as a career path in the filed of contemporary crafts. Students are expected to develop their ideas and produce forms with the skills and techniques based on metal work and practice the basic techniques which enables them to do so. This course is focused on giving the students familiarity of the materials rather than letting them express their originality or individuality.
This course is the second course provided for the Metalwork and Jewelry major students. Products are designed in the context of life and space in everyday life, to show how metalwork and jewelry relate to human life. While previous course was an introduction and preparation for how to express ideas into an actual three-dimensional object, this course begins to examine how to apply the skills and knowledge they have obtained so far.

### Metalwork 1

This is the first in a series of Metalwork & Jewelry courses that continues over four semesters. In this course, the students will survey various methods of working with metal in different time periods to give students a more universal comprehension techniques and applications. Based on the basic skills obtained in the basic courses, this course requires students to show their originality in design and personal expression.

### Metalwork 2

This course is designed to give students knowledge of applying the skills and knowledge they have obtained so far. They will be required to show their originality in design and personal expression.

### Metalwork 3

By understanding diverse concepts in jewelry and design with crafting, students will study the creative possibilities of jewelry making. Students will explore traditional stone-setting, pinback techniques, and forms. They will examine the foundations, concepts, techniques, and materials of traditional jewelry to expand their knowledge of jewelry making.

### Metalwork 4

This course is designed to give students knowledge of applied design, strengthen their perceptual and philosophical concepts, and develop their individual modes of expression. Participants are expected to express their personality and originality through out their work by applying the skills and knowledge they have obtained so far. They will be required to study the general idea of craft in everyday life, and exhibit

### Metals and Techniques 3

Students will learn how to incorporate a modern understanding of jewelry to develop designs and techniques for jewelry that meet the demands of contemporary culture and society. Students are expected to express their personality and originality in their work by applying the skills and knowledge they have obtained so far.
Students will further understand aesthetic, technical, and functional aspects of craft.
미술대학( College of Fine Arts) : 연합전공 영상매체예술(Undergraduate Courses Program in Media Art)

613.201 미디어 프로그래밍 기초실습 2-1-2
Basic Media Programming
블록기호는 표준소프트웨어 및 미디어 프로그래밍 언어의 기초를 인하
고에 따른 교과 및 이해에 대한 교육을 실현하는 수업이다. 프로
그래밍 코드 언어의 구조를 이해하고 이를 응용하여 디지털 이미
지 및 모션 이미지를 구현한다. 디지털 인터페이스와 이미지의
특성과의 상관관계를 이해하도록 한다.
This class offers basic knowledge of digital media software,
613.302 - 549 - 
History of Contemporary Media Art

현대미술이후, TV, 오브제, 디지털 미디어 등을 이용한 매체예술의 기원과 흐름을 살펴본다. 현대미술의 흐름에 있어서 매체예술 작가와 작품의 특성은 실험적이고, 그 특성과 성향 등을 이해하도록 한다.

This class offers the history of media art which has used film, TV, object, digital media and so on since modern art age. Also the characteristics of media art works and media artist will be studied.

613.303A - 549 - 
Interactive Media Programming

디지털 프로그래밍과 전자적인 장치를 이용한 인터랙티브 양상과 구현하는 과정을 실습한다. 이를 위한 프로그래밍 과정을 기초부터 실습하여 단계적으로 양상을 제어하기 위한 전자적 장치 등도 실습하도록 한다.

This class offers digital programming and related electronic tools for video media interactivity. Basic digital programming, software, and electronic technology will be studied and practiced. Students will create the project based on their own concept and perspectives.

613.305 - 549 - 
Drawing and Media

자유로운 평면 드로잉 표현과 다양한 디지털 및 전자적인 매체와의 연관성을 모색하고, 현대 회화의 다양한 쟁점들 혹은 학생 개인의 자유로운 개념과 표현을 매체를 통한 드로잉으로 제시하는 실험적인 과정을 실습한다.

In this class, the relationship between various digital or electronic media and drawing in modern art will be examined. And students practice their own concept and expression through drawing by various media in experimental ways.

613.306 - 549 - 
Code Image Expression

디지털 프로그래밍 코드를 사용하여 드로잉 및 다양한 이미지 등을 구현하는 수업으로서 디지털 코딩과 시각 이미지의 표현 및 재현과의 상관관계와 그 개념을 연구한다.

This class offers the practice of digital programming code to create drawing, images, series of various images. Also the relationship between digital coding, visual images will be examined.

613.307A - 549 - 
Electronic Media Practice

본 과목은 산업사회의 발달과 함께 여러 영역에서 개발되는 새로운 산업용 신재료, 센서 등과 같은 전기 전자 기기 등을 자신의 작품제작에 활용, 실험하는 수업이다.

In this class, various new materials developed in modern industry, such as new industrial materials, sensors and electronic/electrical equipment, will be examined, practiced and experimented. Students will be using these new materials in their art works.

613.305A - 549 - 
Media Art

본 수업은 영상 뿐 아니라 뉴미디어의 다양한 도구들을 사용하여 작품을 제작하는 수업이다. 상급과정 미디오, 영상설치, 인터랙티브 영상 및 코드와 전자적 매체 등을 통한, 학생들은 자신이 표현하고자 하는 개념과 주제를 다양하게 실현한다. 본 수업의 목적으로, 학생들이 본인 작업의 이론적 특성을 함께 개발하여, 자신의 작업들을 단지 기술적인 구현이 아니라 미디어 아트의 개념적이고 형태적 특성을 탐구하는 작업으로 제시하도록 한다.

In this class, students create media art works using from video to various new/media tools. Using various media such as single channel video, video installation, interactive video, coding or electronic media, students express their own concept and theme. Also examining theoretical and conceptual aspects of the work, students present their works as the result of experimenting on visual and conceptual properties, not just as presenting of technological aspects.

613.308 - 549 - 
Expression of Sound Media

본 수업은 미디어 아트 영역에 있어서 사운드 아트와 연관된 이론과 작업을 살펴보고, 사운드 매체 표현과 연관된 실습을 병행하는 기초 과목이다. 기본적으로 사운드를 제작하는 디지털 미디어 도구를 익히고, 학생들은 자유롭게 사운드 매체 작품을 실험하기도 한다. 독립적인 사운드 매체 작업 뿐 아니라 학생 자신의 다양한 미디어 작업과 함께 제시될 수 있는 작업들도 함께 실습하도록 한다.

In this class, students survey sound media art works and the theories in the area of media art and experiment sound media expression. By learning basics on sound media digital tools, students practice various sound media and its expanded methods. Students may create not only their own works based on sound media independently, but also make works to be combined with their other media projects.

613.309 - 549 - 
Media Object Installation

본 과목은 영상과 시공간, 오브제를 결합하여 해석해보는 작품 제작 연구과정, 주로 오브제 개념을 분석하고 미디어와의 연관성을 경험하고 연구하여 작품을 제작하는 수업이다.

In this class, students will critically analyze their works with video, time-space and object. Especially, critical surveys of the relationship between video and objects will be performed by students.

613.310 - 549 - 
3D Animation

본 과목은 다양한 3D애니메이션 툴을 익히고 이를 이용해 애니메이션을 제작하는 수업이다.

The class enables students to learn various 3D animation tools and utilize these tools to create a short animation.
단지 기술적인 구현만이 아니라 학생들은 자신의 작업 주제와 개념을 표현하고 제시할 수 있는 인터랙티브 영상을 설치 작업을 자유롭게 실행할 수 있도록 한다.

By learning interactive programming, code, and electronic equipment, students practice and experiment interactive media installation works. Concepts and themes of the work should be presented as essential aspects, not just as the result of technological process. In this workshop, various interactive tools and methods will be practiced to expand the concept of the work.

**Discourse on Media Art**

본 수업은 현대 미술에서 전개되고 있는 미디어의 특성과 이론에 대해 고찰하는 수업이다. 미디어 아트의 기원과 전개 및 현황들을 광범위하게 고찰하며 이와 관련된 현대미술의 문제들과 미디어 아트의 제반 이론들을 살펴본다. 또한 미디어 블록화 영상의 새로운 미학적 특성과 그 의미들을 분석한다. 또한 매체예술의 미술사의 전개가 이러한 개념과 이슈들을 포함하고 제시하는 방식을 분석해 본다.

In this class, the particular characteristics and theories of media art in the context of contemporary art will be examined widely and deeply. The origin and progress, and current aspects of media art will be surveyed and compared with discourses of postmodern art. Also areas of humanities, sociology, theories of media culture which are related to media art will be examined. The essential aesthetic discourses of media art will be studied, based on comparative study on issues and concepts of media arts.

**Media Studio 1**

미디어 작업과 관련된 제반 기술을 기반으로 하여 창의적인 주제와 개념을 표현 제작한다. 단지 기술적인 구현이 아닌 매체 예술의 개념과 담론의 맥락에서 창조된 학생 각자의 주제의식과 개념이 구현된 다양한 미디어 작업을 창작한다.

Based on various advanced media technologies, students express and embody their creative media works with meaning themes and concepts which are worked in the context of media arts discourses and ideas rather than embodiments of technological presentation.

**Media Studio 2**

미디어 작업과 관련된 제반 기술을 기반으로 하여 창의적인 주제와 개념을 표현 제작한다. 단지 기술적인 구현이 아닌 매체 예술의 개념과 담론의 맥락에서 창조된 학생 각자의 주제의식과 개념이 구현된 다양한 미디어 작업을 창작한다.

Based on various advanced media technologies, students express and embody their creative media works in advanced with meaning themes and concepts which are worked in the context of media arts discourses and ideas rather than embodiments of technological presentation.
Practice the extending possibilities of visual expression and two dimensional visual forms with various media. Digital, electronic, and related various methods will be using to experiment the extending media forms of two dimensional visuality and create those works by inter-related media and methodologies.

613.461 미디어아트 실습 1 2-1-3

Media Art Practice 1

This class offers technological practice and production process for students who prepare the works for the degree show. Basically, several instructors will help students who need technological supports for their works. Students must have specific work plan and theme to complete their works. In this class, students learn and practice for themselves media art technology for their works, such as media programming, electronic media, 3D print and so on.

613.462 미디어아트 실습 2 2-1-3

Media Art Practice 2

This class continues the process of Media Practice 1. Students must have concrete and specific theme and plan for their works. And students are supposed to study, practice and solve technological process and problems to complete their media art works. This class aims to cultivate students abilities to create media art works by themselves with practicing technological process.
미술대학 (College of Fine Arts)  ∴ 연합전공 통합창의디자인(Integrated Creative Design)

M1775.000200 통합창의디자인세미나 3-1-4
Integrated Creative Design Seminar
사회 전반에 걸친 나타나는 다학제적 경향은 여러 문화, 산업, 기술의 융합, 통합으로 나타난다. 경영, 디자인, 기계공학의 전문지식을 통합하여 상호 지식 및 정보를 공유하고 다양한 산업적 요구와 문화적 전통의 교류를 통해 논의하고 의견을 제시하도록 한다. 다양한 전공생들의 팀 작업을 통해 전공별 다양한 관점을 지식을 서로 공유하고 교류한다.

The interdisciplinary trend rising throughout the society are being seen in various cultures, businesses and integration of technologies. Through the professional knowledge of management, design and mechanical engineering, information can be shared while demands and problems of diverse industries can be discussed amongst the professions. The opportunity for students to work together with students from other disciplines will encourage them to share different viewpoints and knowledge.

M1774.003200 통합창의디자인실습 3-1-3
Integrated Creative Design Practice
디자인프로젝트 중심의 교과목으로서, 산학연과 연계한 주제를 다학제간에 공동으로 진행함으로써, 실제적이고 종합적인 차원의 디자인해결을 체험토록 한다.

This course will be core structured on design projects. Industrial collaboration and an interdisciplinary approach will be emphasized, thus offering an opportunity for practical and comprehensive problem-solving in design.

M1774.003300* 통합창의디자인프로젝트 1-0-2
Integrative Creative Design Project
학생들이 전시, 기획, 개발 등의 다양한 경험을 할 수 있도록 하기 위하여 국제대회 참가, 전시 개최를 통하여 학생들의 전공이 융합할 수 있는 기회를 부여하기 위한 교과목이다. 통합창의디자인에 참여하는 학생이 필요 수강해야하는 중업시험과 같은 과목으로 볼 수 있다.

Students will have various experience such as exhibition, planning, development, and international design contest in the class. The course will be a chance to communicate and collaborate with other students in different majors. This is a requirement for all ICD student to graduate the course.

학점구조는 "학점수-주당 강의시간-주당 실습시간"을 표시함. 한 학기는 15주로 구성됨. (The first number means "credits"; the second number means "lecture hours" per week; and the final number means "laboratory hours" per week. 15 week make one semester.)
학점구조는 "학점수-주당 강의시간-주당 실습시간"을 표시함. 한 학기는 15주로 구성됨. (The first number means 'credits'; the second number means 'lecture hours' per week; and the final number means 'laboratory hours' per week. 15 week make one semester.)
사회공통과목(Extradepartmental Courses in Integrated Social Studies Education)

700.101A 공통사회교과교육론 3-3-0

Integrated Social Studies Education

이 과목은 '공통사회' 전공교사 양성과정에서 제시된 기본이수 과목으로서, 공통사회과 교육에 있어 가장 기초적인 과목이다. 일반사회, 역사, 지리 등의 사회과 제반영역에 대한 교육론을 개관하며, 이와 함께 중등학교 사회과교육의 목표와 교육과정, 교육방법의 최근경향, 사회과학과 공통사회교육의 관계 등을 검토하면서 우리나라 현실에 적합한 고등학교 공통사회과 교육의 방법과 방법을 모색하는 데에 본 과목의 목표가 있다. 공통사회과교육에 관한 최근의 연구주제가 문헌의 조사도 이 과목의 중요한 부분이 되며, 이러한 연구는 앞으로 사회과 각 영역에 있어서 교육연구와 지도 방법 등을 전문적으로 탐구하는 데 기초가 된다.

In this course, which is a core mandatory curriculum for training intermediate school teachers, students will survey education theories of a variety of social studies such as history, geography and general society, and review the latest trends in the aims, curriculum, and methods of secondary school social studies education. Also, the relation between social science and integrated social studies education will be examined. The purpose of this course is, based on these basic investigations, to seek the direction and methods of integrated social studies considering the present condition of Korean society.

700.122 한국사개론 3-3-0

Introduction to Korean History

한국사에 대한 체계적 인식을 바탕으로 그 내적인 발전과정을 이해하고, 그 연장에서 오늘날 우리 사회의 제반 과제를 역사적으로 파악함으로써 민족사의 바람직한 미래를 모색한다. 역사적 현상과 다른 현상들이 지표공간을 어떻게 구성하고 있는지 이해하고, 그 과정은 어떤 규칙적 개념에 의해 지배되고 있는가를 알기 위하여, 인문 지리학의 기본 개념, 재생지리학의 방대한 양의 자료를 바탕으로 지구과학의 전반적인 주요 부분을 개관한다. 인류학적 현상과 관련한 지리학의 전반적인 본질적인 특성을 파악함으로써 민족사의 바람직한 미래를 모색하는 데 기초가 된다.

In this course, students will study the Korean history systematically in relation to world history, so as to gain the traditional historical attitude and viewpoint essential in teaching social studies.

700.131 인문지리학 3-3-0

Human Geography

인문 지리학의 기본 개념, 방법, 주요 주제에 대한 기본적인 전개와 도입을 목적으로 한다. 지리학의 연구대상인 공간조직 및 그 구조적인 패턴과 과정을 이해하고 설명할 수 있는 능력배양을 통해 한국지리학의 전반분야 간의 연계와 그 근본적인 특성을 학습한다. 내용상으로는 문화적 지리, 경제적 지리, 사회적 지리, 정치적 지리, 경제성장의 여러 성격을 구체적으로 이해하고, 그 과정은 어떤 규칙적인 법칙에 의해 제어되고 있는가를 알아보려고 한다. 또한 지표공간을 구조화하고 변환시키는 가장 중요한 역할을 하는 인간의 행태와 태도, 가치관에 대해서도 관심을 기울인다.

This course studies the Earth’s biophysical systems. Specific topics will include human spatial decision-making, migration, population growth, economic development, and industrial location.

700.121 경제와 사회 3-3-0

Politics and Society

사회과 교육의 내용의 주요부분으로서의 정치학의 내용을 과목의 목표에 맞도록 제시한 것으로서 사회현상의 하나인 정치현상의 의미와, 내용을 분명히 파악하기 위한 과목이다. 정치와 정치학의 관계, 정치학의 성립과 발전, 정치학의 연구방법 등 정치학의 기초개념과 역사적, 법적, 정치학의 성립과 발전, 정치학의 이해방법을 탐구한다.

In this course, students, as future social studies teachers, will be introduced to political science. Topics will cover the analysis of social and political systems, relationship between politics and political science, development of political science and its influence on political education, political ideals and political institutions, political power and political processes, and the state.

700.211 경제와 사회 3-3-0

Economy and Society

생산, 교환, 배분, 소비의 상호관계 및 국민소득의 결정, 경제구조, 경제제도, 경제의 성장과 변동 등에 관한 주요개념 등을 알아보고 이러한 것과 사회변동 및 경제생활의 변천과의 관계를 연구해본다. 그리고 이와 함께 한국경제에서 중요한 위치를 차지하는 국제경제분문을 연구하고, 이와 결합 사회 내의 경제생활에 관한 기본개념과 사례를 형식화한다. 그리고 이로 인해 국제경제의 변화와 한국 경제, 국민소득의 유형과 결정, 경제성장과 발전이론 등을 구체적으로 이해하고자 한다.

Prerequisite for most economic education courses offered by the Department of Social Studies Education, this course will provide students with a basic understanding of economic decision-making. Students will be introduced to the key concepts of economic decision-making and its education. A structured sequence of readings and problem sets will form the backbone of the course and evaluation will be based primarily on three examinations and a final report.

700.212 사회와 법률 3-3-0

Society and Law

사회과 교육의 기본질서를 이루는 제2간의 기초과정으로서 사회현상에 대한 법의개념에 따른 법의기술, 특히 법의 개정을 탐구하는 과목이다. 법의 개념, 효과, 이념 등 법학분야 분문에 대하여 감상하고 법의 일반원리와 공법, 사법 등의 분야를 개관하면서 학생들이 사회생활에서 법적문제를 종중하는 공공으로서의 자질을 갖추게 하도록 법의개념에 대해 탐구한다.
This introductory course will help students to understand social norms including law. Students will study the concepts, effects, ideals, and general principles of law as well as the distinction between public and private law. They will also investigate various attitudes toward law and law consciousness in terms of citizens’ capacity to comply with law.

700.231 Cartography

This course addresses map and chart reading and use. It covers grid systems, projections, and practical map measurement.

700.311 Culture and Society

In this course, students will learn how to analyzes current issues of society and main topics of a variety of Social Studies such as history, general society and geography systematically and scientifically from the integrated curriculum view and to cultivate the result logically.

700.331 Regional Geography of Korea

This course covers major regions of the world as geographic units. It adopts systematic approaches to each region.
과학공통과목(Extradepartmental Courses in Integrated Science Education)

700.252 일반물리학 및 실험 2 4-3-2

이 과목은 과학공통 전공 교사 양성과정에서 제시된 기본이수 과목으로서, 공통과학 교육에 있어 가장 기본적인 과목이다. 전자기장, 전자기, 원자력론, 화학장론, 열물리학, 반도체, 물질의 전기적 특성 등을 논의하며, 자기장의 측정, 오름의 법칙, RLC 콘스루션, 허니버스, 암페어의 법칙 등에 대한 실험 및 실험 중 실천적인 경험을 통해 이를 확인하는 과정으로 이루어지며, 지구과학라는 학문의 특성과 지구과학을 구성하고 있는 전반적인 과학의 전반적 이해를 제공한다.

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700.262 일반화학 및 실험 2 4-3-2

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Language and Learning in Science Classrooms

This course is designed to introduce students to research examining the role of language on learning in the context of science classrooms. This course also introduces students to current research examining language and representation of science knowledge, through both verbal and non-verbal interactions. Language use for conveying science knowledge via reading, writing, listening, speaking, and drawing/visual representations will be examined. The course reading, lecture, and interactive activities will focus on supporting students to: (a) become familiar with new and seminal research on language and science; (b) examine the ways in which language shapes the development of scientific ideas and concepts via means of representation and communication, which language shapes the development of scientific ideas and concepts; (c) focus especially on the impact of second language acquisition on science teaching and learning in diverse science classrooms; and (d) identify and develop teaching strategies that support science learning in the K-12 classroom.

Teaching Science to Diverse Learners

A diverse group of students should all be able to learn science in a classroom setting. However, teaching science to diverse learners requires teachers to be aware of the different needs and abilities of each student. This course aims to teach practical as well as theoretical knowledge of the features of the thinking and understanding in science and of the linguistic ways to communicate them. Special focus will be given to the ability of secondary teachers to improve students’ thinking and expression in science and to develop effective teaching methods. Through the course, the ways to encourage students’ reading and discussion in teaching them science will be explored.

Chemistry and Biology of Organic Compounds

M1827.000100 통합과학과학교육론 3-3-0

Integrated Science Education

M1827.000300 통합과학교육론 3-3-0

This course fosters students’ understanding of integrated nature of chemistry and biology. For this purpose, students learn the structure, property, and characterization of organic molecules as building block of life objects and generation process, metabolism and function of organic molecules in life organizations. Through this course students in chemistry major can enhance understanding of their functions and properties of organic compounds in life system as well as life phenomena, and those in biology major can understand life phenomena based on the structures and properties of bio-molecules.
국내외의 종합과학 특히 통합과학과 관련 교재들의 내용을 분석하고, 통합과학 수업에 적용할 수 있는 교수 이론을 학습하며, 이를 적용하기 위한 실험을 한다. 특히 학생들은 통합과학과의 접근을 통해 탐구 활동을 경험하고 효율적으로 통합과학적 탐구를 가르치는 실현적인 지도 방법에 대해 배울 것이다. 통합과학의 효율적인 지도를 위한 사례를 발굴하고 경험하고 이러한 접근의 학교 현장에서의 적용가능성에 대해 비판적으로 살펴볼 것이다.

This course analyzes various teaching materials for integrated science at secondary schools, domestic and international, and provides instructional theories for integrated science instruction and relevant practices. Student will experience inquiry activities and learn practical instructing methods for teaching inquiry for integrated science effectively. In addition, students will have opportunities to see the good examples of effective integrated science teaching and to investigate critically the applicability of applying those approaches to actual school settings.

현대사회와 지리 (Modern Society and Geography)

유리나라의 도시화와 산업화에서 보는 바와 같이 현대사회를 이루는 구성요소는 복잡하고 급속히 변하고 있다. 이 과목에서는 이러한 사회, 경제, 문화적인 요소가 우리나라 및 세계 각 지역에 어떻게 분포하고, 이들이 어떻게 변하고 있으며 오늘날 우리 사회의 특성을 이루는가를 살펴보려고 한다. 예를 들면 도시화, 산업화 가 일어난 사회·경제적 원인을 분석하고, 우리나라 및 세계의 여러 지역이 갖고 있는 문화를 이해하고 그 대안을 연구해본다. 특히 인간의 활동이 현대사회에 미친 영향에 초점을 둔다.

The organization of modern society has changed very rapidly and complicatedly, as it is obvious in the case of urbanization and industrialization in Korea. This course is designed to show where the social, economic, and cultural elements are located and how they are distributed and changed, thus affecting the characteristics of Korean society. Students will focus on how human activities affect modern society.

전공탐색과목 (Pre-major Tracks for College of Education)

700.106A 독일문화와 영상매체 3-3-0

German Culture and Medium

대표적인 독일문화를 문자매체와 영상매체를 통해 감상함으로써 독일문화와 예술에 대한 이해를 높인다. 영상매체를 이용해서 보다 사실적으로 독일문화와의 발전과정에서 문화교과의 가치와 주요한 개념들을 이해하고, 문예학의 발전과 사회적, 문화적 발전에 상응하는 문화교과의 영향과 방법을 이해하고자 한다. 문화교과의 목적, 문화교과의 영향과 방법, 교수법적 측면에서 본 문화교과, 현대문화 교육의 현제와 독일 문화교과의 수용 등 다양한 주제로 연구될 수 있다.

By giving the opportunities to meet the major works through the image media, the course is helpful in understanding German culture and Art. The course aims at understanding the critical concepts in Education with the Culture in the process of the Education with German Culture. With this, Students can have the opportunities to consider about the direction and the ways, adjusting to the social, cultural developments of the education with Culture.

700.107 현대사회와 지리 3-3-0

Modern Society and Geography

이 교과목은 사범대학 어문교육계열 학생들을 대상으로 프랑스 문화에 대한 다양한 접근을 통해 프랑스의 첫발로 소개한다. 이 강좌를 통하여 학생들은 프랑스의 사회, 역사, 지리, 제도, 관습 등에 대해 배울 것이며 또한 프랑스의 현대 동향과 문화적 가치를 이해할 수 있을 것이다. 따라서 본 강좌는 프랑스 지리학의 사회, 문화적 가치를 파악하여 지역사회를 이해하는데 강의 개설의 목적이다.

This course on French culture and its current issues aims at enhancing the qualifications of prospective French teachers. In this course, students will learn about the society, history, geography, institution, and custom of France and also understand the current situation and the cultural values of France looking over the culture and the society of France. It mainly aims at understanding the regions of France.

700.112A 프랑스문화의 이해 1 3-3-0

Understanding French Cultures 1

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700.121 역사와개론 3-3-0

Introduction to Korean History

역사와 역사교육 학습 및 공동사회 교육의 첫발으로서 역사를 통한 교육적, 문화적 소양을 함양해도록 우리나라 및 동·서양의 역사인식, 연구대상과 방법, 역사서술, 역사교육 등을 개별 성과 보편성에서 파악하게 한다.

This course is the first step in the study of history, history teaching, and social studies. Students will investigate the facts and ideas of Korean and world history through physical data and historical narratives. They will also learn to see history in terms of particularity and universality.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>700.122</td>
<td>한국사개론</td>
<td>3-3-0</td>
</tr>
<tr>
<td>700.140</td>
<td>유럽과 미국 사회와 문화의 이해</td>
<td>2-2-0</td>
</tr>
<tr>
<td>700.123</td>
<td>독일문화와 생활</td>
<td>3-3-0</td>
</tr>
<tr>
<td>700.141A</td>
<td>프랑스어기초문법 1</td>
<td>3-3-0</td>
</tr>
<tr>
<td>700.124</td>
<td>기초독문법</td>
<td>3-3-0</td>
</tr>
<tr>
<td>700.142</td>
<td>프랑스어기초문법 2</td>
<td>3-3-0</td>
</tr>
<tr>
<td>700.125</td>
<td>독어발음 및 읽기지도</td>
<td>3-3-0</td>
</tr>
</tbody>
</table>

**700.122 한국사개론 3-3-0**

*Introduction to Korean History*

한국사에 대한 체계적 인식을 바탕으로 그 내적인 발전과정을 이해하고, 그 연장에서 오늘날 우리 사회의 제반 과정을 역사적으로 파악함으로써 민족사의 바람직한 미래를 모색한다. 아울러 장차 역사교사 및 역사학 연구가로서의 교육과 연구 활동에 필요한 기초지식과 자질을 함양한다.

In this course, students will study the Korean history systematically in relation to world history, so as to gain the traditional historical attitude and viewpoint essential in teaching social studies.

**700.123 독일문화와 생활 3-3-0**

*Culture and Life in Germany*

외국어를 학습하는 데 있어서 그 나라의 문화를 아는 것은 필수적인 요소이다. 본 과목은 독일의 정치, 사회, 문화 전반에 대하여 개괄하면서, 학생들이 독일어, 독문학, 독어교수법 등을 학습하는 데 기초가 되는 상호문화적 능력을 향상시키는 것을 목적으로 한다.

This course overviews German politics, society, and culture. It focuses on enhancing intercultural ability in order to learn German language, literature, and pedagogy.

**700.124 기초독문법 3-3-0**

*Basic German Grammar*

본 교과목은 독문법의 기초적인 내용들을 학습함으로써 학생들의 독일어 문법능력을 향상시키는 데 그 목적이 있다. 특히 일반 문법과는 구별되는 학습자문법(Schulgrammatik)의 관점에서 수업을 진행함으로써 학생들이 독일어학습에서 독일어문법을 가르치게 될 때 필수적으로 갖춰야 할 능력을 신장시키는 데 그 기점이 된다.

The course aims at improvement in practicing the basic grammar in German. This course deals with various German grammar theories, which will then be applied to the study of the Korean language.

**700.125 독어발음 및 읽기지도 3-3-0**

*German Pronunciation and Listening*

본 교과목은 독어 발음을 학습함으로써 독어 학습에 도움이 될 수 있는 기초적인 독어 발음능력을 향상시키기 위한 것으로, 학습자들이 독어 발음을 통해 독어 발음능력을 향상시킬 수 있는 기회를 제공한다.

The course is for the improvement in listening part. It is for the improvement in the ability of listening by using kinds of texts in the visual and audio media. In the first grade, the establishment of this subject is necessary for the advances of the accurate pronunciation and listening ability.
Introduction to the Study of Education

This basic course on educational philosophy will introduce students to the contemporary analyses of the major educational concepts including the concept of education itself. This course is intended to develop understanding on educational phenomena from the educational psychology perspective. Students will develop their own perspective through participating in various class activities and in-depth discussion on research findings and implications will be done in areas of development, learning, and motivation.

Sociology of Education

This introductory course will focus on establishing the foundations of educational administration by studying the relevant theory and practice. The concepts, characteristics, areas, and approaches of educational administration will be dealt with.

Readings in Educational Classics

This introductory course will focus on establishing the foundations of educational administration by studying the relevant theory and practice. The concepts, characteristics, areas, and approaches of educational administration will be dealt with.

Curriculum

This course reviews the foundations, principles, and issues of curriculum. It examines approaches to curriculum theory and development, and discusses the most basic issues underlying thought about curriculum.

Teachers and Teaching Profession

This course examines basic concepts, views, and theories about teachers and teaching profession. Specific topics will include the characteristics of school organizations, qualifications and assignment of teachers.

Korean Education Introduced in English

This course introduces academic traditions of educational anthropology. It focuses on the inter-relatedness of education and culture. The course also provides comparative approaches to each society's education.
사범대학(College of Education) ∴ 교육학과(Dept. of Education)

701.306 비교교육학 3-3-0

비교교육학의 역사적 발전과정과 연구대상 및 연구방법론에 대하여 개관하고 비교교육연구가 갖는 교육학적 의미를 논의한다. 이 과정에서 학생들은 각 국가의 역사적, 사회적 배경을 이해하고, 그 국가에서 이루어지고 있는 교육 실체를 분석함으로써 비교교육학적인 안목을 기른다.

This course overviews the history and the methodology of comparative education. Case study or cross-cultural comparative study in different societies could be suggested.

701.307 교육평가 3-3-0

Educational Evaluation

학교학습의 맥락 속에서 교육평가가 어떠한 의미, 역할을 갖는지에 초점을 둔다. 이 강의는 동축 교육평가의 기본 개념, 측정이론 및 학생성적 평가의 측정, 평가방법과 해석, 정의적 특성 평가의 방향 등을 논의한다.

This course will focus on the relationship between school learning and appropriate types of evaluation. It will cover the theories of reliability and validity, achievement test construction, and interpretation of test results.

701.308 교육공학 3-3-0

Educational Technology

교육학 전공 학생들에게 제공되는 교육공학에 대한 입문 과목이다. 교육공학의 영역과 역사, 관련이론, 현대적 동향 등의 이론적 부분과 그 활용 등의 실제적 부분에서의 접근이 이루어지는 과목이다. 학생들은 단위수업의 교수설계 경험, 정보통신기술기반의 교육 자료 개발, 이러닝, 사이버 대학, 기업교육 등 교육공학의 실제적 적용 영역에 대한 폭넓은 이해를 하게 된다.

This introductory course provides education-majoring students with pedagogical foundation of theory and practice of educational technology. The purpose of the course is to address the current trends and issues in educational technology through theoretical and practical approaches. Students plan and design a unit of instructional development of a class.

701.315A 학습사회와 평생학습 3-3-0

Learning society and lifelong learning

가정교육, 학교교육, 사회교육을 포함하는 총체적 교육개념으로서 학생의 평생교육의 과정, 이념적 특성, 조성, 내용을 탐구한다. 평생교육을 구성하는 각 교육영역 간의 관계를도 검토한다.

In this course, students will investigate the philosophy, ideological features, system, and contents of lifelong education, which consists of family education, school education, and adult education.

701.318A 한국교육제도 및 정책 3-3-0

Korean Education Systems & Education Policy

한국교육제도의 조직과 운영의 실태를 소개하고 검토하기 위한 학사과정의 과목이다. 교육제도 속에 제도화된 제도를 개관하고, 제도의 발전과정, 문제, 대안적 발전방향을 검토한다.

This course introduces Korean educational systems. It focuses on their developmental process, problems, alternative models.

701.321A 교육과정론 및 연구법 3-3-0

Materials Evaluation and Development in Education

교사과정에서 교육과정, 교수방법 등 학교 현장의 문제를 비롯한 교육문제와 현상을 대상으로 교육과정 개발방법을 습득한다. 연구과정과 과정에 대한 기본 개념과 부서에서 교육연구 및 교육과정 개발, 변화속성, 자료의 분석 및 보고서의 작성 방안 등을 다룬다.

This course overviews methodologies for pedagogical research on school. It deals with experiment methods, data analysis, and report preparation.

701.322 학교와 학급경영 3-3-0

School & Classroom Management

교사의 교육립에 필요한 학교경영의 이론 및 실제, 그리고 교육을 전문하는 교사에게 필요한 학교경영의 이론적 과정을 주된 내용으로 한 강좌임. 수업의 주된 내용은 학교와 학급경영에 관한 기본적인 개념, 학교와 학급경영이론, 학교의 사례를 비롯하여 교사들의 수업, 학급경영, 생활지도 및 교무작업 등에 영향을 주는 학교경영학의 부문에 대한 이해를 돕는 과목임.

This course covers theories and practices on school & classroom management. In this course, students will learn basic concepts and theories of school & classroom management, and students will learn management tasks and processes that affect teachers’ classroom teaching, classroom management, guidance, and academic affairs. In addition, students will have a chance of analyzing cases related to this topic.

701.323A 교육학교과 논리 및 논술 3-3-0

Logic and Writing in Education

교육학 논리 체계에 대한 이해를 도모하고, 이를 바탕으로 교육 현상에 대한 이해를 글로 표현하는데 목적을 두는 교육논리학 논문과, 이론에 대한 학습을 통하여 교육현상에 대한 논리적 이해를 도모하고, 이를 글로 표현하는 논술교육을 시도함.

This course deals with logic in Educational concepts and theories of Education. And this course covers writing about critical issues of Education.

701.411A* 교육사 3-3-0

History of Education

이 과목은 한국교육사에 대한 입문 과목이다. 이 과목은 교육제도의 변화와 발전 그리고 그것의 이념적 기초로서 교육사상의 변화를 다룬다. 이해의 심화를 위하여 동아시아교육사와 세계교육사
시범대학(College of Education)  ∴ 교육학과(Dept. of Education)

This is an introductory course on the history of education. It deals with the evolution of educational system and educational thoughts. To get well based understanding, comparative historical approaches is necessary in the contexts of the East Asia and global dimension.

701.422 현대교육사상 3-3-0
Contemporary Educational Thoughts

This course examines the formation and characteristics of major educational thoughts. Some preliminary look at current philosophical trends shall be added.

701.424 교수이론 3-3-0
Theories of Instruction

This course addresses various learning theories and learners’ characteristics. It also provides systematic studies about pedagogic theories.

701.426A 교육측정과 검사 3-3-0
Measurement and Testing in Education

This course addresses educational and psychological testing instruments used in the various teaching-learning activities. It discusses theories of measurement and theoretical bases of testing instruments. In addition, it discusses concretely the psychometric characteristics of educational and psychological testing instruments.

701.427A 성인교육방법론 3-3-0
The Methodology of Adult Education

This course covers concepts, theories and methodologies on Education. Students can understand structures and characteristics of Education. The objective of this course is to apply theories of Education to actual school affairs including curricula and evaluation.

701.428 인간학습과 발달 3-3-0
Human Development and Learning

본 과목은 인간의 학습과 발달 과정을 기초적인 교육심리학적 관점으로 접근한다. 행동주의적 접근뿐만 아니라 인지주의적 접근 등 학습심리학의 논리화된 학습에 대한 주요 이론들과 인간의 성장과정을 발달의 관점에서 접근하고 있는 주요이론들도 함께 검토하도록 한다.

이 과목은 인간 학습 및 발달 과정을 기초적인 교육심리학적 관점으로 접근한다. 행동주의적 접근뿐만 아니라 인지주의적 접근 등 학습심리학의 논리화된 학습에 대한 주요 이론들과 인간의 성장과정을 발달의 관점에서 접근하고 있는 주요이론들도 함께 검토하도록 한다.

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This course provides theoretical and practical knowledge about school counselling and guidance in secondary schools. Specific topics will include basic theories of school counseling, career development, school drop-outs, delinquents, and emotion/personality development.

701.430 교육통계 3-3-0
Statistics for Educational Research

701.431 성인교육방법론 3-3-0
The Methodology of Adult Education

This course introduces various methods and knowledge
used in adult education program planning and implementation. It deals with adult learner’s characteristics, effective teaching methods for adults, case studies of adult education program. The student can understand teaching and learning in adulthood more deeply.

701.432A 인적자원개발론 3-3-0

**Human Resource Development**

The purpose of this course is to explore theories and methodologies to develop human resource efficiently and effectively at the level of individual, organization, region and nation. Continuous human resource development plays the key role for improving competitiveness of individual, organization, region and nation. Through this course students will be able to develop strategic mind and practical competency of designing and developing education, learning and performance system of human resource.

701.433 이론과 원격교육론 3-3-0

**E-learning and Distance Education**

This course intends to provide theoretical perspectives to examine the effectiveness of the e-learning programs and basic skills to develop tutorials for e-learning. Students will have chances to criticize various e-learning programs from different educational and learning theories and distance education theories. Future directions for e-learning development will be also explored to solve theoretical and practical problems of education and learning environments.
705.103 국어문화교육론 3-3-0

Korean Language Culture Education

이 강좌는 국어여행에 나타나는 다양한 국어활동의 원리를 국어문화의 관점에서 탐색하고 그 국어교육적 의의를 포착하는 것을 목적으로 한다. 특히 고전요소를 통해 드러나는 전통적 국어문화의 풍물과 현대언어사로 나타나는 표현원리의 관점상에 주목하며, 이를 통해 구비문학, 기록문학 및 현대의 대중문화 텍스트를 아우르는 폭넓은 자료를 국어교육의 관점에서 다룬다.

The purpose of this class is to search for the principles of various Korean language activities in Korean language culture. Especially it focuses on the principles of the traditional Korean language culture through the traditional literature, and its relationship with modern linguistic material. To achieve that purpose, we deal with folklore, written literature and modern and popular texts.

705.104 매체언어교육론 3-3-0

Media Language Education

현대사회에서 중요한 소통기능을 담당하고 있는 매체는 그 언어적 속성으로 말미암아 국어교육의 중요한 대상이자 자료가 된다. 본 강좌는 신문, 방송, 영화, 인터넷 등 다양한 매체를 통해 나타나는 여러 가지 흥미로운 언어적 현상의 본질을 탐구하고 이를 바탕으로 현대사회에서 매체언어교육이 갖는 의미와 전망을 포괄해 본다.

With its linguistic attribute, Media is important contemporary communication method, and also is the major object and material of Korean language education. This course searches for the various interesting nature of language phenomenon through the media of newspaper, broadcasting, film, and internet.

705.151* 국어교육개론 3-3-0

Introduction to Korean Language Education

국어교육의 연구대상과 방법에 입각해서 학문적 체계를 지향하려고 한다. '언어사용 능력의 신장'이라는 국어교육의 목표를 달성하기 위하여 요구되는 체계적이고 연구방법, 국어교육의 실천 등에 필요한 기초적이고도 전반적인 개념과 방법들을 다룬다.

In this course, students will study academic systems in terms of the subject and method of Korean language education. To accomplish this goal, the improvement of linguistic competence, the course will deal with the general basic concepts and methods needed to carry out and study Korean language education.

705.153* 문학교육론 3-3-0

Principles of Literary Education

본 강좌는 문학교육의 개념, 성격, 방주 및 의의와 실제 교수학습, 평가, 감상 등 문학교육에 대한 기초적인 이해를 목적으로 하고 있다. 전통적, 현대의 문학작품과 현대의 교육이 만나는 대서 인식에 대한 이해가 가능한 것임을 전제로, 문학은 인문교육에 있어서 정치적 가치를 차지하게 된다. 특히 장자 문학 교육의 실천과 학습을 담당하게 될 사람들에게는 이 강좌는 문학교육의 본질과 의의를 다시 생각하게 하고, 그 기초적 지식과 능력을 향상하는 것을 목적으로 한다.

The purpose of this course lies in a basic understanding of the concepts, characteristics, categories, actual teaching and learning, evaluation, and appreciation of literary education. The basis of the course is that human understanding is possible when the educational impact of traditional literature and modern education converge. On that basis, literary education will have its due place in humanities education. Especially for future researchers of literary practice and study, this course aims at exploring the essential qualities and significance of literary education and cultivating their basic knowledge and competence.

705.209A 국어학교육론 3-3-0

Theories in Teaching Korean Linguistics

본 강좌는 국어학에서의 기본적인 개념을 익히고 그 교육방안을 모색하는 것을 목적으로 한다. 음운론, 형태론, 문장론 등의 기본적인 개념을 익히고 이를 실제 국어활동에 적용함으로써 국어교육에서 갖추어야 할 국어에 대한 기초적인 토론의 내용을 주로 한다.

This class focuses on the basic conceptions of Korean Linguistics and its educational uses. We study the basic conceptions of Phonology, Morphology, and the syntax of Writing, and apply them in Korean language use. We also cultivate students to acquire general foundation of Korean language teacher, to use correct Korean language, and to establish value system on the Korean language.

705.210A 한국문학교육론 3-3-0

Theories in Teaching Korean Literature

본 강좌는 한국문학에 대한 기본적인 개념과 원리 이해를 목적으로 한다. 국문학의 시대적·장르적 특성을 익혀서 이해하고 주요 작품을 중심으로 이를 적용함으로써, 문학에서 갖추어야 할 문학에 대한 기본적인 소양을 기르고자 한다.

This Class focuses on the basic conceptions and principles of Korean literature. Understanding of the characteristics of history and genre of Korean literature, and its application in important literary works will develop basic competences of literary teacher.

705.217A 한국언어규범론 3-3-0

Theories of Korean Orthography and Normative Rules

본 강좌는 다양한 범주와 층위의 국어 규범을 탐구하고 학습하는 것을 목표로 한다. 즉 음운층위, 어휘층위, 문장층위의 규범을 두루 탐구, 학습하여 국어교육에 목 필요한 언어 규범적 지식과 교육적 적용 능력을 기르는 것을 목표로 한다.

This course will explore various categories and levels of the rules of the Korean language. Students will study the levels in phonology, vocabulary, and sentence structure, and develop necessary knowledge of linguistic rules and competence in educational application.

705.218* 국어문법교육론 3-3-0

Theories of teaching Korean grammar

이 강좌는 국어 문법 전반에 대한 지식 체계를 습득하고 아울러 이를 학습자에게 체계적이고 전반적으로 요속하는 문법교육의 방안에 대해 탐구하는 것을 목적으로 한다. 국어문법의 체계, 학습과는 "학점수-주당 강의시간-주당 실습시간"을 표시함. 한 학기에는 15주로 구성된다. (The first number means "credits"; the second number means "lecture hours" per week; and the final number means "laboratory hours" per week. 15 week make one semester.)
Theories of Teaching Sino-Korean Literature

This course will cover the development of the Korean language and culture and the knowledge of Korean grammar. Students will study learning and teaching methods in accordance with learners’ developmental stages. Specific attention will be paid to the problem of motivating a positive interest and attitude toward the phenomena of the Korean language in teaching the Korean language in the classroom.

705.219A 한국한문교육론 3-3-0
Theories of Teaching Sino-Korean Literature

이 강좌는 한국문학의 중요한 부분을 차지하고 있는 한국한문학에 대한 이해를 높이기 위함 다양한 한국한문학 작품들을 살펴보고, 이에 대한 통시적 안목을 가르며, 이를 바탕으로 한국한문학 교육의 목표와 방법을 구단하는 과목이다.

Class participants will survey various Sino-Korean literature and enhances the understanding of Korean literature. In developing historical perspective of Sino-Korean literature, the educational values of it can be learned. and this class will explore historical perspective of Sino-Korean literature, the educational values of it can be learned. and this class will explore historical perspective of Sino-Korean literature.

705.220A* 국어사교육론 3-3-0
Theories of Korean History Education

국어사교육은 인간의 생활과 밀접히 이루어지며, 과거의 형태와 미래의 연계 속에서 통합적으로 탐색되어야 하는 대상이다. 즉 언어ipay 국어를 어떻게 사용하고 있었는가 하는 점을 중심으로 국어의 변천과정을 살펴야 하는 것이 본 강좌의 목표이다.

Korean language usage cannot be separated from everyday life in Korea and should therefore be synthetically explored in terms of its relationship with the past, present, and future. This course will focus on the historical change of the Korean language in terms of usage.

705.221* 한국고전문학사교육론 3-3-0
Theories of Teaching History of Korean Premodern Literature

이 강좌는 한국문학사를 개괄하여 우리 문학에 대한 이해를 높이는 것을 목적으로 한다. 근대 이전의 한국 문학에 대한 통시적 인 이해를 바탕으로 한국인의 창조적인 언어 표현 능력과 이해 능력의 역사적 전개 양상을 탐구하고, 문학과 인간 발달의 상호 관련과 언어를 매개로 한 한국문학의 문화·능력의 발달에 대해 통시적으로 이해하는 능력을 기르는다.

In this course, students will survey the history of Korean literature and enhance their understanding of Korean literature. They will analyze various literary works from the ancient to the middle age era and develop a historical perspective. Class participants will study not only the classic literature history but also the effective teaching methodology of premodern literature and its.
작품 강독이나 고시가 표현론을 바탕으로 하여, 여기에서는 그 교육적 적용과 방법을 탐구하게 될 것이다. 이는 그 동안 고시가 교육이 그 표현적 특징과 원리를 바탕으로 한 감상 중심의 교육이 되지 못하고, 이학적 분석과 자구해석 중심이라는 비판의 극복과도 밀접한 관련을 갖는다. 따라서 우리의 고전시가 교육이 올바른 방향을 잡아, 그 학문적 토대를 견고하게 하자는 데 이 강좌의 목적이 있다.

이 강좌에서는 고전산문의 일반적 특징과 각 작품의 특징을 원론적으로 검토한 후, 이를 어떻게 교육 현장에 적용시킬 것인가를 연구하고, 구체적인 작품을 통해서 유용성은 검토한다. 이를 통해 고전 산문의 본질에 가장 근접해 들어갈 수 있는 요소들을 분석할 수 있으며, 산문의 교수-학습, 평가, 감상 등의 내용과 방법을 원론적으로 심화 학습하는 기회를 갖게 한다.

In this course, students will review the principles and characteristics of classical Korean prose, apply them in the classroom, and investigate specific works. They will also explore factors that can be used to approach the substance of classical Korean prose and theoretically deepen their understanding of the contents and methods of prose teaching, learning, assessment, and appreciation.

한국어 교육과 (Dept. of Korean Language Education)

- 567 -
이 강좌는 구체적 국어교육론을 바탕으로 실제 국어교육 현장에 적용될 수 있는 개념, 원리들을 학습하고 교수학습방법론적 적용하는 것을 목적으로 한다.

이 강좌는 문학작품을 분석하고 감상하는 활동을 통해 문학에 대한 심도 깊은 이해를 도모하고, 국어교육에서 필요한 문학문제에 대해 학습하는 것을 목적으로 한다. 문학작품은 독자의 감상행동을 통해 완성되는 것이므로 문학의 소통과정에서 독자의 독시 행위는 매우 중요한 위치에 있다. 한편 국어교육에서의 독자는 일반 독자의 성격과 더불어 학습자로서의 독자가란 특수한 성격을 갖고 있기 때문에, 이 강좌에서는 국어교육의 현장에서 이루어지는 문학작품 소통의 특성을 고려하는 가운데, 문학 감상의 실제적인 활동이 이루어질 수 있도록 한다.

이 강좌는 개론 수준에서 학습했던 국어 음운론에 대한 지식을 확장하고 교육적 방안을 모색하는 것을 목적으로 한다. 조음, 음운 현상 등 음성학의 내용과 음운의 교육적 발생을 학습하며, 언어를 구체적 국어교육적으로 어떻게 활용할 것인지 논의한다.

이 강좌는 도구용어의 여러 양상을 다양한 현대 국어학의 여러 주제와 더불어 살아가는 것을 목적으로 한다. 특히 국어의 의미론과 음운론을 중심으로 의식소통과 국어생활에 대한 다채로운 탐구를 향해 볼 것이다. 이 강좌를 통해 언어 행위와 의미론에 대해 연구하고, 국어교육의 활동적 측면에 대한 소양을 배양하고자 한다.

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theatre for a alternative approach of Korean language education. Work for connecting drama education into language curriculum and textbook will be due.

705.423 국어교육세미나 1-2-0

Seminar of Korean Language Teaching

교직을 저망하는 학생들의 임용 시험 대비에 도움이 되는 특강이나 세미나를 제공하기 위한 과목이다. 이를 위해서 임용 시험의 중요 과목, 그리고 각 단계별 시험에 대한 대응력을 강화하기 위한 강의를 특강자를 초빙하여 진행한다. 주로 임용시험과 현장 적합성에 초점을 맞추어 강의를 진행한다.
영어회화 1  2-3-0

English Conversation 1

영어청취와 말하기의 기본적인 훈련을 통해 영어교육 전공자에게 필요한 필수 회화능력을 갖추도록 한다.

The course provides basic training in listening and speaking in English. This will equip the students with the essential linguistic proficiency that is necessary for majoring in English education.

영어용음성학 3-3-0

Applied English Phonetics

교사를 위한 영어용음성학으로서, 발성의 생리학과 소리의 물리학을 다루며, 영어 음소들의 조음성학적인 고찰과 함께 이들의 정확한 청취와 발음을 목적으로 한다.

This course is an introduction to the understanding of English phonetics. It emphasizes the articulatory and auditory training of English sounds as future teachers of English.

영어회화 2  2-3-0

English Conversation 2

일상회화와 간단한 토론의 훈련을 통해 중급정도의 영어구사능력을 갖추도록 한다.

This course trains students to be able to carry out intermediate-levels of everyday conversations and simple discussions.

영문학개론  3-3-0

Introduction to English Literature

영문학의 배경과 형성과정을 소개하고 영문학을 시대별, 장르별로 개관하면서 주요 작가와 작품들을 중심적으로 거론한다.

An introduction to the background of English literature, the students of this course will be given a chronological survey of the English literature genre with references to major authors.

영국문학과 영국문화의 이해 B  3-3-0

Understanding British Literature and Culture B

영국문학과 영국문화의 이해 B  3-3-0

This course provides an introduction to languages, with special emphasis on examining the structure of the English language. Throughout the course, students will become familiar with current, practical issues in the area of second language teaching and learning.

영어작문 2  2-3-0

English Composition 2

본 과목은 패러그래프 구성, 전개와 자유작문을 중심으로 하는 영작문이다.

The course deals with the organization and development of paragraphs in a free-composition.

집중영어 1  2-3-0

Intensive English 1

본 강좌는 예비교사가 지녀야 할 영어 능력을 함양시키는 것을 목적으로 한다. 이 강좌를 통해 학생들은 영어를 통해 영어로 가르칠 수 있는 기본 능력을 갖추게 된다.

This course aims at helping students enrich their English proficiency, a prerequisite for teaching English at secondary schools. It is designed to train students to improve English communication skills at a basic level, and equip students with the essential communicative competence that is necessary for teaching English through English.

집중영어 2  2-3-0

Intensive English 2

본 강좌는 예비교사가 지녀야 할 영어 능력을 함양시키는 것을 목적으로 한다. 이 강좌를 통해 학생들은 영어를 통해 영어로 가르칠 수 있는 통합적 능력을 갖추게 된다.

This course aims at helping students enrich their English proficiency, a prerequisite for teaching English at secondary schools. It is designed to train students to improve English communication skills at an intermediate level, and equip students with the comprehensive communicative competence that is necessary for teaching English through English.

영어교육론 3-3-0

Introduction to English Linguistics

본 과목은 언어의 일반적 특성, 영어의 구조, 분석방법 등에 관한 개론이다.

This course provides an introduction to languages, with special emphasis on examining the structure of the English
Teaching Vocabulary and Grammar

This course presents a variety of approaches to teaching vocabulary and grammar within different methodological frameworks, ranging from communicative language teaching to grammar instruction and translation. The course emphasizes flexibility and adaptability in understanding the role of vocabulary and grammar in teaching English as a foreign language. It offers hands-on opportunities to design and create instructional materials for teaching major English lexicogrammatical structures to secondary school students.

Historical Survey of the English Language for TEFL

A survey of the history of the English language specially designed for English educators, focusing on the phonological, morphological, syntactical, and sociolinguistic change of the language.

Understanding American Literature and Culture

This class will sharpen the students' critical appreciations for selected classics and British literature from the Old English period up to the 18th century British literature and culture, thereby providing a substantial background knowledge for the study of English education. The course also includes a survey of the relevant literary and cultural history of England.

Methods of Teaching English as a Foreign Language

This course is a general introduction to theoretical foundations, such as linguistic, psycholinguistic, and sociolinguistic, as well as main theories and techniques for teaching English as a foreign language. This course focuses on the latest teaching learning model according to the change of educational policy and investigates teaching methods in terms of the applicability to real-world.

Understanding British Literature and Culture A

This is an intensive training to develop and hone the student’s listening and speaking abilities in English. We will then, equip the students with an advanced linguistic proficiency that is necessary for prospective English teachers.
English Grammar

This course focuses on enhancing prospective teachers’ practical knowledge and skills in materials for English language teaching and preparing them for the teaching practicum in the weeks immediately following the course as well as professional teaching after graduation. The course deals with topics related to language teaching materials including the designing of syllabi, curriculum theories, and developing as well as adapting educational materials.

Practicum for English Teaching Methods and Technology

This course provides prospective English teachers with practical opportunities to apply principles of CALL to English teaching methods at secondary schools. The students will explore practical teaching technology, and learn the basic fundamentals of English teaching methods.

English Curriculum Practicum

This course provides opportunities for prospective English teachers to integrate principles of national English education curriculum with current secondary school English class curriculum and syllabus. Students will investigate and evaluate current classroom English curriculum and syllabus, which in turn will equip them with a critical perspective in English education curriculum.

Applied Linguistics

This course introduces the students to the English sound pattern. Various models ranging from those of structural phonology to recent generative phonology will be examined. The applicable aspects of the theories will also be examined.

Materials Evaluation and Development in Teaching English as a Foreign Language

This course is a seminar on selected topics of British and American cultural traditions. It will enhance qualifications of the prospective English teachers.
Practicum in English Teaching

The course focuses on developing the English proficiency of prospective teachers. The former narrow down to understanding classroom discourse pattern, the interaction generating among teacher-students and students-students. And the latter originates to improve the class management skill of prospective English teachers in Korea.

Logic and Writing in Teaching English as a Foreign Language

This course is designed to develop the abilities for prospective English teachers to teach English expository writing effectively.

Teaching English Four Skills

This course looks at teaching theories of English reading, writing, listening and speaking, and explores practical ways to use them. Students will also design and apply useful teaching materials for teaching secondary school English.

English Testing Practicum

This course provides prospective English teachers with practical opportunities to apply language-testing principles to English testing practices at secondary schools. The students will explore various English testing skills and methodologies, and learn the basic fundamentals of English testing practices. Throughout the course, students will have opportunities to evaluate real-world examples in terms of the assessment and understand the real-world context where language assessment takes place.

Readings in British and American Fiction

This course is designed to introduce students to British and American prose works, requiring students to read and discuss the selected prose texts with an emphasis on developing linguistic skills as well as understanding British and American cultural traditions.

Readings in British and American Prose

This course is designed to explore the traditions of British and American novels and also to promote students’ understanding of British and American culture by studying aspects of life and the cultural context reflected in the selected texts.

English Reading

This course is designed to develop students’ English reading skills. In the course, students will read a variety of texts including an overview of English literature, linguistics, and language education. Topics will cover: English language learning and teaching, teaching methodology in TESL (Teaching English as a Foreign Language), teaching materials in TEFL, applied linguistics, and contrastive analysis in relation to English education; an introduction to English linguistics and phonology in relation to English linguistics; and an introduction to British and American fiction, poetry, drama, and literary criticism in relation to British and American literature. Throughout the semester, students will be able to enhance their academic reading and interpreting skills.
Basic French Conversation 1

This course provides basic training in French communication to equip the students with the essential linguistic proficiency necessary for French education majors.

Basic French Conversation 2

This course helps students improve their knowledge of French grammar and overall communication skills.

Learner's French Grammar 1

This course helps students improve their knowledge of French grammar and overall communication skills.

Learner's French Grammar 2

This course helps students improve their knowledge of French grammar and overall communication skills.

French Conversation Practice 1

This course is for the improvement in listening part. The main goal of this subject is necessary for the advances of French education majors.

French Conversation Practice 2

This course is for the improvement in listening part. The main goal of this subject is necessary for the advances of French education majors.

Teaching French Pronunciation

This course is for the improvement in listening part. The establishment of this subject is necessary for the advances of the accurate pronunciation ability. The main goal of this course is to acquire the basic knowledge of French phonetics and maximize the speaking ability and the teaching skills of French speaking the practical exercise of the pronunciation.

Teaching French Listening

This course is for the improvement in listening part. The establishment of this subject is necessary for the advances of the accurate pronunciation ability. The main goal of this course is to acquire the basic knowledge of French phonetics and maximize the speaking ability and the teaching skills of French speaking the practical exercise of the pronunciation.
The main goal of this course is fostering the listening ability and the teaching listening skills of French.

**708.304A**  
**Principles of French**  
Survey of French Literature 1

This course is an introduction to French literature from the medieval age to the 17th century.

**708.305A**  
**Principles of French**  
Survey of French Literature 2

This course is an introduction to French literature from the 18th century to date.

**708.333A**  
**Theories of Teaching French as a Foreign Language 1**

Theories in Teaching French as a Foreign Language 1

This course is an introduction to the development of related studies, the communication system and technology. We will also compare and analyze what causes the changes of the teaching method based on the development of related studies, the communication system and technology. We will also compare and analyze what each didactics practice for 4 types of language education.

**708.334A**  
**Theories of Teaching French as a Foreign Language 2**

This course is an introduction to the development of related studies, the communication system and technology. We will also compare and analyze what each didactics practice for 4 types of language education.

**708.335**  
**Reading and Teaching French Literature 1**

This course is an introduction to the development of related studies, the communication system and technology. We will also compare and analyze what each didactics practice for 4 types of language education.

Students will practice how to read and analyze French literature. They will learn how to apply the knowledge they gained throughout the course.

**M1851.00700**  
**Principles of French**  
Reading and Teaching Francophone Literature

This course is an introduction to French literature from the medieval age to the 17th century. This course is an introduction to French literature from the medieval age to the 17th century.

In this course, we will study selected Francophone literature such as poems, novels, dramas and essays. Students will practice how to read and analyze Francophone literature. They will learn how to apply the knowledge they gained throughout the course.

**708.338A**  
**Logic and Writing in Teaching French as a Foreign Language**

This course is an introduction to the development of related studies, the communication system and technology. We will also compare and analyze what each didactics practice for 4 types of language education.

In this course, we will study selected Francophone literature such as poems, novels, dramas and essays. Students will practice how to read and analyze Francophone literature. They will learn how to apply the knowledge they gained throughout the course.

**708.341**  
**French Conversation Practice 3**

This course is an introduction to the development of related studies, the communication system and technology. We will also compare and analyze what each didactics practice for 4 types of language education.

In this course, we will study selected Francophone literature such as poems, novels, dramas and essays. Students will practice how to read and analyze Francophone literature. They will learn how to apply the knowledge they gained throughout the course.

**708.342**  
**French Conversation Practice 4**

This course is an introduction to the development of related studies, the communication system and technology. We will also compare and analyze what each didactics practice for 4 types of language education.
Teaching Writing in French 1

In this course, students will practice writing different types of texts instead of translating Korean to French. Writing simple memos, letters, statements and creative sentences will help the students express themselves better. From discussing simple memos, letters, statements and creative sentences will of texts instead of translating Korean to French. Writing.

Teaching Writing in French 2

This course is designed for students who have completed Teaching Writing in French 1. Students will practice writing the essays and summarizing various types of texts. The course will also involve writing for commerce and administration. From discussing how to write, students will obtain effective ways of teaching.

Analysis of French Textbooks and Teaching Methods

This course aims to compare the characteristics of the pedagogics in the theory of foreign language education and also learn about the trends of the theorets in Teaching French as a Foreign Language through the changes of curriculm and teaching materials. On the basis of theses theorets, students will look at various types of French textbooks and teaching materials to write their lesson plans. They will practice teaching using their lesson plans. And they can prepare for the practice teaching.
Practice in Basic German

The course provides students with opportunities to practice speaking German through various activities including group activities.

Practice in Intermediate German

Based on the proficiency through “Practice in Basic German”, students can practice diverse German expressions.

German Composition in Learning

The objective of this course is to improve the student’s German compositional skills. The student will examine not only the works but also their related criticisms.

German Literature for the Youth

The course attempts to define the “literature for the youth” by studying the characteristics of each trend. We will cover certain trends and periods of German literature, focusing on how they reflect the social and cultural context of that time.

Understanding of German Literature

The course studies representative German writers and their works by periods. This course will be helpful in understanding the German literature in general. In addition, through research, presentation and discussions, students will examine not only the works but also their related criticisms.
such as the Old and the Middle Ages, the Baroque, the Enlightenment, the Storm and Stress, Classicism, and Romanticism.

709.304B 독어학입문 3-3-0
Introduction to German Linguistics

본 교과목은 독어학의 기본 개념 및 정의에 관한 주제들 학생들이 선택하여 직접 조사, 발표하고 토론하는 수업을 통하여 우리나라 독어교육과 관련된 제반문제를 찾아내고 이에 대한 해결책을 모색해 그것을 글로 논증하는 데 그 목적이 있다.

709.317B 독어교육세미나-논리 및 논술 3-3-0
Seminar in German Education-Logic and Writing

본 교과목은 독어교육과 관련된 다양한 주제들을 학생들이 선정하여 직접 조사, 발표하고 토론하는 세미나식 수업을 통하여 독어학의 교육적 가치, 수업방법 등을 문학이론과 연계하여 탐색하는 강화이다. 특히 독일의 '행위적 생산중심 문학교수법'을 중심으로 강의가 이루어질 것이다.

709.321A 독여학습연습 3-3-0
Hearing Practice in German

본 교과목은 독어학습과 관련된 다양한 주제들을 학생들이 선택하여 직접 조사, 발표하고 토론하는 세미나식 수업을 통하여 우리나라 독어교육과 관련된 제반문제들을 찾아내고 이에 대한 해결책을 모색해 그것을 글로 논증하는 데 그 목적이 있다.

709.322A 독일드라마와 공연예술 3-3-0
German Drama and Performing Arts

독일드라마의 전반적인 흐름을 개괄하고, 대표적인 작품들을 분석함으로써 독일드라마 및 독일문학 전반에 관한 이해를 돕는다.

709.323 독일문학과 상호문화 3-3-0
German Literature and Intercultural Aspects

본 교과목은 문학 현상이나 작품의 내용을 한국과 독일의 문화적 차이를 통해 바라보는 상호문화 관점에서.

709.324A 독학교재연구 및 지도법 3-3-0
Materials Research and Didactics in Teaching German Language

본 강좌는 고등학교에서의 독어교육 과정을 한국과 독일의 교과서를 분석, 비교, 검토하여 한국, 고등학교 현장에서의 독어 수업에 적용될 수 있는 자료들을 발굴, 연구하는 데 주안점을 두고 있다.

709.324B 독일텍스트강독 3-3-0
German Text Reading

The course aims at improving the skill of reading in German. Students will read a variety of texts including literary and non-literary texts.

709.326A 독학토론연습 3-3-0
Practice in Discussion in German

The course aims at giving the chance to communicate together or discuss about some issues to the students. It demands them to have some proficiency, trained by <Practice in Basic German>, and <Practice in Intermediate German>.
This course deals with the intercultural perspectives which evaluate literary phenomena or contents based on cultural differences between Korea and Germany. Students will analyze various factors and educational values of the intercultural perspective in German literature. This will enable them to explore a new direction of Teaching German literature in Korean schools.

Intercultural communication is defined as interaction among people from different cultural backgrounds. This course reviews the principles and theories of intercultural communication and deals with various communicative issues between Korean and German. Students will seek for a way to apply the intercultural communication to learning and teaching German as a foreign language.
the backbone of the course and evaluation will be based primarily on three examinations and a final report.

700.213* Society and Law

Society and Law

This introductory course will help students to understand social norms including law. Students will study the concepts, effects, ideals, and general principles of law as well as the distinction between public and private law. They will also investigate various attitudes toward law and law consciousness in terms of citizens’ capacity to comply with law.

700.311 Culture and Society

Culture and Society

This is a revised version of the course Introduction to cultural Anthropology for students majoring in social studies education. The course will help students to teach anthropology at secondary schools. Emphasis will be placed on anthropological concepts such as culture, cultural diffusion, developmental process of culture, enculturation, and value conflicts in Korea and Korean traditional culture and their current meaning.

700.405 Civic Education

Civic Education

This course is a study of social studies education as civic education and citizenship education. The emphasis is on the relationship between social studies and citizenship education, the concept, problems, and future directions of citizenship education, and the attitudes and abilities needed for good citizens.
711.241A* 인권과 사회 3-3-0

Man and Society

사회과학은 정치학, 경제학, 사회학, 문화인류학 등의 사회과학적 내용을 바탕으로 하여 바람직한 시민의 자질을 형성하려고 하는 학교의 과목이다. 이 과목의 과제는 객관적이고 체계적이다. 이 과목은 사회과학에서 사회학 부문의 내용을 과목의 목표에 적합하도록 제시한 것으로서 그 주요한 내용은 인간사회성과 집단의 사회생활을 체계적으로 연구하는데 필요한 사회학적인 개념, 원리, 방법이 주로 된다. 인간의 본질, 사회화, 사회집단, 사회계층, 사회변동 등을 사회과학의 목표와 관련시켜 학습한다.

This course is a revised version of Introduction to Sociology for social studies education. It helps students prepare to teach the sociological part of secondary school social studies. Sociological concepts such as socialization, social group, role, norms, social class, social change and social structure will be covered.

711.261 사회와 철학 3-3-0

Society and Philosophy

이 과목은 미래의 사회과 교사들에게 철학의 기본 지식을 제공하고 철학적 사고를 훈련시키기 위한 것이다. 철학의 기본 개념들을 역사적으로 그리고 체계적으로 다루고 본다. 정치, 도덕, 법률, 권리, 의무, 국가, 자유, 정의, 형벌 같은 개념들과 역사주의, 상존주의, 사회주의, 자본주의 등의 사상들을 비판적으로 분석하고 평가한다.

This course is to provide future teachers of social studies with basic philosophical knowledge and a philosophical way of thinking. It treats fundamental concepts of philosophy both historically and systematically. Basic concepts such as politics, morality, law, rights, duties, state, freedom, justice, and punishment are critically reviewed, while currents such as historicism, positivism, socialism, capitalism, etc. are analyzed and critically evaluated.

711.272 사회교육과 경제사상 2-2-0

Civic Education & Economic Thoughts

원시시대부터 현재에 이르기까지의 경제제도, 경제생활의 변천과를 생산과 경제구조의 상호관계로 중심으로 연구하여 주로 산업사회의 성립배경과 발전과정이 중심 주제가 될 것이다. 이와 관련하여 자연히 서양경제사의 개설이 이루어질 것이며 인접 교양과정에서 통계학의 수강을 적극 권장한다.

The purpose of this course is to provide some perspectives for civic educators on issues of economic policy. In the first half, this course is to examine the historical origins of several contemporary economic thoughts. The course contains classic and contemporary readings from six alternative perspectives; Mercantilism, Classicism, Neo-Classicism, Marxism, Keynesianism, and Institutionlalism. In the second half of the course, students will take up the question of how economic thoughts from the six different perspectives can help in making policy decisions in the current economy, which is related with the contents of civic education.
This course explores a critical assessment of the relationship between economic theory and ethics. The main purpose of economic science is to analyze and 'explain' the economic process, but not necessarily to pass economic judgement as to whether this process is good or not. However, in practice, it is very difficult for us to make an economic decision without touching ethical problems, even though few people deny some connections between ethics and economic decision making.

The main purpose of this course is to help students prepare the curriculum and expose them to teaching methods in social studies in secondary schools. The emphasis is on curriculum construction, and the course will include the characteristics of youth, the nature and types of youth problem and law related education. Important topics will include the characteristics of youth, the nature and types of youth problems, theory of juvenile delinquency, theory and teaching methods of law related education.
과목이다. 본 강좌에서 다룰 주제들로는 법무교육영역의 교육과정 이해, 법사회화, 법률방법론, 법률평론 등이다. 본 강좌를 통하여 학생들은 각 주제별 문헌 또는 논문을 읽고 발표와 토론 그리고 보고서를 작성하면서 세미나를 진행할 것이다.

Explores basic theories and important aspects of law-related education in social studies, and other related topics of civic education. Important topics will include the history and basic theories of law-related education in social studies; legal socialization theories; strategies and assessment of law-related education. Students will be encouraged to read related texts and dissertations, to make and present their own paper.

711.384* 경제교육연습 3-2-2
Seminar in Economic Education

이미 학습한 사회와 경제, 국제경제학, 경제사 등의 기초 외에 경제교육의 방법을 습득함과 동시에 중·고등학교의 과목과정에 의거하여 경제학습 내용을 재구성함으로써 사회과 교사로서의

Enrollment is limited to 35.

to reflect on several aspects of economic education.

curriculum teaching model and using studies of actual class-

turns of international economics. Through different perspectives of the

equilibrium, GNP, investment, economic development, and in-

711.385 시민경제교육과 시장경제 3-3-0
Economic Education for Citizens & Market Economy

성인시민들 교육과 관련하여 교육할 때 관련되는 문제들을 살펴본다. 수업에서 다루는 주요주제는 성인집단의 분류, 시민성 배향을 위한 경제주제, 교수방법, 경제개념을 위해 사회동종을 할 때 고려해야 할 교육적인 측면, 교육결과 평가 등이다. 수업방법은 소그룹별로 조사, 발표하는 방식을 취한다.

This research seminar will examine selected economic education issues in adult civic education. Topics will include classification of adult groups, economic themes for citizenship, teaching models, social movement for economic reform in educational aspects, and testing. The seminar will also focus on how educators have worked in cultivating economic citizen in the past. Working in small teams, students will complete either reviews on the literature or pilot case studies on their topics.

711.417 정치교육과 게임이론 3-3-0
Political Education and Game Theory

본 강좌의 목적은 개인과 집단의 의사결정에 관한 기초 이론들

Political education and transformative civic learning which is interlinked with everyday life experience can be expanded and developed and what challenges may ensue in diverse social arenas will be discussed. This course covers contemporary education scholars such as John Dewey, Jane Adams, and Paulo Freire, and the ideas of these scholars. The focus will be on how they can be applied to the diverse Korean education contexts.
711.479* 사회과학방법론 3-3-0
Methodology of Social Science

이 과목의 목적은 학생들로 하여금 여러 가지 사회과학 방법론과 그 의미를 인식하게 하여 사회과학 연구를 올바르게 수행하는 데 도움이 될 수 있게 하는 것이다. 논의의 주 내용은 사회과학 방법론의 특성, 사회과학 자식의 인식론적 기초, 그들의 철학적 배경, 사회과학 연구의 기법, 그들의 장·단점 등이다. 이들 방법론들이 실제로 어떻게 작용하고 있는지를 알기 위하여 최근 저작들 을 고찰하며, 특히 다양한 사회과학 방법론을 개발하기 위 한 시도도 이루어진다. 사회과학 교육에서는 가치중립적인 사회과학 연구와 함께 가치문제도 결고 무시할 수 없다는 사실도 무시하지 않는다.

This course aims at equipping students with a thorough understanding of different methodologies of social sciences and their implications so that they can properly carry out research in the field. Discussions are concerned with the characteristics of methodology in social sciences, epistemological foundations of social scientific knowledges, their philosophical backgrounds, and various techniques in social science researches. Recent publications in the field are examined in order to see how these methodologies are practically applied, and attempts are made to develop more appropriate methods of social studies education. The course attempts not to lose sight of the fact that in social studies education, value-neutral social scientific researches.

711.482 시민교육과 민주주의 3-3-0
Civic Education and Democracy

모든 민주주의 이론들은 자유, 평등, 다수결, 규칙 등의 사회적 가치들로 문자적 수준에서 공유한다. 그러나 이러한 가치들이 실제로 의미하는 바는 서로 상이하다. 가령 자유주의자에게는 매우 중요한 권리가 사회주의자에게는 전혀 그렇지 않을 수도 있다. 이러한 맥락에서 이 강좌에서는 미래의 사회과학 교사들에게 다양한 형태의 민주주의를 이해할 수 있도록 해주는 철학적 관점을 제공하며, 이를 위해 자유주의의, 자유지상주의의, 사회주의의, 공동체주의의, 공화주의의 등과 관련된 고전적, 현대적 저작물을 학습할 것이다. 아울러 이를 통해 사회과학과 수강생들이 민주주의 이론들의 의미와 정당성을 검토해 볼 수 있을 것으로 기대된다.

On the literal level, all theories of democracy share social values: liberty, equality, the rule of majority, and other rights. However, each of them has different actual meanings. While a certain right would be very important to a liberal, the same right would not be so to a socialist. Therefore, the purpose of this course is to provide future teachers of social studies with some philosophical perspectives, which make them understand various versions of democracy. The course contains classic and contemporary readings from at least five perspectives: liberalism, libertarianism, socialism, republicanism, communitarianism. This course can help social studies students understand the meanings and legitimacy of democratic theories.

711.481 사회과 교실수업연구 3-2-2
Classroom Research in Social Studies

정형화된 공간으로서의 사회과 교실은 특수성과 역동성을 가진다. 따라서 사회과 교실수업에서 일어나는 여러 가지 상호작용들을 이해하기 위한 수단으로 이 강좌에서는 학생과의 인터뷰, 관찰 등의 절차수업연구방법론을 소개한다. 이 과정은 사회과 수업에 대한 질적 연구 이론 학습과 이를 적용해 보는 실습 과정으로 구성되며, 이는 사회과 교실수업을 이해하는 기회를 제공할 것이다. 또한 이 수업은 예비교사들이 `연구자로서의 교사'로 성장할 수 있도록 도와줄 것이다.

Social studies classroom as an institutional space has the particularity and the unique characters in understanding the activities of students and teacher inside. Therefore, this course introduces qualitative research method, such as interviews and observation, which can understand the various interactions taking place in the social studies classroom. The process of this course puts together the making-out of some qualitative research theories and the practicum too. It will provide the opportunities which can understand social studies lesson and help pre-teachers to grow as `teacher as a researcher' as well.

M1855.000500 사회과 논리 및 논술 2-2-0
Logic and Essay Writing in Social Studies

이 강좌에서는 학생의 논리적인 사고 능력을 배양하기 위한 방법으로 논술을 사회과 교육에서 어떻게 지도할 것인가에 대해 살펴본다. 특히 특정한 사회 현상에 대한 자신의 생각을 나열하는 수준을 넘어 주장할 수 있는 훌륭한 사고력을 가질 하려는 것이므로 다양한 고차적 사고력을 학습하기 위한 논술 교육의 역할과 방법에 대해 탐구한다.

This course focuses on teaching essay writing as a tool in improving students’ skill in logical thinking. Especially, it is designed to investigate the role and methods of essay writing to promote higher-order thinking skills in taking one’s stand regarding many controversial issues.
This course comprehensively investigates the power structures and political institutions of ancient Korean society.

172.212 한국사적해계 3-3-0

Introduction to Korean Historiography

This course investigates the contents, forms, and values of various historical documents from ancient to modern Korean history. It also examines Korean historiographical trends as they are related to social organizations and transformations.

172.213 한국정치제도사 3-3-0

History of Political Institutions in Korea

This course investigates the change and transformation of Korean political institutions from ancient to modern Korean history. It also compares and contrasts the characteristics of Korean political power structures from comparative perspectives.

172.215 한국근대사 3-3-0

Modern History of Korea

This course examines the politics, economy, society, and ideology of Korea from the late Joseon Dynasty to the late Great Han Empire, especially focusing on various reform movements as well as social and national problems. It also includes issues concerning the dissolution of the medieval system and the establishment of modern society in Korea.

M1858.000100 동아시아중세사 3-3-0

Medieval History of East Asia

This course aims to understand how traditions formed in the ancient times of East Asia, including China, Japan, and Vietnam, and are being formed into a medieval order. These countries will be mainly divided into the literary noblemen (MoonInSaDaeBu) society and the samurai society. And we will look at how these societies differ from the medieval order in West Asia or Europe. Based on this, we explore desirable contents of East Asian medieval education.
This course focuses on specific nation or culture.

The object of this course extends over various cultural areas of the Asian continent, such as Confucian, Hindu, Islamic, Buddhist and other cultural regions. The lecture may focus on a specific nation or culture.

This course outlines the cultural and sociopolitical development of the West from the 5th to the 14th centuries. Dissolution of Medieval society, and Christianity are lectured in detail.

This course overviews European history from the 14th/15th to the 19th century. Dissolution of Medieval society, the Renaissance, Reformation, the Age of Discovery, the Scientific Revolution, the Age of Absolutism, Liberal Revolution, Nationalism, Industrial Revolution, and Western Imperialism are covered.

This course is a core course in the field of history education. It deals with the issues and problems in teaching history at a secondary level. The historiographical background and educational basis of history teaching will be the main topics of the course.

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20세기 현대사 3-3-0

Contemporary History of the 20th

1870년대부터 오늘날에 이르는 동·서양사를 개관한다. 그 주요내용은 제1차 세계대전, 마르크스주의, 러시아 혁명, 세계공황, 전체주의, 제2차 세계대전, 냉전, 전후의 세계 등이다.

이 과정에에서는 우선 세계사란 무엇인가에서 출발하여, 직접 혹은간접한 교과서 현장교육에서 필요한 교재로는 무엇이 있고 또 어떻게 다루며, 그 효과가 무엇인가를 알아보고 효과적인 지도 방법을 생각해 보는 것이 주 과제가 된다. 구체적으로 학교현장의 교과서 등을 통해 학교교육의 특성과 문제를 토대로 해서 국사의 연구 및 이해에 불가결한 특정 주제를 여러 사료를 통해 검토함으로써 이 시기의 사회문제 및 역사적 원인을 과학적으로 이해하게 하며 국사의 특수성과 보편성을 총체적으로 이해하게 한다.

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### Topics in Korean History

국사에 대한 체계적 이해를 심화시키기 위하여, 특정 주제를 선정·검토하고 이에 관한 기강의 연구 성과도 분석하여 국사연구 및 역사교육의 새로운 시각과 방법을 제득한다.

This course concentrates on selected topics in Korean history and reviews important research materials, for a systematic understanding of Korean history and a better preparation for its teaching.

### Contemporary History of East Asia

중국·일본·베트남을 포함하는 동아시아의 현대사를 근대사의 연장선에서 산업화와 국민국가 형성의 과제가 제국주의와 냉전적 진영대립에 의해 굴절되는 과정에 초점을 두어 이해한다. 이 과정에서 나타난 정치적 민주주의와 경제적 민주주의를 제도화하기 위한 다양한 노력들에 유의한다. 이를 바탕으로 동아시아현대사 교육의 바람직한 내용을 탐색한다.

This course is an overview of Asian history covering the beginning of the 20th century to the present. The study is focused on historical development in terms of Imperialism vs. Nationalism, and the problems of newly born nations.

### Topics in East Asian History

동아시아특강은 시대사 강좌를 보완하기 위해 학생이나 담당교수의 입장에서 적절하다고 생각하는 특정 주제를 선정하여 심화학습을 진행한다. 따라서 분야에, 예컨대 사상사, 정치사, 사회경제사 등의 한 주제를 택하는 경우가 많으며 이를 위해 필요에 따라 선수과목을 요구할 수도 있다.

Topic varies in its field and nature according to the necessity of the time and interest of students or faculty. The purpose of the course tends to be a specific field or issue in East Asian history rather than a general overview on a certain given period and nations.
713.211* Geography 3-3-0

Geomorphology

Geology is the study of the Earth's surface and the processes that shape it. It deals with the formation of landforms, the movement of water and ice, and the evolution of landscapes over time. Geomorphology is concerned with understanding how the Earth's surface is shaped by natural processes such as weathering, erosion, and deposition. It involves the study of landforms, their origin, and the processes that have shaped them. This course is designed for the understanding of basic elements of geomorphology. Topics such as agents (rivers, glaciers, waves, and wind), processes (erosion, transportation and deposition) and landforms will be covered. The course aims especially at the development of scientific skills.

713.214* Climatology 3-3-0

Climatology

Climatology is the study of climate, which is the average state of the atmosphere over a long period of time. It involves the study of weather patterns, temperature, precipitation, and other atmospheric phenomena. This course is designed for the understanding of the basic elements of climatology which are related to human life. Topics such as climatic elements, climatic factors, and climatic characteristics will be discussed. This course deals with overall contents of geography education including historical background, objectives, and analysis of the secondary school curricula. Also this course deals with overall contents of geography education including historical background, objectives, and analysis of the secondary school curricula. Also this course deals with major theories, methodologies, practical issues of field in geography education.

713.226A Population Geography 3-3-0

Population Geography

Population geography is the study of the distribution, structure, growth, change, and movement of population. Students will have a chance to study what kind of impact these demographic elements have on the region of Korea.
This course is designed for acquiring practical experiences of teaching for geography education including characteristics of geography education, textbook analysis of secondary school, lesson planning, teaching methods. Also this course focused on improving the teaching abilities implementing geography education efficiently.

### 713.315 문화역사지리학 3-3-0

**Cultural and Historical Geography**

Cultural and Historical Geography covers the cultural and historical factors that impact on human space. Students will conduct research on how cultural ideas impact on geographic inquiry. Topics will cover spatial diversities, religions, languages, traditions, ethnicity, and ideologies.

### 713.323 환경지리교육론 3-3-0

**Environmental Education in Geography**

Environmental Education in Geography is designed for acquiring practical experiences of teaching geography education including characteristics of geography education, textbook analysis of secondary school, lesson planning, teaching methods. Also this course focused on improving the teaching abilities implementing geography education efficiently.

### 713.324A 관광지리 3-3-0

**Geography of Tourism**

This course focuses on fundamental rules, theories of logical thinking, and education for essay writing for geography education. In this course, students will learn how to analyze current issues of society and main topics of geography systematically and scientifically using geographic methodology and to cultivate the result logically.


713.421 Regional Studies of Asia

Regional Studies of Asia

This course will examine Asia, with its diverse environment and long history. Students will come to understand the rapid development, changing process, and the physical and cultural environment of Asia.

713.422 Field Research in Physical Geography

Field Research in Physical Geography

In this course, students will practice basic skills in geography to analyze resources. They will have a chance to do field work, conduct laboratory experiments, and draw maps that reflect the results of their research, thus developing strategies to provoke geographical questions and to improve the efficiency of teaching and learning. Main purposes are to develop the strategies to provoke geographical questions and to learn practical skills through critical review.

713.423 Field Research in Human Geography

Field Research in Human Geography

In this course, students will acquire quantitative skills in physical geography to analyze resources. They will have a chance to do field work, conduct laboratory experiments, and draw maps that reflect the results of their research, thus practicing basic skills in physical geography.

713.426 Regional Geography of Africa-Oceania

Regional Geography of Africa-Oceania

This course will introduce the geographical features of Africa and Oceania. Students will come to understand the concept of the different ways of life in these two continents.

713.427 Regional Studies of America

Regional Studies of America

This course will introduce the geographical features of North America and South America. Students will come to understand the concept of the different ways of life in these two continents.
The purpose of the course is to help students to understand natures, formation processes and distribution patterns of soil and natural vegetation. The course deals with the interaction among soil, natural vegetation, climate and topography.

713.438 Geospatial Technology-Based Participatory Geography Education

GIS(Geographic Information Systems), GPS(Global Positioning System), Google Earth 등을 포함하는 지리정보기술은 위치정보 제공에서부터 공간분석, 공간적 사고력을 향상시키기 위한 교육적 사용 등 다양한 영역에서 이용되고 있다. 이 기술의 목적은 실세계의 문제들을 지리적 안목을 통해 살피고 지리정보기술을 사용해 해결하는 능력을 함양하는 것이라. 학생들은 지역사회에서 리서치를 수행하면서 지리정보기술이 현실 세계에 어떻게 적용되는지를 알고 이 과정을 통해 공간적 사고력을 향상시킬 수 있다.

Geospatial Technologies including GIS(Geographic Information Systems), GPS(Global Positioning System), and Google Earth have been used widely in a variety of areas ranging from providing locational information, to performing spatial analysis, and to enhancing students' spatial thinking as an educational tool. The purpose of this course is to examine real-world issues from the geographic perspective and to develop students' ability for solving problems. Students are expected to understand how geospatial technologies are applied to the real-world contexts in the course of conducting research in local communities and develop their spatial thinking skills.
cation to bring up and train academic experts and teachers to play a pivotal role in sustainable development.

Sustainable development refers to new approaches in governance which need sophisticated ways of students as young citizen’s involvement. Such instruments like 'scenario technique' or 'Delphi technique' or ‘future workshop’ will be taught as a research based and inter-disciplinary oriented form of teaching and learning in geography education. Thus the learning process itself is understood as a process of sustainable development. This challenges and improves the understanding of school, university and adult education for lifelong learning.

The Geography of Education

This course is concerned with various aspects of the interplay between education and geography. It examines the spatiality of education by means of geographical concepts and theories. The main themes include the spatial equity of educational provision, the relationships between socio-economic segregation and spatial disparities in educational performance, and the spatiality of school choice. Most of the approaches and sub-fields in human geography are involved and various types of spatial analytical techniques are utilized. Writing and presenting a short essay constitutes a core part in this course.
학점구조는 "학점수-주당 강의시간-주당 실습시간"을 표시함. 한 학기는 15주로 구성됨. (The first number means "credits"; the second number means "lecture hours per week"; and the final number means "laboratory hours per week. 15 week make one semester.)

Kant insisted on the preference of the practical reason to the theoretical reason, ethics is an important study that deals with our primary concerns such as 'What should we do?', 'How should we live?', 'What is really valuable?', 'What is the meaning of life?', 'What makes life livable?'. This lecture deals with important theories and disputed points of modern ethics.
714.213 한국사상개론 3-3-0

Introduction to Korean Thoughts

The aim of this course is to promote understanding of Korean traditional thoughts that have founded Korean modern society and culture and to guide logical thinking about a balanced Korean thought, eventually to re-illuminate the original main stream of Korean thoughts to recreate the significance and principles of traditional thoughts in the modern society and to understand and re-establish the characteristics and significance and principles of Korean thoughts.

The contents and the scope of this course will be to make a general survey of traditional thoughts through analysis of the original main stream of Korean thoughts to recreate the significance and principles of traditional thoughts in the modern society and to understand re-illuminate the original main stream of Korean thoughts.

714.216A 시민과 덕목 2-2-0

Citizenship and Virtues

Citizenship refers not only to a legal status, but also to a normative ideal - the governed should be full and equal participants in the political process. As such, it is a distinctively democratic ideal. One important topic in citizenship theory concerns the need for citizens to cultivate virtues. This class will focus on how we learn to be virtuous citizens. It will cover due attention to the possibility that we learn civic virtues to the point of citizenship.

714.217A* 도덕윤리과교복론 3-3-0

Theories of Moral and Ethical Education

This course is intended to help students learn the theories of moral & ethical education which will be required to know as teachers of ‘Moral Education’ in high school selective curriculum. The establishment of firm identification as a student majoring in national ethics education is also required through this course work. Especially, in this course crucial tasks in the area of secondary moral education will be discussed.
본 과목의 목적은 제한 한국윤리사상의 근간을 이루고 있는 유, 불, 도 등 심교와 전래 무속향상속의 윤리상상에 대한 일반적인 이해를 바탕으로 각 사상들이 수행되어 나라의 사적 배경과 의미를 살피는 원천, 각 사상들 간의 상호감을 고찰하고 한, 중, 일 동안에서 이 각 국가와 사상들이 간의 특성을 비교, 분석하여 한국윤리상상의 의미와 가치를 재조명하여 나아가 정체성확립 동 안대적 윤리의식 속에서 한국윤리상상의 세세히 재인식하는데 있다. 이를 위하여 본 과목은 사마니즘과 인도신화 등에 대한 이해 와 유, 불, 도 심교 등의 사상에 대한 비교, 분석 등을 통하여 한국 윤리상상의 의미를 재조명하는 것을 그 내용과 범위로 한다.

The aim of this course is to observe the significance and background of the times when Confucianism, Buddhism, Taoism and traditional Shamanism have been accepted as the root of Korean Ethics thoughts with the general understanding of those thoughts. By examining the differences of each thought and comparing and analyzing the characteristics of the thoughts of Korea, China and Japan, students are able to re-illuminate the value and significance of Korean Ethics thoughts and thus to recognize them in a new light in a modern ethical thinking. The contents and scope of this course will be to understand shamanism and country foundation myth and to re-illuminate the significance of Korean ethical thought by comparing and analyzing the thoughts of Confucianism, Buddhism and Taoism.

본 과목에서는 국가권위의 성격과 국가의 권위가 어떠한 것이 있는지에 대한 선행적 논의와 가정 윤리, 직업윤리, 경제 윤리, 여성주의 윤리, 후반부에는 주로 윤리의 여러 영역, 즉 성 윤리, 생명 윤리, 환경 윤리, 정보 윤리 등을 다룬다.

Ethical issues should be examined in the social perspective as well as in the individual perspective. The ethics which deals with ethical issues in the social level is called ‘social ethics’.

In the sight of the fundamental order and social norm, this lecture debate with the problems of social ethics, i.d.: the problems of family ethics, professional ethics, economical ethics, feminist ethics, and applied ethics like the ethics of sexuality, biomedical ethics, environment ethics, information ethics etc.

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In the sight of the fundamental order and social norm, this lecture debate with the problems of social ethics, i.d.: the problems of family ethics, professional ethics, economical ethics, feminist ethics, and applied ethics like the ethics of sexuality, biomedical ethics, environment ethics, information ethics etc.
This class investigates the nature of authority and the character and function of the state. Various popular and influential theories-conventionalism, contractarianism, and communitarianism- will be assessed in a critical way. While it is difficult to accept the argument that there is a general obligation to obey the law, we will nonetheless reject philosophical anarchism and defend political obedience as a political virtue.

### 714.325 서양윤리사상사 3-3-0

**History of Western Ethical Thoughts**

본 강좌는 서양윤리사상의 주요 흐름 및 사상적 특징들을 개관함으로써 서양윤리사상 일반에 관한 이해를 증진시키는 것을 목적으로 한다. 본 강좌는 서양윤리사상사를 고대, 중세, 근대, 현대로 구분하여 서양윤리사상의 형성과 변화과정을 제계적으로 탐구한다. 즉, 본 강좌는 서양 윤리학에 대한 이해를 바탕으로 서양 고중세윤리학과 서양 근대윤리학의 역사적 쌓이상을 주제적으로 각 시대별 서양윤리사상의 목적, 형식과 구조 등을 비교 논의한다.

This course aims to improve students’ knowledge about Western ethical thoughts by putting an emphasis on main streams and characteristics of Western ethical thoughts.

In order to do this, this course will examine how they have been formed and how they have changed from the ancient to the present. This course is for students who have taken "Introduction to Modern Ethics".

### 714.330 통일교육론 3-3-0

**Theories of Education National Unification**

본 과목은 이념적 대결 상태에서 생겨나 있는 현 여건에서 남북통일에 대비하고, 통일을 촉진하기 위한 넓은 안목과 미래지향적인 의식의 형성을 강조한다. 즉 우리가 통일을 달성하는 데 반드시 실현해야 할 전제조건과 함께, 통일 이후에 우리가 이룩해야 할 통일국가의 미래성 및 통일 이후 국외사회에서 한국의 위상과 바람직한 한국인상까지 제시하고자 한다. 이를 통해 평화로 인식하고 통일 과정에 동등적으로 대처할 수 있는 태도와 의식을 갖출 수 있도록 도움을 제공한다.

This course is intended to help student have an insight in the unification and form future-oriented mind, under the circumstance of ideological conflicts in Korean peninsula. In other words, in addition to prerequisites for the unification, future features of a unified nation, and desirable images of Koreans after the unification will be discussed. These experiences will be helpful for future teachers who will deal with the problems of the unification of North and South.

### 714.333 도덕성발달론 3-3-0

**Theories of Moral Development**

본 강좌에서는 인지, 정서, 행동에 대한 개별적인 접근으로부터 비교적 최근의 통합적 접근 및 신경과학적 접근 등을 포함하여 도덕성 발달영역의 대표적인 이론을 고찰하고, 도덕성이 아동기, 청소년기, 성인기를 통해 어떻게 발달하는지에 대해 살펴보고자 한다. 본 강좌에서 다루어질 핵심 주제로는 문화, 정서, 공감, 영양, 사회화, 분쟁, 이타주의, 공격성, 성, 생물학, 상호성, 청소년 발달 등이 포함된다.

This course is intended to examine in terms of cognition, emotions, behavior, neuroscience, and understand how morality develops through childhood, adolescence, and adulthood. This course includes a diverse topics, covering the areas of culture, emotions, empathy, conscience, socialization, nature, altruism, aggression, gender, biology, reciprocity, and youth development.
본 강좌는 동일과 관련된 다양한 문제들에 대해 다룬다. 학습에 대한 이해를 바탕으로 다문화와 세계화 시대에 요구되는 요구에 대한 깊은 논의하고, 동일의 방법, 과정, 형태 등에 관한 논의를 정치, 경제, 사회, 문화적 측면에서 학계적으로 살펴본다.

이 코스는 다문화와 국제화 사회에서 발생하는 문제들을 윤리적 측면에서 관리하고자 한다. 특히, 다양한 일반적인 문제들에 대한 학생들이 이해하고, 이를 바탕으로 다문화와 국제화 사회에서 발생하는 문제들을 윤리적 측면에서 살펴본다.

This course deals with a variety of ethical issues coming from the multicultural and global society. Although the advance of science and technology results in intercultural and international relations in positive ways, it also engenders complicated socio-ethical problems. For this reason there needs to be ethical and normative approaches to tensions and conflicts among people, cultures and countries. In this course students will examine multicultural and global issues by utilizing the concept of social justice.
This course aims at promoting students’ academic intelligence through general understanding and improvement in recognition on Oriental Classics. By observing the way the thoughts and concepts in Oriental Classics have been understood and analyzed historically, students are trying to find out new solutions and theories on problems related with modern society.

Reading materials will be Confucius Four great books and three other books, Buddhist reading books, The book of Lao Zi, and other books of Chuangtzu, etc.

714.427A 도덕 및 윤리교육과 재론 3-3-0

Teaching Materials on Moral and Ethics Education

This course is intended to help students develop and use teaching materials for achieving instructional objectives in secondary moral education. For the purpose, this course provides opportunities to learn and establish the rationale and strategies for the development of teaching materials which will be used for the instruction of moral and ethical education in the secondary schools. The practical abilities for the application of those materials is also required to be developed through the course work.
who deserve them.

Within the sphere of distributive justice, there is disagreement about the content of just principles. The proponents of the merit principle claim that what is due to each person is what he deserves. Theorists of the distributive justice propose that the rules of justice can be derived from the merit principle, and that each person is entitled to what he deserves. Theorists of the needs principle believe that What we need is supreme guide to just distribution, and that it is not reasonable to divide something according to what we need. Theorists of the merit principle claim that what is due to each person is what he deserves, and that it is not reasonable to divide something according to what we need.

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Reading materials will be Confucius Four great books and three other books, Buddhist reading books, The book of Lao Zi, and other books of Chuangtzu, etc.

M1865.001000* 윤리학개론  3-3-0

Introduction to Ethics

Ethics is an important branch of philosophy with epistemology and metaphysics, and also a base of the moral education. As Kant insisted on the preference of the practical reason to the theoretical reason, ethics is an important study that deals with our primary concerns such as 'What should we do?', 'How should we live?', 'What is really valuable?', 'What is the meaning of life?', 'What makes life livable?', 'What is the purpose of life?', 'What is the meaning of life?', 'What makes life livable?' This course deals with important theories and disputed points of modern ethics.

M1865.001100* 서양윤리사상  3-3-0

Western Ethical Thoughts

This course aims to improve students’ knowledge about Western ethical thoughts by putting an emphasis on main streams and characteristics of Western ethical thoughts.

In order to do this, this course will examine how they have been formed and how they have changed from the ancient to the present. This course is for students who have taken "Introduction to Modern Ethics."

M1865.001200* 윤리과전강독  3-3-0

Readings in Oriental Classics

This course is intended to help students learn the theories of moral & ethical education which will be required to know as teachers of 'Moral Education' in the middle school and as teachers of 'Ethics Education' in high school selective curriculum. The establishment of firm identification as a student majoring in national ethics education is also required through this course work. Especially, in this course crucial tasks in the area of secondary moral education will be discussed.

M1865.001300* 도덕・윤리교육론  3-3-0

Theories of Moral & Ethics Education

This course is intended to examine in terms of cognition, emotions, behavior, neuroscience, and understand how morality develops through childhood, adolescence, and adulthood. This course includes a diverse topics, covering the areas of culture, emotions, empathy, conscience, socialization, nature, altruism, aggression, gender, biology, reciprocity, and youth development.

M1865.001400* 도덕심리학  3-3-0

Moral Psychology

This course is intended to examine in terms of cognition, emotions, behavior, neuroscience, and understand how morality develops through childhood, adolescence, and adulthood. This course includes a diverse topics, covering the areas of culture, emotions, empathy, conscience, socialization, nature, altruism, aggression, gender, biology, reciprocity, and youth development.

M1865.002100* 도덕・윤리 교재연구 및 지도법  3-3-0

Teaching Materials and Methods in Moral & Ethics Education
This course is intended to help pre-service teachers’ key competencies for developing and implementing effective teaching materials and the teaching & evaluation methods that will be used when they become moral and ethical education teachers in the secondary school. For these purposes, pre-service teachers will have meaningful opportunities to analyze secondary moral education textbooks and search for appropriate teaching materials and the teaching & evaluation methods. Further, they will explore the effective ways to use teaching & evaluation methods.

M1865.002200 도덕・윤리 논리 및 논술 3-3-0

Logical Thinking and Writing in Moral & Ethics Education

This course is intended to help pre-service teachers’ key competencies for implementing instructional designs, strategies, and analysis necessary for achieving instructional objectives in secondary moral and ethics education. These competencies are key and essential parts for the development of teachers’ teaching and learning expertise. For this reason, this course provides meaningful opportunities to understand and implement instructional designs (e.g., analysing curriculum and the characteristics of students, describing learning objectives, selecting teaching methods and content knowledge, organizing student groups, and creating teaching & learning environments), instructional strategies (e.g., questioning strategies, motivating strategies, and meaningful and effective feedback strategies), and an instructional analysis to improve the quality of instruction through self-reflection and peer feedback.

M0000.009200 인성교육의 이론과 실천 3-3-0

Theories and Practices of Character Education

M0000.009300 시민교육론연구 3-3-0

Studies in citizenship education

This course aims to enable students to develop and extend understandings of the nature and possibility of citizenship education. Through lectures, participant-centered discussions, and workshops, students will explore the literature, current research, and best practices of citizenship education through local, national, regional, and global perspectives. Emphasizing and incorporating students’ needs and experiences, the course will create a critical space where they can share, debate, network, and construct viable curricula, practices, and pedagogies for the implementation of citizenship education inside and outside the school settings.
715.201* 해석개론 1  3-3-0
Advanced Calculus 1

In this course, students will study sets and functions, the real number system, the Bolzano-Weierstrass Theorem, convergence of sequences, supremum and infimum, continuous functions and the Weierstrass Theorem, differentiation and the mean value theorem, and the Riemann Integral.

715.202 해석개론 2  3-3-0
Advanced Calculus 2

In this course, students will study sequences of Riemann Integral Functions, the Riemann-Stieltjes Integral, and the Fourier series.

715.213A 이산수학 3-3-0
Discrete Mathematics

In this course, students will study discrete mathematical contents, including combinations and permutations, graphs, codes, and design. Emphasis is on enumerations, graphs, and their applications.

715.214 미분방정식개론 3-3-0
Introduction to Differential Equations

In this course, students will study ordinary differential equations. The course will consist of the first and second order linear ODEs, existence and uniqueness of solution for ODEs, Laplace transforms. Solution methods for systems of linear ODEs, prototype PDEs and Sturm-Liouville equations will also be discussed.

715.215* 선형대수학 1  3-3-0
Linear Algebra 1

In this course, students will study the basic discrete mathematical contents, including combinations and permutations, graphs, codes, and design. Emphasis is on enumerations, graphs, and their applications.

715.216 선형대수학 2  3-3-0
Linear Algebra 2

In this course, students will study vector space and its applications, Bolzano-Weierstrass, linear mappings, canonical form, and theories of linear mapping.

715.217 정수론 3-3-0
Number Theory

In this course, students will study sets and functions, the real number system, the Bolzano-Weierstrass Theorem, convergence of sequences, supremum and infimum, continuous functions and the Weierstrass Theorem, differentiation and the mean value theorem, and the Riemann Integral.

715.218B 수학교육과 교육공학 2-2-0
Educational Technology in Mathematics Education

In this course, students will study mathematics education in terms of the related topics of computers and the Internet. Algebra-geometry education employing logo micro-world and web-based creative math will be discussed in connection with the history of mathematics.

715.219 확률론 2-2-0
Probability Theory

In this course, students will study mathematics education in terms of the related topics of computers and the Internet. Algebra-geometry education employing logo micro-world and DGS and web-based creative math will be discussed in connection with the history of mathematics.
This course covers topics in probability theory such as; definition of probability, random variables, expectation, variance, covariance, various probability distribution models (normal, binomial, poisson, exponential etc.), joint probability distribution, sample, sample mean and variance, convergence in probability and distribution, central limit theorem.

715.301* 현대수학 1 3-3-0
Modern Algebra 1
군, 환, 체와 같은 대수계가 소개될 예정이다. 수학적 추론 능력과 쓰기능력의 기초를 마련하여 논리적적인 의사소통을 할 수 있게 할 뿐 아니라 정리 등을 수학과목 수강에 도움을 주고자 한다. 정수환에서의 산술, 모듈 산술, 군, 환, 체의 도입, 다항식환에서의 산술, 합동군 산술, 정규부분군과 상군, 아이디얼과 상환, 상과 준동형, 대칭군과 교대군 등을 다룰 예정이다.

715.302 현대수학 2 3-3-0
Modern Algebra 2
<현대수학 1>에 이어 간단한 과목이다. 유한 아벨군의 구조, 군의 작용, 실수형 정리, 유한군의 구조, 정리에서의 산술, 체의 확대, 기하적 작동 등을 다룰 예정이다.

This course is a continuation of <Modern Algebra 1>. Topics include structure of finite abelian groups, group action, Sylow's theorems, the structure of finite groups, arithmetic in the integer ring, modular arithmetic, introduction to groups, rings, and fields, arithmetic in polynomial rings, congruence-class arithmetic, normal subgroups and quotient groups, ideals and quotient rings, quotient groups and homomorphisms, the symmetric and alternating groups.

715.307 다변수함수론 3-3-0
Functions of Several Variables
다변수함수의 미분, 음함수의 경리, Multiplier Rule, 다변수함수의 적분, 선적분, Exterior 대수, Differential Form, 다양체상의 적분, Stokes 정리 등을 학습한다.

In this course, students will study differentiation of several variable functions, implicit function theorem, multiplier rule, integral of several variable functions, line integral, exterior algebra, differential form, integral on manifolds, and Stokes Theorem.

715.313A 수학교육론 2 3-3-0
Mathematics Education
중·고등학교 수학교육론의 목표 및 교육과정을 이해하고, 각 내용 영역과 관련된 수학 수업-지도 원리와 방법을 검토한다.

This course will cover an analysis of middle and high school mathematics teaching materials, development of a lesson plan and performance of simulated instruction.

715.315* 수학교육론 3-3-0
Teaching of Mathematics
중·고등학교 수학교육의 목표 및 교육과정을 이해하고, 각 내용 영역과 관련된 수학 수업-지도 원리와 방법을 검토한다.

This course will cover an understanding of aims of middle and high school mathematics education and its curriculum and an examination of the principles and methods of learning and teaching mathematics relevant to each content area.

715.401* 위상수학 1 3-3-0
Topology 1
실직선 위의 위상구조에 대하여 학습하고, 위상공간, 연결 공간, 컴팩트 공간, 동일화 공간, 완비공간, 그 밖의 공간들을 다룬다. 이 과목은 해석학, 기하학, 미분위상학, 대수위상학 등의 분야에 기초를 이룬다.

Covering general topology, this course will deal with topology on the real line, topological spaces, connected spaces, compact spaces, identification spaces, complete spaces, and other spaces. It will form the foundation for all advanced courses in analysis, geometry, and topology.

715.402 위상수학 2 3-3-0
Topology 2
공간의 기본군, Van Kampen's theorem, 피복공간, groups of covering transformation, 일반적인 피복공간의 존재성, theorems of Brouwer, Borsuk-Ulam and Van Kampen을 학습하고, 공간을 분류하는 위상수학에서의 대수적 방법의 응용을 학습한다.

An introduction to algebraic topology, this course will deal with the fundamental group of a space, Van Kampen’s theorem, covering spaces and groups of covering transformation, existence of universal covering spaces and theorems of Brouwer, Borsuk-Ulam and Van Kampen. It will also cover applications of algebraic techniques in topology to the classification of surfaces.

715.412B 수리통계 2 2-2-0
Mathematical Statistics
본 과목에서는 추정과 검정의 통계적 이론과 그 적용방법을 배운다. 다양한 조건에서 검정과 구간추정의 방법 및 가설을 설정하고 기각지 않는 F값을 구하여 가설검정 하는 과정과 그 이론을 배운다. 제 1종 오류 및 제 2종 오류의 개념을 배운다. 최적분 섹스 분산분석의 이론을 배운다.

This course covers statistical theory related to estimation and hypothesis testing. Topics will include point estimation, maximum likelihood estimate, interval estimation, hypothesis testing for one or two groups (means and proportions), testing for equality of variances. Also, linear regression and analysis of variance methods will be dealt with.
### History of Mathematics and Mathematics Education

This course will cover the mathematics teaching-learning theory and its implications in connection with mathematics curriculums and history of mathematics.

### Numerical Analysis

In this course, numerical methods for solving ordinary and partial differential equations will be discussed. The course will cover iterative methods for solving equations, numerical linear algebra, iterative methods for solving linear systems, interpolation, numerical integration and differentiation, and numerical solutions for initial and boundary value problems.

### Real Analysis

This course will cover the elementary theory of measure, measurable spaces and Lebesgue integral, differentiation and integration, and classical Banach spaces.

### Complex Analysis

This course will cover complex plane, system of complex numbers and properties of analytic functions, Cauchy-Riemann equations, contour integrals, Cauchy’s theorem, maximum/minimum modulus theorem, harmonic functions, convergence of analytic functions, Laurent’s series, residue theorem, and evaluation of definite integrals.
In this course, students will conduct basic experiments, particularly on the measurement of physical constants, laws and to develop effective teaching methods. Through the presentations, as well as effective teaching methods for secondary school students.

This requisite course is one of the basic courses for students majoring in common science education. Charge, electric field, Gauss’ law, electric potential, emf and circuit, magnetic field, Ampere’s law, Faraday’s law, inductance, magnetic properties of matters, electromagnetic waves, geometric optics, wave optics, quantum physics, relativity, and the dual nature of matter will be discussed. Experiments including magnetic field, Ohm’s law, RLC resonance circuit, impedance, Lissajous figures, current balance, laser, and the vibration of strings will be performed.

This course aims to teach practical as well as theoretical knowledge of the features of the thinking and understanding in science and of the linguistic ways to communicate them. It will discuss pedagogic methodologies for electronics experiments for secondary schools.

This course develops the students’ mathematical competence that is needed for undergraduate physics. Specifically, the course examines the major physics-related topics such as vector analysis, general coordinates, matrix, group theories, series expansion, and complex variables.

Two parts of this course on mechanics and its education, this course deals with mechanics of particles and rigid bodies, gravitation, coordinate systems on the basis of linear and three dimensional movement of particles. Special attention will be paid to numerical analysis and vectors, differential equations and physical interpretations of mathematically presentations, as well as effective teaching methods for secondary school students.

The first of two part course on mechanics and its education, this course deals with mechanics of particles and rigid bodies, gravitation, coordinate systems on the basis of linear and three dimensional movement of particles. Special attention will be paid to numerical analysis and vectors, differential equations and physical interpretations of mathematically presentations, as well as effective teaching methods for secondary school students.

< 역학 및 교육 1 >를 바탕으로 안속계계의 역학 및 라그랑주 방정식을 바탕으로 해석학을 학습하고, 역학의 동적 & 투명한 토론 활동이 활발해질 수 있는 실적적 방안들을 탐색한다. 또한 중등학교의 역학에 대한 효과적인 교육방법을 개발하고 논의한다.

As the second part of the courses on mechanics and its education, this class deals with mechanics of continuous materials, analytical mechanics including Lagrangian equations, rotation of rigid body, and special relativity. It will also deal with mechanics teaching at secondary schools.

This course develops the students’ mathematical competence that is needed for undergraduate physics. Specifically, the course examines the major physics-related topics such as vector analysis, general coordinates, matrix, group theories, series expansion, and complex variables.

Mechanics and Education 2

Electromagnetism and Education 1

Electronics and Education 1

Mechanics and Education 1

Electromagnetism and Education 1

Electronics and Education 1
This advanced undergraduate course is essential for undergraduate students.

Physics Experiment and Demonstration 2

This course performs experiments on modern physics and optics in order to improve theoretical understanding. It will also provide students with knowledge of physical concepts and their applications.

Computer Simulation and Lab, for Physics Education

This course develops information technology-related skills for teachers. The class will discuss topics like algorithms, demonstrations, simulations, and Web sites for computer-assisted physics education.

Quantum Physics and Education 1

The course includes such topics as limits of classical physics, basic concepts of quantum mechanics, Schrodinger equation and its application, operators, hydrogen atom, simple harmonic oscillation and operators. With Excel program, calculated results will be visualized for concrete understandings.

Electromagnetism and Education 2

This advanced undergraduate course is essential for understanding fundamental concepts of modern physics. The course includes such topics as limits of classical physics, basic concepts of quantum mechanics, Schrodinger equation and its application, operators, hydrogen atom, simple harmonic oscillation and operators. With Excel program, calculated results will be visualized for concrete understandings. Every day stuff which are applications of quantum physics will be introduced for educational approaches.

Introduction to the concepts of modern physics and their teaching. Special relativity, quantum mechanics, atomic and molecular structures statistical physics, solid state physics and nuclear physics will be reviewed. mechanics, solid physics, nuclear physics, particle physics, etc.

Modern Physics and Education 2

This course develops students’ mathematical competence essential for working with physics. Students will study physics-related topics such as second order ordinary differential equation, series solution, and special functions.

Physics Education Experiment

In this course, students will perform advanced-level experiments on mechanics, modern physics, optics, electricity and magnetism. Students design the experiment to develop authentic inquiry skills. The experiments will also serve to improve student’s understanding of the advanced physics.

Introduction to Physics Education

This course will cover the history and philosophy of physics education. Curricula, teaching & learning, assessment, and facilities. Through the course, students will acquire general knowledge of physics education.
This course studies such topics in the field of optics, such as geometrical optics, wave optics, as well as physical and quantum optics. In addition, the course deals with effective ways to teach optics toward secondary students.

717.414 물리교육 연구 및 지도법  3-2-2
Materials and Methods in Teaching of Physics

This class analyzes various teaching materials for secondary physics in order to develop effective teaching skills.

717.408A 양자물리 및 교육  3-3-0
Quantum Physics and Education 2

An advanced course of <Quantum Physics and Education 1>, the class discusses such topics as operator method, electron’s motion in electromagnetic fields, angular momentum, perturbation and approximation, and scattering theories.

717.428A 열통계물리 및 교육 3-3-0
Statistical Physics Education

This course studies the basic concepts of thermal and statistical mechanics, starting from empirical and macroscopic thermal physics to microscopic statistical physics. The course also discusses effective pedagogical methodologies.

717.430A 물리교과 개념의 역사적 발달 3-3-0
Historical Development of Physics Concepts of Education

This course addresses the development of practices and analysis in teaching physics in our secondary school science curriculum. We will conduct the important issues such as the nature of Physics knowledge, the foundation of Physics education, theory and practices of ‘good’ teaching in detail. We expect students become a pre-service teacher who is able to do reflective practice.
Fundamental chemical reactions in this course.

known samples will be dealt with based on understanding of precipitation formation and acid-base neutralization, and de-
tration, gravimetric and volumetric analysis, titrations using science. It also covers basic topics such as activity, concen-
tional electrochemistry, redox titrations, electrolysis, electogravi-

dominantly, fundamentals of spectrophotometry and spectro-

Fundamentals of several types of chromatography and count current distribution for separation and extraction of

compounds will be covered using different physical/chemical properties of chemical substances in the mixtures. This course involves oxidation /reduction of materi-
als, fundamental electrochemistry, redox titrations, electrol-
ysis, fundamentals of spectrophotometry and spectro-
copies.
건강과학과(Dept. of Chemistry Education)

718.311 무기화학 1 3-3-0
Inorganic Chemistry 1
주기율표, 무기화합물의 구조와 결합, 반응, 속도론과, 구조와 성질과 구조, 상의 변화와 평형, 화학 반응의 핵심, 온도의 변화와 상의 변화를 체계적으로 다룬다. <물리화학 1>은 필수 선수과목이다.

718.312 무기화학 2 3-3-0
Inorganic Chemistry 2
배위화합물의 결합이론, 구조, 입체화학과 전자분광화 및 반응 메커니즘, 유기금속 합금 및 유기, 거래 무기분자 화합물 등을 다룬다.

718.316 화학교육론 3-3-0
Theories of Chemistry Education
중등학교 화학교육에 적용할 수 있는 행동주의 학습이론, 인지학습이론, 구성주의 학습이론, 그리고 학습이론과 관련된 기본적인 사항을 다룬다.

718.319 물리화학실험 2-0-4
Physical Chemistry Lab.
물리화학과 이론강의에서 이루지 않는, 분광학, 분자물리학, 동체미터학, 양자화학, 그리고 화학반응의 강의와 비교하여 이들 영역의 화학적 개념을 실험을 통하여 보다 직접 경험하여 수학적으로 이해하고 있는 물리화학적 개념을 구체적으로 체득하게 되고, 물리화학적 지식을 이용한 연구도구를 사용하고 과학적 원리를 분석하는 과정을 겪으며 화학 연구도구의 원리를 이해하여 연구 방법을 체득하는 것을 목적으로 한다.

이 과정은 학생들은 이론과 실험의 영역에 대한 전반적인 내용을 배우게 된다. 특히, 이 분야와 관련된 기본지식에 중점을 두고, 나노입자의 독특한 성질과 생물물리학적 콘주게이션 방법, 용액을 기반으로 하는 프로브/센서, 인피토 및 인피보이미징, 남녀자 치료법 등과 같은 응용성을 다룬다. 이 과정을 통하여 학생들은 1) 나노물질 합성을 위한 일반적인 방법, 2) 나노물질의 물리학적 성질을 이해하며, 3) 특수한 프로브를 만들기 위한 일부 실험을 돕는 응용성을 학습할 수 있도록 한다. 이 과목은 초등학교, 기본과학물리학, 나노기술의 합성, 발광, 허블링, 전기화학, 기초 물리학/기초화학을 목적으로 한다.

The objective of this course is to provide students with an overview of the role of chemistry in nanosciences. We will introduce some basic knowledge related to this field, and survey the unique properties of nanoparticles and their applications, which includes bioconjugation methods, solution-based probes/sensors, in vitro and in vivo imaging, and nanoparticle therapeutics. Students should be able to 1) un-
understand the general methods for fabricating nanomaterials; 2) understand the physical properties of nanomaterials; 3) apply the unique properties of some nanomaterials to create specific probes. Typical topics include supramolecular chemistry, basic photophysics, syntheses of nanoparticles, luminescent quantum dots, gold and silver nanoparticles, other inorganic nanoparticles, organic nanoparticles, bioconjugate chemistry, bioimaging, drug delivery and toxicity of nanoparticles.

718.419* 화학교재연구 및 지도법 3-3-0
Materials and Methods in Teaching of Chemistry

과학 교육과정의 변천과 우리나라 과학 교육과정을 학습한 후, 우리나라 고등학교 화학 교재 및 중학교 과학 교재의 내용을 분석한다. 중등학교 화학수업에 적용할 수 있는 교수이론을 학습하고, 주요이론의 적용을 위한 실습을 한다. 또한, 과학-기술-사회를 강조한 교수방법과 교수자료들을 익히고, 교사의 자기 평가도 다룬다.

This course studies the chemistry pedagogy for secondary schools, through the analyses of school textbooks. In addition, the course provides relevant practices.

718.427 유기분광학 3-3-0
Organic Spectroscopy

Infrared, Ultra-violet, Mass, Nuclear Magnetic Resonance Spectroscopy의 이론적 배경을 다루며 H-NMR뿐만 아니라 C-13, N-15 NMR 등이 유기화합물의 구조를 결정하는데 어떻게 이용되고 있는가를 배운다. 학기 종반에 미지시료의 spectrum으로 구조를 결정하게 하며 Spectrometer의 작동방법을 습득하게 한다.

This course studies the elucidation of organic structure by physical techniques. It also deals with theories about infrared, ultraviolet, as well as nuclear magnetic resonance and mass spectra.

718.442* 화학교육연구 3-2-2
Research in Chemistry Education

현대의 과학론과 과학교육에서의 시사점을 논의한다. 화학교육의 목적과 목표 등을 배우고, 화학을 가르칠 때 필요한 평가 이론 및 방법을 익힌다. 또한, 화학과 관련된 과학의 이해를 이수한 학생들에게 적절한 연구방법 및 화학교육 연구내용을 다룬다.

This course includes contemporary theories about the nature of science and implications of them in science education, as well as its evaluation methods.

718.449 화학교육실업 2-0-4
Chemistry Education Lab.

중등학교 과학 과목에서 다루는 화학 내용과 관련된 실험을 하고, 실험실 활동을 경험한 교수원리 등의 관점에서 분석한다. 또한, 과학-기술-사회를 강조한 실험 교육을 실습한다.

This course provides chemistry experiments related to secondary school curricula including discussions on lab education.

718.456* 무기화학실험 2-0-4
Inorganic Chemistry Lab.

무기화합물과 다공성 물질의 합성, 분리, 전자 분광학 및 분석 방법, 작용의 합성 및 업체화학 그리고 공기에 민감한 물질을 위한 Schlenk line 기술 등을 습득한다.

This course enables students to acquire skills for synthesis and characterizations. Separation, electronic spectroscopy, analytical methods of various inorganic compounds and porous materials, preparation and stereochemistry of coordination complexes, and techniques of Schlenk lines for air-sensitive materials are included.

718.457A 화학연구 1 1-0-2
Chemistry Research 1

화학의 한 영역을 선정하여 계계적인 화학연구의 일반적인 절차를 익히고, 그리고 주어진 주제에 대하여 독자적으로 문헌 조사, 실험의 계획, 연구의 추진, 발표, 평가, 선례 등을 통하여 창의적인 탐구활동을 추진한다. 또한, 화학의 일반적인 연구방법을 토대로 하여 주어진 주제에 대한 독자적인 연구를 수행하고, 논문을 완성시키는 과정을 내용으로 한다.

This course studies the systematic research procedures in a given area of chemistry. It involves researches into relevant literature, oral presentations, experiments, and written theses.

718.458 화학연구 2 1-0-2
Chemistry Research 2

화학 혹은 화학교육 분야의 최근연구동향에 대해 토의한다. 주어진 주제에 대해 독자적으로 문헌 조사, 실험 계획, 연구 추진, 발표, 평가, 선례 등을 통하여 창의적인 연구를 추진한다.

This course discusses recent research trends in chemistry and its education. It involves researches into relevant literature, oral presentations, experiments, and written theses in a given area of chemistry.

718.459 현장과 소통하는 과학교육콜로키움 1-1-0
Science Education Colloquium Communicating with Fields

과학교사는 학생과 과학기술 현장 및 과학교육 연구 현장을 이어주는 소통의 경로이다. 이 강좌는 학부 교육을 받고 과학교사로서 과학기술계 및 과학교육 현장에 대한 이해를 통해 과학교육과 학부 학생이 미래 비전을 구체적으로 만들어 가는데 도움을 주고자 한다. 이를 위하여, 과학교사 및 과학교육 관련 교육 및 과학기술 연구 기관에 응시하는 현장 전문가들로 연사를 구성한다.

Science teachers are paths form students to be linked to fields of science-technology and science education. This lecture will help students as pre-service teachers to understand and communicate with the fields of science and technology as well as science education and build up their future visions. For this purpose, lecturers will be invited from professionals in the fields thereof.
강좌는 4학년 학생들을 대상으로 화학교육연구의 이론적 성과를 실제 현장에 적용하는 안목과 역량을 발전시키는 것을 목적으로 한다. 화학교육의 다양한 분야에서 축적되어 온 교육이론이 학교 교육의 실제 현장에 부합할 것을 전제로 하고 있다. 이 강좌에서는 예비 중등교원인 학생들이 화학교육 이론을 바탕으로 실제 화학 내용에 대한 교수/학습 및 평가를 적절하고 효율적으로 계획하고 수행할 수 있는 2013학년도 신설교과목으로 화학교육과 학사개요에 삽입요방안을 모색한다.

This course aims to make seniors to acquire perspectives and competencies on applying theories of Chemistry education to actual teaching practice. Theories of Chemistry Education accumulated in diverse fields have a premise of corresponding with actual field of school education. In this course, a pre-secondary school teachers will seek appropriate and effective measures for teaching and assessment based on the theories of Chemistry Education.
Plant Taxonomy & Instruction

This course has a basic aim to classify the plants above ferns living in our country today. In this course, students will learn the basic of plant taxonomy which make them understand the origin of life and the evolutionary truth.

Animal Taxonomy and Instruction

This course will make students understand the concepts and theories about taxonomy, grasp the way of classifying more than a million different animal groups, and classify various animal groups based on the theory of animal classification.

Ecology & Education

Students will be able to grasp the meanings and ideas of structure factors. In addition, through the study of various theories, they will be able to understand the relationship among each structure factors.

Biological Science Lab. & Instruction 1

This course covers mainly the experiment and practice of biology in the middle school curriculum. Students can do the experiment and the practice of that curriculum themselves, and try to discover better ways of teaching the material to their future students.

Biological Science Lab. for Inquiry Learning

This course introduces overall educational topics, focusing on the purposes of biology education.

Plant Physiology & Education

This course is designed for sophomores to understand the basic concepts needed for molecular biology, biochemistry, etc. Learning the basic molecular mechanism and properties of phospholipid and proteins, and the constitution, expression and regulation mechanism of genetic information will help students understand the principles of cell-based life forms.

Microbiology & Education

This course is for junior students who major in biology education. And this course gives the students deeper theoretical knowledge in the structure and function of plants as well as their interactions with the environment. Subjects to be dealt with include: uptake, transport and loss of water; uptake, transport and assimilation of mineral nutrients; nitrogen fixation; the biochemistry and physiology of photosynthesis and respiration; synthesis, metabolism and transport of carbo-
hydrates; growth and development at the cell, organ and whole-plant level. Responses and adaptations to environmental factors (e.g. the availability of water and nutrients, the quantity and quality of light, and low temperature) are emphasized as well as the importance of gene expression and plant hormones in the regulation of growth and development.

719.332A 동물생리학교육 3-3-0

Animal Physiology & Education

This course is for junior students of major I Biology Education. Many topics in Animal Physiology fields are included in Biology curriculum for secondary school education. This course is essential for students studying Biology Education and preparing teaching in secondary school. It deals with many topics in animal physiology, such as Transport of Ions through Plasma Membrane and Action Potential from neurons in the regulation of growth and development. Students will learn the principles of heredity and its expression, the regulation of gene expression in prokaryotes and eukaryotes, Developmental genetics and population genetics.

719.333* 유전학교육 3-3-0

Genetics & Education

This course is for junior students who took the general biology and cell biology courses. This lecture covers the basic concept and also deals with deeper part of genetics. Students will learn the principles of heredity and its extension, DNA structure and replication, transcription and translation, the regulation of gene expression in prokaryotes and eukaryotes, Developmental genetics and population genetics.

719.334* 발생생물학교육 3-3-0

Developmental Biology & Education

This course is for junior students who took the general biology and cell biology courses before taking this course. This will help students to understand the principles of biological science. Students should finish the <Biology I>, <Biology II> and <Cell Biology> courses before taking this course.

719.340* 생물과학실험 및 지도법 2 2-0-4

Biological Science Lab. & Instruction 2

This lecture is an experimental course and contains experiments on animal development and genetics. Experiments on genetics area consist of those on segregation and independent assortment, genetic mapping, observation of Drosophila salivary gland and human chromosome, human genetics, DNA purification and modeling DNA double helix, gene cloning, while experiments on development contain those on frog, chick and sea urchin. Students will study human development through watching DVD. In addition, students will learn molecular genetic approach on development.

719.341 현대생물실험 및 지도법 2 2-0-4

Modern Biology Lab. & Instruction 2

This course discusses recent biological researches and lab equipment.
719.348  야외실습 및 지도법  2-1-2
Field Biology and Instruction

본 강의는 직접 야외로 나가 현장에서 수업 재료를 직접 채집하여 공부하는 것으로 2학년 대상 과목이다. 학생들은 갯벌이 있는 해안가에서 해양동물을 채집하여 분류와 발생 실험을 하며, 또한 해양생태 및 식물들에 대한 생태 및 분류 실험을 병행한다.

This course is for a sophomore, who will collect directly materials in the field. Students collect marine animals, and study their taxonomy and developmental process using some animals. They also learn marine ecology and classification on plants around beach.

719.433  환경과 교육  3-3-0
Environment & Education

본 과목에서는 날로 심각해지고 있는 환경문제의 실상과 그 해결책에 대하여 연구하게 된다. 또한, 예비교사로서 다음 세대에게 교육할 책임을 지니고 있으므로 이에 대한 교수법과 교육 자료 개발에 대하여 연구하게 된다.

This course discusses current environmental problems and their solutions. In addition, the course deals with related pedagogy and teaching materials.
지구과학은 아의 자원을 관찰하고 분석하는 것에서 출발한다. 본 과목에서 지구과학 아의답사에 필요한 기본 지식을 습득하고 이를 아의에 접근하는 과정을 개발한다. 지구과학교육과 학생들은

1. **물의 종류와 특징을 학습한다**
2. **의 탄생과 진화에 대해 학습한다**

전기, 기론, 지열 및 방사능 탐사방법으로 밝혀진 지구 내부에 대한 최고의 연구 성과를 소개하며, 아울러 유용지각무비의 응용과 과학의 과학적 가치를 간단히 설명하고, 한반도 지질의 특성을 간단히 살펴본다.

**Introduction in general geology including the following topics: structural geology, plate tectonics, resource geology and geology of Korea.**

이 강의에서는 태양계의 성원을 간단히 살펴보고 나아가 지구과학은 야외 자연을 관찰하고 분석하는 것에서 출발한다.

1. **지구과학은 야외 자연을 관찰하고 분석하는 것에서 출발한다.**
2. **본 과목에서 지구과학 아의답사에 필요한 기본 지식을 습득하고 이를 아의에 접근하는 과정을 개발한다.**

지구과학은 야외에서 대표적인 암석과 광물 구별하기 등을 주로 학습한다.

In Earth Science, it is critical to learn how to observe and describe the nature. This class is to learn some basic knowledge for field works in Earth Science. There are Field Excursions in Earth Science 1, 2 and 3.

The series 1 is to learn (1) how to distinguish rocks and minerals, (2) how to analyze geological structures in the field.

This course adopts geophysical methods to investigate the structure and composition of the solid Earth. It introduces theories of elastic waves and Earth’s gravity field. In addition, this course summarizes current knowledge of the interiors of Earth through seismic and gravity methods.

**Field excursions in Earth Science 1**

지구내부의 구조 및 물리적 특성을 밝히기 위하여 사용되는 지구물리학적 방법들의 원리와 그 응용에 대해 학습한다. 탄성파와 지구의 중력에 대한 이론을 다루고, 지진과 중력적 방향으로 밝혀진 지구 내부에 대한 최근의 연구성을 소개한다.

This course adopts geophysical methods to investigate the structure and composition of the solid Earth. It introduces theories of geomagnetic field, geoelectrical field, heat flow and radioactivity. In addition, this course summarizes current knowledge of the interiors of Earth through magnetic, electrical, geothermal and radiactivity methods.

**Field excursions in Earth Science 2**

지구과학은 아의 자원을 관찰하고 분석하는 것에서 출발한다. 본 과목에서 지구과학 아의답사에 필요한 기본 지식을 습득하고 이를 아의에서 적용시키는 과정을 개발한다. 지구과학교육과 학생들은

1. **물의 종류와 특징을 학습한다**
2. **의 탄생과 진화에 대해 학습한다**

전기, 기론, 지열 및 방사능 탐사방법으로 밝혀진 지구 내부에 대한 최고의 연구 성과를 소개하며, 아울러 유용지각무비의 응용과 과학의 과학적 가치를 간단히 설명하고, 한반도 지질의 특성을 간단히 살펴본다.

**Introduction in general geology including the following topics: structural geology, plate tectonics, resource geology and geology of Korea.**

In Earth Science, it is critical to learn how to observe and describe the nature. This class is to learn some basic knowledge for field works in Earth Science. There are Field Excursions in Earth Science 1, 2 and 3.

The series 2 is to learn (1) how to distinguish rocks and minerals, and (2) how to analyze geological structures in the field.
721.311* 대기지구과학 및 실험 1 3-2-2

Atmospheric Science and Lab. 1

This course introduces oceanography and its experimental aspects. The course also studies currents, waves, and the structure and characteristics of atmosphere, radiation and energy budget, stability, cloud formation and rain processes, as well as horizontal and vertical motion and climate changes.

721.312* 대기지구과학 및 실험 2 3-2-2

Atmospheric Science and Lab. 2

721.321* 해양지구과학 및 실험 1 3-2-2

Oceanography and Lab. 1

This course focuses on basic understanding the causes and the characteristics of atmosphere. It covers such topics as the structure and the characteristics of atmosphere, radiation and energy budget, stability, cloud formation and rain processes, as well as horizontal and vertical motion and climate changes.

721.322* 해양지구과학 및 실험 2 3-2-2

Oceanography and Lab. 2

This course focuses on basic understanding the causes and the characteristics of atmosphere. It covers such topics as the structure and the characteristics of atmosphere, radiation and energy budget, stability, cloud formation and rain processes, as well as horizontal and vertical motion and climate changes.

721.354 환경지구과학 3-3-0

Environmental Earth Science

This course applies fundamental concepts and practices of earth science to the relationship between human beings and their environment. It examines important aspects of natural disasters such as earthquakes, volcanic eruptions, landslides and floods. In addition, the course discusses environmental issues concerning resource utilization and management.

721.355 운석과 태양계 3-3-0

Meteores and the Solar System

This course introduces oceanography and its experimental aspects. The course also studies currents, waves, and the structure and characteristics of atmosphere, radiation and energy budget, stability, cloud formation and rain processes, as well as horizontal and vertical motion and climate changes.
721.471* 地球科学教学理论 3-2-2

Earth Science Teaching Theory

地球科学教学理论是地球科学教育的课程。该课程旨在培养学生了解和掌握地球科学教学的理论基础和实践技能。

721.474A* 地球科学教材与探究研究 3-2-2

Earth Science Instruction and Learning Material

该课程内容包括地球科学教材的选择、设计和使用，以及探究式学习方法的实施。

721.480* 地球科学调查与实验教学 3-2-2

Earth Science Inquiry and Laboratory Teaching

该课程主要目的是增强学生对地球科学的学习能力，提高学生对地球科学的探究和实践能力。

Seminar in Earth Science Education

这门课程旨在帮助学生获取地球科学教育领域的最新研究和实践成果。

M1882.000100 地球科学数据处理与研究 3-3-0

Earth Science data processing and research

这门课程内容包括地球科学数据处理的技术和方法，以及地球科学数据的分析和研究。

M1882.000200 地球科学交流与技术 3-2-2

Theory and Practice of Earth Science Communication

这门课程旨在提高学生对地球科学交流和传播能力的掌握，包括地球科学交流的理论和技术。
Section 1: Introduction to Korean Dance

This course studies the nature and the history of Korean traditional dances, as well as their basic steps and forms. Specifically, students will learn different types of Korean dances, as well as their basic steps and forms.

Section 2: Introduction to Modern Dance

This course develops body functions through body conditioning activities. It provides exercises of techniques necessary for the advanced courses.

Section 3: Camping

This course is designed to help understand the various elements such as walking, running, and other activities in the context of outdoor recreation.

Section 4: Introduction to Health and Exercise Science

This course is designed to provide students with an understanding of the significance of the exercise science related to health promotion. This course is also intended to provide an unique opportunity for students who are in the decision-making phase of their studies to test a career choice through lectures from experts from different areas of science prior to completing professional courses.
722.204* 수영 1 1-0-2
Swimming 1

This course deals with the techniques of breaststroke. It also discusses related safety issues.

722.205A 체육사・철학 3-3-0
History and philosophy of Physical Education

This course studies the history of sports at home and abroad, focusing on the issues of contemporary physical education and sports. It also examines the general and special characteristics of sports through the comparing their developments in the East and the West.

722.206A* 육상 2(필드) 1-0-2
Track and Field 2 (Field)

<육상 2(필드)>에서는 도약경기에 대한 이해도를 높이고, 특히 높이뛰기와 관련된 과학적인 이론과 트레이닝 방법을 숙지시키는 것을 목표로 한다. 높이뛰기 유형별 동작들을 익히고, 도립단기, 박구르기, 공중동작, 착지 등 단계와 동작의 익히기 실험에 적응시키는 뜻에서도 한다. 이동 동작을 이해하는 데 도움이 되는 동작들이 있다. 또한 동작의 발전과정을 비교하여 통계적 분석과 특수성이 드러나도록 한다.

This course studies the history of sports and physical education and sport. It also examines the general and special characteristics of sports through the comparing their developments in the East and the West.

722.207B* 기계체조 2( لبن本国・철봉) 1-0-2
Gymnastics 2 (Vaulting Horse and Bar)

レム돌운동은 도립단기, 박구르기, 공중동작, 착지의 네 단계로 구분한다. 이러한 네 가지는 모두 일체적이며 서로 각기의 동작을 통합시켜 이론과 연계에 의해서 연관성을 갖고 있는 것이다. 도립단기는 박구르기로 영향을 주고 반구르기는 도립을 결정짓고 도립에 의한 공중수작을 착지하는 데서 그 의미를 찾을 수 있다. 기계체조 강사는 취의 네 가지 기본적인 형태를 가지고 그중 가장 기법이라고 생각되는 발구르기 동작을 실행함에 의하여 레드프링 동작을 완성할 수 있는 단계까지 이루어 높이의 수가 없어질 수 있으므로, 또한 <체조 1>과 같은 가시화된 기본동작을 복습할 수 있는 기회를 갖는 시간으로 구성한다. 그러므로 체육동영은 두 가지 기본형태로 나눌 수 있는데, 그 하나는 동작의 형태로 표시하는 운동이고, 다른 하나는 높이의 형태로 체육동영의 최고적 최선가는 최적의 제기적 기능을 가진다. 본 강좌는 체육의 기본 기, 운동기능을 중심점으로, 착지, 운동, 의도적, 평가등의 기본기능을 학습하는데 역점을 두고, <체조 1>에서 배운 과정을 복습할 수 있는 시간으로 구성한다.

A vaulting horse has 4 steps, which are run-up jump, action in the air, and landing. These 4 steps are integrated with each movement (step) through physical cause-effect relationship. For instance, run-up has an effect on jump, and jump has an effect on action in the air, action in the air has an effect on landing. This course has students perform the step of hand-swing movement without difficulty by practicing jumping along with above 4 basic forms. In addition, students will repeat movements they learned in Gymnastics.

And, Bar sport is divided into two basic forms, one is exercise by hanging without force and the other is spinning bar with form of lay-away. routine is consisted of front-back turn without stopping and front-back shoulder twisted turn. This course emphasized on studying basic skills, such as swing, kip, back up rise, and backward hip circle and practicing what students learned at Gymnastics.

722.208* 빙상 1-0-2
Skating

<빙상> 과목은 동계 방학 기간 중에 집중 수업의 형태로 이루어지며, 스키플레이스의 특성과 기본 원리를 이해하고 스피드 스케이팅의 기본 기술을 체계적으로 배우는 것을 목적으로 한다. 최근 들어 국제적으로 회의를 보이고 있는 소트트랙 종목의 기초 기술을 그 원리로 수업 내용에 포함되어 있다. 구체적인 교육내용으로는 사체 승상, 출발습관, 직선부, 골드라주, 출발훈련방법 등을 포함한다. 특히 이 과목은 겨울방학동안 집중수업으로 진행되어 진다.

This course deals with the principles and basic skills of speed skating. It practices such skills keeping the balances, straight figures, curve figures, and arm actions.

722.210C 스포츠미디어 2-2-0
Sport Media

본 강좌는 학부생 대상으로 스포츠와 미디어의 관계를 미디어 경제학적 관점에서 이해하는데 목적이 있다. 학생들은 미디어경제학 이론을 스포츠 상황에 적용함으로써 스포츠미디어의 경제적 효과에 대한 이해를 넓힐 수 있으며, 아울러 스포츠 미디어 경영学에 필요한 지식을 습득할 수 있다. 수업은 토론과 발표를 위주로 진행하며, 학기말에는 관련주제로 학술논문 제안서를 제출한다.

The goal of this course is to introduce undergraduate students to fundamental concepts and theories that can be applied to explore the relationship between sports and media from media economics perspective. Central ideas of the course will be conveyed through lecture, reading and discussion of relevant topics. The readings are a blend of the classic studies and current ideas relevant to the study of sport and media.
722.212 수영 2 1-0-2

Swimming 2

본 과목은 자유형을 배우고 싶어 하는 체육과 교과 학생들을 위한 과목으로, 수영 기술을 습득하는 데 목적이 있다. 학습의 초점을 수상에서의 기술, 신장감, 지구력 등을 함양시키기 위한 보다 발달적인 자유형 영역을 학습하는 데 있다.

This course practices the skills of crawl swimming, focusing on the development of better stroke techniques.

722.225A 특별활동 1-0-2

Sport Activity

다양한 스포츠 종목에 대한 임의 임기 습득을 중심으로 체육과 학 이론과 체육활동의 개인적·사회적 문제 등을 개론적으로 교수 한다. 즉, 대학 졸업 후 평생 체육활동을 계속함으로써 삶의 질 높이고 삶을 유행하게 하기 위해 다양한 레저 및 스포츠 활동의 기회를 제공하고, 체육활동을 중심으로 나타나는 사회문화적 현상이나 체육활동의 효용성에 관한 문제 등을 집중적으로 논의한다.

This course teaches generally the theory of sports science and the issues regarding individual/social physical activities. It emphasizes on how physical activity can improve the physiological aspect of a person. The efficiency and the results that appear due to the emphasizing of physical activity will be discussed thoroughly.

722.230B 체육측정평가 2-2-0

Measurement and Evaluation of physical Education

스포츠 정보분석은 스포츠 현장과 체육현장에서 나타나는 현상을 정량화하여 체계적으로 분류, 분석하는 것을 의미한다. 본 과목은 과거의 측정 및 평가의 개념을 확장한 것으로 정보의 목적을 명확히 정립하고 이 목적에 따라서 정보를 선택, 수집하고 관 리하며, 최종적으로 분석하는 것을 포함한다. 이를 위해서는 측정 및 평가 부문에서 논의되는 다양한 분야의 개념과 다양한 분석방법으로 정보를 요약, 분석하는 방식에 관한 지식을 필요로 한다. 본 과목의 내용은 앞에서 나온 내용 구체요소들의 기초 이론과 현장에서 실제로 적용할 수 있는 실습을 포괄한다. 체육 및 스포츠 현장에서 나타나는 정보를 정량화하고 이를 구체적으로 분석, 해석하는 방법을 배운다. 또한, 스포츠 현장에서 나타나는 정보를 정량화하고 이를 구체적으로 분석, 해석하는 방법을 배운다.

Sport informatics is an area that studies measuring, categorizing and analyzing phenomena that occur in sport and exercise world. This course is an extension of traditional measurement and evaluation, and applied statistics course. Students learn how to set the purpose of information analysis, how to select, collect, categorize and analyze information based on various purpose of information management. To accomplish this, students are required to learn some basic measurement theory including measurement scale, validity and reliability theory, and data management and analysis skills. This course includes both the knowledge on basic theory and the practice in the real life situation. In the course, students experience the simulated situation that may occur in sport and exercise practice and investigate how to approach to information and how to collect and analyze the collected information. Students also have an opportunity to use various statistical methods and computer programs to practice the real life information. Through this course, students learn methods of constructing information collection system in various environments, sports game records collection and analysis, management and analysis of information from sport industry, and physical performance related information collection and analysis in school physical education system.

722.238A 농구 1-0-2

Basketball

농구 과목은 농구의 기초 기술(패스, 드리블, 슛, 투어스 등을 포함)과 경기 전술(축공방, 지구방, 대인방어, 지속방어 등)의 다양한 실기를 기반을 토대로 하는 것을 목적으로 한다. 특히, 이 수업에서는 전반과 최근에 개정된 경기 규칙, 그리고 체계적인 트레이닝 방법을 제시함으로써 지도자의 자격을 갖추는 데에 도움을 주고자 한다. 또한 스포츠과학과 팀 정신의 중요성을 인식시키는 데 사회의 구성원으로서의 자질을 함양하도록 한다.

The purpose of this course is to learn basic skills like passing, dribbling, shooting, and footwork as well as game strategies like fast break offense, formation offense, man to man defense, and zone defense. By providing chances to learn judgment rules, recently revised game rules, and training methods, this course helps one to become a well-rounded player. Team spirit and leadership are additional accomplishments developed through this course.

722.239A 배구 1-0-2

Volleyball

배구는 레크리에이션 경기로서 누구나 손쉽게 행할 수 있는 종목 중 하나이다. 다른 구구 종목과 비교하여 배구의 특성을 이해하 고, 실제 경기를 통해 협동식, 책임감, 예의를 함양하도록 하며 규 칙을 지키고 상대방을 존중하는 올바른 사회성을 기르도록 한다. 구체적인 교수내용으로는 경기의 개요(배구의 역사)와 서브, 서브 러스, 토스, 패스 등의 기초기술, 팀플레이의 향상에 위한 효율적인 서브 러스, 스파이크 러스, 공격 형태 등의 응용 기술, 그리고 경기방법 및 경기규칙, 지도법, 상담법, 심판법 등이 포함된다.

Volleyball is one of the sports that can be practiced by anyone. Other than the skills needed, the rules, responsibilities, and manners will be taught through the actual practicing of games. We will practice basic skills (game summary, serve, receive, toss, pass), practical skills (effective serve receiving, spike receiving, attacking formation), game rule, teaching skills, refereeing, and methods.

722.240A 축구 1-0-2

Soccer

이 과목에서 패스, 드리블, 킥, 트래핑과 같은 축구의 기본기 술을 익히며 이러한 기본기술을 연습하되 이러한 기본기술을 바탕으로 다양한 전술을 펼치 축구경기를 할 때 효과적이며 활력 있는 축구경기를 할 수 있도록 하는 데 목적이 있다. 또한 축구에 관련된 사전, 인체 및 과학적 원리도 소개하여 축구를 보다 세미 있게 즐길 수 있도록 한다.

This course focuses on training basic skills like pass, dribble, and kick. This basic training will familiarize students with various strategies, thus enabling them to play efficiently in actual games. Also, this course provides soccer-related
events and scientific information. This course will increase the pleasure of playing soccer.

722.241A 한국무용 1-0-2
Korean Dance

We will study the psychological characteristics that occur in sports scenes. These characteristics will be considered with difference in personalities, and studied from the point of view of a psychologist. This course provides a general understanding of dance and the relation between dance and anthropology.

722.242A 운동학습 및 심리 3-2-2
Motor Learning and psychology

Sp流水제에서의 인간행동을 분석, 이해하고 예언하며, 통제는 과학적으로서 스포츠의 목적을 달성하는데 효과적인 방법의 원리와 기술을 제공하려는 학문이다. 연구영역은 성격, 동기, 바람 등 개인이 지닌 심리적 요인과 집단응집, 리더십, 사회적 촉진 등 개인을 둘러싼 사회적 요인에 대한 기술의 연구를 살펴보고 이론적 요인들이 스포츠행동에 어떤 영향을 미치는가를 탐구하려 경력과 근리학을 위한 방법을 탐색하고 개발하는 심리학자로서의 기초적 소양을 제공한다.

This lecture focuses on practical anatomical ways to examine the movements of all organs in the human body. The movement of bones, muscles, and nerves will be studied. Animate the movements of all organs in the human body. The ultimate goal is to motivate students to create exercise programs and care for their health.

722.244A 건강교육 2-2-0
Health Education

이 과목에서는 건강증진 및 건강교육에 대한 내용을 학습한다. 건강증진에 대한 부분에서는 건강에 대한 개념 이해와 운동, 식품, 스트레스와 같은 건강에 영향을 미치는 요인, 현대인들에게 대해 설명하고 건강, 식이, 운동에 대해 알아보고, 건강교육에 대한 부분에서는 건강증진 교육에 대한 다양한 접근 방법을 통해 자신에게 맞는 프로그램을 계획할 수 있도록 한다.

722.247A 무용교육 2-2-0
Dance Education

이 과목은 무용의 의미, 무용의 표현형식과 리듬, 무용 표현과 추상적 운동, 무용 감상, 예술신체론, 무용교육, 무용과 음악, 무용 방법, 한국무용사와 서양무용사, 현대에 있어서의 무용, 무용과 인류학 등의 주제들을 통한 무용에 대한 개관적인 이해를 목적으로 한다.

This course provides a general understanding of dance through studies about the meaning of dance, expression forms and rhythm, expression and abstract movement, dancing body, and music. This course also discusses issues related to dance therapy, Korean and Western dance history, and the relation between dance and anthropology.

722.248 무용장단 1-0-2
Rhythm of Dance

우리나라 전통음악에서 연주되는 반주음악에 대해 이해하고 실제로 악기를 다룬다. 한국음악에서 가장 많이 사용되는 장단인 굿거리, 그리고 염불, 진양조, 중모리, 중중모리, 자진모리 등의 기본 소리들을 익히고 실제로 장단을 만들며 다양한 장단과 음악을 추구한다.

The instruments used in making music for Korea’s traditional dances will be studied in this course. The gutguri, yeumbull, jinyangjo, joongjoognmori, jajinmori are main traditional dances will be studied in this course. The gutguri, yeumbull, jinyangjo, joongjoognmori, jajinmori are main areas of interest. We will also practice the changu (Korean drum).
Modern Dance

This course deals with the basic skills needed for playing tennis and teaching table tennis. The skills will be divided into offensive and defensive. For the offensive skills, drive, cut, and teaching table tennis. The skills will be taught. For the defensive skills, lobbing, cut, and teaching table tennis. The skills will be taught. We will also learn skills that can be used in various basic skills and game tactics. We will also improve tennis etiquette betwen teammates and opponents.

Physical Fitness Training

This course is centered on methods of fitness training and the value of effective training methods. Furthermore, this course also enables students to recognize the physical and psychological benefits of exercise in its role to maintain a healthy lifestyle, to reduce weight, to prevent illness, and to promote longevity.

History of Dance

This course provides a historical review of dance. We will focus on the past-Renaissance to 20th century Western dance. This program will include: (1) an introduction to the martial arts; (2) attacking the vital points; practical application of self-defense techniques; and (3) an examination of the similarities and differences among martial arts and the philosophy behind the martial arts.

Table Tennis

This course deals with the basic skills needed for playing and teaching table tennis. The skills will be divided into offensive and defensive. For the defensive skills, drive, cut, smash will be taught. For the defensive skills, lobbing, cut will be taught. We will also learn skills that can be used in different game situations.

Tennis

Tennis is a physical activity class designed to develop tennis skills including, the grip, ready posture, ground stroke, volley, smash, and serve. We will practice tactics for tennis doubles. This course emphasizes the principles and logic of various basic skills and game tactics. We will also improve tennis etiquette between teammates and opponents.
Therefore, it is vital to learn first-aid in case of emergency situations.

722.301 운동생리학 3-3-0

Exercise Physiology

This course concerns the biological control system, bioenergetics, metabolism, endocrine system function, techniques measurement of work power energy expenditure, neuromuscular function, cardiopulmonary, temperature regulation in exercise, and how the endurance training have an effect on various organ of the body in exercise. This course also are devoted improving one’s fitness performance using basic physiological principles. We especially focus on health concerns for exercise programs tailored to improve an elite athlete’s performance.

722.303B 인문적스포츠 1-0-2

Humanities-Oriented Sport

This curriculum's purpose is to develop one's creative thinking ability and to plan one's talent by intensifying the understanding of verity of perspectives and functional parts of sports. Therefore, in this curriculum, the students will experience many different kinds of sports and study literature, religion, art, history, and philosophy to view sports as one of the humanistic values.

M1886.001100* 체육교육과 3-3-0

Physical Education Curriculum

The curriculum of physical education is entire physical education through play Gukgung (Korean Archery).

722.300 수영 안전 및 구급법 1-0-2

Water Safety & First Aid

The curriculum planning and implementation.

Physical education curriculum, and also apply these into model-based systemic instruction. The course deals with goals and objectives, contents, methods, and assessment issues in physical education curriculum, and also apply these into model-based curriculum planning and implementation.

722.311 수영 3 1-0-2

Swimming 3

The course focuses on the types and structure organizations of the yacht, while sailing techniques are also studied.

Yachting is Korea's favorite leisure sport since the popularization of aquatics. From "non-decker" yachts to large luxurious vessels, there are many kinds of yachts in the world.

722.263 요트 1-0-2

Yacht

Yacht is Korea's favorite leisure sport since the popularization of aquatics. From "non-decker" yachts to large luxurious vessels, there are many kinds of yachts in the world.

722.264 국궁 1-0-2

Korea Archery

Korea Archery

This course includes the history and traditional characteristics of Korean Archery. Also, students can enjoy Korea Archery according to the modern rules, so they can not only increase basic physical strength but also control their body and mind right. In addition, students can realize the flavor of Korean physical education through play Gukgung (Korean Archery).

722.263 Water Safety & First Aid

Water Safety & First Aid

This course includes the history and traditional characteristics of Korean Archery. Also, students can enjoy Korea Archery according to the modern rules, so they can not only increase basic physical strength but also control their body and mind right. In addition, students can realize the flavor of Korean physical education through play Gukgung (Korean Archery).

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Exercise Physiology

This course concerns the biological control system, bioenergetics, metabolism, endocrine system function, techniques measurement of work power energy expenditure, neuromuscular function, cardiopulmonary, temperature regulation in exercise, and how the endurance training have an effect on various organ of the body in exercise. This course also are devoted improving one’s fitness performance using basic physiological principles. We especially focus on health concerns for exercise programs tailored to improve an elite athlete’s performance.

722.303B 인문적스포츠 1-0-2

Humanities-Oriented Sport

This course includes the history and traditional characteristics of Korean Archery. Also, students can enjoy Korea Archery according to the modern rules, so they can not only increase basic physical strength but also control their body and mind right. In addition, students can realize the flavor of Korean physical education through play Gukgung (Korean Archery).
The course is designed for students who have a good command of the crawl or breast stroke and wishes to improve their strokes (backstroke and butterfly). The improvement of stroke techniques and development of endurance on the crawl and breaststroke will be the first goal of the class. The second goal is to learn teaching methods and learn the crawl and breaststroke will be the first goal of the class.

This course focuses on the fundamentals of team handball. Students will have opportunities to increase their team handball knowledge and skills. This course includes basic individual skills (pass, catch, shooting, dribbling etc.), applied skills (fainting, blocking etc.), strategy skills (team offence and defense etc.), and game skills.

M1888.001000 운동영양학 2-2-0

Exercise Nutrition

The study of sports dietetics involves suggesting a suitable diet to an individual in order to maximize one's physical activity. In this course, we will begin with an acquisition of a basic knowledge of nutrition, vitamins, and minerals. We will further our studies to areas that concern a well-balanced diet. We will also study how energy is created through regulated consumption and how this energy is dispersed. Through this course, we will explore how sports dietetics encourages the development of a healthy diet that will enhance one's physical performance.

722.318 핸드볼 1-0-2

Handball

This course is designed for students who have a good command of the crawl or breast stroke and wishes to improve their strokes (backstroke and butterfly). The improvement of stroke techniques and development of endurance on the crawl and breaststroke will be the first goal of the class. The second goal is to learn teaching methods and learn the crawl and breaststroke will be the first goal of the class.

In this course, students will study the history and characteristics of archery. Individuals will regularly practice their mastery of the sport. We will not only practice posture and manners but also increase basic physical strength throughout the semester. Moreover, we will study teaching methods (pedagogy) and professional skills.

722.328 하키 1-0-2

Hockey

(1) 하키경기의 역사와 경기방법을 이해하고 기초 기술 및 전문 기술을 습득하여 경기수행에 필요한 능력을 기른다.
(2) 하키경기에 필요한 체력, 팀 전술, 경기 상황 판단 능력, 포지션별 임무 등을 연구하여 매우 첨단의 학생이 개인 기술과 경기력의 매진하여 투시할 수 있도록 한다.
(3) 한국의 하키 품질이 세계 정상이거나 하키의 저변이 매우 적은 상황에 있어 하키 수업을 통하여 경기력, 지도력, 지도자의 자질을 기르도록 한다.

This course on hockey develops one's ability to play games through an understanding of the history of hockey and maximizing one's game skills. Students will exercise their individual skills to perfect their ability to play games. We will study areas related to physical strength, team strategy, and decision making under game situations. The ultimate goal of this course is to enable students to develop leadership to elevate Korea's status in international hockey competitions and train beginning players.

722.329A 스포츠사회학 3-3-0

Sport Sociology

본 과목은 게임현상 및 제도화된 게임으로서의 스포츠에 대한 개념을 이해하고, 사회제도로서의 스포츠를 이해한다. 특히, 사회 참여형태로서의 스포츠를 이해하고, 사회현상으로서의 스포츠에 대한 개념을 파악하는데 목적이 있다.

This course provides an understanding on the notion of sports as an organized game and the game phenomenon. The purpose of this course is to understand the notion of sports as a social phenomenon.

722.333 발레 1-0-2

Ballet

This ballet course is a basic class that includes traditional Barre, Center and includes sports as a organized game and the game phenomenon. The purpose of this course is to understand the notion of sports as a social phenomenon.

722.336 양궁 1-0-2

Archery

This archery course is designed for students who have a good command of the crawl or breast stroke and wishes to improve their strokes (backstroke and butterfly). The improvement of stroke techniques and development of endurance on the crawl and breaststroke will be the first goal of the class. The second goal is to learn teaching methods and learn the crawl and breaststroke will be the first goal of the class.

This course on hockey develops one's ability to play games through an understanding of the history of hockey and maximizing one's game skills. Students will exercise their individual skills to perfect their ability to play games. We will study areas related to physical strength, team strategy, and decision making under game situations. The ultimate goal of this course is to enable students to develop leadership to elevate Korea's status in international hockey competitions and train beginning players.
722.339  유도 1-0-2  Judo

본 과목은 오늘날 세계적으로 널리 보급되어 있는 전통 무술인 유도를 익힘으로써, 일상생활 가운데 나타나는 외부로부터의 위협에 대처하고, 자신을 보호할 수 있는 능력을 기르는 데 있다. 본 수업은 호신술의 기본자세와 기본동작, 호신술의 운동등각과 기술을 접목한 기술학습, 기술발표, 사정적교육으로 진행된다.

This judo course teaches basic skills and stance that can be used in acts of self-defense. Applied movements and skills will be to be taught in the class.

722.341  운동역학 3-2-2  Sport Biomechanics

인체의 움직임과 관련된 역학적 요인의 기본개념을 강의와 실험을 통해 이해한다. 특히 그 변수들 운동과의 관계를 동작의 효율성 및 안정성 측면의 관점에서 다룬다. 이와 같은 운동의 특성과 운동, 인체에 작용하는 힘의 조절로 구분하고 그 모든 요인을 인체 동작의 역학적 법칙으로 통합한다.

The lectures and laboratory sessions of this course will present fundamental concepts of human movement. The variables of human movement, efficiency, and safety will be discussed in this course. The curriculum includes the anatomy, structure, and functions of the human musculoskeletal system of human body. We will also study the control of forces applied during movement, body motion produced due to structural and environmental constraints, and dynamic kinetics.

722.343A  스포츠정책 2-2-0  Sports Policy

이 강의는 사회체육의 제현상을 설명하는데 필요한 정의, 개념 그리고 사회체육의 본질적 특성을 기반으로, 사회체육의 이해를 통한 사회체육의 기초학습을 돕는 데 그 목적이 있다. 이를 위하여 사회체육의 분야별, 유사개념, 참가요인 및 사회체육과 노동의 관계를 고찰하고, 사회체육의 주요 정책의 지역사회, 상업체육에 대해 심도 있게 분석한다. 그리고 사회체육의 핵심 구성 요소인 시설, 지도자, 행정 조직 및 정책에 대하여 살펴본 다음, 미래사회에서의 사회체육의 역할 및 기능을 조명해 본다.

This course explains the factors related to mass sports. The aspects and characteristics of mass sport will be analyzed through this course. We will study the essence and general idea of mass sports. We will also discuss the relation between mass sports and the local community and commercial sports. This course will provide a vision of the future of mass sports.

722.346  무용창작론 2-2-0  Theory of Creative Dancing

춤의 본질을 살펴보고 태 아예술의 비교연구를 통해 삼삼으로의 춤, 예술로서의 춤을 이론화한다. 특히 춤과 예술의 변환, 정치, 경제, 사회 구조의 예술, 문화의 관계를 고찰한 후 동시에 창작과정을 통하 여 실제로 실현하는 춤을 경험함으로써 무용창작 연구를 이해하고자 한다.

Acquiring an understanding of the essence of dance is the main objective of this course. We will compare dance with other forms of art. We will analyze its influence on different aspects of society such as economy and politics. This course studies the procedure of creating dance and includes practice sessions.

722.350A  배드민턴 1-0-2  Badminton

본 수업은 호신술 기술 및 응용기술, 전술 등을 학습하며 보다 숙달된 기술과 지도법을 갖추는 것이 목적이다. 다양한 상황에서 서브 및 애스터 방법, 포텐드 스테로크와 백핸드 스테로크, 오버핸드 스테로크 등을 적시에 사용할 수 있는 능력을 기울이도록 지도한다.

Basic and advanced badminton skills will practiced in this course. Students will be required to perform different skills such as the forehand stroke, backhand stroke and overhead stroke. This course deals with skills for receiving and serving, as well as instruction techniques.

722.351A  스키 1-0-2  Skiing

통계 스포츠의 대표적인 종목인 스키를 높숙하게 구사할 수 있도록 지도하며 프플 보건, 페리언, 패딩 등의 기술들의 지도법을 학습하는 것이 목적이다.

Ski skills required for a good performance will be in this course. The goal of this course is to enable students to perform skills such as pflug bogen, parallel, and wedering.

722.353A  윈드서핑 1-0-2  Wind Surfing

수상스포츠는 물을 매개로 이루어지는 신체활동으로서 요트, 스킨스쿠버, 카누, 조정, 윈드서핑 등의 종목으로 구성되어 있다. 본 수업은 수상에서 이루어지는 스포츠의 종류와 개념을 이해하고 수상스포츠에서 사용되는 각 장비의 사용법과 운용방법을 익히므로써 수상레저 및 스포츠활동의 이론과 실기능력을 배양할 수 있도록 한다.

Water sports consist of activities such as yachting, canoeing, boat racing, and wind surfing. This course provides an understanding of various water sports as well as methods related to the usage of each equipment. This course combines theory and practical technique aimed to enhance one’s enjoyment of water sports.

722.354  댄스스포츠 1-0-2  Dance Sports

발포, 탭, 차이나, 자이브, 폴카, 삼바, 브라운 등 정통 댄스 및 모던 댄스를 춤추며 배우고자 하는 데 그 목적이 있다. 이를 위하여 various types of dance and modern dance will be taught. The goal of this course is to enable students to learn basic techniques of these dance forms.

In this course, students will learn the techniques of dance sports including waltz, jive, cha-cha, foxtrot, polka, rumba, samba, and swing as well as dance etiquette. They will learn to respect and cooperate with partners. By dancing, students will improve their physical fitness and sociability.
Taeckyun

Taeckyun is Korean traditional and folk martial art. Especially, Taeckyun is registered as an intangible cultural asset #76 in Korea. Taeckyun consists of steps with unique rhythms and various skills, therefore, students can learn about this martial art with enjoyment.

Motor Development

This course introduces concepts and principles of motor development across lifespan. The objectives of this course are to recognize the importance of motor development and to become motor development experts.

Health and Exercise Science with Laboratory

This course is intended to provide an opportunity for students to put theory into practice through relevant experiments. Topics include measurement and evaluation of health and fitness such as muscular strength, flexibility, and cardiorespiratory capacity. particular attention is also placed upon dealing with the health issues including obesity and other modern chronic diseases.

Physical education for the Disabled

이 강좌에서는 특수체육에 대한 정의를 비롯하여 역사, 관련법령, 통합체육 등 기본적인 내용을 소개하고자 한다. 또한 장애 유형별 분류 및 행동특성을 파악하여 학생들로 하여금 실제 프로그램에 적용시킬 수 있는 능력을 향상시키는데 그 목적이 있다.

This course consists of the definition, history, laws, and administration of adapted physical education. This class enables students to classify disability types and familiarize themselves with the characteristic behaviors people with disabilities. The objective of this course is to encourage students to apply their knowledge to adapted physical programs.
M1886.000400 스포츠공학 개론 2-2-0

Introduction to Sports Engineering

과학적으로 스포츠를 이해하고 공학적으로 인체 움직임을 설명하기 위해 필요한 기초 중 하나는 인간의 움직임을 정량적으로 평가하고 예측하는 것이다. 본 강의에서는 인간 운동을 이해하기 위해 사용되는 공학적인 접근 방법들로 소개하고 각종 스포츠와 일상생활에서의 인간의 움직임을 정량적으로 이해하는 데 필요한 기초적인 물리학적 수학적 이론들을 설명한다. 또한 소개된 이론과 단순한 모델을 통해 쉽고 간단한 문제들을 하기 쉽게 연관시키는 단계로 학습한다.

In the field of sports science and engineering, it is essential to evaluate and predict human motor performance quantitatively. This course introduces the examples of sports engineering, and the necessary theories in Physics and Mathematics to analyze human movements quantitatively. Students are expected to learn how to relate force and the corresponding motor output using the theories and simple models.

722,430 무용예술론 2-2-0

Artistic Theory of Dance

예술의 본질을 이해하고 예술의 한 분야로서의 춤에 대한 인식을 높이는 데 중점을 두고 다룬다. 또한 무용을 통해 발견할 수 있는 표현력, 움직임, 형식미 등을 중심으로 학습하며 춤의 미학적 구조와 원리 중심으로 다루어 춤의 본질적인 문제와 예술로서의 가치를 모색한다.

This course concerns understanding the essence of art and appreciating dance. We will concentrate on artistic elements of dance such as artistic presentation, rhythmical beauty, and the beauty of form. Students will study the main issues regarding the essence of dance and its artistic value.

722,431A 체육논리 및 논술 2-2-0

Logic and Essay in Physical Education

본 과목은 체육 및 스포츠를 중심으로 하는 신체문화와 관련된 제반의 사회현상과 그 속에서 발생하는 문제를 비판하고 발전 대안을 모색하고자 하는 데도 및 역량의 형성을 도모한다. 이를 위해 고도로부터 현대에 이르기까지의 동·서양 신체문화에 관한 통시적이고 기초적인 과목과 함께 다양하게 나타나는 체육 및 스포츠 실천과 관련된 가치와 윤리문제에 관한 논의가 이루어진다.

This course criticizes social problems that are related with sports. Students are encouraged to offer alternatives for existing problems, and will debate problems regarding the culture of body. We will study the history of the East and the West as well as the moral problems related with sports.

M1886.001300 운동처방의 이론과 실제 2-2-0

Exercise prescription: principles and practices

운동검사 및 처방은 검사 전 건강상태를 평가자료로 이용하기 위한 것으로 본 교과는 운동 검사의 수행을 위해 운동 검사의 일반적 원리와 운동 검사 방법 및 절차, 운동 검사시 유의사항등 운동 처방을 위한 기초적인 지식을 학습한다.

Students will learn the principles and methods of exercise inspection.

722,437 야구 1-0-2

Baseball

본 강좌는 단체운동으로서의 야구의 기초를 가르치는 데 초점을 맞추고 있다. 본 과목을 수강하는 학생들은 야구기록과 관련 기술(루기, 승점, 타격, 주수 및 공격 기술) 및 투격을 수학할 수 있도록 다음과 같이 구성한다. 기초기술(공방파와 단거리, 타격 공 잡기, 투석기능(타격공을 받고 단거리, 각 수비 위치별 기능 하기), 선수기능(히트 앤드 안, 반트 앤드 안, 데그 앤 플레이, 아웃 플레이, 멀래이 플레이, 포위공 플레이, 경기정리방법으로 나누어 실제 야구경기하기)

This course will focus on the fundamentals of baseball as a team sport. Emphasis will be placed in the following areas: catching, throwing, hitting, defense strategy, and offense strategy. This course will provide learning opportunities in the following areas: basic skills (catching, throwing, and hitting), complex skills (catching and throwing, position, and hitting the pitched ball), and strategy skills (hit and run, bunt and run, tag up play, double play, relay play). Practice game sessions are included.

722,444A 골프 1-0-2

Golf

골프의 특성과 가치를 이해하고, 골프의 기초기술을 배운다. 학습환경의 여건 상 아이언 샷을 통해 기본적인 그립과 스프링을, 퍼시웨이, 단거리, 랜셋, 볼런트 스트로크, 퍽스 스트로크, 이리드 스트로크, 헬브 스트로크, 레슨 스트로크, 팔로 스트로크를 배우는 데 도움을 줄 수 있도록, 골프의 문화, 경기방법, 경기규칙에 이해하여 장례 스스로 골프를 즐기고 기능의 향상을 도모할 수 있는 기본적인 자질을 갖추도록 한다.

The characteristics and basic skills of golf are practiced in this course. Due to the limited facilities, the iron club will be used to teach skills such as address, grip, and swing. The manners required in the sport will be learned in addition to game rules and regulations. This class will enable the student to enjoy golf on his or her own.

722,445A 볼링 1-0-2

Bowling

강의를 통해 볼링의 역사, 경기규칙, 용어 등을 이해시키고 기초 기술의 학습을 통해 볼링의 경기기술을 실제로 체득하고 능숙하게 구사할 수 있도록 한다. 구체적인 교수내용으로는 볼링의 개요, 야구, 스피드 투구동작, 투구동작의 기본 요소(볼선, 볼링볼양, 스트로크 양, 포워드 스트로크, 뒤로 스트로크, 포워드 구스)로 구성한다.

This course begins with an introduction to the history, rules, and terms of bowling. Basic skills are taught to enable students to play the game. Throwing movements (address, push-away, down-swing, back-swing, forward-swing, release, rally, followthrough) and modes of the ball (straight ball, curve ball, hook ball) will be studied in this course.

722,447 스포츠마케팅 2-2-0

Sport Marketing

이 과목에서는 스포츠마케팅의 기본개념과 원리를 소개한다. 본
과목의 목적은 스포츠마케팅의 정확한 개념과 중요성을 인식하고, 현실세계의 다양한 스포츠마케팅현상을 분석하고 이해할 수 있는 능력을 함양하는 것이다. 이를 위해 국내외 사례를 중심으로 스포츠마케팅요소를 공부한다.

This course introduces the basic concepts and principles of sports marketing. The objective of this course is to recognize the importance of sport marketing and become capable of analyzing sports marketing phenomena.

722.448 스포츠의학 입문 2-2-0
Introduction to Sports Medicine

본 과목은 스포츠의학의 주요 과목으로서 스포츠의학의 개념, 역사, 연구적 가치에 대한 개괄적인 이해를 도모 한다. 또한 의학적 측면에서의 신체활동은 인체의 효과를 분석, 관찰함으로써 건강을 증진시키고 선수들에게 도움을 주는 것을 목표로 한다. 이 스포츠의학 분야는 변화하는 전문화된 지식수준에 따라이어지며, 본 과목은 스포츠의학의 개념을 소개하고, 직용분야는 신체 내적구조(해부학)와 기능(생물학)으로 구분한다. 또한 일반에 대한 운동의 효과와 스포츠 상황에서의 상해와 장애에 대해 학습한다.

Sports medicine analyzes the impact of physical activities upon the human body from a medical perspective. This course introduces students to the concepts of sports medicine and areas of application. Studies in anatomy and physiology support the course work of this course. Furthermore, we will study the effects of exercise on illness and learn more about sports-related external injuries and disabilities.

722.449 요가 1-0-2
Yoga

요가는 육체적, 정서적, 지적, 감정적 모든 면에서 도움을 주는 인도의 전통 건강 수련법이다. 본 강좌는 학생들이 요가의 근본적인 원리를 이해하도록 구성되어 있으며, 요가의 특정 동작들 및 호흡기술, 집중과 같은 요소를 배울 수 있도록 학습한다. 또한, 본 강좌는 학생들이 삶의 이와의 관계에서 현재의 상황에 집중하는 방법을 배워 안정감과 균형을 가질 수 있게 된다.

Yoga from India is an old system of health that benefits all aspects of physical, spiritual, intellectual and emotional. This course is intended for students to understand the basic principles of yoga. Students will learn specific postures, breathing techniques, centering and deep relaxation that will assist in calming the mind and body. The emphasis of this class is assisting students in focusing on the present moment in relaxation. A deeper and longer relaxation in this class will create a sense of calm and promote improved balance and concentration. And they also can experience physical effects of stress and pain relief, slower and deeper breaths, better flexibility and mobility, increased strength.

722.450 스쿠버다이빙 1-0-2
Scuba Diving

스쿠버다이빙은 간단한 보조용구 또는 수중호흡기를 부착하고 물속에 잠수하는 것으로 우리나라에서도 많이 즐겨지고 있는 수상 스포츠다. 스노클다이빙과 스쿠버다이빙으로 구분되며, 다음과 같은 특성을 가지고 있다.

Scuba diving is an aquatic sport widely enjoyed in Korea. By using water goggle or snorkel, one can dive and surf in water. Breath-hold diving, and scuba diving are the main contents of the course. Scuba diving is regarded as the after course of swimming. Aquanautics, scuba equipment, and the scuba system are the topics covered in the course.
722.454 장애유형별 특수체육원리 3-3-0

Diagnostic groups in Adapted Physical Activity

본 과정은 특수체육 프로그램 대상자들의 개인적 기능의 차이에 따른 특수한 요구에 맞는 체육프로그램의 원리를 탐구하는데 주 목적이 있다. 본 과정에서는 보건복지부에서 분류한 장애유형 및 노화현상에 대하여 살펴보고 그에 따른 개인의 기능 저하와 그에 따른 맞춤형 운동프로그램을 개발할 수 있도록 특수체육 전공 학생들에게 전문지식과 과학적 근거에 기반을 둔 실제 프로그램개발의 기회를 제공한다.

The main intent of the course is to provide students with knowledge and practical skills to design adapted physical activity program for people with various special needs. The course will provide students an opportunity to study and apply principles and theories to develop adapted physical activity program which meets unique needs of individuals with special needs including those with disabilities and older adults. The course will emphasize evidence based approach when designing adapted physical activity programs.
생활과학대학
College of Human Ecology
공동과목(Extradepartmental Courses)

350.101A* 생활과학의 이해 1-1-0

Introduction to Human Ecology

생활과학대학의 신입생을 대상으로 개설되는 본 과목은 생활과학에 대한 학문적 특성을 소개하고, 각 영역에 대한 이해를 높이기 위한 설계체계를 제공하는 주요 주제로서, 다학적 학문 영역에서 생활과학의 몫임에 이르는 교육생들이 제공된다.

350.108 건강가정론 3-3-0

Introduction to Healthy Families

본 과목은 가정과 교사양성을 위한 주거생활 분야의 교육훈련을 목적으로 한다. 먼저 합리적이고 궁극적이며 적절한 주거생활의 이해를 있으며, 학습자의 이해를 위하여 온실 동등한 한국의 주거생활환경을 고찰하고, 그의 도시사정 속에서의 주거생활의 특성을 고찰하며 주거에 대한 사회적, 심리적, 문화적, 사회학적, 정책적 철학을 학습한다. 그리고 전파사에서 바람직한 주거생활문화란 무엇인지로서 참가하게 되는 것이다. 나이가 큰 교육자료로 교육기 위한 구체적인 방법과 다양한 교육료를 포괄하고 직접 주거생활교육학 모형 교원을 구성한다.

350.304 식품영양학교육론 3-3-0

Teaching of Food and Nutrition

중등학교 교육과정을 준비하는 학생들 대상으로 식품영양학의 체계적인 이해와 교육을 위해 기초영양학과 응용영양학을 바탕으로 영양소들이 인체의 신진대사에 미치는 영양, 식습관 영향, 단체 급식, 기타 영양교육의 개발 및 평가, 다름은 영양학과, 식량 자원의 합리적 이용을 위해 각종 푸드문화 식품관련의 지구, 가능, 조리 중에서 일어나는 식품의 변덕성 식품의 영양가, 향미, 몰성 등에 미치는 영향에 대해 연구하는 식품생산학과 관련한 기초·조리 및 응용 분야들을 포괄적으로 다루며 강의를 통해 습득한 내용을 가정과 지역사회를 통한 문화의 건강 수용에 활용할 수 있도록 식품영양학의 다양한 분야를 접할 수 있는 기회를 제공한다.

350.305 의류학교육론 3-3-0

Teaching of Clothing and Textiles

가정과목에서 기본적인 내용요소에 의류학이 가정과목에서 제공할 수 있는 교육적 경험에 대한 인식을 형성하고, 의류학의 이해를 통해 의류학의 영역에서 다양한 채택의 교육자원을 조사하여 가정과목의 의류영역을 정리적으로 포괄할 수 있는 가정과 교육의 자질향상을 목표로 한다.

The goal of this course is to enhance the ability of future home economics teachers for creative and systematic education through an understanding of clothing and textiles.
the home economics teaching license. The purpose of the course is to explore consumer studies and family resource management.

M2174.001300 가정교육론 3-3-0
Theories of Home Economics Education

This course aims to provide students essential background of the home economics education in secondary school. Academic and practical relations between home economics education and human ecology are addressed. Students learn basic concepts and theories of curriculum development, and teaching and assessment methods. Students are expected to discuss recent issues and trends in home economics education. This course is one of the basic courses for students who apply for secondary teacher qualification.
생명과학대학(College of Human Ecology)  :: 식품영양학과(Dept. of Food & Nutrition)

352.209 유기화학 3-3-0

Organic Chemistry
지방족 화합물과 방향족 화합물, 여러 가지 기능기의 구조와 성분을 알아보며 이들이 관계하는 반응의 원리들도 학습하며, 유기 화합물의 분광학적 분석의 기초적인 원리에 대해서도 학습한다.

In this course, students will study the structures and properties of organic compounds including aliphatic and aromatic hydrocarbons with various functional groups and the principles governing their reactions. Topics will also cover the basic principles of spectrometric identification of organic molecules.

352.210 생화학 4-4-0

Biochemistry
생명현상에 관한 것을 화학적으로 연구하는 학문으로 생체성분의 화학적 구조-기능면을 중심적으로 다룬다. 세포의 구조와 기능, 물, 아이노산과 peptides, 단백질, 탄수화물, 지질, 핵산의 구조, 물리적 성질을 다루며, 효소의 분류, 종류, 성질, 조효소에 관하여 중분한.

In this course, students will study the chemistry of molecules and cellular components including enzymes, genes, and metabolic assemblages.

352.213B 급식영양학 2-2-0

Food Service Management
급식산업의 국내외적 현황을 이해시키고, 급식조직의 관리자로서 서양에 학부의 기초조직 경영 및 관리학을 습득시키는 것을 이 과목의 주목적으로 한다. 업무적으로 변화하는 급식산업의 정의, 개요, 현황 등을 강의내용과 과제 수행의 과정을 통해 이해하도록 한다. 또한 급식조직의 효과적, 효율적 경영을 위해서는 경영이론의 경영학을 이해하는 것이 필수적임을 가르쳐준다.

The objectives of this course is to help students learn about the food service industry and to introduce management concepts and principles applied to the industry. By participating in the class and the assignment, students are to learn various management theories in the context of food service organizations. This course will help students get prepared to become an effective and efficient manager of food service organizations in the dynamic environment.

352.215 조리원리 및 실습 3-1-4

Principles of Food Preparation and Lab.
여러 가지 식품의 기호와 생생한 관리에 관한 기본적 지식을 강화하고 이들 식품의 조리 및 성분에 대하여 간단히 설명한 후 이 조리과 성분이 각종 조리 조작에 의하여 일으키는 반응과 변화 현상을 설명하고 이러한 이론을 실습을 통하여 확인해 볼 수 있게 막, 색, 질감 및 영양가 높은 음식을 만들 수 있는 능력을 기르는, 이 과목은 저학년을 대상으로 하므로 길은 이론보다는 다양한 실험을 통해 학습을 시험으로써 학생들이 쉽게 할 수 있게 한다.

In this course, students will study the preparation of food products of standard quality. The influence of the composition and standard methods of food preparation will be studied also.

352.216 인체생리학 3-3-0

Human Physiology
생명유지의 기본개념인 신체내부 환경의 항상성 유지 및 기관계, 소화기계, 순환기계, 비뇨기계, 근골격계, 신경계, 내분비계 등 각 기관의 구조와 기능에 대해서 종합적으로 학습한다. 인체 각 기관이 생장기능의 부담, 혈, 혈소포를 통해서 동합된 개체로서 생활활동을 영위하는 기관 메커니즘을 이해하도록 한다.

In this course, students will study the integration of body systems and the many processes that keep the systems working. Topics will cover the fundamental mechanism of bodily functions as well as the concept of the body’s internal environment and various coordinated functions including digestion, absorption, respiration, circulation, reproduction, and their regulation.

352.217B 식품화학 3-3-0

Food Chemistry
<식품학과>에서는 식품의 주요 구성성분인 수분, 탄수화물, 지질, 단백질의 화학적 구조를 학습하고, 이에 기초하는 화합 반응과 물리적 특성을 이해함으로써 이들에서 유래하는 기능적 특성을 알 아보는 것과, 식품내의 이러한 성분들이 저장, 가공, 조리과정에서 어떻게 변화하는지를 알게하고 이러한 변화가 식품의 용기와 홍의 특성에 미치는 영향을 파악하여, 식품의 특성을 조절하는 데 응용할 수 있도록 학습한다. 이들 구성 인간간의 반응 및 서로에게 미치는 영향 뿐 아니라, 공기, 습도, 온도, 창선타 및 외부인자를와의 작용을 파악하여 식품 내 화합물질에 대한 종합적인 이해를 돕는다.

This course covers the chemistry of main food components including the chemical and physical properties of water, proteins, lipids, and carbohydrates in the context of their functional roles in foods. It also emphasizes reactions and physical interactions between the components and environmental factors, including air, humidity, temperature, or light as well as interactions among the food components themselves.

352.302B 고급영양학 3-3-0

Advanced Nutrition
<기초영양학>에서의 이론을 연속적으로 바탕으로 고급영양학으로서의 학습을 하여 학습한다. 각 영양소에 대하여 구조, 성질, 채식에 서의 생리작용, 필요량, 결핍증, 필요량 및 섭취기준 및 관련 건강문제 등을 다룬다.

This course will cover human nutrition and physiological function of micro-nutrients: vitamins and minerals. After this course, students will be expected to learn the fundamental knowledge of vitamins and minerals including their structure, metabolism, metabolic functions, requirements, reference intakes and related health problems.

학점구조는 "학점수-주당 강의시간-주당 실습시간"을 표시함. 한 학기에는 15주로 구성됨. (The first number means "credits"; the second number means "lecture hours" per week; and the final number means "laboratory hours" per week. 15 week make one semester.)
352.306 Diet Therapy and Lab.

Dietary intake and utilization of nutrients. Principles and methods of diet planning, analyzing, and evaluating nutritional needs and intakes, and designing dietary plans to meet those needs. Emphasis will be on understanding the various aspects of dietetics and nutrition.

352.323A Food Analysis Lab.

Introduction to the techniques used by food analysts for the determination of the chemical composition of foods. This course will focus on the application of these techniques to the analysis of foods and beverages.

352.329A Food Microbiology and Lab.

This course will introduce the basic principles of microbiology as they apply to the food industry. The emphasis will be on the application of these principles to the prevention of foodborne illnesses and the control of foodborne pathogens.

352.327B Nutrition throughout Life Cycle

Study of the nutritional needs of infants, children, adolescents, and adults at various stages of their lives. The course will cover the principles of nutrition and the importance of a balanced diet.

352.328B Experimental Food and Lab.

The application of food science principles to the development of new food products. The focus will be on the use of experimental methods to evaluate food properties and to develop new products.

352.329A Food Microbiology and Lab.

This course will introduce the basic principles of microbiology as they apply to the food industry. The emphasis will be on the application of these principles to the prevention of foodborne illnesses and the control of foodborne pathogens.

352.325 Practice in Dietetics

Students will be involved in the practical aspects of dietetics, including the planning and preparation of meals, the evaluation of dietetic practices, and the application of dietetic principles to the management of specific client needs.

352.323A Food Analysis Lab.

This course will introduce the basic principles of microbiology as they apply to the food industry. The emphasis will be on the application of these principles to the prevention of foodborne illnesses and the control of foodborne pathogens.

352.327B Nutrition throughout Life Cycle

Study of the nutritional needs of infants, children, adolescents, and adults at various stages of their lives. The course will cover the principles of nutrition and the importance of a balanced diet.

352.328B Experimental Food and Lab.

The application of food science principles to the development of new food products. The focus will be on the use of experimental methods to evaluate food properties and to develop new products.

352.329A Food Microbiology and Lab.

This course will introduce the basic principles of microbiology as they apply to the food industry. The emphasis will be on the application of these principles to the prevention of foodborne illnesses and the control of foodborne pathogens.
Food Chemistry and Material

The objectives of this course is to help students learn about the appropriate selection of food and the processing method of food preparation. Students will study the preparation, processing, preservation of food products and the food quality, components, characteristics of agricultural food live-production, processing, preservation of food products and the food method of food preparation. Students will study about the appropriate selection of food and the processing methods to make connections between the chemical and physical changes that occur in food processing/preservation and their impact on food quality. Topics include properties of materials in foods, heat preservation and processing, cold preservation and processing, dehydration and concentration, and irradiation and microwave heating. Some selected food products are covered as case studies to understand manufacturing processes.

Nutrition in the Community

This course will cover the biochemical and physiological aspects of microorganism in food processing and spoilage including the principles governing fermentation and microbial food poisoning. Also Food microorganisms are intimately related to the occurrence of human disease and play a crucial role in the manufacture of the fermented foods and probiotics. Food safety issues are drawing considerable interests with respect to international trades and consumer demands.

Meat Management, Lab.

The objectives of this course is to help students learn about the appropriate selection of food and the processing method of food preparation. Students will study the preparation, processing, preservation of food products and the food quality, components, characteristics of agricultural food live-stock products, favorite food in the physical, chemical area.

Food Hygiene and Safety

This course will cover the biochemical and physiological aspects of microorganism in food processing and spoilage including the principles governing fermentation and microbial food poisoning. Also Food microorganisms are intimately related to the occurrence of human disease and play a crucial role in the manufacture of the fermented foods and probiotics. Food safety issues are drawing considerable interests with respect to international trades and consumer demands.

Food Processing & Preservation

This course will cover the biochemical and physiological aspects of microorganism in food processing and spoilage including the principles governing fermentation and microbial food poisoning. Also Food microorganisms are intimately related to the occurrence of human disease and play a crucial role in the manufacture of the fermented foods and probiotics. Food safety issues are drawing considerable interests with respect to international trades and consumer demands.
Molecular Biology in Nutrition

This course covers the basic molecular and cellular biology including methodology used in molecular nutrition research and molecular mechanisms that mediate the role of dietary factors in the prevention and development of diseases.

Understanding HACCP

This course is designed for students to offer research experience in the industry or other official institutes in the field of food and nutrition. This course will help the participating students to better understand the necessary skills for the job performance or research abilities in the research or industry fields.

Nutrition and Functional Food

This course is designed to give students an overview of the basic HACCP and how HACCP assists the food industry. This course offers 7 principles and 12 requisites of HACCP and various food industry site visiting including hospitals, institutional food service companies, and food factories.

Understanding Food and Nutrition

This course is designed to give students an overview of several various research areas in the field of food and nutrition, especially exploring recent research topics discussed in food companies and research institutes (domestic and foreign). This series of research talks suggests basic knowledge and prospects to students majoring in food and nutrition.
Food and Nutrition Communication

The importance of food and nutrition communication is increasing in various areas of the modern society. This course introduces food and nutrition communication in the area of such mass communication as newspapers, broadcasting, and advertising, which are atypical career paths for food and nutrition major students. Students will learn about the current status and problems in the structure and contents of food and nutrition communication in such areas.

Food Culture and Lab.

This course will cover the ecological and sociocultural influences on diverse food culture. The relevant labs will provide opportunities to learn knowledge and techniques necessary for food and nutrition majoring students.

Clinical Nutrition and Lab.

Overview of changes in physiological and biochemical responses, and nutritional metabolism associated with selected diseases will be addressed. By understanding the mechanisms of these changes, students will gain the knowledge to apply nutritional and dietary interventions in Diet Therapy course. Blood and urine samples will be collected and the analysis of biochemical parameters commonly used in assessment of the patients will be performed during the lab class. Principles of analysis and interpretation of results will be covered.

Nutritional Assessment and Practice

This course covers the principles and techniques for evaluating the nutritional status of individuals and groups.

Experimental Food and Sensory Evaluation Lab.

Students will learn theoretical backgrounds and methodologies of sensory evaluation and apply them to food formulations that they experiment.
Fashion Drawing

 앞으로 학습할 패션일러스트레이션의 기초가 되는 과목으로서, 패션디자인의 기초가 되는 인체를 관찰하고 표현하는 연습과정이다. 인체의 비례와 균형을 비롯하여 인체의 세부와 움직임에 따른 근육의 변화 등 다양한 포즈의 빅스케치를 실습하여, 인체의 정확히 파악하고 묘사하는 능력을 키워 패션 디자인을 위해 아름답고 개성적인 인체미를 표현하는 능력을 기른다.

In this basic course in fashion illustration, students will study anatomy as the basis for understanding the human figure. Topics will cover an analysis of skeletal and muscular structures, proportions and movements of the human figure. Topics will cover an analysis of skeletal and muscular structures, proportions and movements of the human figure.

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Fashion Illustration

 크로키 과목에서 습득한 인체 묘사능력을 기초로하여 기본적인 인체와 일러스트레이션을 위한 각종 스케일과 테크니컬을 인문학. 여러가지 제한과 기법의 변화로 패션일러스트레이션의 기초를 더욱확실하게 실용적인 패션디자인의 시각적 표현능력을 기른다.

This course will cover the skills and techniques for illustrating fashion designs on the human figure. To develop an understanding of fashion design, students will use a variety of illustration techniques, approaches, and media.

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Textile Fabrics

 의복재료로 사용되는 섬유제품의 심, 적목, 착용성, 부적목 등의 조직 및 특성을 얻에의 특성과 관련지어 학습한다. 강의내용은 각 섬유제품의 제조요소와 용도, 종류, 특성, 적목조직, 착용적, 그리고 기타 의복재료의 종류별 특성 등을 포함한다.

Study on the structures and properties of yarns, fabrics, knits, and other textile products in relation to serviceability and appearance.

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Clothing Construction

 인체와 의복구성설계와 복식디자인에서 학습한 원리적인 이론을 바탕으로 하여 실험 작품을 제작하는 과정이다. 실험도 디자인 구성을 활용하고 평판구성을 몰라우스와 스커트에 적용시켜 구성법과 재단법, 복설의 원리를 실습실습해 복장으로써 의복구성의 기본능력과 응용능력을 기른다. 수업의 목표는 학생들이 패턴을 다자인에서 분석하고 또 그것을 직접 만들어 보는 과정을 거쳐서 높은 학습효과를 가지는 의복에 대한 이해를 높인다. 본 수업은 여성복 제작에 초점을 맞춘다. 선수과목은 <인체와 의복구성설계>(353.226).

Course that focuses on designing apparel through the Flat Pattern method. Students will learn to develop clothing designs from a basic pattern and will acquire fundamental skills such as clothing construction including measuring, working with simple patterns, using a sewing machine and basic construction techniques. Blouses and skirts will be designed and constructed. The goal of this course is to expand the student’s competencies in pattern design, analysis and fitting test. Also, this course will focus on the pattern design of women’s garments. (Prerequisite: 353.226)

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Clothing & Health

 인간의 생활환경 중 의복을 포함한 중요한 생활환경과 인간 건강과의 관련성을 학습한다. 이를 도대로, 의형식을 활용한 건강 증진 방법과 질병의 예방 및 치료를 돕는 의복 및 의류제품에 관련 학습한다.

Learn the relationship between physical health and thermal living environment of human including clothing microclimate. Based on this relationship, further investigate

1) various therapeutic clothing gears that help preventing and treating disease of patients; and 2) daily clothing life programs that helps improving health of general population.

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Textile Design

In this course, textile design techniques will be provided as means of artistic expression. Various surface design methods will be covered and digital textile printing will be practiced to perform design on textiles.

Textile Care and Experimental Lab.

This course will provide the basic knowledge for textile care including laundering and disposal. Topics will cover the theory of detergency and its evaluation, bleaching and softening, and the relationship between textiles and environmental pollution.

Clothing Physiology and Lab.

This course concerns the biological function of clothing. We will study microclimate regulation and comfort, body protection, and motion adaptability and human physiological responses. Health-related benefits by clothes and the relationship between environment, human body, and clothing will be the center of our studies.

Construction of Korean Costume

This course introduces distinctive characteristics of fashion products in terms of marketing. The major concepts of this course include fashion fundamentals, strategies for products and brands, market segmentations, fashion retailing, consumer behavior, and production planning.

Global Fashion Business

Under the globalized context, students will study current issues, characteristics, and prospects of the fashion business. Practical capabilities required for fashion majors will be covered.

Fashion Merchandising

Emphasis on principles used in the merchandising of fashion products. Examines the interrelationship between trend analysis, marketing, and retailing. Some computer applications related to mathematical concept and calculations used in developing merchandise budgets, exploring how merchandise budgets translate into buying decisions.

The courses are designed to enable students to learn about the principles and applications of textile design, textile care, and clothing physiology. Students will gain knowledge and skills necessary for the field of fashion and textiles, including the practical applications of colorants, the biological function of clothing, and the construction of Korean costume.
353.337 패션소비자분석 3-3-0
Fashion Market Research
패션산업은 변화하는 환경과 시장, 소비자에 대한 이해로부터 시작된다. 본 수업에서는 패션산업의 의사결정에 기초가 되는 기여, 시제품, 시장 환경을 이해하고 관련 정보를 수집하는 방법, 수집된 자료를 분석하고 그 결과를 해석하는 방법, 인위적 자극을 의사결정에 활용하는 방법 등 패션산업참의의 전 과정에 대해 학습한다. SPSS 통계 패키지 프로그램을 활용한 자료 분석실습이 포함된다.
Fashion industry heavily depends on knowledge of ever changing environment. This course is designed to cover the whole process of fashion market research from collecting data, analyzing, interpreting, and applying them in fashion firms’ decision making. Students will practice data analysis with the help of a statistical package (SPSS) in computer lab.

353.416A 복식사회심리 3-3-0
Socio-psychological Aspects of Clothing
본 강좌는 인간의 의복행동이 사회문화적 상황 속에서 어떻게 변화하며, 인간관계를 보다 바람직하게 하며 나아가기 위하여 또한 심리적 만족을 위하여 이러한 의복행동이 이루어져야 하는가 등
의 문제를 탐구한다. 이를 통해 인간의 의복을 착용하게 될 동기, 사회문화에 따른 의복행동과 그에 영향을 미치는 사회적 요인들, 개인의 성격, 가치관, 태도, 홍미, 자기개념 등의 심리적 요인과 의복행동의 관련성을 학습한다. 이를 통해 인간의 복식행동을 이해하고, 개인의 의복관리뿐 아니라 패션마케팅의 기초로 삼다.
Clothing is an important phenomenon in corporate culture. This course applies concepts and theories of social psychology to explain human behavior related to clothing. Major concepts are psychological factors such as personal characteristics, desire, and self-concept, as well as social factors such as sex, age, role, status, symbolic communication, and impression formation. Understanding these various factors can make comprehension of human clothing behavior and fashion marketing.

353.417A 특수기능복 3-2-2
Functional Clothing
다양한 생활 및 작업환경에서 인체를 보호하고 작업능력을 최대로 향상할 수 있는 기능성 의복과 장비를 개발할 수 있는 이론과 기술을 학습한다. 방수복, 방한복, 소방복, 농약방제복, 군복, 스포츠웨어, 잠수복, 신체장애자복, 우주복 등이 포함된다. 이를 통해 추위·더위는 물론, 다양한 특수 환경에서의 인체생리반응, 성능 및 기타 기능성 소재, 의복의 심층, 동작분석 등에 관한 기본 이론을 학습한다. 이를 토대로 기능성 의복을 개발하고 인체착용 실험 등 객관적으로 그 가능성을 평가하는 전 과정을 수학한다.
This course covers the functions of clothing such as body protection from the hazardous environment and maximizing work efficiency. As example of functional clothing, sports wear, clothing for individuals with disabilities, space suit and the garments and equipments for protection from heat, cold, chemical, flame, solid particles, sound, biological, electrical, and radiant hazard will be treated. The course reviews basic theories about human physiological responses in various environments, characteristics of textiles and other materials, clothing system, and body motion. Also, the whole process of developing functional clothing from designing to evaluating its efficiency through wear-trials will be studied.

353.428B 의류소재기획 3-2-2
Apparel Fabrication
패션디자이너의 중요한 요소인 소재를 검토하여 시대적 경향에 적합한 소재를 선정하고 개발할 수 있는 능력을 배양한다. 최근 개발된 천연소재를 공부하고 그들이 가진 기능과 감성을 논한다. 이를 토대로 미래의 트렌드에 맞는 소재를 기획하고 예측하는 것을 실습한다.
To practice the planning & developing trendy fabrics by the analysis of the fashion trend and their effect on textiles. Newly developed textiles are studied and their functions and fashionabilities are discussed. Also students practice forecasting textile trends on the basis of textiles knowledge and current fashion textiles.

353.429A 패션마케팅 3-3-0
Fashion Retailing
패션상품의 소매유통 과정에서의 판매전략에 대해 학습한다. 패션상품의 국내 및 국제 소매유통의 현황에 대하여 이해하고, 효과적인 리테일 판매 전략에 대하여 학습한다. 또한 점포의 유형과 특성, 판매원 관리 전략, VMD, 판매 촉진에 대해 학습한다.
Emphasis on retailing strategies of fashion products with a review of domestic and international fashion retailing business. Examines effects of fashion stores attributes, salesperson management, and visual merchandising on retailers' performance.

353.430 한국복식문화사 3-3-0
History of Korean Costume
신사시대부터 현대에 이르기까지 한국복식의 흐름을 문화사적인 맥락에서 살펴보고 한국의 복식문화 속에 깃든 한국적 정서를 파악하며 이를 현대적으로 활용할 수 있는 능력을 기른다.
This course surveys the clothing styles of Korean men and women from prehistoric times to present. The overview includes the origin, adoption, and abandonment of style. Emphasis will be on the unique aesthetic sense of Korean clothing from a cultural perspective.

353.431D 패션트렌드 및 디자인기획 3-2-2
Fashion Trend and Design Planning
패션상품을 기획하고 디자인 과정을 터득하기 위하여, 실제로 시장 환경조사와 패션 정보의 바탕으로 브랜드를 런칭하며 포트폴리오 제작과정을 배운다. Introduction of fashion brand launching and fashion design based on the survey of market environment & the analysis of fashion trend information.

353.434 Internship in Fashion Industry
산업체에서의 실무를 체험함으로서 교과과정에서 습득한 이론과 자식을 현장에 적용한다. 패션산업의 현황 및 발전방향에 대해 이해하고 패션 기업 조직의 특성과 직무를 이해한다. 산업과 교육을 연계하여 패션산업 전문인으로의 자질을 함양한다.
Gives the student the opportunity to observe professionals fulfilling their job responsibilities. Enables the student to test
theories and techniques. Tests the student’s level of competency in the skills in the fashion field. (Restrictions: requires permission of instructor)

M1461.000100 패션 e-비즈니스 3-3-0
Fashion e-Business

This course is an introduction to the use of color as a design tool for fashion design. It will help to understand the interrelationship between color and form.

353.435 테크니컬 디자인 3-3-0
Technical Design

The interrelationship between color and form. A color model and theory are introduced, with tests the student’s level of competency in the skills in the fashion field. (Restrictions: requires permission of instructor)

M1461.000070 패션문화사 3-3-0
History of Fashion and Culture

This course is for training the ability of developing a certain idea into good and new fashion designs. Students will learn proper attitudes to be good designers seeking the excellent solutions for their design processes. Students also learn how to apply the elements and principles of design to apparel design designing various items, such as casual wear, active sportswear and ethnic costumes, works of famous fashion designers and others.

M1461.000080 패션스튜디오 2 3-2-2
Fashion Studio 2

Fashion Collection

This course is a continuation of Basic Fashion Design. Design sketch is translated into a production process. Developing of fashion design from analysis of various trends, ethnic costumes, works of famous fashion designers and understanding of contemporary art and design will deepen students’ design worlds. Students have the opportunity to show their fashion works on the real stage and do the planning for their own show and directing the fashion show for themselves.
Recent advances in automation have become popular in most manufacturing industries due to the advancement in computer and mechanical engineering. This lecture aims at providing the students with the basic knowledge for new ideas on automation by introducing the practical examples in textile and apparel industries as well as by discussing together the recent research trends.

M2174.000700 パッドテクノロジー 3-3-0

M1461.001500 アパレルパターンCAD 3-2-2

Apparel Pattern CAD

IT and fashion are now blending together to create a new technology called "patterns for the digital age." This lecture aims at providing the students with the essential knowledge for fusing those technologies regarding the aesthetic, functional, and technical perspectives.

M1461.001000 ファッションスタジオ 1 3-2-2

Fashion Studio 1

The specific view point of seeing 3-D body shape will be obtained through practices to develop the capacity for more creative fashion design. Understanding the process that 2-D pattern is obtained through practices to develop the capacity for more creative fashion design will be provided.

M2174.000400 織物素材の基礎知識及び実験 3-2-2

Textile and Fiber Chemistry

Visualization is a focal component for marketing fashion products and makes the marketing communication process unique. This course is designed to give an overview of the various aspects of fashion marketing communication. Various class activities will be implemented including specialized speeches of industry experts and case studies. The goal of the course is to provide in-depth knowledge and vision to students on fashion marketing communication strategies and its changing future.

M2174.000900 女性服テイリング 3-2-2

Women's Tailoring

It aims to enhance a developing ability for clothing product within Ubiquitous environment which is mixed IT and Fashion. Students will be acquired various digital techniques through CAD(Computer Aided Design)Programs like Apparel Pattern CAD systems and Virtual Clothing Programs. They will be acquired about pattern making managerial skills with apparel CAD system, Grading and Marker making currently used clothing industry. At the same time, they will develop a pattern making and a design variation with making virtual clothing.
Construction. The student will be practicing how to construct and sew a Jacket through understanding a lined clothes using Lining and Interfacing. Understanding body shape and pattern making technique will be developed through studying and practicing pattern making with body shape. Moreover, the student will develop their creativity to match design variation, color, material comfortably with virtual pattern making system.

M2174.001200 패션디자인 CAD 3-2-2

CAD for Fashion

In this course, students will study the operation and function of computer programs that are used for apparel design, textile design and other design industry applications. Students will be taught the various tools to express lines, shape, color and texture as well as learning how to apply such knowledge into fashion illustration, fashion design and textile design.

M1461.001400 스마트의류제조기술 3-2-2

Smart Garment Manufacturing Technology

Due to the recent advancement in electronics, various electronic devices have become smaller and lighter. There is a growing worldwide interest in smart garments, which can be realized by the incorporation of such devices. This lecture aims at providing the students who are majoring in clothing science with the basic knowledge of smart garments by introducing the technology trend, hardware, and software development methodology.

353.739 패션산업리더십개발 3-3-0

Developing Leadership in Fashion Industry

This course provides 10 special lectures by inviting 10 CEO’s in the clothing and textile industry who are recognized by their outstanding and prominent leadership and expertise in their fields. Special lecturers from the core sectors including fiber and textiles, fabric and fashion product design, manufacturing, retailing, fashion journalism, and fashion marketing communications will share their keen insight to the industry. The students enrolled are required to submit a final report based on the lectures to envision feasible solutions and directions for the industry.
소비자학전공(Consumer Science Major)

M1471.001300 소비자학의 이해 3-3-0  

Understanding Consumer Science

소비자학 전공자 신입생들을 대상으로 소비자학을 소개하는 과목이다. 소비자학의 기원과 발전, 소비자와 소비자를 둘러싼 시장 환경의 상호작용에서 발생하는 소비자 행동과 소비자 문제, 소비 자권의 증진을 위한 방안 등에 대해 소개한다. 이를 바탕으로 현대 소비사회에서 소비자와 소비자가 가지는 합의를 이해하고, 소 비자중심적인 시장환경을 구축하기 위한 소비자학의 역할에 대한 이해를 높인다. 이 과목은 소비자학의 영역 중 가계에 초점을 두는 가계경제관련 영역의 기조과목으로 가정영역학의 이의, 영역 및 연구방법을 이해하며, 가 계와 국민경제, 한국의 경제정체와 가계, 가계의 경제구조 및 가계 운영이론을 교차함으로써 가계의 경제적 복지에 관하여 수학한다.

357.20B 가계경제론 3-3-0  

Family Economics

소비자학의 영역 중 가계에 초점을 두는 가계경제관련 영역의 기조과목으로 가정영역학의 이의, 영역 및 연구방법을 이해하며, 가 계와 국민경제, 한국의 경제정체와 가계, 가계의 경제구조 및 가계 운영이론을 교차함으로써 가계의 경제적 복지에 관하여 수학한다.

357.204 소비자행태론 3-3-0  

Consumer Behavior

소비자보호와 소비자교육을 위한 기초로서 소비자행동을 연구한다. 소비자 구매의사결정 과정과 소비실적적 모델을 중심으로 분석하고 이에 영향을 미치는 심리적, 사회적, 문화적 요인들을 검토한다.

357.216A 소비자주의론 3-3-0  

Consumerism

학문적 연구와 실험적 관점에서 수행되는 모든 소비자운동을 포괄하며 현대적인 소비자운동의 개념과 본질, 기원과 역사적 전개과정을 다룬다.

357.217 소비자정책론 3-3-0  

Economics of Consumer Policy

소비자정책부족과 시장실패에 따른 소비자문제의 해결을 위한 정부의 적·간접적인 소비자보호정책들의 이론적 토대를 학습함으로써 우리나라 소비자행동의 현실을 분석하고 정부의 시행개입을 평가할 수 있도록 한다.

The course acquaints students with the basic approaches to consumer policy. They will perform economic analyses of specific consumer policy issues. Three specific areas of policy intervention are addressed: markets characterized by imperfect information, anti-trust and regulation of “natural” monopolies, and the political-economy of consumer protection. Policy discussions are reinforced through the use of specific real-world examples.

357.225 소비자심리의 이해 3-3-0  

Understanding Consumer Psychology

현대 사회에서 소비자는 산업을 이끄는 동력일뿐만 아니라, 개인의 경제성을 표현하는 중요한 주인이 되고 있다. 현대인은 단지 필요에 의해서만 소비하는 것이 아니라 매우 다양하고 복잡한 심리적 의사결정과정을 통해 소비를 한다. 본 과목은 소비의 본질 완을 한 걸음 다가가고자 하는 소비자학의 기초로서 소비자의 재무적, 사회적, 기술적, 정책적 환경으로부터 소비자행동의 실제에 초점을 맞추어 연구한다.

357.301 소비문화론 3-3-0  

Culture and Consumption

본 과목에서는 소비문화의 의미에 대해 살펴보고, 자본주의 사회에서 현대소비문화가 어떻게 형성되고 변화되는지에 관해 분석 해보며 현대소비문화의 특성 등에 관해 역사적으로 고찰해본다. 또한 소비문화의 폭넓은 이해를 위해서 여러 국가간의 소비문화의 실제를 비교·분석한다. 이를 위해 우리나라를 비롯한 여러 국가 소비문화를 이해하기 위해 문제점을 분석해 본 결과 한국 소비문화의 방향을 모색해본다.

357.304A 소비자시간자원분석론 3-3-0  

Time Resource Management for Consumers

생활시간이라는 주제에 대해 생활도덕과 사회적 의미를 이해한다. 또한 소비자가 생활시간을 어떻게 사용하는지에 대해 논의하고, 이를 바탕으로 소비자에게 필요한 일정과 시간을 추정한다.

This class includes discussion and research reviews about

학사과정(Undergraduate Courses)  : 소비자과학과(Dept. of Consumer and Child Studies)  

- 646 -
the theories and researches in relation to time use. The course examines time management concepts and applications of time as ‘the core resource to one’s life plans’ and investigates changes in time allocations made by family members and individuals. The course pursues to enhance the expert ability as well as the individual ability of time management.

357.306 소비자포트폴리오 3-3-0
Consumer Portfolio

가계의 경제적 의사결정에 영향을 주는 경제적 환경과 각종 제도의 변화 속도가 매우 빠른 현 시점에서 재무관리의 지식은 더욱 절실히 요구된다. 본 과목에서는 가계의 경제적 자원의 극대화에 기여할 수 있는 실질적인 지식기반을 다루게 된다.

The objective of this course is to study financial planning principles and practices taught through a case study approach. Students are encouraged to analyze and evaluate financial decisions made by consumers at various points in the life cycle and apply counseling skills to aid consumers facing financial decisions, especially, investment and risk management.

357.307 소비자재무설계 3-3-0
Consumer Financial Planning

가족생활주기에 따라 가계의 화폐자원을 효율적으로 관리하는 전략을 소유재산의 보호, 소득의 최적관리 및 소득의 증대 등 세 가지 측면에서 다루고, 각 원리와 실제 시장의 선택 안을 비교하여 학습한다.

This course covers an introduction to financial goal setting and financial planning process in various life-cycle stages and financial status. Topics include budgeting, credit, saving, investing, personal taxation, insurance, retirement and estate planning.

M1471.001200 소비자교육론 3-3-0
Consumer Education

소비자의 특성과 위치, 소비자유형의 분류와 소비자역할을 고찰하고 소비자주의의 전개과정을 배경으로 하여 소비자교육의 형태를 가정교육, 학교교육, 사회교육차원에서 분석, 연구한다.

Topics included in this class are; concepts and advanced topics relevant to analysis of the current market environment are also rapidly changing as active consumer involvement in the value creation process is increasing from the market perspective.

This course will focus on synthesizing the conclusion drawn from consumer studies and family resource management. The course emphasizes on advanced topics relevant to analysis of the current market mechanism.

357.328 소비자유통론 3-3-0
Consumer Retailing

세계화, 정보화사회의 일환으로서는 현대사회에서 시장 환경은 급변하고 있으며, 생산자와 소비자 사이의 분리를 막기 위한 유통행 경 역시 급변하고 있다. 소비자유통론에서는 소비자의 활발한 시장참여와 기업의 소비자 지향적 경영활동이 요구되는 현대사회에서 유통의 의미와 과정을 소비자학적인 시각에서 고찰하고, 유통과정에서 발생할 수 있는 소비자문제와 대처방안에 대해서 논의하는 것을 목적으로 한다. 또한, 소비자학적인 유통사례를 살펴보고, 소비자와 기업이 상생을 추구할 수 있는 유통의 발전방향에 대해서도 논의한다.

Distribution is an important function that connects the gap that exists between producers and consumers. With globalization and IT development, the market environment is rapidly changing. The distribution channels and distribution environment are also rapidly changing as active consumer involvement in the value creation process is increasing from the consumer perspective, and consumer oriented marketing is required from the marketing perspective. The purpose of Consumer Distribution is to provide a systematic overview of the meaning of distribution, the steps of distribution processes, and distribution related consumer choices and decision making processes. Consumer problems that could arise during the distribution process and their potential remedies will be discussed, and pro-consumer distribution and retail management cases will be studied to provide insight about the future direction of distribution practice that is beneficial for both consumers and producers.

357.402 소비자정보론 3-3-0
Consumer Information

구매에서 소비자정보의 역할이 보다 더 강조되고 있다. 소비자들은 정보 이용 행동을 분석하고, 정보제공환경과 소비자 정보정책을 바탕으로 바람직한 정보정책을 도출한다.

This class aims at analyzing consumer’s information behavior. Investigation of desirable information policy through searching advertisements as information giving environment is covered.

357.404 소비자시장환경분석론 3-3-0
Analysis of Market Environment

지속적으로는 시장구조와 유통경로를 분석하고 미시적으로는 개별기업의 가격관리, 유통, 판매촉진등 마케팅 전략을 이해함으로써 소비자들에게 상품이 제공되기까지의 각 단계를 살펴보고 이를 통해 소비자복지 향상을 위한 시장환경 개선방안을 모색한다.

Microeconomics and marketing theories regarding the industry and profit maximizing firms are applied to analyze and understand the market. This course emphasizes on advanced topics relevant to analysis of the current market mechanism.

357.416A 소비자학연구 3-2-2
Researches in Consumer Studies

소비자학 전반에 관련되는 문헌조사를 하여 학문연구의 이론적 바탕을 제득하고, 사회에 진출한 소비자학 전공자들의 경험담을 통해 실질적인 적용에 대해서 이해한다. 논문의 평가, 연구문제와 연구방법을 설계할 수 있는 능력을 향상시킨다.

This course covers a concise review of the key aspects of consumer studies and family resource management. The course will focus on synthesizing the conclusion drawn from different fields of study.

357.418 소비자보호관련법 3-3-0
The Laws on Consumer Protection

본 과목은 소비자 보호와 관련된 다양한 법을 다룬다. 공정거래와 담합금지, 소비자 안전, 신용, 정보와 관련된 법, 가격 결정과 소비자참여와 관련된 이슈들을 다루고, 이제 한국에 도입하지 않
The class deals with consumer protection laws. Students are encouraged to analyze the legal issues of (1) Fair trade and anti-trust, (2) Laws on consumer safety, credit, and information, (3) price determination and consumer participation, (4) legal procedure of consumer right realization, and (5) the issues not applied in Korea.

Consumer Trend Analysis

This course examines the various consumer issues from the consumer-and possible solutions. The course will facilitate student discussions on the various consumer issues from the consumer-ism and consumer welfare viewpoints, and lead to find practical resolutions including educational and political ones.

Retirement Planning and Financial Counseling

This course is designed to introduce ‘leadership’ as a key competence needed for consumer science professions in order to change their organizations, society and market environment more consumer centric. In the course, the concept and related theories of leadership will be discussed, and current trend in leadership studies will be explored. Also, how the concept of contemporary leadership can be applied in Consumer Science context will be explored.

ICT Market and Consumer

ICT developments have great impact on the way consumers behave and live. The goals of this course are to provide an understanding of the nature of ICT market and new consumer issues in ICT market. Topics such as introduction to ICT market and services and ICT consumer empowerment and protection issues will be discussed.

Global Market and Consumer

The goal of this course is to provide a understanding of how to empower and protect consumers in the new global market. Topics such as consumer behaviors, retail environment, marketing strategies, and consumer laws and policies in the global market are discussed to understand new consumer issues in the new global market.
This course provides various methodologies to develop new products by delving into theoretical and practical needs and services. It will help students to build consumer needs not only into new products but also into policies and practices. Students learn various qualitative data collection/analyse methodologies and practice those methodologies within the context of empirical research.

The purpose of this course is to introduce and to provide opportunities to exercise qualitative research methods that are currently used to analyse consumer needs and behaviors. Students learn various qualitative data collection/analyse methodologies and practice those methodologies within the context of empirical research.

This course provides introduction to big data for consumer science. It stands, analyzes, and interprets big data on consumer behaviors. Students are expected to use counseling principles and skills in decisions of solving consumer complaints.

The purpose of this course is to develop capability to understand, analyze, and interpret big data on consumer behaviors. This course provides introduction to the core concepts big data problems, data management methodologies, and analytical methods and tools. Based on the theoretical and methodological foundation of consumer science, students learn various qualitative data collection/analyse methodologies and practice those methodologies within the context of empirical research.
A Primer to Early Childhood Education

This course provides an introduction to early childhood education. Programs, staffing, scheduling, environmental design, equipment, evaluation, and financing of early childhood care are included. To understand the potential benefits and problems associated with early childhood care, it also covers recent findings of early childhood. Through this course, students can learn major insights into how the type, amount, and quality of child care interact with child's nurturing experiences, socio-economic variables, and other child and family factors to influence individual trajectories.

Research Methods in Child and Family Studies

This class is designed to introduce basic research design methods employed in child and family studies. Particular attention is given to research proposals, conducting pilot research projects, collecting data, and interpreting and reporting research results.

Korean Family

This is a basic course in studying the Korean family. Particular attention is given to Korean family value, role structure, family relationships, power structure, and personality. The class will provide students with a comprehensive understanding of Korean family.

Family Relations

This class covers an introduction to contemporary family relationships based on the theories of family and Korean family studies. A review of mutual family relationship will be discussed. Changes in society and their influences on family relationship will be examined.

Practices of Child Play

This course examines origins of play as the roots of competence in young children and related aspects of development with implication for practice. Students should engage in guided observation and field experience. Through observations and experience, students are guided in methods of supporting children's progress through play.

Gerontology

The study of the elderly and their relationships with other family members with regard to their physical, social, and environmental situations, life adjustment, and sources of assistance will be covered.

Children's Language Development and Guidance

This class aims to learn and compare major theoretical issues and researches in language acquisition of phonology, syntax, and semantics from infancy. Ways of creating optimal environment in home and child care center, and effective training methods for language development are probed. The course integrates theory and practice for caregivers to facilitate children's communication competence. Through this course, students are guided in methods of supporting children's language competence.
Family Life Education

This course surveys a comprehensive understanding of main purpose, history, theories about the family life education. Comparison and analysis of various family life education programs and program construction techniques will be learned. Furthermore, planned work experience in one or more family life education programs will be approved in advance by an instructor.

Child Welfare

In spite of growing awareness of children’s right for healthy growth and development, their needs for physical, emotional, educational, and therapeutic supports, which are critical for (normal) development are still not adequately met. This course defines the object of child welfare and examines practical ways, policies, and systems to fulfill it on the basis of knowledge in child welfare principles. Students will gain understanding of current state and various issues in child welfare by reviewing the present situation and problems in areas such as child abuse, adoption, child-care, children with special needs, and institutionalized care.

Aging and Family

The course is designed to help students understand the characteristics of the contemporary Korean family. Comparing traditional and contemporary Korean families, students can find continuity and discontinuity in family life through the history. This course also will cover how social and economic changes impact family life and relationships, and how families develop through those social changes. There will be discussion on how Korean families will change in the future.

Independent Studies on Child and Family Issues

This course deals with the study of analysis of major educare programs to promote children’s developmental needs. For this purpose, it explores historical background, basic premises, main characteristics, curriculum, practice of educare programs, and evaluate the recent outcomes, major issues and trends. Through the evaluation, it will be covered that
how to relate the knowledge of child development to the development of effective child educate programs.

357.421A  
Counseling Children  3-3-0

Practicum in Family Studies

This course provides a practicum opportunity for students with child development and family studies concentration. Students are expected to participate in various programs and services in family-related service providers and institutes such as Healthy Family Support Center. Through intensive training and observations, students can learn how to link the field and academics and build qualification for the professionals. The course offers in Fall semester with an intensive practicum and supervision during the summer break.

357.423  
Counseling Children  3-3-0

Counseling Children

As child rearing environment is changing, the needs for counseling children is increasing as well. The course provides an overview of theories, methods and current practices of counseling children used to deal with various problems in childhood development. Major theories in counseling children such as psychoanalytic counseling, person-centered counseling, and behavioral therapy are discussed, as well as other adaptive techniques such as play therapy, art therapy, and bibliotherapy which work especially well with children. Adaptive techniques such as play therapy, art therapy, and behavioral therapy are discussed, as well as other techniques such as psychoanalytic counseling, person-centered counseling, and bibliotherapy which work especially well with children. The course is designed to improve students' understanding about various types of multicultural families in South Korea and their adaptation. The course will begin by laying a theoretical foundation for understanding their unique situations, followed by taking a close look at the experiences of migrant women, married and parent-child relationships within families and tasks that family members face as they try to adapt. Issues related to other types of families, such as labor migrant families and North Korean refugee families, will also be discussed. Existing policy and programs will be reviewed. As a course project, students are required to develop a multimedia resource for families of their interest.

357.424  
Family Policy  3-3-0

Family Policy

Family Policy is designed to review development during the summer break.

This course provides an overview of theories, methods and current practices of counseling children used to deal with various problems in childhood development. Major theories in counseling children such as psychoanalytic counseling, person-centered counseling, and behavioral therapy are discussed, as well as other adaptive techniques such as play therapy, art therapy, and bibliotherapy which work especially well with children. The course is designed to improve students' understanding about various types of multicultural families in South Korea and their adaptation. The course will begin by laying a theoretical foundation for understanding their unique situations, followed by taking a close look at the experiences of migrant women, married and parent-child relationships within families and tasks that family members face as they try to adapt. Issues related to other types of families, such as labor migrant families and North Korean refugee families, will also be discussed. Existing policy and programs will be reviewed. As a course project, students are required to develop a multimedia resource for families of their interest.
보육과정(Undergraduate Courses)  ㆍ소비자아동학부(Dept. of Consumer and Child Studies)

M2808.000300 보육교사론 3-3-0

Theory on Caring and Teachers for Young Children

본 교과는 영유아를 보호하고 양육하는 보육교사가 갖추어야 할 역할을 핵심으로, 비율적인 교육기술과 교육수단 등을 체계적으로 습득함으로써 작업자라와 전문성을 갖춘 보육교사의 역할을 함양하는 것을 목표로 한다.

This course provides an overview of theories on teacher development with specific emphasis on the ethics of teaching and caring. Students will gain in-depth understanding about the various roles as reflective and caring teachers for young children with professional knowledge and teaching pedagogy.

M2808.000400 아동건강과 안전 3-3-0

Health Education for Young Children

이 과목에서는 아동의 신체적 성장 및 운동기능의 발달과 함께 아동기에 나타나는 각종 질병의 특성, 감염병 및 예방에 대한 영역, 유아기 및 학교기로 나누어 살펴본다. 또한 영유아기 및 학동기의 영양과 안전사고가 아동의 신체적, 심리적, 사회적 발달에 미치는 영향을 고찰하고, 아동에게 잦은 생활환경과 제공하기 위한 구체적인 접근방법과 기술, 보육교사의 역할 및 건강교육 프로그램을 다룬다. 또한 집단양육환경에서 수시로 발생 가능한 아동의 안전사고 유형과 대처방법에 대한 이해를 높이고, 안전사고의 예방을 위한 아동 및 교육 프로그램의 개발과 실시 및 안전한 보육환경 관리 방안에 대해 살펴본다.

The course is intended as opportunity for exploring characteristics, diagnosis, and prevention of the disease in infants, preschoolers and school-aged children. Students will study the effects of child nutrition and health on the physical, psychological and social development. This course also includes the role of the teachers in childcare settings as well as concrete approaches, skills, health education programs to provide children with a healthy environment. And it is designed to increase understanding of potential accidents in child care settings and the prevention of accidents. It also deals with accident prevention programs for children and teachers in addition to safety management in child care environment.

M2808.000500 보육과정 3-3-0

Curricular Activities in Early Childhood Educare

보육학개론은 기초과목으로,Harvey 이와아보육의 구체적인 적용 과정을 다룬다. 인과 및 성적 연령 구분, 효과적인 영유아-보육 교사 상호작용, 가정과의 협력관계 구축 등의 보육과정의 계획 및 실행과 관련된 주요 내용을 살펴보고 관련 요인을 점검함으로써, 영유아기의 재판 발달 특성에 대한 이해와 현대사회와 보육 요구 에 근거한 효과적인 영유아 보육과정 구축에 대해 학습한다. 이와 함께 현대가족의 다양한 산업화상을 고려하여 보육대상의 다양한 요구에 적합한 영유아 보육과정 구축에 대해 접근한다.

Overview of planning, implementing and evaluating child-centered curriculums, including learning processes, instructional planning, cooperation with parents, and physical and interpersonal environments in early childhood settings. Explore dynamics of curriculum development for young children. It also covers various educare needs of contemporary Korean families found in the process of social changes.

M2808.000600 아동건강교육 3-3-0

Health Education for Young Children

이 과교과는 아동의 신체적 성장 및 운동기능의 발달과 함께 아동기에 나타나는 각종 질병의 특성, 감염병 및 예방에 대한 영역, 유아기 및 학교기로 나누어 살펴본다. 또한 영유아기 및 학동기의 영양과 안전사고가 아동의 신체적, 심리적, 사회적 발달에 미치는 영향을 고찰하고, 아동에게 잦은 생활환경과 제공하기 위한 구체적인 접근방법과 기술, 보육교사의 역할 및 건강교육 프로그램을 다룬다. 또한 집단양육환경에서 수시로 발생 가능한 아동의 안전사고 유형과 대처방법에 대한 이해를 높이고, 안전사고의 예방을 위한 아동 및 교육 프로그램의 개발과 실시 및 안전한 보육환경 관리 방안에 대해 살펴본다.

M2808.000700 아동안전관리 3-3-0

Safety for Young Children

아동을 둘러싼 안전환경이 변화하면서 집단으로 아동을 보호하고 양육하기 위한 보육시설에 대한 사회적 수요가 지속적으로 증가하고 있으며, 이 교과목은 집단양육환경에서 수시로 발생 가능한 아동의 안전사고 유형과 대처방법에 대한 이해를 높이는 것으로 목표로 한다. 구체적으로 발생단계에 따른 아동의 행동 유형에 대한 이해를 기초로 하여, 연령별, 상황별 안전사고의 종류와 특성을 살펴보고 교육과정의 응급처치 및 신속한 대처 능력 개발에 대해 다룬다. 또한 안전사고의 예방을 위한 아동 및 교육 프로그램의 개발 및 실시를 다루고 안전한 보육환경 관리 방안에 대해 살펴본다.

There are increasing demands for child care facilities which protect children as a group and provide care as the child-rearing environment changes. This course is designed to increase understanding of potential accidents in childcare settings and the prevention of accidents. It covers immediate emergency response as well as the types and characteristics of accidents on age and sex based on the understanding of children’s behavior according to the developmental stage. It also deals with accident prevention programs for children and teachers in addition to safety management in child care environment.

M2808.000900 인간개발 3-3-0

Human Development

인간발달과 가족학의 학문적 접근법을 소개하고, 각 영역의 세부적인 주제들을 개략적인 수준에서 다루고 집단에 대한 탐색 학습을 실시하고 이후 전공 선택과 학습에 기초정보를 제공한다.

This is an introductory course which covers basic concepts, topics, and perspectives in Human Development and Family Studies. Students are expected to learn theoretical foundations and recent research trends in Human Development and Family Studies.
Development of Young Children

This course overviews theories, research methods, and current issues related to child development. Changes in biology, cognition, language, emotion, personality, and morality from birth throughout childhood are discussed in this course.

Family Stress and Coping

This course aims to describe and understand the changing dynamics of family as a social institution. It also covers various family problems and issues found in the process of social changes. Specific topics include poverty, joblessness, violence, international marriages, divorce, cohabitation, and other family disorganization. This course serves junior and senior students as the advanced seminar that is built on previous courses on family theories and practices.

Curricular Activities in Early Childhood Educare

This class will provide an overview of adolescence developmental phrases and an understanding to qualitative, quantitative aspects in intellectual development. It also covers various educare needs of contemporary Korean families found in the process of social changes.

Introduction to Family Studies

This course is designed to help students gain a broad understanding of family studies in terms of main concepts, theoretical perspectives, and current issues in family studies. Topics for this course include an overview of family studies, family theories, research areas and trends, and practical domains of family studies (e.g., family life education, family therapy, and family policy). Students will develop the ability to explain family phenomena in a holistic and systemic way.

Studies in Child Behavior and Observation

The purposes of this course are to study the assumptions and main concepts of family theories and to understand the contributions and limitations of these theories. In this course, we will first discuss what family theories are and why we need family theories and then we will focus on selected conceptual frameworks that are frequently used in family research today. Students will learn and practice how family theories can be applied to explain various family-related phenomena.
수의과대학
College of Veterinary Medicine
Understanding Veterinary Medicine

- 15 week make one semester.
- The first number means "credits"; the second number means "lecture hours" per week; and the final number means "laboratory hours" per week.

Self-Improvement for Pre-Vet Students

- This course aims to provide an introductory course for the students who took the general biology course in the freshman year and will deal with the major issues of the modern molecular and cellular biology.
- Main theme of the course is how lifeless molecules form the live cells, the structure and function of the cells, and thus how the individual cells can maintain the liveness and reproduce for the next generations.
- For that end, the course will deal with the subjects of cellular physiology, basic genetic mechanisms, differentiation and development of multicellular organisms. It is hoped that this course will provide the prevented students the ability to continue on the upper class courses such as biochemistry, molecular biology, gross anatomy and human physiology.

Introduction to Medicine

- This course provides an introduction to veterinary medical terminology which will help students understanding and following the major course. Students can understand the terms related with anatomy, physiology, microbiology, and clinical practice, etc. and the veterinary field more before entering the veterinary medical school.

Veterinary Medical Terminology

- This course is designed for students who major in veterinary science or similar fields including biomedical science and bio engineering, and teaches basic knowledge in genetics from a classical and modern view. In addition to establishing basic knowledge in genetics, applications such as genetic engineering and biotechnology are studied so as to understand the importance of genetics to the existence of human life.
본 과목에서는 개를 기본 동물로 하여 그 구조와 기능에 대한 이해와, 특히 동물 및 수의학과 관련된 생물체학 측면을 강조한다. 학생들은 수의생학을 이수함으로 동물과 생명체에 대한 화학학습의 구조와 기능을 배우고, 세포가 어떠한 화학반응을 거쳐 생명에 필요한 에너지를 얻고 사용하며, 어떻게 유전정보를 저장하고 다음 세대에 단단하게 표현하는지에 대한 이해를 얻을 것이다. 그리고 이러한 생화학에 대한 이해가 수의학에 필요하며 이렇게 수학학에 응용되는지가 강조될 것이다.

Veterinary biochemistry emphasizes the understanding of basic biochemical principles and aspects related to animals and veterinary medicine. This course is essential for veterinary students who plan to take advanced courses on veterinary physiology, pharmacology, toxicology, microbiology, and clinical science.

552.121 수의생물학 및 실습 2  2-21-24
Veterinary Physiological Biochemistry & Lab. 2
수의생학은 수의학 전공에 필요한 기본적인 생학학적 원리에 대한 이해와, 특히 동물 및 수의학과 관련된 생학학적 측면을 강조한다. 학생들은 수의생학을 이수함으로 동물과 생명체에 대한 화학학습의 구조와 기능을 배우고, 세포가 어떠한 화학반응을 거쳐 생명에 필요한 에너지를 얻고 사용하며, 어떻게 유전정보를 저장하고 다음 세대에 단단하게 표현하는지에 대한 이해를 얻을 것이다. 그리고 이러한 생학학에 대한 이해가 수의학에 필요하며 이렇게 수학학에 응용되는지가 강조될 것이다.

Veterinary biochemistry emphasizes the understanding of basic biochemical principles and aspects related to animals and veterinary medicine. This course is essential for veterinary students who plan to take advanced courses on veterinary physiology, pharmacology, toxicology, microbiology, and clinical science.

552.123 수의생물학 및 실습 2  3-36-24
Veterinary Physiology & Lab. 2
본 강좌는 신체를 구성하는 기관과 기관계의 생리학적 기능 및 기전을 중심으로 강화하고자 한다. 이를 위해 본 강좌에서는 애니메이션, 실험조건, 채혈장치, 실험기기, 실험기기 및 실험결과에 관한 기본적인 생학학적 견해를 중심으로 연구한다.

This course focuses on the basic functions and mecha-
Veterinary Pharmacology & Practice 1


This course provides the principles of drug actions such as drug-receptor interaction (pharmacodynamics) and drug disposition (pharmacokinetics) in the living body. In addition, the pharmacology of drugs acting on the autonomic nervous system, will be studied. Textbook: Veterinary Pharmacology and Therapeutics (Riviére, Papich, 10th ed., 2001).

Veterinary Microbiology & Practice 1

This course provides an understanding of bacterial, viral and fungal diseases of meat-producing animals, companion animals by the analysis of mechanism of diseases, diagnosis, prevention, treatment and control using molecular biological, immunological techniques etc.

Veterinary Parasitology & Practice 1

Veterinary Parasitology is the study of the diseases caused by the animal parasites. This semester, students will study the following: Trypanosoma, Leishmania, Amoeba, Coccidia, Malaria, Toxoplasma, Piroplasma, Lice, Flea, Mosquito, Fly, Tick, Mite and so on. The target of Veterinary Parasitology is to recognize the characteristics of these parasites, and diagnose, treat and control them.

Veterinary Biotechnology & Lab.

This course introduces applications of animal biotechnology and implications for human health and welfare. It begins with an introduction to animal cell cultures and genome sequencing analysis and provides a review of available cell and molecular tools. Topics here include the use of transgenic animal models, tissue engineering, nanobiotechnology, proteomics, cytogenetics and molecular genetics, xenografts, and treatment of several diseases. All this is complemented by a discussion of the ethical and safety considerations in the field. Given the tools that are currently available and the translational potential, biotechnology has become one of the most essential subjects for those studying life sciences. Highlights the latest biomedical applications of genetically modified and cloned animals with a focus on cancer and infectious diseases and provides firsthand accounts of the use of biotechnology tools, including molecular markers, stem cells, and tissue engineering.

Veterinary Embryology

As the animal's first cell divides, it gives rise to two embryonic cells, the inner cell mass and the outer cell mass. The inner cell mass will later develop into the placenta, the amnion, the chorioallantois, and the embryonic parts, including the fetus. The outer cell mass will develop into the yolk sac and the extraembryonic membranes. The inner cell mass will develop into the embryonic parts, including the fetus. The outer cell mass will develop into the yolk sac and the extraembryonic membranes.

Veterinary Pathology

Veterinary Pathology is the study of the diseases connected with animal parasites, which are the causes for body weight reduction and lowering of feed conversion rates in domesticated animals. Because animals infected with parasites may not die immediately nor exhibit severe clinical symptoms, the farmers may not recognize the parasitic diseases for a long period of time. The result is that the animals will have lowered body weight gain and feed conversion rates, leading to an economic loss to the farms. These parasitic diseases must be diagnosed and treated early to prevent such losses. Zoonotic parasites are very important because many of the animal parasites are zoonoses, and affect not only animals but can give pain and death to humans. Parasites are divided into Protozoa, Helminthes and Arthropods. Malaria, caused by the protozoa Plasmodium spp, is the cause of death for between 1 and 2 million humans. There are many different types of protozoa, about 65,000 spp. Arthropods including viruses, bacteria, protozoa and nematodes, are vectors for other diseases. This semester, students will study the following: Trypanosoma, Leishmania, Amoeba, Coccidia, Malaria, Toxoplasma, Piroplasma, Lice, Flea, Mosquito, Fly, Tick, Mite and so on. The target of Veterinary Parasitology is to recognize the characteristics of these parasites, and diagnose, treat and control them.

552.126* 수의과학 및 실습 1 2-22-28

552.127* 수의미생물학 및 실습 1 2-27-32

552.128* 수의가생충학 및 실습 1 2-21-36

552.130* 수의발생학 3-45-0

552.129* 수의생물공학 및 실습 3-42-24
This course will provide advanced knowledge of microorganisms including bacteria, viruses, and fungi through an understanding of the characteristics of each microorganism. Focus will be on the analysis of virulence factors of pathogens important to meat-producing animals and companion animals.

**Veterinary Neuroscience**

This course will cover the fundamentals of neurons (structures, membrane potential, action potential generation, synaptic transmission, and structures of the nervous system) and the anatomy and physiology of sensory (vision, audition, smell, taste, and somatosensory systems) and motor systems.

**Veterinary Pharmacology and Therapeutics**

This course will provide the major aspects of the pharmacology of the drugs acting on the endocrine, renal, cardiovascular and central nervous system. In addition, antimicrobial drugs, antifungal drugs, anticancer drugs, and antiparasitic agents will be introduced through lectures and laboratory works. Topics in veterinary pharmacology such as withdrawal time, extralabel use, and species differences in drug action will be presented. Textbook: Veterinary Pharmacology and Therapeutics (Textbook: Veterinary Pharmacology and Therapeutics (R. Adams, 8th ed., 2018).

**Veterinary Pathology & Practice**

This course will provide an understanding of diseases related to major parenchymal organs of companion animals (dogs and cats) and industrial animals (cattle, swine, and sheep).

**Veterinary Parasitology & Practice**

This course will provide advanced knowledge of animal parasites, which cause the reduction of body weight and feed conversion rates in domesticated animals. Because animals infected with these parasites may not die immediately or exhibit severe clinical symptoms, farmers may not recognize the parasitic diseases for a long period.
During that time, the body weights and feed conversion rates of the animals will drop, causing economic loss to farmers. Therefore, these parasitic diseases must be diagnosed and treated early. Zoonotic parasites are very important because many animal parasites are zoonoses and in addition to affecting animals, can give pain and death to human beings. Parasites are divided into protozoa, helminths, arthropods, bacteria, protozoa, and nematodes are the vectors of other diseases. Helminths are composed of trematoda, cestoda, nematoda, and acanthocephala. The aim of veterinary parasitology is to recognize the characteristics of these parasites and to diagnose, treat, and control them.

### 552.222* 수의독성학 및 실습 1 2-22-28

**Veterinary Toxicology & Practice 1**

Toxicology is the study of the effects of toxicants on living organisms. This course deals with the effects of toxicants on animals and the ecosystem. To elucidate the precise effects, the students will focus on understanding the relationship between exposure to toxicants and toxic effects. Based upon the concerted knowledge of the above, students will be able to predict the toxicity and extend their understanding of the toxic mechanism.

### 552.223* 수의독성학 및 실습 2 2-18-30

**Veterinary Toxicology & Practice 2**

Toxicology is the study of the effects of toxicants on living organisms. Veterinary Toxicology deals with the effects of toxicants on animal and ecosystem. To elucidate the precise effects, we will focus on understanding the relationship between exposure to toxicants and toxic effects. Based upon the concerted knowledge, we can predict the toxicity and extend our understanding of toxic mechanism.

### 552.224* 환경위생학 3-45-0

**Environmental Health**

Environmental health refers to the theory and practice of assessing, controlling, and preventing factors in the environment that may adversely affect the health of present and future generations. This course will provide basic information and current research trends on the field of science.

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본 과목은 동물전염병의 방병론, 예방, 진단, 치료 및 예방에 관한 촠론 및 소, 맥 해의 같은 종, 대동물에서 국, 내외적으로 발생되는 주요 전염성 질병들 각각에 대한 방병론, 예방, 임상증상, 병리학적 특성, 진단 및 이를 바탕으로 한 치료 및 예방에 대하여 강의한다.

본 과목은 동물 전염병의 방병론, 예방, 진단, 치료 및 예방에 관한 촠론 및 소, 맥 해의 같은 종, 대동물에서 국, 내외적으로 발생되는 주요 전염성 질병들 각각에 대한 방병론, 예방, 임상증상, 병리학적 특성, 진단 및 이를 바탕으로 한 치료 및 예방에 대하여 강의한다. 또한, 독성물질을 중심으로 하여, 독성물질에 의한 생체 내독성에 대하여 강의한 후, 독성물질에 의한 생체 내독성에 의한 질병 예방 및 치료에 대하여 설명한다.
biological and environmental monitoring methods will be served. To archive ethical animal experiments, anesthesia and euthanasia concepts shall be lectured with the management of laboratory animal facilities. IACUC management shall be also lectured.

552.228* 동물-수의사-사회 1-18-0

Animals, Veterinarians, and Society

수의사로서의 기본 소양을 갖추기 위하여 신체적 검사, 생물학적 율리 그리고 임상적 퍼온, 의사소통방법, 정보조작, 사람-동물 관계, 동물 개체와 군의 건강 유지, 수의출증보건, 수의사의 사회적 반응 그리고 동물과 임상 경영 등에 대한 교육함.

To become well educated veterinarians, its will be educated the physical examination, biomedical ethics and clinical genetics, communication skills, information management, human-animal bond, health maintenance in individual animals and populations, veterinary public health, professional development, societal responsibilities of veterinarians, and hospital and practice management.

552.302A* 수의공중보건학 및 실습 2-27-32

Veterinary Public Health & Practice 2

수의공중보건학 중 식육위생, 계육 및 계란위생, 어류위생, 우유생산에 관련된 전반적인 내용을 다루며, 이를 토대로 안전한 축산생산 및 관리에 대한 이해를 제공한다.

This course will provide an understanding of how we can deal with meat, egg, fish, and milk sanitation for the production and management of these animal products.

552.308A* 수의방사선과학 및 실습 1-27-24

Veterinary Radiology & Practice

이 과목에서는 방사선학의 역사, 발생원리, 기초방사선물리학 및 기초 수의방사선학 기술, 활성방법, 양상의 획득 및 품질 평가를 비롯하여 최근 방사선 및 영상판단 장비의 소개 및 기초 방사선 생물학을 다루며 기초적인 실습을 병행한다.

This course will provide the knowledge on the history of radiology and X-ray production as well as related physics, veterinary radiographic techniques, image acquisition and quality evaluation, and introduction to advanced image tools and basic radiation biology. It will also provide practice in radiography.

552.321* 가금질병학 및 실습 4-54-48

Poultry Disease & Lab.

1. 가금질병에 대한 이해 및 대응능력 교육
   - 가금의 바이러스성 질병 원인체 및 역학, 임상증상과 범역, 예방대책 이메.
   - 가금의 세균성 질병
     - 기타 가금의 전염, 기생중, 원인, 양상성 질병에 대한 이해
     - 장기질환에 대한 실습 및 관련 질환에 초래된 의학적 증상
     - 이와동정자에 의한 실습과 백신접종프로그램의 면역
   2. 조류질병에 대한 이해 및 대응능력 교육
      - 조류질병에 병원체의 전염량 이메와 감염 예방대책 등

Understanding poultry diseases and intervention strategies.

- Etiology, epidemiology, pathological findings and prevention of viral diseases.
- Etiology, epidemiology, pathological findings and prevention of bacterial diseases.
- Understanding other diseases: fungal diseases, protozoan diseases, parasitic diseases and nutritional diseases.
- Lab experiment for related lectures.
- Special lectures by practitioners or specialists associating with the lectures.

1. Understanding infectious diseases in wild birds and intervention strategies.

2. Focusing on waterfowl diseases.

552.222A* 수생생물의학 및 실습 2-27-24

Aquatic Biomedicine & Lab.

수의사가 수생생물을 치료하는데 필요한 지식을 전달하는데 강의의 목적이 있다. 우선 수생환경 및 각종수생생물의 사양법을 강의하며, 수의사로서 반드시 알아야 할 각종 수생병의학적 처치, 약물학적범위, 백신 등에 대한 지식도 전달한다. 또한 각종 아종 및 수생포유류, 양식류 파충류 등에 대한 강의를 실시한다.

The veterinarian must know how to maintain aquatic animals in an aquatic environment. The aims of this course is to teach the diagnosis, treatment and prevention of aquatic animal diseases. Many different kinds of fish, aquatic mammals, amphibians and reptiles.

552.324* 동물병행치료학 1-27-0

Clinical Animal Behavior

이 과목에서는 동물병행치료학의 이론과 실제에 대해 교육한다. 동물병행치료학은 동물의 행동을 이해하고, 동물의 행동을 통해 동물의 건강 상태를 평가하고, 동물의 행동을 통해 동물의 건강 상태를 개선하는 방법을 제공한다.

This course covers behavioral biology, behavioral development, social behavior, normal behavior, aggressive behaviors, fears and phobias, anxieties and stereotypes, elimination disorders, geriatric behavioral issues, treatment of behavioral problems, behavioral pharmacology and prevention of behavioral problems in small animals.

552.325* 수의임상병리학 및 실습 4-54-72

Veterinary Clinical Pathology & Practice

이 과목에서는 동물의 구조학, 생리학, 병리학, 심리학 등에 대해 교육한다. 동물의 구조학, 생리학, 병리학, 심리학 등에 대해 교육한다.

This course will cover the collection of animal blood, blood smear, bone marrow examination, blood cell counts, hemoglobins, packed cell volume, plasma proteins, fibrinogen, and diseases of different blood cells, renal function test, urine analysis, clinical enzymology, liver function test, pancreas function test, thyroid function test, adrenocortex function test, cardiovascular examination, differential diagnosis of effusion, and cytologic examination.
552.327* 수의진단영상학 및 실습 2 2-27-48

Veterinary Diagnostic Imaging & Practice

전도된 영상기법인 초음파, 특수 조영술, 전산화 단층촬영, 자기 공명영상, 핵의학 등의 기초 원리 및 임상적응에 대해 이해하고, 이를 통해 일반 방사선 활영상에서 얻은 정보와 함께 더욱 정확한 진단에 도달할 수 있는 능력을 갖출 수 있도록 한다.

This course will cover the basic principles and clinical application of state-of-the-art diagnostic imaging modalities including ultrasound, special contrast studies, computed tomography, magnetic resonance imaging, and nuclear medicine, which lead students make accurate diagnosis possible.

552.330* 수의외과학 및 실습 1 2-45-36

Veterinary Surgery & Practice 1

외과적 질환의 진단 및 치료에 기초가 되는 내용을 강의한다. 강의내용은 마취학, 외과유방학, 염증, 순상, 창상처유, 외과학적 인생물학과 감염, 속, 채막, 전산화 및 산업기 폐혈으로 이루어져 있다. 실습에서는 강의를 통해 습득한 지식을 바탕으로 학생들이 직접 소동물, 대동물 외과질환에 대하여 수술을 할수록에 각 질환을 완전히 이해하고 더불어 실제수술의 진행과정은 알 수 있게 한다.

This course covers general veterinary surgery; fundamentals of the diagnosis and treatment of surgical diseases. This course includes anesthesiology, surgical nutrition, inflammation, injury, wound healing, surgical microbiology and infection, shock, fluids and electrolytes balance. Practice course provides an understanding of diseases and associated surgical procedures through students’ operations on the surgical diseases of small and large animals on the basis of the skills and knowledge acquired through the lecture.

552.331* 수의외과학 및 실습 2 4-60-60

Veterinary Surgery & Practice 2

대동물 및 소동물에서의 외과학적 질환을 각 기관별로 구분하여 강의한다. 강의내용은 대동물의 소화기계, 비뇨기계, 생식기계 및 운동기계 외과질환, 소동물의 피부, 소화기계, 호흡기계, 심혈관계, 비뇨기계, 생식기계, 신경과학적 질환, 정형외과학, 정방외과 및 치과로 구성되어 있다. 실습은 강의를 통해 습득한 지식을 바탕으로 학생들이 직접 소동물, 대동물 외과질환에 대하여 수술을 실시하여 각 질환을 완전히 이해하고 더불어 실제수술의 진행과정을 알 수 있게 한다.

This course covers systemic veterinary surgery in large and small animals. This course includes surgical diseases of digestive, urinary, obstetrical, musculoskeletal system and lameness of large animals, and skin, digestive, respiratory, cardiovascular, urinary, obstetrical system and neurosurgery, orthopedics and dentistry in small animals. Practice course provides an understanding of diseases and associated surgical procedures through students’ operations on the surgical diseases of small and large animals on the basis of the skills and knowledge acquired through the lecture.

552.332* 수의산과학 및 실습 1 2-36-36

Veterinary Obstetrics & Practice 1

이 과목에서는 동물의 번식 및 산과학적 질병에 관한 전반적 사항을 다룬다. 동물의 생식기 구조 및 생리, 생식호르몬, 정자 및 난자, 임신 및 임신관리, 임신산전 등에 관한 강의하며 생식기의 구조, 정액검사 및 임신산전에 관한 실습을 실시한다. 산업동물과 반려동물을 대상으로 한다.

This course covers normal reproduction, reproductive disorders/disease and overall reproductive circumstance of economic animals and companion animals. Lecture and lab works includes anatomy/physiology of reproductive organ, semen evaluation and pregnancy diagnosis.

552.333* 수의산과학 및 실습 2 3-60-60

Veterinary Obstetrics & Practice 2

동물의 산과학적 질환을 진단, 치료 및 예방을 할 수 있는 지식을 배우고 실습을 통해 익힌다. 주요 질병으로 유산, 번식장애, 분만전후 질병, 정상분만 및 난산처리, 수술적과적 및 보조생식술에 관해서도 강의와 실습을 한다. 특히, 산업동물과 반려동물을 대상으로 한 질병의 진단 및 치료에 관한 강의와 실습을 실시한다.

This course provides the basic concepts and practical experience in abortion, reproductive disorders, normal parturition, disorders associated with parturition, infertility, and male reproductive disorders. Also, this course covers assisted reproductive technique include embryo transfer.

552.334* 수의안과학 1 2-70-0

Veterinary Ophthalmology

동물의 눈과 그 부속기관에서 발생할 수 있는 각종 질환에 대하여 원인, 병리소견, 진단 및 치료방법을 강의 및 실습을 통해 학습한다. 강의내용은 눈의 해부학, 안감사법, 안과용 약물, 안검사, 갑각질환, 각막질환, 수정제질환, 녹내장, 포도막질환 및 망막질환으로 구성되어 있다.

This course will cover the etiology, pathophysiology, diagnosis, and treatment of diseases in animals’ eyes and adnexa through lectures and practice. Topics will cover the anatomy and examination of the eye, ocular pharmacuetics, eyelid diseases, conjunctival diseases, corneal disease, lens diseases, glaucoma, uveal diseases and retinal diseases.

552.335* 수의피부과학 1 1-27-0

Veterinary Dermatology

이 과목에서는 피부병학에서 요구하는 진단과 치료에 필요한 지식을 습득할 수 있도록 구성되어 있다. 피부병에서는 피부의 구조 및 기능, 진단방법 그리고 각종 피부질환 등을 강의한다.

This course will cover diagnostic and therapy in veterinary dermatology. In terms of dermatology, the structure and functions of the skin, diagnostic methods, and many veterinary dermatological diseases will be studied.

552.336* 아생동물질병학 및 실습 2 2-27-24

Wildlife Animal Diseases & Practice

이 과목에서는 아생동물의 정의, 분류와 생물학, 특이한 생리 해부, 사항관리 방침, 사료와 영양, 보중과 마취, 진단방법, 주요질병의 예방과 치료, 번식, 동물원동물의 관리, 병종위기야생동물의 보전, 아생동물유해 인수방지방법 등을 다룬다. 실습은 서울시 아생동물센터, 동물보건 등을 방문하여 진단 및 치료실습을 한다.

This course covers taxonomy and biology, unique anatomy and physiology, specialist housing requirements, feeding, restraint and handling, chemical restraint, anaesthesia and sur-
gery, diagnostics, prevention and treatment, reproduction, management for zoo animals, conservation for endangered wild animals and zoos, and care for zoo and wild animals.

**552.337**
**Veterinary Jurisprudence**

This course provides an introduction to veterinary jurisprudence, covering topics such as the role of veterinarians in society, their responsibilities, and the legal framework that governs their practice.

**552.348**
**Small Animal Internal Medicine and Practice**

This course will cover clinical information needed for diagnosis and therapy in small animal internal medicine. Topics will include major veterinary drugs, drug-drug interactions, pharmacogenomics, and therapeutic drug monitoring.

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**552.350**
**Veterinary Clinical Pharmacology**

This course will provide a comprehensive introduction to veterinary pharmacology, focusing on the optimization of drug therapy. Students will learn about drug-drug interactions, pharmacogenomics, and therapeutic drug monitoring.

**552.351**
**Introduction to Animal Welfare**

This course will introduce students to the principles of animal welfare, covering topics such as animal behavior, welfare assessment, and the ethical considerations of animal care.

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**M1744,000200**
**Domestic Animal Welfare**

This course will cover the ethical considerations of animal care, focusing on the principles of animal welfare and the ethical considerations of animal care.

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552.346  

Traditional Veterinary Medicine

This course will cover the basic concepts and techniques related to stem cell biotechnologies. Animal and human bodies contain stem cells for the re-establishment of damaged cells and tissues. Therefore, students can learn the isolation of stem cells from the animal and human body, how to culture them, and how to apply them to cell therapy and the xenotransplantation of animal cells and tissues to human body.

552.347A  

Veterinary Cell & Tissue Engineering

Veterinary Emergency Medicine

Veterinary nutrition information, student will learn appropriate pet food and proper feeding guidelines.

552.352  

Business for Veterinary Hospital

This course aims to introduce basic business management for veterinary hospital, including human resources, accounting, property management, medical records, professional communication skills, establishment of hospital development plans, preparing legal documents, advertising tools.

552.353  

Veterinary Nutrition

This course aims to introduce basic nutritional concept regarding the role of nutrition and its effects upon health and wellness and the dietary management of various disorders of animals. By using the cutting-edge research and clinical nutrition information, student will learn appropriate pet food and proper feeding guidelines.
of normal or nearest state in the shortest time. The goal of this course is to learn and study appropriate treatment and diagnostic methods in animal patients with emergency and trauma. This class consists of lectures, interactive lectures, group discussions, individual presentations and joining ER clinic.

552.434*  
Large Animal Hospital Practices

본 과목은 대동물병원실습으로서 본 대학의 대동물병원 또는 외부 대동물병원에서 환경실습을 통하여 기본적인 임상기술을 습득한다. 특히, 망과 소를 대상으로 임상실습을 실시하며 질병의 개개인, 증상의 경합관계, 검체취득의 방법을 숙지하게 하며, 이를 환자의 실제 진단을 돕고 활용할 수 있도록 한다. 또한 교육 기간 동안의 환자치료 및 처치에 실제로 참여한다.

Objectives for students in ophthalmology are to become adept in performing an ophthalmic examination, to learn to recognize normal and abnormal eyes and accurately describe the findings from an ophthalmic examination, to learn and apply the terminology commonly used in veterinary ophthalmology, to learn to interpret the significance of signs and symptoms of ophthalmic abnormalities including ophthalmic signs of systemic diseases and to learn appropriate management of common ophthalmic diseases. Also, students attend practice, surgeries, rounds and care workshops.

552.435*  
Clinical Practice of Veterinary Dermatology

본 과목은 학생들의 임상기술 습득 및 향상을 위해 서울대학교동물병원 피부과의 진료에 참가하여 실제 환자(환측)를 대상으로 피부과 질환의 진단법 및 치료법을 습득하고 환자관리 및 보호자와의 협동토의연구 그리고 병원의 경영관리 등을 포함한다.

This course is to supply for enhancing the students to have basic practical ability through participating in the real practice of Dermatology part in Seoul National University Hospital for Animals and having a personal experience of caring patient animals. The students will be trained especially for basic diagnostic evaluation skills and basic patient care skills through practice procedures for real patients under the supervision of the professors and staff veterinarians.

552.437*  
Clinical Practice of Veterinary Medical Imaging

이 과목은 4학년을 위한 과목으로 동물병원 로테이션 실습의 일환으로 병원의 영상의학과에서 직접 마무리된 일반 방사선 촬영, 라운드 참석, 영상검토 및 특수 조영법 그리고 초음파 및 전산화단층촬영, 자기해양영상 등에의 전산기법에 대해서도 실제 경험할 기회를 갖게 한다. 학생들은 이 과목을 통해 수의영상의학에 있어 실제 임상에서 활용할 수 있는 필수적인 정도의 지식과 기술역량을 습득하게 될 것이다.

This course provides 4th year students practical experience on the radiographic procedure, attending the rounds, image interpretation, and special constraint studies, ultrasonography, computed tomography, and magnetic resonance imaging as a part of clinical rotation at SNU VMTH. The students will have essential competencies on knowledge and techniques required for general veterinary practice with this course.
본 야생동물의학 입상수업에서 배우게 될 내용은 실제 병원에 대한 야생동물, exotic animal과 동물원 동물(zoo animal) 의 의료적인 문제와 생태계에서 발생하는 수의과학적인 문제를 연구하게 될 것이다. 이러한 입상수업의 내용은 야생동물의 보수법과 실험, 치료예방 및 관리 등 실제 야생에서 활용할 수 있는 기술을 제공하며, 이를 환자의 진료에 실제 응용할 수 있는 기초적인 능력을 습득하게 된다. 따라서 실제 동물병원의 치료 전략을 통해 실제 참가한 기회를 가져게 될 것이다.

The clinical curriculum of Zoo and wildlife medicine consists of clinical study about exotic animal and zoo animal referred from local animal clinic and veterinary research about problems occurring from environment. The contents including practical methods useful for veterinary clinic such as restraints, blood collection, prevention and management of diseases and basic skill for application for the exotic, zoo animal and wildlife. Also, all participants will have chances to inspect veterinary hospital in the zoo in semester.

본 수의마취학병원실습에서는 수의과대학 동물병원에서 실시하고 있는 질병에 필요한 소동물 개, 고양이, 대동물 돼지, 말, 소, 야생동물 (설치류, 포유류), 조류 등의 마취의 임상경험을 통해 3학년에서 학습한 수의마취학의 임상적 적용과 안과, 일반외과, 정형외과, 내과 및 방사선에서 필요한 마취를 제공하기 위한 실질적인 문제해결능력을 배양하는 것을 목적으로 한다.

In this course, students will practice to manage patients of small animals (dogs and cats), large animals (pigs, horses and cattle), exotic animals (rodents and amphibians) and avian who are needed to be anesthetized at the Veterinary Medical Teaching Hospital. This course provides clinical chances to improve own ability through the clinical anesthesia of patients from ophthalmology, general surgery, orthopedic surgery, internal medicine and radiology section. In the rotations, students will also learn how to treat and care for animals through anesthesia case studies and group discussion.

수의학 각 분야 현장에서 요구되는 지식과 기술을 습득할 수 있도록 구성한다. 즉, 수의해부학, 수의생리학, 수의이학, 수의병리학, 수의증감전산, 수의내과학, 수의외과학, 수의산과학 등의 영역에 관한 각각의 실습실습에 참여하게 함으로써 수의학을 전공한 자로서 각자의 맡은 영역에서 적응하게 요구되는 지식과 기법을 습득하게 된다.

This course will cover advanced practice required for each of the veterinary medical fields. Advanced practice for veterinary anatomy, physiology, microbiology, pathology, public health, internal medicine, surgery and obstetrics will be provided. In this course, students participate in research works and special clinics, and gain experience in advanced clinical practice and research techniques.

본 과목에서는 수의화학의학 연구 분야 현장에서 2주간 근무하면서 수의학 관련 동물질병 예방 관련 연구 분야 현장에서 2주간 근무하면서 실제 연구소에서 동물질병을 예방하기 위해 미생물학과 실험을 통해 연구를 하며 그 경험을 습득하게 하는 것이 목적이며, 야생동물, 임상조직학 및 야생동물의학의 실습을 통해 수의사로서 지내야 할 기본 지식, 기술 및 태도를 습득한다.

This course will provide research experience in the prevention of animal diseases at a research center for 2 weeks. Students will learn the basic knowledge and skills needed as a primary care large animal veterinarian, including large animal clinic business management, client communication, and management of clinical cases.

본 과목에서는 수의생명의학 연구 분야 현장에서 2주간 근무하면서 실제 연구소에서 동물질병학을 연구하기 위해 미생물학과 실험을 통해 연구를 하며 그 경험을 습득하게 하는 것이 목적이며, 야생동물, 임상조직학 및 야생동물의학의 실습을 통해 수의사로서 지내야 할 기본 지식, 기술 및 태도를 습득한다.

This course will provide research experience in the pre-
This course is designed to enhance students' clinical abilities. The course includes a 2-week externship at a veterinary biomedical science field at a research center for 2 weeks. Students will learn the basic knowledge and skills needed as a research veterinarian through their experiences in planning and executing research.

552.450* | Externship 6
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This course will provide opportunities for self-improvement according to individual preferences of students. Students will be able to pursue personal fields of interest at a relevant center for 2 weeks, and during this time expand their veterinary knowledge and skills.

552.451* | Clinical Practice of Small Animal Internal Medicine 1
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This course is designed to enhance the students to have basic practical ability through participating in the real practice of Internal Medicine part in Seoul National University Hospital for Animals and having a personal experience of caring patient animals. The students will be trained especially for diagnostic evaluation skills, physical examination skills, medication methods and basic patient care skills through practice procedures for real patients under the supervision of the professors and staff veterinarians.

552.452* | Clinical Practice of Small Animal Internal Medicine 2
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This course is designed to enhance the students to have basic practical ability through participating in the real practice of Internal Medicine part in Seoul National University Hospital for Animals and having a personal experience of caring patient animals. The students will be trained especially for diagnostic evaluation skills, physical examination skills, medication methods, veterinary medical procedures and basic patient care skills through real patients under the supervision of the professors and staff veterinarians to have ability of Clinical Veterinarian.

552.453* | Clinical Practice of Small Animal Orthopedic/Neurosurgery
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This course is designed to enhance the students to have basic practical ability through participating in the real practice of orthopedic/neurosurgery part in Seoul National University Hospital for Animals and having a personal experience of caring patient animals. The students will be trained especially for diagnostic evaluation skills, physical examination skills, medication methods, veterinary medical procedures and basic patient care skills through real patients under the supervision of the professors and staff veterinarians to have ability of Clinical Veterinarian.

552.454* | Clinical Practice of Small Animal Surgery
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This course is designed to enhance the students to have basic practical ability through participating in the real practice of surgery part in Seoul National University Hospital for Animals and having a personal experience of caring patient animals. The students will be trained especially for diagnostic evaluation skills, physical examination skills, medication methods, veterinary medical procedures and basic patient care skills through real patients under the supervision of the professors and staff veterinarians to have ability of Clinical Veterinarian.
Clinical Practice of Small Animal General Surgery

Clinical practice of veterinary surgery consists of soft tissue surgery part and orthopedic/ neurosurgery part. In this practice, students could get surgical principles (suture, sterilization, instruments, perioperative patient management etc.), diagnostic procedures and surgical techniques. Especially, in general surgery service, various surgical procedures could be performed by students themselves under the control. Some advanced surgical procedures would be served according to the case chances. Every students should take part in case reviews weekly, and discuss about cases.
약 학 대 학
College of Pharmacy
약학기본과정(2+4년제)
(Basic Pharmacy Course)

M275,008000 약학개론 1 2-0-0

Introduction to pharmacy

약학, 제약, 음압으로 구분되는 약학에 관한 개괄적인 소개를 통해, 미래의 약학사로서의 과제를 설정해 보는 강좌이다. 의약품의 연구개발, 약사의 기능과 역할, 약사시험, 약사와 관련된 직능(전도), 약사직업에 대한 전망과 의약사 시험 등 약학전반에 걸친 강의를 통해 약학의 어떤 학문이며 향후 어떤 진로를 가 지게 되는가 등 약학의 이해를 돕고 전공분야의 학습계획을 자기 주도적으로 계획하고 진행할 수 있도록 도와주기 위해 개설된 강좌이다.

This course makes the students to understand the survey of the profession of pharmacy including its history, development, scope of practice, educational requirements, regulation, contemporary issues, career opportunities, and prospects for the future and history of pharmacy.

370.1102* 물리약학 1 3-3-0

Physical Pharmacy 1

이 과목은 물리학적 원리와 기법을 약학에 활용하여 이론적 으로 체계화한 과목이다. 따라서 강의내용으로 물질의 구조로부터 용액 및 용액계 촉매, 콜로이드 및 분산계 체계의 안정성, 확산현상, 작용 및 반응속도론 그리고 반고형체와 그들의 유동성과 생물계 및 약품의 설계법에 이르는 광범위한 내용을 포함하고 있다.

Physical pharmacy has been associated with the area of pharmacy that deals with the quantitative and theoretical principles of science as they apply to the practice of pharmacy to develop new drug spectroscopic methods and X-ray crystallography and thermodynamics in pharmaceutical systems.

370.1103* 물리약학 2 2-2-0

Physical Pharmacy 2

이 과목은 물리학적 원리와 기법을 약학에 활용하여, 약학기술 이론의 개별적으로 체계화하는데 있다. 따라서 그 내용은 물질의 구조로부터 용액 및 용액계 촉매, 콜로이드 및 분산계 체계의 안정성, 확산현상, 작용 및 반응속도론 그리고 반고형체와 그들의 유동성과 생물계 및 약품의 설계법에 이르기까지 광범위하게 닦아나간다. Martin 교수의 'Physical Pharmacy'는 세계 각국에서 가장 많이 쓰이는 저서로 이책을 바탕으로 물리약학의 근간이론을 강의에 나탄다.

This course will cover the physicochemical properties of drugs, electrolytes, and theories of solutions, kinetics, surface phenomena, rheology, and fundamental principles of new drug design and evaluation. It is a continuation of the course Physical Pharmacy 1.

370.1104* 약품분석학 1 3-3-0

Pharmaceutical Analysis 1

약품의 화학적 성분분석을 측정하여 그 조성이나 순도를 결정하 는데 필요한 계약 화학적 이론과 그 구조법 등에 대하여 강의한다.

This course is structured to provide students with the concept of general theory of analytical chemistry and its application for chemical characterization and impurity profiling of drugs.
생체의 기능을 이해하기 위해서는 먼저 생물학적, 생체화학적, 생체자극경로를 이해해야 한다. 또한, 생물학적, 생체화학적, 생체자극경로를 이해하기 위해서는 먼저 생물학적, 생체화학적, 생체자극경로를 이해해야 한다. 이러한 두 분야의 이론을 심도 있게 이해하도록 한다. 본 과목은 여러 가지 약물학 및 물리약학 이론을 기반한 간단한 실험실습을 통하여 학생들에게 약학의 체계적 바탕을 이해하는데 중요한 두 분야의 이론을 심도 있게 이해하도록 한다. The course covers the basic experiments on Pharmaceutical Chemistry and Physical Pharmacy. 7.5 weeks will be assigned to each of the two areas. Pharmaceutical Laboratory 1 2-1-0 약학실험 1 1-0-4 Pharmaceutical Laboratory 2 2-1-0 약학실험 2 1-0-4 Synthetic pharmaceutical chemistry 1 본 과목은 여러 가지 약품제조학, 약품분석학 이론을 기반한 간단한 실험실습을 통하여 학생들로 하여금 약학의 체계적 바탕을 이해하는데 중요한 두 분야의 이론을 심도 있게 이해하도록 한다. The course covers the application of inorganic reactions, halogenation, nitration, sulfonation, amination, amidation, reduction, polymerization, and other reactions. 7.5 weeks will be assigned to each of the two areas. Pharmacognosy 1 본 과목은 약물학의 합성에 이용되는 합성방법들을 반응유형별로 분류하여 소개하고 약물의 합성 및 구조변화에 관한 반응장, 입체선택성 및 합성방법들을 강의한다. The course provides the application of inorganic reactions, halogenation, nitration, sulfonation, amimation, reduction, polymerization, and other reactions. 7.5 weeks will be assigned to each of the two areas. Microbiology and Immunology 1 본 과목은 다양한 미생물 및 면역학 이론을 기반한 간단한 실험실습을 통하여 학생들로 하여금 약학의 체계적 바탕을 이해하는데 중요한 두 분야의 이론을 심도 있게 이해하도록 한다. The course covers the basics of microbiology and immunology. 7.5 weeks will be assigned to each of the two areas. 

370.1109* 생화학 2 2-2-0 Biochemistry 2

생체의 기능을 이해하기 위해서는 먼저 생물학적, 생체화학적, 생체자극경로를 이해해야 한다. 또한, 생물학적, 생체화학적, 생체자극경로를 이해하기 위해서는 먼저 생물학적, 생체화학적, 생체자극경로를 이해해야 한다. 이러한 두 분야의 이론을 심도 있게 이해하도록 한다. 본 과목은 여러 가지 약물학 및 물리약학 이론을 기반한 간단한 실험실습을 통하여 학생들에게 약학의 체계적 바탕을 이해하는데 중요한 두 분야의 이론을 심도 있게 이해하도록 한다. The course covers the basic experiments on Pharmaceutical Chemistry and Physical Pharmacy. 7.5 weeks will be assigned to each of the two areas.

370.1110* 해부학 2-2-0 Human Anatomy for Pharmacists

인체를 구성하고 있는 각 부위의 조직 및 구조를 파악할 수 있다. 먼저, 해부학의 기초를 소개하여 각 기관의 기능을 이해한다. 또한, 기관을 구성하는 조직의 기본 구조를 기저성 측면에서 이해한다. 이 기관을 구성하는 각 부위별 세부 구조를 파악하고 이와 관련된 기능을 소개하여 인체의 구조의 개괄적 이해를 갖도록 한다. This course introduces morphology of our body parts. Thus, gross anatomy is a major course, which tells shapes, locations and functions of bones, muscles, nerves, arteries as well as internal organs. In addition, microanatomy that describes outer microstructures in tissues or organs will also be introduced. Introductory embryology is also introduced.

370.1111* 생리학 2-3-0 Physiology for Pharmacists

인체의 각 기관이 어떤 원리로 작동하는지를 이해한다. 인체의 대표적인 기관인 심장, 허리, 신장, 내부기관, 위-장관 그리고 뇌가 어떤 기능을 가지고 있는지 기관별로 이해한다. 이를 위해 각 기관의 미세구조를 소개하고 구조에 따른 기능을 공부한다. 이 외에도 만성관, 근육의 수축, 풀질의 세포막 이동 등의 총론적인 부분도 소개된다. This lecture introduces how organs work in our body. Specifically, cardiovascular system, respiratory system, renal physiology, endocrinology, and neurophysiology will be instructed. Integrated responses to various situations among organs are instructed. In addition, membrane potentials, transport mechanism through membrane, and muscle contraction will also be instructed in this course.

370.1112* 세포와 유전 2-2-0 Cell Biology and Genetics

고등생물의 특성적 생명 현상을 담당하고 있는 세포들의 구조적 특성과 생리적 기능을 학습하고 외부로부터의 자극에 의해 유도된 세포 내 생화학적 신호전달경로, 유전자 발현, 세포주기와 분화의 분자생물학적 조건 기저성에 대해 학습한다. 또한 세포 내 분자들의 비정상적 활성에 의해 유발되는 인체 질병의 분자수준의 병인기전과 의약학적 치료 원리에 대해 강의한다. The fundamental structures and functions of cells in higher organisms will be instructed. The molecular details of intracellular signal transduction pathways which connect extracellular stimuli to gene expression, cell cycle progression and differentiation will be lectured. Also, human diseases that are associated with the aberrant regulation of important cellular structures and signalings will be introduced in the focus of the pharmacological treatment.
## 약학대학(College of Pharmacy)

<table>
<thead>
<tr>
<th>약학대학 2+4년제(College of Pharmacy)</th>
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</thead>
<tbody>
<tr>
<td>역, 형태, 대사, 증식에 대하여 강의하고 미생물유전, 면역의 일반에 대하여 강의한다.</td>
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This course will cover the essential knowledge of pathogenic microorganisms for pharmacists and microbes used to produce antibiotics and physiologically active constituents.

### 370.2120* 예방약학 1 2-2-0

**Preventive Pharmacy 1**

- 최근 약품을 통한 치료보다는 음식물 섭취를 통한 질병예방에 많은 초점이 주어져 있다. 식품에는 다양한 영양소가 존재하므로 균형있는 식사를 통하여 건강유지 및 질병예방을 이해하는 것이 매우 중요하다.

- The course provides the application of inorganic reactions, halogenation, nitration, sulfonation, amination, amidation, reaction of aromatic diazonium salt, and oxidation to the synthesis of basic medicine.

### 370.1206* 약을함성화학 2 2-2-0

**Synthetic pharmaceutical chemistry 2**

- 본 강좌는 약물의 합성에 이용되는 합성방법들을 반응유형별로 분류하여 소개하고 약물의 합성 및 기본구조 변화에 관한 반응경로, 입체선택성 및 합성법들을 강의한다.

### 370.1205* 생약학 2 2-2-0

**Pharmacognosy 2**

- 본 강좌는 약물의 합성에 이용되는 합성방법들을 반응유형별로 분류하여 소개하고 약물의 합성 및 기본구조 변화에 관한 반응경로, 입체선택성 및 합성법들을 강의한다.

### 370.2103* 미생물 및 면역학 2 2-2-0

**Microbiology and Immunology 2**

- 최근 약품을 통한 치료보다는 음식물 섭취를 통한 질병예방에 많은 초점이 주어져 있다. 식품에는 다양한 영양소가 존재하므로 균형있는 식사를 통하여 건강유지 및 질병예방을 이해하는 것이 매우 중요하다. 본 강의에서는 질병예방을 위한 각 약품의 생리학적인 중요성을 강조할 것이며 또한 미래의 약약을 위한 약물과 양성소의 상호작용에 대한 기본 지식을 제공하고자 한다.

- The course will deal with the principles and practices of dispensation, preparation, storage, and distribution of pharmaceuticals.

### 370.2104* 예방약학 2 3-3-0

**Preventive Pharmacy 2**

- 최근 약품을 통한 치료보다는 음식물 섭취를 통한 질병예방에 많은 초점이 주어져 있다. 식품에는 다양한 영양소가 존재하므로 균형있는 식사를 통하여 건강유지 및 질병예방을 이해하는 것이 매우 중요하다. 본 강의에서는 질병예방을 위한 각 약품의 생리학적인 중요성을 강조할 것이며 또한 미래의 약약을 위한 약물과 양성소의 상호작용에 대한 기본 지식을 제공하고자 한다.
The course covers the basic experiments on Pharmacognosy and Pharmaceutical Natural Products. 7.5 weeks will be assigned to each of the two areas.

Pharmacognosy and Pharmaceutical Natural Products. 7.5 weeks will be assigned to each of the two areas.

Pharmacognosy is the fundamental consideration of disease process is done in this course. Emphasis is placed on causative mechanism, the biological manipulation of the experimental data in pharmaceutical science.

A fundamental consideration of disease process is done in this course. Emphasis is placed on causative mechanism, the progress and effects of disease, and the structural and functional changes associated with pathological disturbance.

The course covers the basic principles of drug mechanism and clinical pharmacy to establish the fundamentals and skills required as a clinical pharmacist. Students will master from the basics of pharmacist profession, clinical pharmacy and pharmaceutical care to medical terminology, prescription compounding system, drug utility review, comprehension and evaluation of laboratory values and patient drug monitoring -the principals required for a clinical pharmacist.

In this class, students master the basic knowledge and skills required to provide pharmaceutical care to patients before entering IPPE and APPE with a clear understanding of their responsibilities as a pharmaceutical care provider. The focus of this course is to provide the student with a rational, systematic, and comprehensive approach to the patient’s drug related problems to improve the effectiveness and safety of drug therapy. Students will learn the theoretical knowledge and practice about physical assessment, aseptic technique and sterile products, compounding and dispensing, prescription review, drug information retrieval, and counseling skills.

The course covers the basic experiments on Pharmacognosy and Pharmaceutical Natural Products. 7.5 weeks will be assigned to each of the two areas.

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Pharmaceutical Process Validation and Regulatory Science

This course deals with the principles and practices of pharmaceutical operations and the technical implication of good manufacturing practices in Korea. These concern such things as buildings and facilities, personnel, components, production and control of records, standard operation procedures, packaging and labeling operation, laboratory control, distribution records, stability, and expiration date.

Pharmacopeia and Pharmaceutical Quality Science

This course will cover pharmacopoeia, which is a collection of formularies that each nation standardizes to maintain the quality, purity, and safety of drugs.

Pharmacy Ethics

This course aims to provide students with an awareness of current ethics issues in health care, and an appreciation of the gravity of these issues in pharmaceutical research and practice. Students will learn appropriate decision making processes for use in resolving ethical dilemmas. Ethical issues faced in the general context of health care and specifically in pharmacy will be discussed.

Pharmaceutical Laboratory 5

The course covers the basic experiments on Pharmacology and Pathophysiology.

Pharmaceutical Laboratory 6

The course covers the basic experiments on Pharmaceutics and Preventive Pharmacy.

Pharmacotherapy 1

This course deals with the principles and practices of pharmaceutical operations and the technical implication of good manufacturing practices in Korea. These concern such things as buildings and facilities, personnel, components, production and control of records, standard operation procedures, packaging and labeling operation, laboratory control, distribution records, stability, and expiration date.

Pharmacotherapy 2

This course deals with the principles and practices of pharmaceutical operations and the technical implication of good manufacturing practices in Korea. These concern such things as buildings and facilities, personnel, components, production and control of records, standard operation procedures, packaging and labeling operation, laboratory control, distribution records, stability, and expiration date.

Extradepartmental Courses

This course covers the basic experiments on Pharmacology and Pathophysiology.

Pharmaceutical Laboratory 5

The course covers the basic experiments on Pharmacology and Pathophysiology.

Pharmaceutical Laboratory 6

The course covers the basic experiments on Pharmaceutics and Preventive Pharmacy.

Pharmacotherapy 1

This course deals with the principles and practices of pharmaceutical operations and the technical implication of good manufacturing practices in Korea. These concern such things as buildings and facilities, personnel, components, production and control of records, standard operation procedures, packaging and labeling operation, laboratory control, distribution records, stability, and expiration date.

Pharmacotherapy 2

This course deals with the principles and practices of pharmaceutical operations and the technical implication of good manufacturing practices in Korea. These concern such things as buildings and facilities, personnel, components, production and control of records, standard operation procedures, packaging and labeling operation, laboratory control, distribution records, stability, and expiration date.
370.3103* 약물치료학 3 4-4-0

Pharmacotherapy 3

소화기, 면역, 정신과, 골관절, 산과, 피부질환 및 소아 모듈 약물치료학에서는 소화기, 면역, 정신과, 골관절, 산과, 피부질환 및 소아 환자의 질병치료에 있어서 최적의 약물요법이 이루어질 수 있도록 과학적인 접근방법으로 약물의 효능, 독성을 모니터링하고 안전성 결과를 발전 및 관리 할 수 있는 임상약학적인 지식과 기술을 습득하도록 한다. 또한 임상약학 지식의 응용능력 향상과 학술발표 능력을 위하여 단계적인 이론수업과 해당 질병별 환자사례의 분석 및 발표시간을 방행하여 진행한다.

In this Gastrointestinal disorder including hepatic disease, Immunologic, Psychiatric & Neurologic, Gynecologic, and Dermatologic Disorders, and Pediatrics Module Pharmacotherapy, students will master clinical pharmaceutical knowledge and skills of the scientific approach to monitoring drug effects/side-effects and finding and managing drug induced diseases, to assure optimal pharmacotherapy in treating the diseases covered in this module. Case analysis and presentation class will proceed concurrently with each disease state to let students develop presentation skills and application skills of clinical pharmaceutical knowledges.

370.3104* 약물치료학 4 4-4-0

Pharmacotherapy 4

호흡기, 내분비, 감염성질환 및 증종치료 모듈 약물치료학에서는 면역, 호흡기, 내분비 및 감염성질환과 증종치료 환자의 질병치료에 있어서 최적의 약물요법이 이루어질 수 있도록 과학적인 접근방법으로 약물의 효능, 독성을 모니터링하고 안전성 결과를 발전 및 관리 할 수 있는 임상약학적인 지식과 기술을 습득하도록 한다. 또한 임상약학 지식의 응용능력 향상과 학술발표 능력을 위하여 단계적인 이론수업과 해당 질병별 환자사례의 분석 및 발표시간을 방행하여 진행한다.

In this Respiratory, Endocrinologic Disorders and Infectious Disease, and Critical Care Module Pharmacotherapy, students will master clinical pharmaceutical knowledge and skills of the scientific approach to monitoring drug effects/side-effects and finding and managing drug induced diseases, to assure optimal pharmacotherapy in treating the diseases covered in this module. Case analysis and presentation class will proceed concurrently with each disease state to let students develop presentation skills and application skills of clinical pharmaceutical knowledges.

370.3105* 천연물의약학 2 3-0-0

Herbal Therapeutics

현대 약리학적 근거에 입각하여 천연물과 의약품의 상호작용, 천연물로부터 의약품 개발, 천연물에 의한 대체 치료법, 환약과 천연물의 관계, 건강보조식품, 천연물의 안전성 등에 관하여 강의를 한다.

The course covers herb-drug interactions, natural products as a resource for established and new drugs, alternative therapies, herbal therapeutics, relationship between traditional medicine and natural products, safety of herbal drugs, and dietary supplements.
experience class in which students will master pharmaceutical knowledge and effective decision making skills needed to resolve pharmaceutical problems encountered in patient treatment. Students will develop the knowledge, skills and attitudes necessary of a post graduate healthcare system pharmacist through experiencing clinical pharmacokinetics practice, total parenteral nutrition practice, anti-coagulant service practice, drug utilization and quality control practice, and clinical study monitoring practice.

376.413 약학분자생물학 3-3-0

Pharmaceutical Molecular Biology
본 과목은 분자의 최신연구 결과를 바탕으로 하여 인간질병의 원인 규명 및 새로운 치료법과 이에 관련된 신약개발 기술을 강의한다. 특히 인간 유전자 연구 성과에 의해 구명된 다양한 유전자와 단백질들의 기능과 상호작용, 그리고 분자수준의 새로운 예방법과 치료전략의 개발에 기여하는 임상적 지식, 기술 및 태도를 적용하는 실무과정에 대하여 문제중심 학습법으로 실수 있게 실습한다.

이 과목은 The Clinical Pharmacy and Pharmacotherapy for students를 적용하여 약학적 문제를 해결하고 환자의 치료향상을 기여하는 의사결정에 요구되는 임상적인 지식, 기술 및 태도를 적용하는 실무과정에 대하여 문제중심 학습법으로 실수 있게 실습한다.

This problem-based laboratory course utilizes the basics of the Clinical Pharmacy and Pharmacotherapy for students to apply their clinical knowledge, skills and attitude to solve pharmaceutical care problems through effective decision making process to optimize the desired outcomes in patients with gastrointestinal, endocrinologic, cardiovascular, neurologic, dermatologic and ophthalmic disorders.

This problem-based laboratory course is a continuation of Pharmacotherapy Laboratory I, that utilizes the basics of the Clinical Pharmacy and Pharmacotherapy for students to apply their clinical knowledge, skills and attitude to solve pharmaceutical care problems through effective decision making process to optimize the desired outcomes in patients with gastrointestinal, endocrinologic, cardiovascular, neurologic, dermatologic and ophthalmic disorders.

376.419 유기약품합성화학특론 3-3-0

Advanced Organic Pharmaceutical Chemistry
본 강의에서는 약물의 디자인과 합성에 있어서 필요한 유기반응을 이해하고, 구조-활성관계, 복합화합물의 역할성 전략을 습득하도록 한다. 촉매에 의한 hydrogenation 및 dehydrogenation, metal hydride에 의한 환원 및 관련 반응, meta에 의한 환원 반응, Cr 및 Mn 화합물에 의한 산화, peracid에 의한 산화 반응, halogenation에 대한 강술을 행한다.

The course provides the fundamental principles of organic chemistry needed for the drug design and synthesis. The physicochemical properties of organic chemicals and bio-molecules along with their structure-bioactivity relationships are basic topics of lectures. The retrosynthetic analysis of complex chemicals is also covered.

376.428 임상약학 3-3-0

Clinical Pharmacology
임상약학은 실제 임상에서 환자의 치료에 활용되는 약물들의 약리작용, 부작용 및 약물약용량에 대한 학습을 통하여 환자에게 처방되는 약물의 약효를 극대화시킨다.

This course concerns the understanding of appropriate drug administration through the study of therapeutic effects, adverse reactions and drug interactions of clinically available drugs.

376.432 사회약학 3-3-0

Social and Administrative Pharmacy
약학의 개발, 생산, 유통, 및 사용 과정에서 나타나는 제반 사회현상과 인간의 행태에 대한 인문, 사회과학적인 이론과 해석을 제시한다. 약물 관리 법제, 재정, 경영, 사회문화적 측면을 탐구함으로써 사회체제 내에서 의약품 및 약사의 역할과 의미를 파악할 수 있도록 한다. 이를 통해 이후 사회 건강한 사회약학 전문가로서 사회적 직무 수행을 원활하게 할 수 있는 기본 소양을 제공한다.

The is an introductory course in management, the health care system and behavioral pharmacy. The managerial func-
tions of planning, organizing and influencing human behavior are also explored. The health care system is introduced in the context of these organizational behavior principles, with special emphasis on pharmacy’s unique roles.

372.312

Pharmaceutical Phytochemistry

This course involves a history of drug discovery and development from ancient Egypt to the present time and the stories of each drug developed during last almost 100 years, and introduces students to the backgrounds of drugs related to human stories of scientists who developed and discovered remarkable medicines. Especially, it will provide students with opportunities to study medicines which were influential and introduces students to the backgrounds of drugs related to human stories of scientists who developed and discovered remarkable medicines. From this course, this basic concept, developmental processes of medicines accidentally or deliberately, and impacts of drugs on society will be learned. On top of that, we will cover the stories such as how new drugs are approved by the FDA (Food and Drug Administration), and developed by multinational pharmaceutical companies.

376.317

Biomedical and Pharmaceutical Analysis

The course is to investigate the principles and the applications of the various analytical methods used in the pharmaceutical research, the disease diagnosis, forensic pharmacy and the regulation of environmental contaminants. The main contents are summarized as follows. 1. The analysis used in the research and development of the pharmaceuticals 2. The analysis used in the disease diagnosis 3. The analysis used in the scientific investigation 4. The analysis of the contaminants in drug or food 5. The analysis of the environmental contaminants The objective of this course for the students is to understand the principles and applications of the varied analytical methods used in the research and development of drugs, clinical pathology, forensic science and the food or environmental safety. The course is to investigate various analytical methods used in the pharmaceutical research, drug development, the disease diagnosis, forensic pharmacy and the evalua-
ation of volatile organic compounds.

For the analysis of the pharmaceutical compounds is indispensable in their development and quality control process, the analytical methods, especially the application of chromatography and spectroscopy, will be discussed in the course along with the sample pre-treatment, optimization of sample separation and data processing and integration strategies. The principles of disease diagnosis, analysis and other applicable areas will be introduced in the course to reflect the rapid evolution of the disease diagnosis/prognosis prediction technology employing highly advanced equipments beyond the clinical analysis alone. Furthermore, various scientific inquiry systems used in DNA analysis, investigation of the cause of death, analysis of poisonous substances, narcotics analysis and doping test will be covered in the course as instrumental.

372.418 약물송달학 3-3-0

Individualized pharmaceuticals

The introduction of recent research trends classified according to their main theme and presents pathophysiological understanding of disease. This course aims at providing students with a better understanding of the fundamental physiological mechanisms by new endogenous molecules and the relevant evaluation for its biological safety.

372.414 약물송달학 3-3-0

Drug Delivery Systems

The course covers the organic chemistry of drug design and drug action. This course lectures drug discovery, design and development of new drugs including the development of new drug delivery systems. The course aims at providing students with a better understanding of the fundamental physiological mechanisms by new endogenous molecules and the relevant evaluation for its biological safety.

376.421 분자병태생리학 3-3-0

Molecular Pathophysiology

The course covers the organic chemistry of drug design and drug action. This course lectures drug discovery, design and development of new drugs including the development of new drug delivery systems. The course aims at providing students with a better understanding of the fundamental physiological mechanisms by new endogenous molecules and the relevant evaluation for its biological safety.

376.408 독성학 3-3-0

Toxicology

The course covers the organic chemistry of drug design and drug action. This course lectures drug discovery, design and development of new drugs including the development of new drug delivery systems. The course aims at providing students with a better understanding of the fundamental physiological mechanisms by new endogenous molecules and the relevant evaluation for its biological safety.

376.430 의약학 2 3-3-0

Medicinal Chemistry 2

The course covers the organic chemistry of drug design and drug action. This course lectures drug discovery, design and development of new drugs including the development of new drug delivery systems. The course aims at providing students with a better understanding of the fundamental physiological mechanisms by new endogenous molecules and the relevant evaluation for its biological safety.
and development, receptor and ligands, enzyme mechanism, enzyme inhibitors, DNA interactive agents, drug metabolism, and prodrug.

371.421 Introduction to bioactive natural products

Recent advances in genetic knowledge gained through sequencing have been applied to both of these areas and identifying heritable genetic variants that predict response and toxicity is an important area of great interest to researchers. The ultimate goal of pharmacogenomics is to develop new drugs or nutraceuticals from these bioactive compounds. This lecture will be covered on the discussion of pharmacological activities of bioactive natural products with high potentials as drug-likeness.

376.426 Pharmacogenomics

Pharmacogenomics is aimed at advancing our knowledge of the genetic basis for variable drug response. One of the great challenges in drug development and therapy is maximizing therapeutic response while avoiding adverse effects. Advances in genetic knowledge gained through sequencing have been applied to both of these areas and identifying heritable genetic variants that predict response and toxicity is an area of great interest to researchers. The ultimate goal of this course is to identify clinically significant variations to discovery and develop new drugs and predict the optimal dose of medications for personalizing medicine.

376.431 Molecular Oncology

Molecular Oncology

Cancer is one of the most threatening diseases for the health of human beings in 21st century, and the incidence rate of cancer is growing more and more in this aging society. Characteristics of normal and cancer cells, causing factors of cancer, biochemical and molecular biological basis of carcinogenesis, functions of oncogenes and tumor suppressor genes, chemotherapy and prevention of cancer, mechanism of anti-cancer drug and its clinical applications will be discussed in depth in this class.
This course is a continuation of Advanced Pharmaceutical Research & Practice I, and is divided in two tracks of Pharmaceutical Science Track or Clinical Science Track. Students in each track are provided with an advanced and innovative curriculum emphasizing the key principles of conducting research projects with a hands-on approach alongside the supervision of an assigned pharmacy faculty advisor. The key components of Advanced Pharmaceutical Research & Practice 2 in each Tracks are identifying, structuring, synthesizing, and presenting an independent research project that match the student’s research and professional interests. Research projects may take place in laboratories of basic pharmaceutical research or clinical practice sites of hospitals, retail pharmacies or industries in line with their academic and career goals.
Introduction to Korean Music 1

The purpose of this course is to introduce Korean music—its concepts, genres, and instruments—and musical culture through recent Korean musicological research. Korean music is separated into four categories: court-based music, music for the common people, and newly composed music based on Korean musical tradition. The main focus of this course will be on the traditional categories; Students will come to understand the various genres of Korean music by listening to and analyzing actual music. They must register for 2 continuous semesters.

Introduction to Korean Music 2

The purpose of this course is to introduce Korean music—its concepts, genres, and instruments—and musical culture through recent Korean musicological research. Korean music is separated into four categories: court-based music, music for the common people, and newly composed music based on Korean musical tradition. The main focus of this course will be on the traditional categories; Students will come to understand the various genres of Korean music by listening to and analyzing actual music. They must register for 2 continuous semesters.

Training for Music Software 1

This course will try to combine music and technology. Students will learn the fundamental principles of computer music and practice applied softwares.

Training for Music Software 2

Students will investigate various sequencing programs, practice selected softwares, and consequently understand computer music in depth in this course.

Keyboard Harmony

This course includes practical exercise based on music theory such as harmony and linear chord-progression, in order to train music-majoring students (composition, conducting, and keyboard-playing major) for learning fundamental skills of music-making by practicing figured-bass playing and transposition skills. The course consists of gradual learning steps over the course of 4 semesters.
음악대학(College of Music)

650.2237*  화성법 및 대위법 3 2-2-0

Harmony and Counterpoint 3

시기 공통 관습시대 음악의 근간을 이루는 화성법 및 대위법을 통합 교육함으로써 음악가로서의 기본 소양을 함양한다. 4개 학기 동안 단계별 학습이 이루어진다.

By integrating harmony and counterpoint, the basis of the common practice period in western music, this course helps to cultivate the basic knowledge required for musicians. The course consists of gradual learning steps over the course of 4 semesters.

650.2238*  화성법 및 대위법 4 2-2-0

Harmony and Counterpoint 4

시기 공통 관습시대 음악의 근간을 이루는 화성법 및 대위법을 통합 교육함으로써 음악가로서의 기본 소양을 함양한다. 4개 학기 동안 단계별 학습이 이루어진다.

By integrating harmony and counterpoint, the basis of the common practice period in western music, this course helps to cultivate the basic knowledge required for musicians. The course consists of gradual learning steps over the course of 4 semesters.

650.2241*  서양음악사 1 2-2-0

History of Western Music 1

서양음악의 시원부터 단성성가의 형성과정과 다성화 과정 그리고 중세 말 국가별 민족음악의 양식적 특징에 관해 학습한다.

This course will explore the beginning of Western music, establishment of chants, development to polyphony, and traits of national styles in the late Middle Ages.

650.2242*  서양음악사 2 2-2-0

History of Western Music 2

로네상스 시대부터 바洛克 시대로 이르기까지 성악, 기악음악 양식의 발전과 변천 과정, 오페라의 출현과 발전과정에 관한 학습한다.

This course will explore the developments and changes of vocal and instrumental music and the rise and development of opera from the Renaissance to the Baroque period.

650.2246*  시청청음 3 1-1-1

Sight Singing and Ear Training 3

총 4개 학기 동안의 단계적 학습을 통해 높은 수준의 독보력 및 기보력, 더 나아가 음악적 인지력을 개발한다.

As the third part of a process of four semester courses, this course aims to improve high-level sight seeing and notation skills and cognitive abilities in music.

650.2247*  시청청음 4 1-1-1

Sight Singing and Ear Training 4

총 4개 학기 동안의 단계적 학습을 통해 높은 수준의 독보력 및 기보력, 더 나아가 음악적 인지력을 개발한다.

As the third part of a process of four semester courses, this course aims to improve high-level sight seeing and notation skills and cognitive abilities in music.

650.3243*  서양음악사 3 2-2-0

History of Western Music 3

이 강좌는 <서양음악사 1 2-2-0>의 연속으로서 주로 1750년부터 1830년경까지의 음악을 다루고 있다. 우리가 '서양 고전 음악'이라고 하는 음악 대부분이 이 시기에 속한다. 따라서 하이든, 모차르트, 베토벤과 같은 음악가들의 작품들을 중심으로 이 시기의 시대적 흐름을 개관한다.

A continuation of the courses <History of Western Music and Literature 1 and 2>, this course will focus on music from 1750 to the 1830's, thus reviewing the “core” of Western classical Music including symphonies and concertos.

650.3244*  서양음악사 4 2-2-0

History of Western Music 4

이 강좌는 주로 베토벤 이후의 음악 경향들, 19세기 전반의 낭만주의와 후반의 후기 낭만주의, 민족주의뿐만 아니라, 20세기의 여러 음악적 혁신을 개관한다. 역사적 관점에서뿐만 아니라, 음악과 음악재료에 대한 새로운 사고 변화들을 기념비적 작품들을 통해 살펴본다.

This course will deal with not only the trends developed after the 1830’s (Romanticism, post-Romanticism, and nationalism) but also many of the musical innovations from the 20th century to the present. Apart from the historical perspectives, the course will explore actual compositions that reflect the changes in ideas on music and musical materials.

650.3303*  음악분석 1 2-2-0

Music Analysis 1

악곡분석을 통해 음악에 대한 분석적 이해력을 함양함으로써 작품해석능력을 높인다. 분석할 악곡으로 학과/전공별 특성에 맞는 악곡을 선택하며, 4개 학기(또는 2개 학기) 동안 단계별 학습이 이루어진다.

This course cultivates analytical ability by critically examining musical works. The repertoires to be dealt in the class will be selected according to the students’ department/major. This course consists of gradual learning steps over a series of 4 (or 2) semesters.

650.3304*  음악분석 2 2-2-0

Music Analysis 2

악곡분석을 통해 음악에 대한 분석적 이해력을 함양함으로써 작품해석능력을 높인다. 분석할 악곡으로 학과/전공별 특성에 맞는 악곡을 선택하며, 4개 학기(또는 2개 학기) 동안 단계별 학습이 이루어진다.

This course cultivates analytical ability by critically examining musical works. The repertoires to be dealt in the class will be selected according to the students’ department/major. This course consists of gradual learning steps over a series of 4 (or 2) semesters.

650.3307*  연주 1-0-3

Performance Workshop

한 학기 동안 자신이 배운 것을 발표하는 수업이다. 형식은 실제 연주회와 같으며 한 회당 발표자는 약 6∼7명이 된다. 음악대학 학생들을 위한 전공 필수 강좌로서 4개 학기 반복 이수해야 한다.
In this course, students will perform what they have learned during the semester. The format will be the same as that of an actual concert. Approximately 6–7 students will be assigned to each session. This is a required course for students majoring in music and must be taken for 4 consecutive semesters.

650.3320 지휘법 1 2-2-0
Conducting 1

소규모 양상품, 합창 등을 지휘할 수 있는 기본적 능력을 계발하기 위한 기초과정으로서, 음악적 의도를 연주자에게 전달하는 방법을 연구하고, 지휘법을 이용한다. 2개 학기 동안 단계별 학습이 이루어진다.

This course helps students to acquire a fundamental ability to conduct ensemble, choir, or large-scale musical works. The course consists of training various baton techniques and conventional methods of musical expressions in conveying conductor’s interpretive intention to players. This course consists of gradual learning steps over a series of 2 semesters.

650.3321 지휘법 2 2-2-0
Conducting 2

소규모 양상품, 합창 등을 지휘할 수 있는 기본적 능력을 계발하기 위한 기초과정으로서, 음악적 의도를 연주자에게 전달하는 방법을 연구하고, 지휘법을 이용한다. 2개 학기 동안 단계별 학습이 이루어진다.

This course helps students to acquire a fundamental ability to conduct ensemble, choir, or large-scale musical works. The course consists of training various baton techniques and conventional methods of musical expressions in conveying conductor’s interpretive intention to players. This course consists of gradual learning steps over a series of 2 semesters.

650.4401* 음악분석 3 2-2-0
Music Analysis 3

악곡분석을 통해 음악에 대한 분석적 이해력을 함양함으로써 작품해석능력을 높인다. 분석할 작품으로 학과 전공별 특성에 맞는 음악을 선택하며, 4개 학기(또는 2개 학기) 동안 단계별 학습이 이루어진다.

This course cultivates analytical ability by critically examining musical works. The repertoires to be dealt in the class will be selected according to the students’ department/major. This course consists of gradual learning steps over a series of 4 (or 2) semesters.

650.4402* 음악분석 4 2-2-0
Music Analysis 4

악곡분석을 통해 음악에 대한 분석적 이해력을 함양함으로써 작품해석능력을 높인다. 분석할 작품으로 학과 전공별 특성에 맞는 음악을 선택하며, 4개 학기(또는 2개 학기) 동안 단계별 학습이 이루어진다.

This course cultivates analytical ability by critically examining musical works. The repertoires to be dealt in the class will be selected according to the students’ department/major. This course consists of gradual learning steps over a series of 4 (or 2) semesters.
Methods of Korean Traditional Songs

시조, 민요, 판소리 등의 국악가창곡을 지도하는 방법을 강의하는 과목이다. 현행 초, 중, 고등학교 음악교과서에 수록된 국악가 창곡들을 효과적으로 지도하는 방법에 대해 다루며, 예비 교육자로 실제 교육환경에서 필요한 경험이 교수 체계를 둔 과정이다.

This class deals with teaching methods of Korean traditional singing, such as Pansori, Sijo, and Minyo. How to teach Korean traditional songs will be taught including songs in the textbooks of elementary, middle, and high school. This class provides experiences needed in educational practice.

Elective music lessons

본 과목은 국악가 창곡과 국악가창공을 지도하는 방법을 강의하는 과목이다. 현행 초, 중, 고등학교 음악교과서에 수록된 국악가 창곡들을 효과적으로 지도하는 방법에 대해 다루며, 예비 교육자로 실제 교육환경에서 필요한 경험이 교수 체계를 둔 과정이다.

These courses are designed to broaden musical experience and enhance comprehensive musicianship. Students who wish to pursue studies in performance or composition other than their major may take this course. Lessons for voice, composition, instruments and Korean traditional instruments are provided. For declared Music majors only.

Practice of Performance and Production for Contemporary Music

현대음악의 작곡 및 연주 뿐 아니라 현대음악이 만들어지는 모든 세부적인 과정을 다양한 전공의 학생들 간 협업을 통해 실습해 본다.

Through this course, students who are majoring in various fields can experience every part of contemporary music production through collaboration and practice.

This course is open to students without regard to major or concentration.

Overseas Field Study

본 과목은 국제 음악 기관 또는 해외 음악 학교에 방문해 현지 학생과 교류하고 현장을 체험함으로써 학생들이 하여금 세계화 시대에 갖춘 안목을 배양하고자 하는 목적이 있다. 수업은 두 가지 형태로 진행되는데, 학기 중에는 매주 관련 분야 전문가의 특강을 통해 기초 소양을 개발하고 이를 바탕으로 학생이 직접 해외 현장에서 실행할 수 있는 교류 프로그램을 기획하는 이론 수업, 학기 끝난 후에는 약 일주일 동안 해외 현장에서 이루어지는 실습수업을 병행할 예정이다. 학생들은 이론 수업 기간 동안 조를 이뤄 팀별 프로젝트를 진행하고, 해외 현장에서의 실습수업은 마친 후 과정과 결과에 대해 발표한다.

This course aims to cultivate students’ insights for the era of globalization through visiting and experiencing on-site at international music institutions or overseas schools. Classes will be held in two sessions; theoretical and field-training. In the theoretical session, which will be held during the semester, special lectures by experts in related fields will be conducted in order to help students plan cultural exchange programs that can be performed in overseas fields. After the end of the semester, there will be a week of field-training in the overseas based on the theoretical session. Students should conduct a team project during the theoretical session, and should make a presentation on the process and results after finishing overseas training.

Practice at Performance Site

본 과목은 강의로 습득한 이론과 지식을 기초로 하여, 학생들이 해외 음악 초청이 체험할 수 있도록, 전문가로부터 전문가와 같은 경험을 견디는 기회를 제공한다. 학생들은 해외 현장에서의 경험을 바탕으로 전공의 활용 및 응용력을 배운다. 더불어 앞으로의 전공성에 도움이 되도록 한다.

This course provides students with the opportunity to participate in the actual production of performances based on the theories and knowledge learned in the lectures. During the semester, students will experience planning and producing performances suitable to the actual scene. Through this course, students can develop their overall understanding of performance production and enhance their ability to apply it to their major.
음악대학(College of Music)  : 성악과(Dept. Vocal Music)

651.1211* 이태리어 덕션 2-2-0  
Italian Diction

이태리어의 자음의 기본원리와 모음의 개폐음에 대한 이해 및 발음과 노래에서의 차이점을 강의 및 이태리 가곡을 통해 실습한다.
This course will study the Italian phonetic/phonemic system and the differences between speaking and singing in the language. It will cover coaching in Italian Lieder repertoires.

651.1230* 합창 1-0-2  
Chorus

기본적인 양상품 감각을 익혀고, 시대적인 합창곡을 경험함으로써 음악사에 대한 흐름과 시대별 연주관습을 살펴보고 전문적인 합창곡을 통하여 음악 경험을 폭을 넓힌다.
This course is designed to give students the basic ensemble techniques and an understanding of the historical development of choral performance practice.

651.1315* 이태리어가곡 2-2-0
Italian Art Songs

이태리의 19C 낭만주의 시대에서 현대에 이르기까지 대표적인 이탈리아의 작곡가들을 중심으로 그들의 작곡 작품을 같이 공부한다. 또한, 잘 알려지지 않은 작곡가들에 대한 학습을 통하여 많은 평가를 얻는다.
They deal with the details of art songs based on the Italian composers from the 19th century romanticism to the contemporary. They also broaden their repertoire by the learnings of unknown art songs.

M1795.000100* 독일어 딕션 1 2-2-0  
German Diction 1

독일가곡을 노래함에 있어 더욱 명확한 가사 및 의미전달과 심도 있는 음악적 표현을 하는 것을 익바른 발음을 중심으로 공부해 간다.
This course is designed to teach students the techniques for delivering and expressing German poetic words.

M1795.000200* 독일어 덕션 2 2-2-0  
German Diction 2

독일가곡을 노래함에 있어 더욱 명확한 가사 및 의미전달과 심도 있는 음악적 표현을 하는 것을 익바른 발음을 중심으로 공부해 간다.
This course is designed to teach students the techniques for delivering and expressing German poetic words.

M1795.000300* 프랑스어 덕션 1 2-2-0  
French Diction 1

프랑스 예술가곡의 발음법과 해석법을 공부하여 시와 음악의 완벽한 결합으로 표현할 수 있는 공부를 한다. 발음의 연습법, 특수한 경우의 발음법 등을 익히 프랑스 예술가곡을 연주할 수 있는 기초를 닦는다.
This course will prepare students to sing artistically in French by learning the basic pronunciation and interpretation of French art songs.

M1795.000400* 프랑스어 덕션 2 2-2-0  
French Diction 2

프랑스 가곡의 창법 및 프랑스 가곡의 특성을 공부하고 프랑스 가곡의 Phrasing 등을 발음법에 관련하여 공부한다. 프랑스 가곡의 발음법을 G. Fauré 및 다양한 프랑스 작곡가의 가곡에 실제 적용하여 실습함으로써 개개인의 발음상의 문제점을 교정해 나간다.
This course will study French vocal music and its interpretation. The Phrasing of French songs will be stressed. The course will include coaching in repertoire (G. Fauré and others.)

651.2220* 성악실기 2-1-2  
Vocal Major

담당교수와의 개별적인 레슨을 통하여 심리를 학습하며, 학기별로 합창한 시대의 예술품 및 오페라 아리아, 졸업연주를 위한 Song Cycle 등을 학습한다.
In this course, students receive private instruction in art songs and arias of different periods and song cycles for their graduation recital.

651.3301 성악인을 위한 이탈리아어 1 2-2-0  
Italian for Singer 1

바로크 시대로부터 현대에 이르는 광범위한 이탈리아 성악곡 중심으로 시와 가사의 해석 능력을 향상시키는 동시에 이탈리아어 구사 및 독해력을 키워줌으로써 전문 성악인에게 필요한 소양을 갖출 수 있는 기회를 제공한다.
Knowledge of Italian is crucial for singers in studying and performing Italian vocal repertoire, one of the most important genre in history of vocal literature This class deals with the standard Italian vocal music that span from the Baroque era to modern days with its focus in interpretation and comprehension of the Italian texts This course also aims at an improvement in singer’s ability to read, write and speak in Italian.

651.3302 성악인을 위한 이탈리아어 2 2-2-0  
Italian for Singer 2

바로크시대로부터 현대에 이르는 광범위한 이탈리아 성악곡 중심으로 시와 가사의 해석 능력을 향상시키는 동시에 이탈리아어 구사 및 독해력을 키워줌으로써 전문 성악인에게 필요한 소양을 갖출 수 있는 기회를 제공한다.
Knowledge of Italian is crucial for singers in studying and performing Italian vocal repertoire, one of the most important genre in history of vocal literature This class deals with the standard Italian vocal music that span from the Baroque era to modern days with its focus in interpretation and comprehension of the Italian texts This course also aims at an improvement in singer’s ability to read, write and speak in Italian.

651.3306 성악앙상블 2-2-0  
Vocal Ensemble

다양한 장르와 시대의 많은 작곡가들의 성악 아리아를 레퍼토리 를 공부함으로써 연주곡목의 폭을 넓히고, 시대와 곡목에 알맞은 음반곡을 해석력과 다양한 형태(duet, trio, quartet)의 연주를

학점구조는 "학점수-주당 강의시간-주당 실습시간"을 표시함. 한 학기는 15주로 구성됨. (The first number means "credits"; the second number means "lecture hours" per week; and the final number means "laboratory hours" per week. 15 week make one semester.)
통하여 음악성을 향상시킨다.
This course will cover the interpretation and preparation of vocal ensemble repertoires from all periods and in all genres. Students will enhance their musical ability through various forms of ensembles (duets, trios, and quartets).

651.3313 종교가곡 및 바르크성악곡 2-2-0
Religious and Baroque Art Songs 2
음악사에 중요한 위치를 차지하고 있는 종교가곡 및 바르크 성악곡이 역사적인 관점에서 고찰함과 동시에 해당 문헌의 실제 연주와 코칭을 통하여 폭넓은 레퍼토리를 가질 수 있도록 한다.
This course focuses its study in Baroque and religious vocal literature which occupy an important place in history of vocal music. A historical survey of the literature and performance style is accompanied by actual performance practice of the repertoire in the class.

651.3314 오페라 1 2-2-0
History of Opera 1
시양음악사에서 중요한 한 부분을 차지하는 오페라에서 고대 그리스에서부터 오페라가 발생한 1600년대, 1800년대 고전주의의 오페라를 시대로 순으로 다루어 오페라에 대한 다양한 이해와 습득을 통해 접근방식으로 음악에 대한 전반적 사고를 넓힌다.
This course will explore the trends in opera from ancient Greece through the 1600’s, the time when opera emerged, to the classical opera of the 1800’s.

651.3315 오페라 2 2-2-0
History of Opera 2
고전이후 현대에 이르기까지 오페라의 시대적, 음악적 흐름을 살펴보면서, 사회적으로 각기 독특한 배경을 가진 이데일리, 독일, 프랑스, 영국 등의 오페라가 보여주는 인성적 특성과 음악적인 스타일을 이해하게 하여 음악 감성을 통하여 역사적인 이해를 적용시키고, 연주자로서 음악을 해석하고 연주하는 능력을 기른다.
This course will explore the trends in opera from the Classical period to the present. Goals will include an understanding of the unique features of Italian, German, French, and English operas in various social contexts.

651.2316 독일가곡 2-2-0
German Art Songs
독일 예술가곡의 시대적 변천을 파악하고, 피아노 반주에 의한 독일의 예술가곡이 정착되는 기반인 고전주의에서 널리받는 가곡에 이르기까지, 그 대표적인 작품들을 선별하여 이론적 분석과 실기를 병행함으로써 깊이 있는 독일 예술가곡의 연주를 위한 바탕을 마련한다.
In this course, students will study and perform representative works of German art songs from the Classical period, when German lied with piano accompaniment was established, to the Romantic period, with a focus on the genre’s historical development.

651.3322 영어디렉션 2-2-0
English Direction
영국 가곡과 미국 가곡을 노래하는데 필요한 자음과 모음에 관한 이론을 공부하며 그 이론을 적용하여 실제로 족음을 다루며 개개인의 발음을 교정해 나간다.
Students will study and perform English and American songs as well as the sounds of English and their application to singing in this course.

651.3409 오페라코칭 1 2-1-2
Operation Coaching 1
사회와 오페스타의 양세를 질의하는 지휘자와 각자의 의도를 알 아보는 지휘의 스타일을 배우며 화조나사에 따르는 배르고 버르고 세로 대화에 오는 점차적인 연주방법을 익힌다.
This course will study voice /orchestra ensemble, conducting techniques, and performance practice from bel canto to Verdi’s and Verismo operas.

651.3410 오페라워크숍 1 2-2-0
Operation Workshop 1
오페라 전반 및 중요한 장면의 연습을 통하여 양성술의 훈련과 작품의 이해를 돕는다.
This course will cover the preparation and performance of complete opera or ensemble scenes from the operaic repertoire.

651.3430* 오페라워크숍 2 2-2-0
Operation Workshop 2
가창과 이론만의 기초교육에서 한 단계 올라선 단기의 실제 연기를 혼합한 오페라가수가 되기 위한 기초 자질을 배양한다.
This is a practical acting course for students to attain staging techniques.

651.4311 한국가곡 2-2-0
Korean Art Songs
한국 가곡의 역사를 십년 단위로 작곡가를 연구하여 작품 경향 및 스타일을 공부한다. 또한 알려지지 않은 작품성 있는 곡을 발굴하여 노래하며 레퍼토리를 넓힌다. 마지막으로 음악회를 학생들 스스로 개최하도록 하여 연구 발표한다.
The trends and styles of Korean art songs will be surveyed in this course. Students will learn lesser known works to broaden their repertoire. The course will include recitals at the end of the semester.

651.4403 현대가곡 2-2-0
Contemporary Art Songs
전문 과목의 이수를 통한 현대 가곡의 학습을 통하여 학생들에게 하여금 난해한 현대가곡에 대한 지식을 넣을 수 있게 함으로써,
다양한 성악곡을 접할 수 있도록 한다.

The importance of contemporary music calls for a class where students are given opportunities to learn contemporary vocal repertoire. Modern vocal music of various contemporary musical styles in different languages are taught and coached through class performances as well as theoretical learning.

651.3411* 프랑스가곡 2-2-0
French Art Songs

프랑스 예술가곡을 시대별로 중요한 작곡가와 그들의 중심작품을 연구하고 연주하여 19세기에 20세기에 걸친 프랑스가곡을 이해하고 연주할 수 있는 능력을 기른다.

This course will study important French song composers and their selected works from the 19th and 20th centuries.

651.4412* 영미가곡 2-2-0
English and American Art Songs

영국과 미국 가곡의 시대별 연주양식의 변천과 대표적 작곡가들의 특정적 작품의 양식을 비교·분석하고 실기로 학습한다.

In this course, the development of performance practice and styles of representative English and American art songs will be investigated. Analysis and performance will be included.

M1795.000500 무대연기 2-1-2
Opera acting

세계적인 문학작품인 시와 극작 등을 공부하여 작품에 나오는 인물의 배경, 등장 등기와 드라마적인 갈등을 통해 한 인물에 대한 깊이 있는 탐구를 하며 또한 도서, 세익스피어, 안톤 체호프 등의 작품을 직접 읽으며 극작 대본을 가지고 연기의 기본기를 배우는 수업이다.

In this class, you can explore in-depth about several characters who appear through the illustrious works studied by investigating the characters’ backgrounds and characteristics and examining the motives of the dramatic conflicts that occur in each story. While studying world famous poems and plays, you can also learn the basics of acting by reading the works of renowned writers such as Göthe, Shakespeare, and Chekhov.

M1795.000600 무대동작기법 2-1-2
Opera action techniques

성악이 연주 시 갖춰야 할 기본사례와 동작, 그리고 음의 옮김을 통해 음악적 표현하는 기법을 배우고 심습한으로써 연주용대에서 전문가로서의 면모를 갖도록 지도한다.

The Class focuses in training singers to be equipped with the basic movement techniques that are needed on stage. Proper walking, stage posture, facial expression technique as well as some basic dance movements are taught in the class.

M1795.000700 성악가를 위한 음악고침 1-1-1
Musical coaching for opera and concert singers

성악과 개설 기준의 전공 교과목에서 익힌 닥션법과 오페라와 가곡의 전반적인 이해를 토대로, 각 개인의 소리에 따른 오페라 및 예술가곡 레퍼토리의 보다 심층적, 종합적인 분석을 통하여 연주에서의 완성도를 높이기 위한 수업이다. 본 수업을 통하여 음악 고침이 학생마다 갖고 있는 고유의 음악적 특성과 독자성을 찾아, 학생 개인마다 도움이 될 수 있는 세부적인 닥션과 음악을 보완하여 연주가로서의 기량을 향상시키는다. (개인지도)

This course is designed for students who wish to build on the overall understanding of diction, opera, and song acquired in previous courses to improve their on-stage performance through a deeper, more comprehensive analysis of the opera and art-song repertoires suitable for their voice. In this course, the music coach will work to draw out each student’s inherent musicality and musical individuality. The music coach looks forward to contributing to each student’s artistic development through improved diction and musicianship.
음악대학(College of Music)  
작곡과 작곡전공(Composition Major, Dept. of Composition)

6521.1101* 대위법(작곡) 1 2-2-0  
Counterpoint for Composers 1  
작곡에 있어서 본질적인 측면, 즉 주어진 음들과 그 음들 사이의 관계의 취급에 관한 문제를 두고, 중세에서 16세기에 이르는 다성음악 분석 및 2 성부의 실습에 의한 체계적 훈련과정을 통해 작곡의 기본적인 기술을 습득하게 된다.

The essential aspect of musical composition will be considered in this class: how to treat given sounds and relationship between the sounds. And the participants will learn elementary skill of writing music through systematical training of counterpoint in 16th-century style and analytical approach to the polyphonic repertoire from the Middle Age to the 16th century. The practice is limited to two-voice texture.

6521.1102* 대위법(작곡) 2 2-2-0  
Counterpoint for Composers 2  
작곡에 있어서 본질적인 측면, 즉 주어진 음들과 그 음들 사이의 관계의 취급에 관한 문제에 중점을 둔다. 중세에서 16세기에 이르는 다성음악 분석 및 3성 이상의 모테트를 비롯한 16세기 다성음악 양식의 다양한 장르에 대한 모방을 통하여, 대위법적 기술을 습득하게 된다.

The essential aspect of musical composition will be considered in this class: how to treat given sounds and relationship between the sounds. And the participants will learn the elementary skill of writing music through systematical training of counterpoint in 16th-century style and analytical approach to the polyphonic repertoire from the Middle Age to the 16th century. The practice focuses on the stylistic imitation of the polyphonic repertoire of the 16th century.

6521.1103* 화성법(작곡) 1 2-2-0  
Harmony for Composers 1  
기능화성 제도 설명이 이견 화성도(선호도)와 기능화성의 비교 연구, 화성의 표현적 기능과 구조적 기능에 대한 이해 및 실습을 통해 17세기에 이르는 다양한 양식의 다성음악을 분석하는 것에 대한 전문적 소양을 함양한다.

This class aims to improve professional ability of treating harmony in 17th/18th-century western music. This course will deal with comparative study of modal-functional harmony, expressive/structural functions of harmony, and practical usage of it.

6521.1104* 화성법(작곡) 2 2-2-0  
Harmony for Composers 2  
남만주의 음악의 화성적 측면에 대한 분석적, 이론적 연구 및 실습을 통해 19세기 사양음악의 화성적 측면에 대한 전문적 소양을 함양한다.

This class aims to improve professional ability of treating harmony in 19th-century western music. The course will include theoretical/analytical studies and practical exercisec.

6521.1207* 악기론 1 1-1-1  
Instrumentation 1  
관현악법의 기초가 되는 교과목으로, 악기의 구조, 특성 및 주법 등 기본 원리에 대한 이해와 실습이 목적으로 양상품에 이르기까지 다양한 실습을 통해 효과적인 악기의 활용방법을 익혀보도록 한다. 학기 동안 단계적 학습이 이루어진다.

As a preparatory course for the orchestration, this course helps students to learn the mechanism, characteristics and playing techniques of various orchestra instruments, in order to familiarize with effective applicable methods of instruments necessary to compose music from solo to ensemble. This course consists of gradual learning steps over a series of 2 semesters.

6521.1208* 악기론 2 1-1-1  
Instrumentation 2  
관현악법의 기초가 되는 교과목으로, 악기의 구조, 특성 및 주법 등 기본 원리에 대한 이해와 실습이 목적으로 양상품에 이르기까지 다양한 실습을 통해 효과적인 악기의 활용방법을 익혀보도록 한다. 학기 동안 단계적 학습이 이루어진다.

As a preparatory course for the orchestration, this course helps students to learn the mechanism, characteristics and playing techniques of various orchestra instruments, in order to familiarize with effective applicable methods of instruments necessary to compose music from solo to ensemble. This course consists of gradual learning steps over a series of 2 semesters.

6521.2201* 대위법(작곡) 3 2-2-0  
Counterpoint for Composers 3  
17세기에서 20세기에 이르는 다양한 양식의 다성음악을 분석하고, 그 결과를 바탕으로 한 연습이 진행된다. 주어진 다성음악 법칙으로 한 대위법적 기술을 응용하여 학생들이 곡을 쓰며 이것을 평가하는 형식으로 수업이 진행된다. 이를 통해 보다 분석적이고 실제적인 작곡기술을 속득할 수 있다.

This course consists of two types of processes: analysis and application of that results in students’ exercise. Students are required to analyze various polyphonic works dating from 17th century to 20th century and submit their musical assignments for the purpose of grasping and applying analytical and practical counterpoint skills in composition.

6521.2202* 대위법(작곡) 4 2-2-0  
Counterpoint for Composers 4  
바흐 양식의 인벤션을 병행 분석하며 그 양식의 연습곡을 작곡한다. 바란트 바흐 양식의 인벤션곡이란 녹음을 녹아내는 것과, 다른 양식의 작곡에도 활용될 수 있는 기본이자, 근본적인 작곡기술을 제공한다.

This course focuses on the analysis of J. S. Bach’s Invention and leads students to compose invention-style musical works in order to attain basic compositional skills.

6521.2220* 작곡실기 2 1-2  
Composition Major  
작곡실습을 통해 작곡가로서의 자질과 기술, 그리고 예술성을 습득하기 위한 교과목으로, 학생 개개인의 음악적 지향점을 고려한 1:1 수업이 이루어진다. 창작의 특성상 일반적인 고전음악의 범주가 아닌 현대음악법에 의한 표현, 또는 학생 자신의 고유한 표현의지와 어법을 통한 작품을 쓰도록 유도한다. 학기 동안 단계적 학습이 이루어진다.

This course helps students to grasp practical techniques required to make music of a high level of artistry and technique, as well as to develop their own personal musical voice.
and artistry as professional composer. The course consists of analysis of musical works in various styles and instrumentalizations under supervisor's personal guidance and students' submission of their own composition for assessment every semester. Students are required to take the course over a series of 6 semesters.

This course deals with such basic elements for electronic music: the history of electronic music, various theories in acoustics, and sound-synthesis techniques, in order to grasp the relevant theory and practice needed for composers in the time of 21st century. This course consists of gradual learning steps over a series of 2 semesters.

6521.2227* 화성법(작곡) 3 2-2-0
Harmony for Composers 3
화성학 1,2,3에서 습득한 화성적 저작 및 화성의 근본적 원리에 대한 이해를 바탕으로 자신의 음색적 표현의지를 화성적으로 구현할 수 있는 능력을 개발한다.
This class aims to improve professional ability of treating newly-designed tone-materials in 20th/21st century music.
This course will include analysis of various harmonic systems, theoretical background, and the practical usage of methods used in related musical works.

6521.2228* 화성법(작곡) 4 2-2-0
Harmony for Composers 4
화성학의 변천사, 음기군별 역할 등에 대한 포괄적 이해를 바탕으로 자신의 음색적 표현의지를 화성적으로 구현할 수 있는 능력을 개발한다.
This class aims to improve professional ability of treating newly-designed tone-materials in 20th/21st century music.
This course will include analysis of various harmonic systems, theoretical background, and the practical usage of methods used in related musical works.

6521.2280* 지휘실기 2-1-2
Conducting Major
관현악 문헌의 분석을 통해 악곡의 해석능력을 함양하고, 음악적 의도를 정확히 표현할 수 있도록 바톤테크닉을 연마한다.
This course includes research/analysis of orchestral literatures and practice of baton techniques in order to build interpretative ability and convey musical ideas precisely to players. Students are required to take the course over a series of 8 semesters.

6521.3307 관현악법(작) 3-3-0
Orchestration
관현악법의 변천사, 악기군별 역할 등에 대한 포괄적 이해, 관현악법적인 측면에서의 음색 분석 및 관현실습을 통해 자신의 음악적 표현의지를 관현악으로 구현할 수 있는 능력을 함양한다.
This course consists of various elements: the history of orchestration, comprehensive understanding of instrument, the analysis of orchestral works in the aspects of orchestration, and orchestral arrangement.

6521.3309 전자음악이론 및 실습 1 2-2-1
Theory and Practice of Electronic Music 1
전자음악의 역사와 음향이론과 소리합성법 등 전자음악에 대한 전반적인 기초가 지식을 습득함으로써, 21세기의 음향기술시대를 살아가는 작곡가에게 필요한 이론 및 기술을 학습한다. 2개 학기 동안 단계적 학습이 이루어진다.
This course deals with such basic elements for electronic music: the history of electronic music, various theories in acoustics, and sound-synthesis techniques, in order to grasp the relevant theory and practice needed for composers in the time of 21st century. This course consists of gradual learning steps over a series of 2 semesters.

6521.3333 푸가 3-3-0
Fugue
푸가의 원리 및 구조에 대한 이해 및 실습을 통해 다성적 기법을 능숙하게 구사할 수 있는 능력을 함양한다.
This course aims to improve students' counterpoint and fugue skills in real fugue compositions. Students are required to understand the detailed structure of fugues and apply related techniques in their own composition.

6521.4454 현대음악사 1 2-2-0
History of Contemporary Music 1
조성체계의 해체 이후의 현대음악흐름을 역사적 맥락이서 살펴보기 위한 과목이다. 20세기에 명멸했거나 현재까지 영향을 미치고 있는 여러 사조를 살펴보고, 그 기법적 특징을 정리하는 동시에, 이에 예술사의 상호 영향 및 사회적 현상과 음악과의 연관 관계를 역사적 차원에서 정리한다.
This course deals with the historical context of modern music since the end of the 19th century, following the deconstruction of tonality based on functional harmony system. The course also focuses on the characteristics of various musical trends, their composition techniques availed in that trends, and their mutual influences upon/relationship with other non-musical arts and other areas. This course consists of gradual learning steps over a series of 2 semesters.

6521.4455 현대음악사 2 2-2-0
History of Contemporary Music 2
조성체계의 해체 이후의 현대음악흐름을 역사적 맥락이서 살펴보기 위한 과목이다. 20세기에 명멸했거나 현재까지 영향을 미치고 있는 여러 사조를 살펴보고, 그 기법적 특징을 정리하는 동시에, 이에 예술사의 상호 영향 및 사회적 현상과 음악과의 연관 관계를 역사적 차원에서 정리한다.
This course deals with the historical context of modern music since the end of the 19th century, following the de-
construction of tonality based on functional harmony system. The course also focuses on the characteristics of various musical trends, their composition techniques availed in that trends, and their mutual influences upon/relationship with other non-musical arts and other areas. This course consists of gradual learning steps over a series of 2 semesters.

6521.1201 멀티미디어음악 입문 1-0-3

Introduction to Multimedia Music

20세기 후반에 등장한 멀티미디어 음악은 기존의 음악회 뿐만 아니라 이타 공연예술분야, 설치 및 전시 예술분야에 이르기까지 그 영역이 크게 확대되고 있다. 이러한 시대변화에 부응하여 현대 예술가가 요구하는 다양한 전편즈 제작의 기본 원리를 익힌다.

Multimedia Music, which begins to prevail in the late 20th-century, has extended its own related areas containing installation/exhibition arts and conventional music performance (concerts and recitals) as well. Concerning this circumstances, this course will be focused on the methods and principles pertaining to the manufacturing of varios music-related multimedia contents that are required for its activities in contemporary arts.

6521.1203 작곡 포럼 1-1-2

Composition Forum

Under the guidance of professors in charge, students participate in discussions about composition techniques, structures, instrumentation, and composer’s musical idea on works composed by other students. With this course students will be provided with opportunities such as obtaining his/her own view on stylistic diversity, work-value, practical perspectives in music and career exploration as professional composer.

6521.2240 전자음악실기 2-1-2

Electronic Composition Major

This course aims to help students qualify for necessary skills in electronic music composition. Students are required to take the course over a series of 6 semesters.

M2183.000400 보컬스코어리딩 1-0-2

Vocal Score Reading

Participants will be trained to be able to singing and playing piano simultaneously so that they get a in-depth knowledge of vocal music repertoires, and an ability to work as opera coach by extension.
음악에 있어서 본질적인 측면, 즉 주어진 음과 그 음들 사이의 관계의 취급에 관한 문제가 주로 다루어진다. 16세기 대위법에서 제시하는 체계적인 대위법 기술의 학습방법과 중세에서 16세기에 이르는 다양한 음악의 분석을 통해 각각의 기본적인 기술을 습득하게 된다. 수업 교재에 따라 대위법을 학습하고 해당 기법에 관한 문제를 풀고 과제를 제출하는 방식으로 진행된다.

The crucial aspect of music will be studied: how to treat a tone in the relationship between tones. The participants of the class will learn elementary skills of writing music through the systematical training of 16th century counterpoint and the analytical approach to the polyphonic repertoire from the Middle Age to the 16th century. During the class, the participants will learn the counterpoint skills described in the text book, solve related counterpoint problems, and be assigned homeworks.

6522.1236* 대위법(이론) 2 1-1-1

Counterpoint 2

음악에 있어서 본질적인 측면, 즉 주어진 음과 그 음들 사이의 관계의 취급에 관한 문제가 주로 다루어진다. 대위법에 이어 16세기의 대위법적 기술은 체계적인 학습방법에 따라 배우고 해당 시대의 악곡을 분석한다. 학기말에는 16세기 대위법 양식에 의한 곡을 작곡한다. 수업교재에 따라 대위 기법을 학습하고 해당 기법에 관한 문제를 풀고 과제를 제출하는 방식으로 진행된다.

The crucial aspect of music will be studied: how to treat a tone in the relationship between tones. This course, continued from Counterpoint 1, is designed to give students advanced 16th century counterpoint techniques and opportunities to analyze some compositions written with them. Students will write a piece with 16th century style at the end of the course. During the class, the participants will learn the counterpoint skills described in the text book, solve related counterpoint problems, and be assigned homeworks.

6522.1281* 핵심성(이론) 1 1-1-1

Harmony 1

조성화성에서 사용하는 각 화음들의 기능과 진행에 대해 공부한다. 화성법을 학습하기 위한 기초적인 음악이론을 먼저 학습하며, 진도에 따라 수업시간에 다룬 기법에 관한 소프라노/비와 학습해 악곡을 화성적으로 분석한다. 기본 삼화음에서부터 간단한 진조까지 배우게 된다. 수업교재에 따라 화성법을 학습하고 해당 기법에 관한 문제를 풀고 과제를 제출하는 방식으로 진행된다.

The course is designed to study chords used in tonal harmony and their progression. Students are to solve soprano/bass problems concerning materials covered in the class and analyze musical excerpts from tonal repertoire. The course will cover the subjects from primary triads to simple modulation. During the class, the participants will learn the harmony skills described in the text book, solve related problems, and be assigned homeworks.
The goals of this course are to survey historic compositions of western music, to have students gain better understanding of the historic significance of the compositions, and furthermore to understand the history of western music better. By listening to various works from the ancient times to the Renaissance and composers such as J.S. Bach, students will search for changes in musical styles in this course.

During the class, the participants will learn the harmony skills described in the text book, solve related problems, and be assigned homeworks.

The crucial aspect of music will be studied: how to treat a tone in the relationship between tones. Students will study the counterpoint techniques and musical structures used in J.S. Bach’s fugues and analyze some of them. Students will be instructed in writing a fugues at the end of the course. During the class, the participants will learn the counterpoint skills described in the text book, solve related counterpoint problems, and be assigned homeworks.
Sociology of Music

This course will deal with the social origins, social processes, and structure of musical phenomena. It will focus on artists, artworks, artistic systems, organization of the audience, and interaction between artists and the audience.

History of Western Music through Listening 1

The course will focus on music from 1830 to the 1900's. The development, characteristics, and changes in the understanding of the historic significance of the compositions, and further to understand the history of western music, to have students gain better understanding of the historic significance of the compositions, and further to understand the history of western music better.

History of Western Music through Listening 4

The goals of this course are to survey historic compositions of western music, to have students gain better understanding of the historic significance of the compositions, and furthermore to understand the history of western music better. In this continuation of the courses <Musical History and Listening 1 and 2>, students will enrich their listening experience, particularly with respect to the art music from 1750 to 1850.

History of Western Music through Listening 3

The goals of this course are to survey historic compositions of western music, to have students gain better understanding of the historic significance of the compositions, and furthermore to understand the history of western music better. Furthermore to understand the history of western music, to have students gain better understanding of the historic significance of the compositions, and further to understand the history of western music better.

Music in Major

Students improve their basic skills in writing an academic thesis. Activities will include choosing a research topic, collecting data from various sources, and understanding the nature of academic writing. Students will also learn to apply the theoretical insight to actual film music.
문헌학 등, 음악학의 주요 영역들이 소개되며, 이를 통해 학생들은 다른 학문들과 음악학의 상호 학문적 관계에 대한 구체적인 통찰을 얻을 수 있을 것이다.

This course will study various areas of musicology including musical historiography, aesthetics, psychology, sociology, and ethnology. Students will also learn about the interdisciplinary relationship between music and other disciplines.

652.277 음악이론세미나 3 2-2-0

Seminar in Music Theory 3

음악학의 제문제에 대해 토론하고 각 분야의 대표적 논문들을 검토하면서 주요 개념들을 정의한다.

Students will discuss the major musicological problems and define some of the crucial concepts in this course.

652.278 음악이론세미나 4 2-2-0

Seminar in Music Theory 4

현대음악학의 당면과제를 통찰하고 각자의 관심분야를 탐색한다.

This course concentrates on the major problems of modern musicology, thus establishing a strong academic foundation for students. Through the course, students will learn about not only the trends in the various modern musical schools but also the affinity among them.
Collaborative Performance Technique (Institutional)

This course aims to provide a deep understanding in Instrumental Ensemble Repertoire and its performance technique through two primary methods.

First, a series of lectures and discussions will build a foundation of knowledge for students regarding instrumental ensemble repertoire centered around the piano.

Then, students will be given opportunities to perform in groups where they will be guided to experiment with performance specific technical ideas such as tempo, meter, rhythm, phrasing, articulation, breathing, balance, voicing and pedaling in a collaborative context.

6531.2209 성악반주 2-2-1
Collaborative Performance Technique (Voice)


This course aims to explore Vocal Accompanying as a collaborative art form for both piano and voice majors. The course consists of a series of lectures and workshops. The lectures are designed to provide students with a deep understanding of vocal repertoire and fundamental principles of collaborative technique. The workshops will reinforce the knowledge learnt in the lectures and also provide opportunities for students to discover new ideas through examples and tutorials.

6531.2220* 피아노실기 2-1-2
Piano Major

교수와 학생들간의 1대1 개인 렛슨을 통해 학생들의 연주 능력을 도모하며 각 학기마다 정해진 전공 실기 과제목에 따라 학기별의 시험으로 한 학기 동안의 발전 상황을 점검한다.

This course will offer weekly one-on-one private lessons in which each student’s performance skills will be worked on in detail. At the end of the semester, each student’s progress will be appraised by a jury, in front of whom he or she will play the works required by the curriculum.

6531.3303* 실내악상제(중주) 1-0-2
Chamber Music (Ensemble)

 피아노 드럼 음악의 성악반주로써 이 학기 연주 수장 가는 앙상블 연주에 필요한 여러 가지 성격에 대하여 집중적으로 고전시대부터 현대에 이르는 실내악문현 중 자유롭게 선택하여 다룬다.

This course for piano majors will deal with small ensembles such as piano duo. Each team will receive weekly one-hour coaching and be expected to rehearse on their own. The course will provide an opportunity to study various elements of ensemble playing techniques and to explore different aspects of musical interpretation, thus helping students to become more expressive and articulate chamber music performers.

6531.3318 피아노구조 및 관리 2-2-0
Piano Construction and Maintenance

피아노는 악기들 중에서 가장 흔하게 가까이되어 작황이 있고, 음악에서 가장 중요한 역할을 하는 악기인데, 구조와 역사의 동작 원리에 대해 이는 바가 너무 적다. 피아노구조를 알고 이해함으로써 피아노를 정량하는 학생이, 피아노 학생들이 연주이나 연주 를 하는 데 보다 효과적으로 대처하기 위함이다. 특히 소리를 표현하는데 있어 전반에 너무 집착하지 않고, 피아노 전체를 이해하고 활용하는 의식을 갖는 데 도움을 주고자 한다. 또 피아노의 관 리요령을 정확히 인식함으로써 가능한 한 이상적인 상태를 오래 유지하기 위함이다.

Though the piano is the most important and valuable instrument, most of us know very little about its construction and the principles of motion that guide its action. This course will provide such information to students who major in the piano, whether as a profession or a hobby. This practical understanding of the instrument should serve as an aid to more expressive and comprehensive performance. The course will help students to maintain their pianos over a long period.

6531.3330* 피아노문헌 1 3-3-0
Piano Literature 1

바로크 전반은 초기 형성 시기부터 1750년 바하에 이르기 까지 바로크 전반은 독특한 연주양식과 오늘날 잘 알려지지 않은 대피토리 탐구가 주로 다루어지며 수업은 실제 연주와 학구적 연구가 병행될 것이다. 곡목과정은 바하 이외의 작곡가들과 바하 하러 부정된다. (1) 영국(헨델까지), 프랑스(로모, 이테리 스페인(스카이데타), 독일(2) 바하바로크 연주양식의 특성과 문제점, 평 균율, 조합, 피아노, 바르크 작곡법, 장식음 연주법, 클래식고베르크 반주곡, 음악의 현장, 구조의기법

The course will introduce keyboard music from before 1750 with a focus on Baroque performance practice and repertory search (requirement: actual performance and academic study). Topics will cover: (1) early keyboard music in England from Byrd to Handel; early keyboard music in France from Chambonneries to Rameau; early keyboard music in Germany and the Netherlands up to Fisher Kuhnau; early keyboard music in Italy, Spain, and Portugal; music of Domenico Scarlatti; and (2) music of J. S. Bach; characteristics of his music and general problems of interpretation; well-tempered clavier; English suites and French suites; Klavierubung; partitas; improvisation; studies in ornamentation; Goldberg variations; Musical Offering; and the Art of Fugue.

6531.3331* 피아노문헌 2 3-3-0
Piano Literature 2

<피아노문헌 2>은 19세기와 20세기의 피아노 음악에 관하여 연구하는 과목으로서, 당시의 사회적 배경과 각 작곡가들의 음악 스타일을 고찰하고, 피아노 음악의 종류와 그 특징들을 시대별, 작

학점구조는 ‘학점수-강의시간-실습시간’을 표시함. 1학기 15주로 구성됨. (The first number means 'credits'; the second number means 'lecture hours' per week; and the final number means 'laboratory hours' per week. 15 week make one semester.)
곡가별로 분류해 나갈 것으로 보다 다양하고 폭넓은 피아노 레파토리를 개발하는데 목적을 두고 있다. 또한 곡의 분석과 감상을 통하여 다양한 악곡의 해석과 연주법을 공부함으로써 이를 연주에 활용하도록 한다.

<Piano Literature 2> is the course that concentrates on music for the piano written in the 19th and 20th centuries. The purpose of this course is to extend the boundaries of piano repertoire by researching historical background of the composers during the time and stylistic differences of their music. It is also to learn performance practice in the 19th and 20th centuries by analyzing scores and listening to music, as well as studying piano literature.

이 과목은 학부학생들을 위한 것으로서, 클래식 피아노 음악을 다양한 레퍼토리에 지도하기 위해 필요한 지식의 습득과 실습을 포함한다. 과목에서 다루는 범위는 피아노스토리로서 갖추어야 할 각종 기술에 대한 고찰, 주요 레퍼토리가 변화, 포인트, 실습 을 통한 효과적인 전달체계법, 인본주의에 반영을 두 산근화의 관계형 성, 예술적 교육을 만들어내는 교수법 등이다. 과목은 크게 두 부분에 영점을 두어 진행하게 되는데 첫째는 종합론적 수능이 되기 위한 다양한 기술적 기술력, 음악적 표현법, 레퍼토리의 스타일의 이해 등을 습득하도록 하는 것이며, 두 번째는 음악가, 즉 예술가로서 갖추어야할 소양과 존중받을 수 있는 수능이 되기 위한 부분에 역점을 두게 된다.

This undergraduate course on piano pedagogy will enable students to prepare as refined piano teachers and players. As pedagogy is defined in terms of functions, work, and the art of teaching, the course will cover a broad spectrum of ideas, factual skills, and experimentation of serious piano teaching on a variety of levels. It will focus on two main streams: actual pianistic techniques to handle the piano and its repertoire; and the qualifications of a fine piano teacher.
String Ensemble

 다양한 장르의 관현악곡들을 다루며 현악과 학생들은 졸업까지 4학기목표로 이수해야 한다.
This course will provide string players with an opportunity to play solo repertoire in a recital setting. It will help students to improve their performance skills and stage presence and to expand their solo repertoire. Students majoring in stringed instruments must take the course for four semesters.

Orchestra 1

고전시대와 낭만시대의 관현악곡들을 통하여 관현악 합주의 특성과 종류를 배우며, 또한 관현악 합주의 리듬과 화성을 분석하며 다양한 양상의 음악을 습득한다. 기조적인 관현악곡들을 통하여 기조적인 양상의 능력을 배양하고 기조적인 합주의 감각을 기른다.

This lecture aim to help the student who is majoring in music, could catch the distinctive features and characters of the orchestral ensemble through the learning of various orchestra pieces which composed in Baroque and early Romantic area. Also make the students to acquired the fundamental sense of orchestral ensemble and to developed their abilities in sight reading.

Orchestra 2

시대별 관현악곡들을 읽어하여 각 시대별 음악의 특성과 성향을 파악한다. 다양한 작곡가들의 관현악 합주를 분석하고 실습하여 관현악 양상을 능력을 집중 읽어한다. 또한 대표적인 관현악곡들을 집합으로써 실제 연주에 응용할 수 있는 능력을 배양한다.

To practicing many orchestra pieces which related on each part of areas in other to the student can realize that the musical differences between them and also to understand the unique character that each area have. The most important purpose of this ‘Orchestra 2’ lecture is that by experiencing many great pieces of the famous composers, the students can matured their music world more easily.

Instrumental Major

여러 장르의 레퍼토리를 다룰 수 있는 능력을 배우며 개인 렛슨 형식으로 이루어진다. 한학기 한편 학생이 렛슨 받은 곡으로 학기말 실기시험부가 있다.

Our String Department is composed of the most distinguished professors and teachers in Korea, all of who are outstanding soloists, chamber musicians, and orchestra players. Through private lessons, students will have an opportunity to master the skills on their respective instruments and to expand their solo repertoire. They will also prepare for a performance examination at the end of the semester, in which they must present their newly learned repertoire in front of a jury.
This course concentrates on the general aspects of string literature from the past to the present. The course will include a survey of various string instruments, the core repertoires, and performance practice. It will explore the major important composers and their works for string instruments and the significance of these works will be discussed in the class. In <String Literature 1>, the course will focus on music for string instruments from the Middle Ages to the Classical era. In String Literature II, the course will focus on the Romantic era to the present. The objective is to experience and understand the diverse language of music with a focus on string instruments.

This course focuses on study and performance of the Baroque music repertoire of the 17th and 18th centuries for music major students. The class combines the study on music history (and theory) and performance practice on specific style of the period regarding articulation, harmonic analysis, dynamic, word-painting, interpretation, and so on. The performance study will be a format like a master class for students in the classroom last 3 weeks.
This course will cover the history, harmonics, scale, and special techniques of jazz music. By reviewing the major works and composers, students will learn the main idioms and techniques.

This course for string majors will deal with small ensembles as opposed to full chamber music ensembles by arrangement with the String Department. Each team will receive weekly one-hour coaching and be expected to rehearse on their own. The course will provide an opportunity to study various elements of ensemble playing techniques and to explore different aspects of musical interpretation, thus helping students to become more expressive and articulate chamber music performers.

The topics of the course include: History of wind instrument literature, theory of wind instruments, and systematical analysis of blowing technique. Participants will analyse and understand the difference between literatures of brass and woodwind instruments. Investigation of major literature and musicians will help students to obtain appropriate research ability and approach to wind instrument literature.

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6532.1225 호흡법 2-2-0
Breathing

This class aims at the general apprehension of the relationship between breathing and music and help students to learn the right breathing through understanding the human anatomy. Additionally, students will be expected to apply their learning to the actual performance practice.
한국음악을 본격적으로 이해하고자 할 때 국악분석은 이를 목적으로 하는 방법론이다. 이 강좌는 분석의 일반적 방법론과 국악에 적용하기 위한 방법론을 소개하고 분석적 방법론을 연구한다. 두개 학기 연장으로 본 강좌는 첫 번째 강좌이다.

Musical analysis is conducted to gain an analytic understanding of Korean music. This course will present methods for general analysis and for Korean musical analysis. It is the first half of a two-part course running through two semesters. Students must register for two consecutive semesters.

654.2314 국악분석 2 2-2-0
Analysis of Korean Music 2

한국음악을 본격적으로 이해하고자 할 때 국악분석은 이를 목적으로 하는 방법론이다. 이 강좌는 분석의 일반적 방법론과 국악에 적용하기 위한 방법론을 소개하고 분석적 방법론을 연구한다. 두개 학기 연장으로 본 강좌는 두 번째 학기에 해당한다.

Musical analysis is conducted to gain an analytic understanding of Korean music. This course will present methods for general analysis and for Korean musical analysis. It is the first half of a two-part course running through two semesters. Students must register for two consecutive semesters.

654.2407* 전통가창실습 1 1-0-2
Practice of Korean Traditional Songs

한국 전통 음악은 대부분이 합주곡이 많으며 기악곡이라 하더라도 성악과 밀접한 관계를 가지고 있다. 따라서 기악 및 이론 작곡 전공자에게도 성악곡은 매우 중요한 의미를 갖는다. 본 과목은 형식이 풍요로운 전통가창을 중심으로 하여 가사와 시조 등을 쉽고 바르게 노래할 수 있는 능력을 키워 전통가창에 대한 수준 높은 이해를 향상시킨다. 2개 학기 연장으로 본 강좌는 그중 첫번째 강좌이다.

Much of Korean traditional music is concert music and even instrumental music is closely related to vocal music. This course will enable students to sing the gasa and sijo easily and correctly and to enforce their understanding of traditional Korean music. It is the first part of a year-long course.

654.2408* 전통가창실습 2 1-0-2
Practice of Korean Traditional Songs 2

한국 전통 음악은 대부분이 합주곡이 많으며 기악곡이라 하더라도 성악과 밀접한 관계를 가지고 있다. 따라서 기악 및 이론 작곡 전공자에게도 성악곡은 매우 중요한 의미를 갖는다. 본 과목은 형식이 풍요로운 전통가창을 중심으로 하여 가사와 시조 등을 쉽고 바르게 노래할 수 있는 능력을 키워 전통가창에 대한 수준 높은 이해를 향상시킨다. 2개 학기 연장으로 본 강좌는 그중 두번째 강좌이다.

Much of Korean traditional music is concert music and even instrumental music is closely related to vocal music. Vocal music therefore is very important to students majoring in instrumental music and musical theory. This course will enable students to sing the gasa and sijo easily and correctly and to enforce their understanding of traditional Korean music. It is the second part of a year-long course.

654.2500B 한국춤 1 2-2-0
Korean Dance 1

한국 전통 무대예술의 생성원리 및 특성을 봉사, 공연, 무대에서 찾을 수 있듯이 한국음악의 장단으로 우리 몸에 호르는 림을 순환시켜 인주자의 감성을 자연과 조화롭게 이끄는, 이때 장단에 의한 춤이 보여야 하며 호흡을 통해 영리를 통해 호흡을 통해 구체화시키며 모든 실기 연마에 토대가 되도록 한다. 국악과의 기본교과로 총의 기본에서 삶의 영감을 가져학습한다.

Dance, through rhythms and breathing, can help improve a musician’s performance skills. To harness the musician’s emotions in performance and increase the circulation of the body’s energies, students will learn dances based on Korean traditional rhythms. The process of learning the dances will employ the principles of Korean traditional performance, which require composition in the midst of performance. Students will learn the fundamentals of dance through salp’uri, an essential dance of the Korean repertoire.

654.2501A 한국춤 2 2-2-0
Korean Dance 2

한국 전통 무대예술의 생성원리 및 특성을 봉사, 공연, 무대에서 찾을 수 있듯이 한국음악의 장단으로 우리 몸에 호르는 림을 순환시키면서 자연과 조화롭게 이끄는, 이때 장단에 의한 춤을 보여야 하며 호흡을 통해 영리를 통해 호흡을 통해 구체화시키며 모든 실기 연마에 토대가 되도록 한다. 국악과의 기본교과로 총의 기본에서 삶의 영감을 가져학습한다.

Dance, through rhythms and breathing, can help improve a musician’s performance skills. To harness the musician’s emotions in performance and increase the circulation of the body’s energies, students will learn dances based on Korean traditional rhythms. The process of learning the dances will employ the principles of Korean traditional performance, which require composition in the midst of performance. Students will learn the fundamentals of dance through salp’uri, an essential dance of the Korean repertoire.

654.3236 국악반주법 1 1-0-2
Accompanying of Korean Traditional Music 1

이 과목에서는 한국음악에서 많이 사용되는 장단(정악, 민악, 산조, 신곡)의 변화 과정 및 반주기법에 관하여 알아본다. 이를 통해 장악장단의 단아함, 민악장단의 화려함, 산조장단의 빠르기의 변화, 신곡의 다양한 장단과 이전에 볼 수 없었던 다양한 기법들을 알 수 있다. 한국음악에서의 장단의 쓰임새를 알아 이음악에 적극 활용할 수 있도록 한다. 2개 학기 연속강의이다.

This course will focus on the process of development and accompaniment techniques of general rhythm (court music, Korean folk music, san-jo, and new musical composition) of Korean traditional music. This course shows the elegance of court music rhythm, the beauty of Korean folk music rhythm, ever-changing speed of san-jo rhythm, various rhythms of new musical composition, and various new accompaniment techniques. This course will enable students to understand how to use rhythms and how to apply it to Korean traditional music. Students must resister for two con-
국악과(Dept. of Korean Music)

654.3315 한국음악사 2 2-2-0

History of Korean Music 2

한국음악학은 한국전통음악을 종합적인 관점과 횡단적 관점에서 보려는 두 입장으로 나누어지며, 이 두는 사실은 상호보완적 관계에 놓인다. 국악사는 이 중 종합적인 관점에서 한국전통음악을 이해하고자 하는 분야로서 삼한 시대부터 삼국, 통일신라, 고려, 조선, 개화기까지의 한국음악의 전 역사를 강의한다. 1·2학기 연강이고 그 중 본 강좌는 첫 번째 학기를 위한 예선 강의가 된다.

There are two approaches, vertical and horizontal, which complement each other, in the study of traditional Korean music. Korean musical history adopts the vertical approach. This course will cover the history of Korean music from the Samhan period to the Unified Silla, Koryo, Choson, and Enlighten periods. It is the first half of a two-part course running through two semesters. Students must register for two consecutive semesters.

654.3316 한국음악학개론 2 2-2-0

Introduction to Ethnomusicology

학생들에게 인류음악학분야를 소개하는 데 목적을 두며, 인류음악학의 핵심적인 내용을 가르치는 주요 이슈인 문화상호작용(ethnic, gender, racial), 정치, 변화, 보존, 세계화 등과 그 밖에 이 학문에 사용되는 다양한 방법론들을 구현한다. 이론을 통해 대중음악, 지역음악, 전 세계 다양한 음악문화를 접할 수 있는 기회를 제공하는 가운데, 학생들의 이해와 이해관계는 커질 것이다. 이에 따라 연구 Projekt의 주제를 자주적으로 수행하고자 한다.

The aim of this course is to introduce students to the field of ethnomusicology. In order to do this, we will explore major concepts that have shaped the core of ethnomusicological studies. Issues such as music and identity (ethnic, gender, racial), music and politics, music and ritual, musical roots, change and preservation, globalization, field research, transcription and musical instrument classification. We will think, talk, and write about how and why people make music, as well as how and why ethnomusicologists go about their work. Students will undertake a group fieldwork projects that will contribute to a class-wide fieldwork project.

654.3318 동양음악개론 2-2-0

Introduction to Asian Music

이 과목에서는 아시아 여러 나라의 다양한 음악문화를 직접 비로소 감상할 수 있는 기회를 제공하는 가운데, 아시아 지역의 민족음악학에서 이해하고 있는 다양한 논제들을 다룬다. 이를 통해 서양음악학에서 수립된 선입견에서 탈피하여 아시아음악가가 나름대로의 미와 가치를 가지고 있음을 이해시킨다.

The main purpose of this course is to introduce students to the multiple music cultures of Asia. Important issues in current Ethnomusicology such as Eurocentrism in Music, will be discussed. This course is comprised of lecture, discussion and video presentations. By this, students are expected to understand that all the cultures in Asia has its own aesthetic value in Music.

654.3330 국악공연기획 2-2-0

Korean Music Concert Planning

국악공연개론은 프로그램제작 및 무대장치, 공연과학 등 연주 외적인 부분을 기획함으로써 콘서트 및 공연획을 개발한다. 각 프로그램마다 코스 프로그램까지 순차적으로 기획, 제작해볼 것이다. 이를 통해 연주자는 공연 프레스를 이해하고 본인의 공연에 적응할 수 있으며, 국악 공연을 기반으로 한 향후 전문의 폭을 넓힐 수 있다.

The aim of this class is to nurture students’ creative and planning abilities by covering the basic administrative components of creating staged performances. Starting from small program planning to major performances, students will learn the organizational skills necessary in planning performances. By enhancing an understanding of concert planning and allowing students to apply these skills in the development of their own programs, this class serves to broaden each student’s knowledge of Korean performance culture, thus helping to increase their competitiveness in the Korean music job market.

654.3330 한국음악학개론 2-2-0

Introduction to Ethnomusicology

학생들에게 인류음악학분야를 소개하는 데 목적을 두며, 인류음악학의 핵심적인 내용을 가르치는 주요 이슈인 문화상호작용(ethnic, gender, racial), 정치, 변화, 보존, 세계화 등과 그 밖에 이 학문에 사용되는 다양한 방법론들을 구현한다. 이론을 통해 대중음악, 지역음악, 전 세계 다양한 음악문화를 접할 수 있는 기회를 제공하는 가운데, 학생들의 이해와 이해관계는 커질 것이다. 이에 따라 연구 Projekt의 주제를 자주적으로 수행하고자 한다.

The aim of this course is to introduce students to the field of ethnomusicology. In order to do this, we will explore major concepts that have shaped the core of ethnomusicological studies. Issues such as music and identity (ethnic, gender, racial), music and politics, music and ritual, musical roots, change and preservation, globalization, field research, transcription and musical instrument classification. We will think, talk, and write about how and why people make music, as well as how and why ethnomusicologists go about their work. Students will undertake a group fieldwork projects that will contribute to a class-wide fieldwork project.

- 708 -
654.4305 국악문헌 2-2-0

Literature of Korean Music

이 과목은 국악관련 문헌을 통해 한국음악의 역사적·사상적 배경을 살펴보고, 고요보(古樂譜)를 통해 국악연주를 살펴보는 것이 다. 조선시대에 대표적인 악사인 '악학궤범(樂學軌範)', '조선왕조 실록(朝鮮王朝實錄)'과 관련된 음악문헌 활해 가사, 동양음악 사상의 정수가 담긴 '악기(樂器)' 등을 읽는다.

This course provides a survey of the historical and philosophical backgrounds as well as the development of Korean traditional music by way of an analysis of the relevant literature and of classical musical notations. Students will read representative Chosun Dynasty classics in music such as 'Akhak Kwebom(Guide to the Study of Music)', 'Choson Wangjo Sillöko(Amnals of the Choson Dynasty)' and related articles extracted from other books; and 'Akgi(Record of Musical thoughts)', which contains the essence of Asian musical philosophy.

654.4317B 민속악학관현연구 2-2-0

Korean Folk Music Fieldwork Seminar

한 학기에 4-5회의 실험적인 답사를 통해 현장에서 겪는 생생한 음악을 민속악학연구 자료로 만들고, 관련하여 연구하는 수업이다.

In this subject the student will research Korean folk music, and survey the related un-depth in the field by actually going on several study tours.

654.4425 국악비평론 2-2-0

Topics in a Korean Traditional Music Critique

한국음악을 둘러싼 다양한 이슈와 비평적 경향을 고찰하고 비평적 관점과 의식을 기르며 실제 자신의 전공 상황에 적용하여 비평적 논리를 기른다. 학생 4학년을 대상으로 한다. 매월 두 번째 학기로 개설된다.

Music Critique is one of all critic work. In this course, Korean Music will be treated. This course is for senior students, and open every second terms.

654.4426 창작국악관현 2-2-0

Studies of Newly Composed Korean Music

이 강의는 4학년 학부생들을 위한 강의이다. 김기수의 1940년 창작곡 이후 작곡된 한국의 현대 국악 창작곡을 다룬 것이다. 한국음악의 창작 경향과 현대성 및 작품 논리에 대하여 공부하게 될 것이다.

This course is for senior students. It will deal with newly composed Korean music. The trend and identity of newly composed Korean music will be studied.

654.4306 국악동연주실습 1-0-2

Korean Music Improvisation Performance Practice

본 강의는 한국 전통음악에 내재된 창작성과 연주자 중심의 창작성을 체계적으로 분석하고 실습하는 수업으로서 전통 창작과 선율, 토리에 대한 이해와 분석을 기반으로 창작연주 방법론에 대한 실습을 진행한다.

This course builds on foundations in the understanding and analysis of traditional rhythm cycles, melodies and regionally-based performance nuances to teach improvisation performance methods. The class will focus on systematic training and practice of improvisation and performer-centered creativeness inherent to Korean traditional music.

654.4312B 국악기학관현 1-0-2

Performance-Based Community Service

본 강좌는 연주에 대해 전문성을 함양하는 것 이외에 지역 사회에 대한 관심을 갖도록 하는 것이 목적이다. 아울러 사회 구현을 위한 사례감을 인지함으로써 그 목표가 있다. 이 강좌는 연주봉사활동 및 평가회로 구성되며, 연주봉사활동은 교내 여러 연주, 캠퍼스 근린 지역 등 문화소재와 연계를 포함한 다양한 지역사회 구성원들을 대상으로 진행한다.

This course aims to cultivate students' interest in the local community in addition to cultivating their musical skills. The goal of this course is to make students realize their mission and humanity they ought to have as a member of our society. This course consists of volunteer performance activities and evaluation. Volunteer performance activities are conducted for various community members such as in-campus concerts, concerts for campus neighborhoods and cultural minorities.
traditional formats. This course aims at developing the performance of creative works. The whole department will be divided into two parts (freshmen and sophomores; juniors and seniors) and practice several ensembles, which will be performed in a subscription concert later.

6541.1248 국악기악실기 2-1-2

Instrumental Major of Korean Music

국악과의 기악전공 학생들의 필수 전공과목으로서, 이들이 갖추어야 할 연주기술,악곡해석 능력, 연주품격 등을 전문적으로 전수하기 위해 각 악기전공자에 대해 개인지도의 수업형태로 이루어지는 전공 실기 과목이다.

This course is a compulsory subject for students specializing in an instrument. The lecture form is a private lesson to improve techniques, music analytical ability and refinement etc. to provide a full spectrum of knowledge and skills. This subject is a practical technique.

6541.1249 정악합주 1-0-2

Korean Court Music Ensemble

이 과목은 한국음악 중에서 정악곡들을 합주함으로써 전공실기 능력을 향상시키는 데 목적이 있다. 1학년에 개설되는 과목으로 도드리, 여민락, 영산회상 등의 곡을 다룬다.

The aim of this course is to improve ability of playing Korean traditional court music ensemble. In this course, Dodri, Yominlak, Youngsanwhoisang etc. will be taught. This course will improve practical techniques of instrumental majoring students.

6541.2250 국악관악합주 1-0-2

Korean Wind Music Ensemble

이 과목은 한국 음악 중에서 정악곡들을 합주함으로써 전공실기 능력을 향상시키는 데 목적이 있다. 이 과정에서는 관악절주의 관악합주, 수제천, 취타 등의 곡을 다루게 될 것이다. 이를 통하여 국악관악 전공자의 합주능력을 강화한다.

The aim of this course is to improve ability of playing Korean Traditional Court music ensemble. In this course, the wind music-Gwanak Youngsanwhoisang, Sujechen, Chwita-will be taught.

6541.3320 민속악합주 1-0-2

Korean Folk Music Ensemble

국악합주가 헤테로포니적으로 연주되는 데에 비하여 전공 실기 지도는 개인 교수형태로 이루어지기 때문에 합주능력의 개발을 위해서 국악실기 과정에서 개인적으로 연주기능을 전통적 방식의 합주기능으로 연결시키는 실습기간을 필요로 한다. 본 실습 과목에서는 국악합주 중 민속악합주를 다루게 된다.

While Korean traditional music ensemble is performed heterophonically, practical lessons will be conducted individually. So students who study Korean folk music must devote time to perform their individual techniques in group performance. This course is given for the above purpose.

6541.4424 국악실내악 1-0-2

Korean Chamber Music

정악은 헤테로포니적인 합주곡으로 연주되는 데에 비하여 전공 실기과정은 개인 교수형태로 이루어지기 때문에 합주능력의 개발을 위해서 국악실기 과정에서 개인적으로 연주기능을 전통적 방식의 합주기능으로 연결시키는 실습기간을 필요로 한다. 따라서 본 실습 과목의 목적은 국악 실내악 합주에 의숙하게 하기 위한 것이다.

While jungak is performed as a heterophonal ensemble, practical lessons will be conducted individually. Students therefore must practice their individual techniques for group performances.

6541.4425 창작국악실습 1-0-2

Practice of Korean New Music

국악과 학생들에게는 시대에 착오된 창작국악곡을 연주함으로써 창작국악에 대한 이해를 넓히고 작곡가와의 대화를 통해 연주 기회를 가짐으로써 국 합주의 다양한성을 넓히기 위한 수업이다.

Students will acquire the technique of New Korean Music and enlarge the diversity of music's analysis through the conversation with composer Emphasis will be placed on a detailed analysis of the New Korean Music repertoire.

6541.4427 국악현악합주 1-0-2

Korean String Music Ensemble

거문고와 가야금 등 현악기를 중심으로 하는 합주곡을 다루는 과목이다. 전통 음악 중 대표적인 현악합주인 보허사로부터 현대적인 현악합주에 이르기까지 다양한 성격의 곡들을 접하게 되므로 국악과로서의 경험과 실내악의 기초를 받는 과정이다.

The aim of this course is to improve ability of playing string ensemble music, especially for geumungo and gayageum. In this course, a wide range of string ensemble music will be taught including traditional pieces such as boheusa as well as contemporary pieces.

6542.1257* 국악성악실기 2-1-2

Vocal Major of Korean Music

국악과 성악전공 학생들의 필수 전공과목으로서, 이들이 갖추어야 할 연주기술, 악곡해석 능력, 연주품격 등을 전문적으로 전수받기 위해 각 전공자에 대해 개인지도의 수업형태로 이루어지는 실기 과목이다.

This course is a compulsory subject for students majoring Korean traditional vocal music. The lecture form is a private lesson to improve techniques, music analytical ability and refinement etc. to provide a full spectrum of knowledge and skills. This subject is a practical technique.

6542.2261* 전통가창세미나 2-2-0

Seminar on the Korean Traditional Vocal Music

성악 전공자들은 자신의 전공실기 능력 외에도 사설의 분석, 작창법, 연기력 등 다양한 능력이 요구된다. 이 과목은 성악 전공자 전원이 참석하여 다양한 주제에 대해 토론 및 혼란과정을 갖게 될
음악대학(College of Music)

국악과(Korean Music)

국악과의 지휘전공 학생들의 필수 전공과목으로서, 이들이 갖추어야 할 지휘기술, 악곡해석 능력, 연주품격 등을 전인적으로 전수받기 위해 각 전공자에 대해 개인지도를 수업통과로 이루어지는 실기 과목이다.

이 과목은 토론을 중심으로 진행하며, 세미나 주제는 매학기 담당 교수자가 정한다. 이 과목을 통해 학생들은 정해진 주제에 대한 논쟁, 비판적 독서능력 및 토론 능력을 중점적으로 조성할 수 있다. 한편, 토론에 필요한 언어 교정 및 의견을 나누는 능력을 향상시킬 수 있다.

국악이론전공(Korean Music Theory)

이 과목은 국악이론 전공하는 학부생을 위해 마련된 것이다. 이 과목은 토론을 중심으로 진행하며, 세미나 주제는 매학기 담당교수자가 정한다. 이 과목을 통해 학생들은 정해진 주제에 대한 논쟁, 비판적 독서 능력 및 토론 능력을 중점적으로 조성할 수 있다. 한편, 토론에 필요한 언어 교정 및 의견을 나누는 능력을 향상시킬 수 있다.

지휘Major of Korean Music

Conducting Major of Korean Music

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국악곡곡성(Korean Music Composition)

Composition Major of Korean Music

국악과의 작곡전공 학생들의 필수 전공과목으로서 국악실기나 국악이론과 같이 개인지도를 원칙으로 한다. 중간고사 때와 기말고사 때 모두 작품을 냈다. 한 학년 1학기 중간고사 때에는 지도교수의 제목에 따라 시험을 볼 수 있다.

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의 과 대 학
College of Medicine
This course has two aims. First, it intends to prepare at-
ter of medical practice and medical research due to the ex-
tive healthcare providers should be equipped with,
enhancing their understanding of human beings in line with
life as a doctor through community service.

The purpose of this course is to help second year pre-
medical students to develop different capabilities as potential
healthcare professionals. This course is designed to encourage
pre-med students to develop different capabilities as potential
entrepreneurs - the translation and commercialization of ba-
to provide basic understanding of the legal issues in "bio-

This course is designed to cover basic statistical methods
and to improve the ability to solve statistical problems re-
lated to medical sciences through a series of lab courses. We
will study the theoretical foundations for the concepts of
probability distributions, statistical inferences and estimation,
and practice applying these concepts to medical statistics.

This course is intended to provide a general overview re-
garding how technological development has shaped the pres-
cent medical practice and what changes are expected in the
clinical practice and medical research due to the expected
development of science and engineering. The best examples
of how technological development changed the clinical prac-
tice based on the recent development of new technologies di-
rectly related or not. Students of premed course or related
subjects can widen their understanding of sex and
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우리가 본다면 조선정부와 조선인들의 역할을 검증적으로 다룰 것이다.

Modern western medicine began to be introduced to Korea around the year 1876 when The Korea-Japan Treaty of Amity was made. This lecture intends to give an overview of the process of the introduction of the Modern medicine into Korea from 1876 to 1910 when Korea was annexed to Japan. And this course mainly deals with the role of Korean government and people to do, which has not been fully mentioned yet.

801P.112 바이오연구를 위한 동물실험방법론 3-3-0
Animal Technology for Bio-Research

바이오의학연구에서 동물실험의 중요성은 말할 것도 없이, 초보 과학자로서 실험동물에 관한 기본 지식을 가지고 있어야 올바른 동물실험을 할 수 있다. 이 강의는 실험동물의 건강과 관리, 사양 관리환경, 실험동물의 육성방식, 개체식별과 실험테크닉, 악착자, 동물실험장비, 연구사용 안전 등 동물실험에 관한 전반적인 이해를 높이고 앞으로 바이오의학연구를 전공하고자 하는 학생들에게 기초지식과 전망을 제시한다.

Research involving laboratory animal is an important factor in the advancement of the medical, veterinary, and biological sciences. All drugs and medical devices have been developed and tested in laboratory animals before they are accepted for humans or domestic animals. A specific course in animal technology is now required for scientists who wish to perform experiments with animals. So, this lecture is consisted with followings;
- Historical Perspectives of Laboratory Animal Medicine
- Experimental Design and Statistical Analysis
- Biology of Laboratory Animals
- Impact of the Biotic and Abiotic Environment on Animal Experiments
- Microbiological Control and Health Status
- Laboratory Animal Analgesia, Anesthesia, and Euthanasia
- Basic Principles and Procedures of Nonsurgical Method
- Control of Biohazards Associated with the Use of Experimental Animals
- Laboratory Animal Genetics and Genetic Quality Control

801P.113 의료기기 이해를 위한 공학개론 3-3-0
Engineering Principles for Medical Instrumentation

현재의 의학은 발견된 의료기기의 광범위한 활용에 힘입어 급속히 발전하고 있다. 환자에게 양질의 진료를 제공하고 최적화된 연구를 수행하기 위하여 이러한 의료기기 역할을 적극적으로 활용하여야 한다. 단순한 의료기기의 조작사용의 범위를 넘어, 그 근본적인 원리와 핵심적 기술을 이해하는 것이 중요하다. 본 강의에서는 의료기기를 이해하고 발전적으로 사용하기 위하여 필요한 기초적 공학적 지식에 이론으로부터 공부하고 의료기기의 창조적 활용에 관한 전망을 제시한다.

Currently, medicine is growing continuously with the support of rapidly progressing medical instrumentation technologies. Active use of medical instrumentations is required to provide high quality medical service for the patients and to lead the researches in the medical science. Toward this goal, understanding the basic principles of medical instrumentation is very important. The course will provide the basic engineering knowledge which is essential to understand medical instrumentation and the prospect for their progressive use in medical science and researches.

M2605.000100 대학생을 위한 지식재산권개요 3-3-0

본 교과목은 비-법학전공자들에게 상표, 저작권, 특허, 영업 비밀을 포함한 주요 지식재산권에 대한 기본적인 지식과 이해, 그리고 여러 유형의 지식재산권간의 차이에 관한 통찰력을 도모하고자 한다. 구체적으로, 현재의 글로벌 지식재산권법상에서 일반적인 그리고 전문적인 환경에서 많은 지식재산을 사용하게 되고, 다양한 지식재산을 창출하며, 이를 정착적으로 관리하게 된 다양한 전문의 수상행진들에게 중요한 지식재산에 관할하고, 대표적인 지식재산권들과 경험적 자료들을 서베이하며, 구체적인 사항을 영업에 대해 비교법학적인 관점으로 간주하고자 한다.

This course is to assist non-law students to acquire the basic information and understanding of major forms of intellectual property (IP) laws and the insights on the differences among them. Specifically, it is to provide an opportunity for the students, who will use, create, and strategically manage the intellectual properties in their daily and professional activities, to analyze the landmark IP cases, to survey major IP theories and empirical data, and to acquire the comparative law perspectives considering specific markets.

M2605.000200 의학에서의 위대한 발견 3-3-0
Great Discoveries in Medicine

현재의학의 발전은 눈부시다. 이런 현대의학은 인류 역사상 많은 과학자들의 위대한 발견과 사상에 기초를 두고 있다. 이에 역사상 위대한 발견을 중심으로 그 발상지를 살펴보고자 한다.

Great Discoveries in Medicine provides an unraveled account of the evolution of medical knowledge and practice from ancient Egypt, India and China to today's latest technology, from letting blood to keyhole surgery, from the theory of humors to the genetic revolution, from the stethoscope to the MRI scanner. This course will provide insights about modern Medicine through understanding of the basis of medical discoveries.

M2605.000400 의학의 고전과 현대의학 3-3-0
Reading the Classics for Medical Students

의학 교육과정에 있어서 인문적 고양이 핵심요소로 삼아야 할 실용 사상과 합리적 사상의 원리와 핵심을 이해하는 것이 중요하다. 특히 미래 의학자로서 생명을 생명을 유지하는 인간의 의료와 사회의 윤리적, 사적, 사적 그리고 과학기술의 발전에 따른 새로운 환경에 대한 새로운 도전을 받아들여야 할 때에는 이러한 고전과 현대의학에 대한 이해가 필요하다.

Reading the Classics offers the opportunity to explore the great thoughts and achievements of ancestors, and to learn how profoundly they still affect and will develop our civilization including science and technology. In this class, we provide the list of classics, which medical students must read, and give me the opportunities to discuss about it.
M2605.000500 의학의학의 이해 2-2-0

Understanding Global Medicine

의학은 본질적으로 세계적인 성격을 갖고 있으나, 사실상 개별 도상국 국민의 건강문제는 그간 선진국의학의 관심사 밖에 있었던

WHO를 중심으로 한 국제기구의 일부 관심사에 지나지 않았던

대표적으로 소요금이 반대받던 개별도상국 국민의 건강문제는 전 세계적인 건강문제에 포함되어 다루어지기 시작한

세상의 모든 나라가 이에 참여하면서 이러한 노력이 치열하게 진행되고 있다. 한국도 공적개발협력에서 참여하면서 이러한 노력이 치열하게 진행되고 있다. 한국도 공적개발협력에서 참여하면서 이러한 노력이 치열하게 진행되고 있다. 한국도 공적개발협력에서 참여하면서 이러한 노력이 치열하게 진행되고 있다. 한국도 공적개발협력에서 참여하면서 이러한 노력이 치열하게 진행되고 있다. 한국도 공적개발협력에서 참여하면서 이러한 노력이 치열하게 진행되고 있다.

医学生 who are going to major in medicine and global health가 되어 OECD/DAC. This class will give new perspective to the

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의예과 학생들이 비판적 사고를 통해 문제해결능력과 의사소통능력을 배양을 목적으로 한다. 이를 위해 인문사회과학과 의료의 다양한 주제에 대해 학생 6-8명 내외의 소그룹을 구성하여 Team based project형식으로 탐구를 진행하여 팀별 토론 및 발표를 진행한다.

This subject is basically aimed to promote problem-solving skills and clinical reasoning abilities essential to medical doctors, through logical and critical thinking process during the pre-med periods. For this purpose, every single group of around six-eight members is formed and they are encouraged to actively participate in the discussions and presentations in the form of a team-based project while exploring a wide range of topics in Humanities, Social Sciences and Medicine.

외과는 의학의 중요한 한축을 담당하는 분야로 수술을 통해 질환을 치료하는 분야이다. 본 강좌는 외과의 역사 및 발전과정을 알아보고 현재의 미래의 외과 분야를 통찰해보는 강좌이다. 강좌의 구성은 외과, 비뇨기과, 신경외과, 정형외과, 성형외과, 내분비외과, 소화기외과, 산부인과, 출산, 치아관련외과, 비뇨기과, 생사경제학, 외과 영상, 내과학, 당뇨병, 뇌과학, 생물학, 양성생물학, 암학 등 다양한 주제를 다루고, 외과를 통해 질병을 어떻게 치료하는지를 이해한다.

Surgery plays a key role in medicine and is a field specialized in curing disease through an operation. This lecture explores the history and development process of surgery and has an insight into the present and future field of surgery. The lecture introduces various fields of surgery, including hepatobiliary-pancreas, gastrointestinal surgery, colorectal surgery, breast and endocrine, vascular transplantation, pediatrics, thoracic surgery, neurosurgery, orthopedics, plastic surgery, urology, obstetrics and gynecology, and otolaryngology together with the whole changes of surgery. With this lecture, you can understand how surgeons treat various diseases with surgery.
Pharmacology & Lab.

This course is designed to guide students in gaining a better understanding of the pathophysiology and management of infectious disease, careful use of antimicrobials, awareness of and approach to nosocomial and device associated infections, and appropriate use of microbiology lab data.

Parasitology & Lab.

This course will introduce medical students to the life cycle, transmission, source of infection, morphology, pathogenic impacts on human beings, and clinical aspects of major human parasitic diseases. Students will be able to diagnose and treat major parasitic diseases and to provide counseling to patients parasitic diseases. Students will be able to diagnose and treat major parasitic diseases and to provide counseling to patients parasitic diseases.

Clinical Immunology

This course will cover the major groups of microorganisms and host immune responses to provide an understanding of the cells and tissues of the immune system and an introduction to infectious diseases. Students will gain an understanding of the mechanisms of microbial diseases and the normal and abnormal functions of the immune system. Tutorials will emphasize problem-solving skills and the integration of independently learned knowledge.

Infectious Disease

This course is designed to guide students in gaining a better understanding of the pathophysiology and management of infectious disease, careful use of antimicrobials, awareness of and approach to nosocomial and device associated infections, and appropriate use of microbiology lab data.

Internal Medicine and Clerkship

This course will cover the major groups of microorganisms and host immune responses to provide an understanding of the cells and tissues of the immune system and an introduction to infectious diseases. Students will gain an understanding of the mechanisms of microbial diseases and the normal and abnormal functions of the immune system. Tutorials will emphasize problem-solving skills and the integration of independently learned knowledge.

Surgery and Clerkship

This course will cover the major groups of microorganisms and host immune responses to provide an understanding of the cells and tissues of the immune system and an introduction to infectious diseases. Students will gain an understanding of the mechanisms of microbial diseases and the normal and abnormal functions of the immune system. Tutorials will emphasize problem-solving skills and the integration of independently learned knowledge.
diseases. They will also study periorientive management, surgical methods, and basic technical skills and learn to be able to perform primary care of patients.

801.303B*  
**Obstetrics/Gynecology and Clerkship**

This course will offer the knowledge and skills to detect childhood, and adolescence. It also encompasses the normal physiology of the growth and development in these periods. 

801.306A*  
**Orthopedic Surgery & Clerkship**

This course will cover the systemic knowledge, techniques, and interview skills applicable to the practice of medicine as a general physician.

801.309B*  
**Radiology & Clerkship**

This course will provide the general features of orthopaedic surgery to medical students who will become doctors. Topics will cover orthopaedic disease (infection, tumors, congenital anomalies, and trauma such as fractures, dislocations, and sprains). Through the 2-week ward education, students will learn to manage patients with orthopaedic problems.

801.314*  
**Neurology & Clerkship**

This course will cover the systemic knowledge, techniques, and interview skills applicable to the practice of medicine as a general physician.

801.305B*  
**Psychiatry and Clerkship**

This course will cover the systemic knowledge, techniques, and interview skills applicable to the practice of medicine as a general physician.
801.316 Emergency Medicine & Clerkship

Emergency Medicine & Clerkship

This course will study the clinical knowledge of resuscitation, traumatology, EMSS, disasters, environmental injuries, toxicology, and other clinically important emergency situations and obtain the skills for emergency procedures.

801.417B Anesthesiology and Pain Medicine

Anesthesiology and Pain Medicine

This course will cover the basic skills in anesthesia, airway management, cardiopulmonary resuscitation, management of critically ill patients, and pain management.

801.436A Dermatology

Dermatology

This course will cover the basic structure and functions of skin; pathophysiology, diagnosis, and treatment of common dermatologic diseases; and clinical applications.

801.438A Neurosurgery

Neurosurgery

This course will cover general and emergency neurosurgery. Students will study general neurosurgical diseases, pathophysiology, clinical courses, management, and future direction. They will also have an opportunity to experience clinical techniques and to inspect clinical courses through practice.

801.441A Ophthalmology

Ophthalmology

This course will study the urogenital system and its disorders as well as the diagnosis and treatment modalities of clinically important urological disorders. It will include bedside clerkship in urological oncology, urethral, endourology, voiding dysfunction, female urology, and pediatric urology.

801.440A Otolaryngology

Otolaryngology

This course will study the anatomy and physiology of the ear, nose, and throat, head, neck, and neck areas. Topics will include the general contents of the ENT area; structure, functions, diagnostic tools, and treatment modalities; electrophysiologic diagnosis, cochlear implantation, neurootology, skull base surgery, endoscopic sinus surgery, and neck diseases through an understanding of the anatomical structures and functions of the ear, nose, throat, head, and neck areas. Topics will include the general contents of the ENT area; structure, functions, diagnostic tools, and treatment of various thoracic organs including the heart, aorta, lungs, esophagus, pleura, mediastinum, and chest wall. Students will be expected to understand the following: 1) The anatomy and physiology of thoracic organs; 2) The pathophysiology associated with various thoracic operations (for perioperative patient care); and 3) The ability to diagnose and to treat patients adequately.

801.439A Urology

Urology

This course will cover all kinds of diagnostic methodologies and diseases through an understanding of the anatomical structures and functions of the ear, nose, throat, head, and neck areas. Topics will include the general contents of ENT areas; structure, functions, diagnostic tools, and treatment of various thoracic organs including the heart, aorta, lungs, esophagus, pleura, mediastinum, and chest wall. Students will be expected to understand the following: 1) The anatomy and physiology of thoracic organs; 2) The pathophysiology associated with various thoracic operations (for perioperative patient care); and 3) The ability to diagnose and to treat patients adequately.

801.439A Urology

Urology

This course will study the urogenital system and its disorders as well as the diagnosis and treatment modalities of clinically important urological disorders. It will include bedside clerkship in urological oncology, urethral, endourology, voiding dysfunction, female urology, and pediatric urology.
eye, common ophthalmologic diseases; ocular manifestations of systemic diseases; fundamental knowledge and techniques of ocular examinations; and therapeutic.

801.442A 성형외과학 3-0-90

Plastic Surgery

임차인과로서 필요한 성형외과학 분야의 이해를 높이기 위한 과목이다. 구체적 학습목표로 첫째, 화상환자의 응급처치 능력을 키우고, 둘째, 안면부와 상환자의 응급처치 및 치료의 기본원리를 이해하며, 셋째, 손에 화상을 입은 환자의 응급처치 및 치료의 기본원리를 이해하는 것이다. 또한 장기합併증을 야기하고 두안부와 수부의 신상정 기형에 대한 진단 및 치료의 기본은 이해하는 것이다.

This course will increase primary physicians’ general knowledge of plastic surgery. Students will learn the basic principles of the emergent treatment of the burn patient, the facial trauma patient, and the hand injury patient. They will learn to perform the suture closure of lacerations and come to understand the diagnosis and treatment of congenital anomalies in the head and neck region and hands.

801.444A 재활의학 3-0-90

Rehabilitation Medicine

재활의학은 일반적으로 장애가 있는 사람이 주어진 조건에서 최대한의 신체적, 정신적, 사회적 능력과 그의 취미, 직업, 교육 등의 잠재적 능력을 발달시키며 그 사람으로 하여금 가능한 한 정상에 가까운 생활을 할 수 있게 하여주는 분야로 정의될 수 있다. 따라서 본 강의 및 실습은 4학년 학생을 대상으로 강의와 병원 실습을 통해 의사로서의 재활의학의 기본적인 지식과 술기를 익히는 것이 목적이이다.

Rehabilitation is the process of helping a person to reach the fullest physical, social, vocational, and educational potential consistent with his or her physiological or anatomical impairment, environmental limitations, desires, and life plans. This course, which consists of lectures and practice, will cover the basic knowledge and technique needed by senior medical students to take care of patients in this field as general physicians.

801.445A 방사선치료학 3-0-90

Radiation Oncology

생애에 미치는 방사선 치료의 용리 및 생물학적 기본 원리와 암의 방사선치료 현황과 주요 암에 대한 임상적 원리와 경험, 반사선 치료방지에 대한 원리를 배운다.

This course will cover radiation oncology, basic radiation biology, basic and clinical radiation physics, clinical radiation therapy for major tumors and tumor-associated conditions around the world and in Korea, radiation hazards, and radiation protection.

801.446A 지역사회의학 3-0-90

Community Medicine

지역사회의학 강사를 통해서 지역사회와 지역사회의학의 기본개념을 이해하고 지역사회 보건문제를 파악하여 보건계획을 수립하는 과정을 습득하며, 지역사회 보건활동의 전개과정과 지역사회 보건사업의 평가방법을 익힌다. 그리고 지역사회의학 실습은 병원에서 환자로 만나게 된 주민들을 실습현장을 방문하여 직접 만

801.460* 임상특과 4-93-0

Advanced Clinical Medicine

본 과목은 1~3학년에서 필수과정으로 다루어지지 않은 임상의 성분을 뒷받침하여 그중 임상의사로서 반드시 익혀야 하는 필수적인 내용을 강의형식으로 교육한다. 이 과목을 통하여 학생들은 임상의 성분화된 각 과의 진료 및 학문분야를 포악하고 학생 수준에서 필요한 필수기술을 익힐 수 있을 뿐 아니라 적절히 환자전진 이해와 해석 및 예방 등 지표분야 분야에 대해 심화할 수 있게 한다. 학생들은 4학년에 임상실습과정을 선택하며, 다시 나아가 자신의 진로선택에도 도움을 받을 수 있다.

This course is designed to teach students the core knowledge and clinical practice. This course offers the contents about dermatology, urology, otorhinolaryngology, ophthalmology, anaesthesiology, plastic surgery, radiation oncology, rehabilitation medicine, family medicine, clinical pharmacology, and nutritional medicine. It helps the student to choose the selective clerkship and furthermore the main subject after graduation.

801.461* 의학연구 4-0-130

Research in Medicine

본 과목은 기초의학 연구, 임상의학 연구, 국내외 의료관련기관 인원임단 및 교수 계획의 개발에 대한 학생이 스스로 개발한 다양한 개별 과정으로 구성된다. 이 과정은 3~4학년에 걸쳐 임상의학의 이론 및 실제 경험을 마친 학생들에게 기초과학 연구로 투입할 기회, 혹은 임상의학 과정 중 개인으로 간주되는 토론을 포함하여 실험, 연구실, 임상에 대한 경험을 기반으로 차분한 실제 연구 능력을 강화하고 다양한 진로모색의 기회를 제공하기 위한 것이다.

In this course, the student can build up a course for oneself or select a subject, in which he/she is interested, out of many courses opened by faculties in the area of basic science research, clinical science research, internship in domestic or overseas medicine-related institutions. This course offers students of the graduating class ‘an opportunity to go back to the basic science research’ or ‘an opportunity to experience more advanced learning and research in clinical science’ or ‘an opportunity to search more diverse path in life’.
The course is designed to train and evaluate clinical performance of students of the graduating class who just finished clinical clerkship. It’s domain of training covers every essential knowledge, skill, attitude to deal with the relationship with patients, and characteristic of oriental medicine and complimentary/alternative medicine. This course provides students opportunity to integrate various contents mastered in academic years by focusing on the problems of patients.

801.467A* 임상통합연습 3-48-72

Integrated Clinical Exercise

This course will train and evaluate students’ ability to take care of patients as primary physicians by integrating knowledge and skills, problem solving ability, comprehensive thinking that they have learned in their clinical courses. Students will acquire competencies in clinical practice by solving the medical or non-medical problems of patients and coping skills in clinical practice field. This course provides students opportunity to integrate various contents mastered in academic years by focusing on the problems of patients.

801.469* 임상약리학 및 실습 3-0-90

Clinical Pharmacology and Clerkship

Clinical Pharmacology is one of subspecialties of medicine which investigate causes of variability of drug response and conduct various research, research and clinical practice to maximize the effectiveness of drug therapy and achieve personalized optimal pharmacotherapy. Students will learn the variability of drug response and the importance of personalized optimal pharmacotherapy, which are essential knowledges and skills to be a doctor, by case studies of optimal pharmacotherapy, also experience examples of translational research which bridges pharmacology (mechanism of drug action) and pharmacotherapy, also experience examples of translational research which bridges pharmacology (mechanism of drug action) and pharmacotherapy, also experience examples of translational research which bridges pharmacology (mechanism of drug action) and pharmacotherapy.
and clinical medicine (individual pharmacotherapy) during the clinical pharmacology clerkship.

**M1923.003000**

**중환자의학 1 - 24-2**

**Critical Care Medicine**

This course is designed to guide students in gaining a better understanding of the basic aspects of critical care medicine by teaching the clinical characteristics and the pathophysiology of critical care patients, patients monitoring, devices used in intensive care units, and the multimodal treatments. The student will be a working member of the intensive care unit. He/She will be teamed with a resident, share the patient's information, and participate in the therapeutcic and diagnostic procedures.

**M1923.004600**

**인체해부학 5-48-120**

**Human Anatomy**

The study and experiment on the human organ-based microstructure and physiological function. The lectures aim to let students have integrated views and understanding of histology and physiology. The course starts with general cell physiology, followed by lectures and practices on each major organ system of human body: cardiovascular, respiratory, kidney and body fluid homeostasis, digestive and endocrine organs.
M1923.005300*  Selective Course 1

Selective Course 1

Dialogue and Immunity

The primary objective of this course is to provide fundamental knowledge, which is required for treatment, prevention and management of microbial and parasitic infections, by understanding the characteristics of microorganisms and parasites, the interaction of microorganism/parasite-host or the microorganism/parasite-environment. Students will learn the introduction of the bacteriology, mycology, virology and parasitology (helminthology, protozoology and medical entomology) by the lecture and experiments and understand the basic principles of the microbe-parasite-host interaction, treatment and prevention of various medically important microbial and parasitic infections and tropical medicine to the climate change.


M1923.005500*  Selective Course 2

Selective Course 2

Dialog and Communication

The main objective of this course is to provide fundamental knowledge, which is required for treatment, prevention and management of microbial and parasitic infections, by understanding the characteristics of microorganisms and parasites, the interaction of microorganism/parasite-host or the microorganism/parasite-environment. Students will learn the introduction of the bacteriology, mycology, virology and parasitology (helminthology, protozoology and medical entomology) by the lecture and experiments and understand the basic principles of the microbe-parasite-host interaction, treatment and prevention of various medically important microbial and parasitic infections and tropical medicine to the climate change.

M1923.006200*  Selective Course 3

Selective Course 3

Dialog and Communication

The main objective of this course is to provide fundamental knowledge, which is required for treatment, prevention and management of microbial and parasitic infections, by understanding the characteristics of microorganisms and parasites, the interaction of microorganism/parasite-host or the microorganism/parasite-environment. Students will learn the introduction of the bacteriology, mycology, virology and parasitology (helminthology, protozoology and medical entomology) by the lecture and experiments and understand the basic principles of the microbe-parasite-host interaction, treatment and prevention of various medically important microbial and parasitic infections and tropical medicine to the climate change.
계에서 세포와 조직에 대한 이해를 돕는 것을 목표로 한다. 학생들은 생물학에 의한 질환의 기전과 면역계에서 장기와 비정상에 대해 이해하도록 했으며 강의는 이를 통해 문제해결능력과 지식을 통합적으로 활용할 수 있도록 하는데 중점을 둔다.

이 과목은 학생들이 입상적 역할에서 통합과목의 지식과 기술을 습득하여 입상실습을 준비할 수 있도록 가르치는 것을 목적으로 한다. 본 과목을 통해 의사가 갖추어야 하는 환자중심의 사고방식과 태도를 갖추고, 기본적인 신경과 감각 과정 기술을 익히도록 한다. 입상의의 이해를 돕기 위해 의무기록과 의료등록서를 원리에 대해 수업, 통합과목의 가계도 쉽게 이해할 수 있도록 한다.

The 'Introduction to Clinical Medicine (ICM) 1' is a weekly-longitudinal course that integrates the basic and clinical sciences by providing the clinical exposure during the first year of medical school. This subject will guide students in gaining appropriate attitudes as a doctor and patient centered approach, and in acquiring basic physical examination and foundational communication. This course includes lectures about medical records and imaging as well as a pedagogy in the context of concurrent courses.

본 과목은 의학연구 전반에 걸쳐 필요한 기초 지식, 연구 용어, 통계기법, 실험기법 등을 배우고, 현재 진행되고 있는 여러 연구에 대하여 알아보므로써, 의학연구에 대한 의료기록을 고려시켜 그 본질적 형태의 의학연구를 시작할 수 있도록 준비하는 과정이다.

The main objective of this course is to provide basic ethics, knowledge and skills for medical research, such as statistics, laboratory technologies and so on. In addition, brief description of research laboratories in which students can participate will help students to select their own topics for Medical Research 2.

본 과목은 학생들이 '인체해부학', '조직학총론', '인체조직학', '생리학', '인체생화학', '기초신경과학', '정형외과학적 이해', '감염의 기초', '면역의 기초', '암의 이해' 등 기초의과학과목에서 교과과정의 핵심적 핵심기술의 핵심적 기술을 통합적으로 학습하고 평가하는 것을 목적으로 한다.

This course will train and evaluate students' ability by integrating knowledge and skills, problem solving ability, comprehensive thinking that they have learned in their basic science education courses such as 'Human Anatomy', 'Introduction to Human Histology', 'Human Histology and Physiology', 'Human Biochemistry', 'Basic Neuroscience', 'Pathologic Basis of Disease', 'Basics of Infection', 'Basics of Immunology', 'Understanding of Pharmaceutical Drugs' and so on.
mechanisms of hormone synthesis and action, and be able to apply the concepts to the human body. Moreover, comprehension of the influence of each hormone to human organs and its evaluation methods is required. Based on this, students will learn the basic pathophysiology of endocrine and/or metabolic diseases related with glucose metabolism (e.g., diabetes), obesity, lipid metabolism, thyroid, bone metabolism, adrenal or hypothalamic-pituitary, reproduction, growth and aging, and genetics etc. Ultimately, students should acquire the ability to apply the learned knowledge to the diagnosis and treatment of diseases.

Neurosciences and Behavioral Sciences

The neuronal organ is the most complex, mysterious, and powerful system ever known. This field is also undergoing significant and rapid changes. This course integrates basic neurosciences including structures and functions of the complex neuronal organs, pathophysiology of neurological and psychiatric illnesses, and the concepts of basic diagnosis and treatment skills. It embraces the various forms of prob-

matics associated with clinical experience. Also, the students should have a pa-

tient-centered mindset and attitude, and be able to properly administer the physical examination, medical interview skills, and basic clinical skills.

Selective Course 3

This subject can provide broad perspectives for medicine to the students by covering multidisciplinary area. The students can select the specific subject according to their interest and they can learn the subject consistent with their knowledge level.

Human · Society · Medicine 3

The course is designed to guide students in gaining a better understanding of medicine in societal, humanistic context, and in attaining a holistic perspective of patient and human by reviewing multiple aspects of the relationship of health and disease, patient’s illness behavior, and the relationship of daily life and health.

Selective Course 3

Respiratory System

The course is designed to guide students in gaining a better understanding of medicine in societal, humanistic context, and in attaining a holistic perspective of patient and human by reviewing multiple aspects of the relationship of health and disease, patient’s illness behavior, and the relationship of daily life and health.

Introduction to Clinical Medicine 2-1

Circulatory System

The course is designed to guide students in gaining a better understanding of medicine in societal, humanistic context, and in attaining a holistic perspective of patient and human by reviewing multiple aspects of the relationship of health and disease, patient’s illness behavior, and the relationship of daily life and health.
In this course, students will learn about the embryogenesis, structure, and functions of the cardiovascular system and acquire the ability selectively to apply their skills to the diagnosis and treatment of important cardiovascular diseases, as well as to understand the pathophysiologic characteristics in pregnancy/delivery/fetus and the newborn/infant/childhood/adolescent, and the pathophysiologic characteristics in female/male reproductive system and breast, which will provide basic understandings of various diseases in each period for clinical practice.

1) Students will learn about the introduction to the physiology and pathophysiology of pregnancy/delivery, and postpartum infant and multiple pregnancy.
2) Students will learn about the pathophysiology and care of the normal newborn, neonatal screening test related to the hereditary inborn errors of metabolism, the pathophysiologic characteristics of various neonatal diseases, the assessment of growth and development and diagnostic approach-method of growth impairment in infant-child, the pathophysiologic characteristics of nutrition deficiency diseases and obesity in pediatrics, and the outline of pediatric emergency/severe diseases in growing period/adolescent medicine.
3) Students will learn about the pathophysiologic characteristics in female/male reproductive system and breast, which will provide basic understandings of various diseases in each period for clinical practice.
4) Students will learn about the pathophysiologic characteristics in female/male reproductive system and breast, which will provide basic understandings of various diseases in each period for clinical practice.

These systems. Students also study their diagnostic and therapeutic principles, and have discussions over clinical cases on the important clinical features to naturally transfer to clinical education.
의과대학(College of Medicine)

of ‘Human System & Diseases’ continued for a year. It aims at teaching freshmen and sophomores to be able to acquire knowledge and technology of integrated subjects in the medical context to be prepared for clinical training. ICM2-2 will guide students in acquiring physical examination by system and advanced communication skills.

Selective Course 4

의학과 접목된 다양한 분야를 다루어 학생들에게 폭넓은 시각을 제공한다. 본 과목은 학생의 관심에 따라 다양한 과목을 학생이 선택하여 수강할 수 있게 함으로써 학생 개개인의 다양성과 학습수준에 따른 학습을 유도할 수 있도록 한다.

이 과목은 수정에서부터 태아, 신생아, 소아, 청년, 성인, 노인의 생리적 변화와 각 시기별 건강관리뿐만 아니라, 유전질환의 기본 개념을 익혀야 한다. 이를 통해 학생들이 향후 ‘인체와 질병’ 각 영역에서 배우는 각 시기별 다양한 질환과 연관시키켜 질병에 대하여 포괄적인 이해를 하게 되는데 도움을 주고자 한다.

In this course, students will learn about physiologic characteristics and healthcare of fetus, newborn, child, adolescent, adult and elderly people. This course will also cover the basic principles of embryogenesis, chromosome structure and functions, mendelian inheritance, mitochondrial diseases, and multifactorial inheritance. After this course, the students can apply their basic physiology and healthcare knowledge to clinical situations that are taught at ‘Human System and Diseases’ courses.

Medical Research 2

본 과목은 전문이 있는 주제 중 하나를 선택하여 직접 연구에 참여하는 과정이다. 연구 주제는 기초의학, 임상의학, 인문사회적 학 등 다양한 분야에 대하여 교수 개개인 혹은 팀이 개설하게 된다. 학생들은 이 과정을 통하여 선택 연구 조사, 이해결 문제 도출, 연구 가설 수립, 가설 검정을 위한 연구 설계, 연구 데이터의 획득 및 해석, 결론 도출, 향후 연구 방향 수립 등 의학연구가 수행되는 전체 과정을 체험하는 한편, 결과를 간단한 논문 형태로 작성하게 된다. 이를 통해 의학연구에 필요한 기본 역량과 함께 비판적, 창의적 사고 능력을 습득하게 된다.

In this course, the students participate in research by selecting one of the research topics of interest. Research subjects will be opened by individual professors or teams in various fields such as basic medicine, clinical medicine, and humanities and social medicine. Through this process, students will experience the whole process of medical research such as searching for previous research, drawing up unresolved questions, establishing research hypotheses, designing research plan for hypothesis testing, obtaining and interpreting research data, drawing conclusions, and establishing the future direction of research. The results are required to be written in a simple paper format. Through this, students will acquire basic competencies necessary for conducting medical research as well as critical and creative thinking skills.

Human & Society 4

인간 & 사회 & 의료 4

Human & Society 4 is aimed at improving the students' ability by integrating knowledge and skills, problem solving ability, and comprehensive thinking that they have learned in their integrative education courses of ‘Human and Diseases’ such as Reproduction & Growth & Development 1, 2, ‘Infection and Immunity’, ‘Hematology and Oncology’, ‘Metabolism and Endocrine System’, ‘Neurosciences and Behavioural Sciences’, ‘Respiratory System’, ‘Circulatory System’, ‘Digestive System’, ‘Kidney and Urinary Tract’, and ‘Musculoskeleton, Skin and Sensory Systems’.

Medical Research 5

의학연구 2

Medical Research 5 is mainly talks about ‘Doctors and Healthcare policy’. This course uses a variety of teaching methods, such as case discussions and talk shows about healthcare policy, doctors’ role and leadership in field, healthcare administration, medical policy and system, health insurance and management for healthcare quality.

Human & Society 5

의학연구 2

Human & Society 5 is ‘의사와 의료환경’이라는 주제로 이루어진다. 의료정책과 의료환경에서의 의사의 역할, 의료법 등에 관한 내용과 보건의료행정, 의료법에 따른 reimbursement 문제 등에 대한 내용을 사례토론, 토론과 발표 등의 다양한 방법으로 진행된다.

Human & Society 6

의학연구 2

Human & Society 6 is ‘의사와 의료환경’이라는 주제로 이루어진다. 의료정책과 의료환경에서의 의사의 역할, 의료법 등에 관한 내용과 보건의료행정, 의료법에 따른 reimbursement 문제 등에 대한 내용을 사례토론, 토론과 발표 등의 다양한 방법으로 진행된다.
의과대학(College of Medicine) :: 의과학(Dept. of Medicine)

방법으로 진행된다.

‘Humans · Society · Medicine 6’ mainly talks about ‘taking care of patient’. Various methods such as discussion and presentation which follow a written scenario are included in this course, in order to deal with palliative care, interaction to the family of dying patient, psycho-social · spiritual care and legal · ethical problems.

M1923.008700* 임상추론 1 2-40-0

Clinical Reasoning 1

이 과목의 목표는 질병이나 신체상이의 외적 표현일 중상, 치료 후로부터 해당 질병이나 신체상이의 원인과 기전을 밝히는 임상적, 논리적 추론의 과정과 방법론을 사례중심학습을 통해 익히도록 하는데에 있다. 학생들은 각별별 동호교육을 통해 임상의 병태형상을 학습하였고, 이 과정 이후에는 학생들이 실제 환자를 접하고 이를 의학적 접근을 배우게 된다. 본 과정은 이 2개의 과정을 매개하는 가교역할을 한다.

The general instructional objective of this course is teaching the process and methodology of clinical, logical reasoning for defining the origin and mechanism of symptom and sign, which is the external manifestation of disease or disturbance of body, by Case Based Learning. Students already learned about the path-physiology of diseases in preceding courses, and will be exposed to real patient and learn medical approaches to them after this course. This course is a bridge linking those two learning experiences.

M1923.008800* 임상의학입문 3 2-40-0

Introduction to Clinical Medicine 3

임상의학입문 3은 임상 실습에 들어가기 직전, 임상에 대한 오리엔테이션과 실무교육을 통해 실제 환자를 만날 수 있도록 준비하는 것을 목표로 한다. 3학년 과정은 학생들이 여러 과에 배정되어 실습을 시작하기 때문에, 모든 과에 통합적으로 필요한 내용을 먼저 교육하도록 정립되었다. 이 과목에서는 병원 소개와 환자 안전 교육, 임상윤리와 예절부터, 컴퓨터 프로그램 사용에 대한 교육 등 실무적인 내용과, 여러 과에서 공통적으로 접하게 되는 여러 환자군에 대한 이해, 각종 검사, 치료의 원칙 등을 다루어 임상 실습을 충분히 준비하도록 한다.

Introduction to Clinical Medicine 3 (ICM3) aims to prepare medical students to meet a real patient through orientation and practical education, just before the clinical clerkship. This course is designed to deal with essential contents for all clinical departments since students divided into several groups for their clerkship. ICM3 will guide students in preparing for their clerkship by comprehensive understanding about hospital system, various roups of patients, tests, and the basics of treatment.

M1923.008900* 통합임상실습 2-30-30

Longitudinal Integrated Clerkship

통합임상실습 교육과정은 학생들이 담당환자의 치료과정을 추적 관찰하면서 환자를 통합적으로 전인적으로 진료하는 방법을 배우는 것을 목표로 하고 있다. 통합임상실습 교육과정에서 학생들은 담당환자의 전인적 전반기 관찰을 위하여 전인적 두뇌관계를 수시로 점검해야 하고 담당환자가 외래를 방문하거나 입원할 때 직접 만나거나 환자를 시행할 수 있다. 이를 통하여 담당환자가 병의 경과에 따라 외래와 입원, 응급실 등에서 어떤 진료와 치료를 받는지 알 수 있을 뿐만 아니라, 환자가 질병으로 인하여 겪게 되는 사회적, 경제적 문제까지 고찰할 수 있을 것으로 기대하고 있다. 효과적인 학습을 촉진하기 위하여 한 달에 한 번 그룹별로 모여서 동료들과 관련된 주제에 대하여 의견을 교환하고 담당교수로부터 피드백을 받게 한다.

Longitudinal integrated clerkship is aiming to provide students longitudinal and integrated patient encounter to develop holistic and integrated approach to patients while following up the treatment process of the patients. Students should follow up their patients by checking the medical record or conducting medical interviews when the patients visit the outpatient clinic or admit to the ward. Through this course, students will be able to understand the overall process of patient care and related socio-economic and cultural issues regarding the patient care. Students will meet the faculty as a group every month to discuss the related topics together and receive feedback from the faculty.

타학과 학생을 위한 과목
(Courses for Non-major Students)

801.001 생리학 3-3-0

Physiology

인간을 포함한 포유류의 기능과 현상: 일반세포생리, 심장 및 순환 생리, 호르몬, 체액 및 신장생리, 신경생리에 관한 이해

This course will study the body functions of mammals including human beings: general cell physiology, heart and circulation, hormones, kidneys and body fluids, and neurophysiology.

801.002 해부학 2-3-0

Anatomy

인체의 구조와 형태에 관한 강의와 인체 해부 실습을 통하여 학생들이 의학의 중요한 지식인 기능과 구조에 관한 지식을 얻을 수 있도록 한다. 또한 육체해부학에서의 구조적인 문제나 관련과 복을 이해함에 도움을 줄 수 있도록 한다.

Through this course on the structure and functions of the human body, students will be prepared to build fundamental knowledge. The course will also offer a chance for a better understanding of the structural problems in gross anatomy and related subjects.

801.003 병리학 3-3-0

Pathology

인체에 발생하는 질병의 원인, 발생기전 및 경과 등을 이해하고 이를 질병 예방 및 진료 등에 활용할 수 있는 판단능력을 부여하는 과목이다. 특히 순환기생, 염증, 종양 및 감염 질환들과 같은 기본적인 질병유형과 경과에 대해 학습하고, 각 질병을 병인과 관련 지어 이해하는데 중점을 두었다. 이 과목은 임상실험 전에 질병에 대한 개념을 갖추는 과목으로서 또 다른 의의를 갖는다.

This course will focus on the pathogenesis of human diseases. Students will study the disease and acquire an ability to make decisions regarding disease prevention and patient care. The basic aspects of the pathogenesis of circulatory disorders as well as inflammatory, neoplastic, and infectious diseases will be introduced. The course will also provide concepts of diseases before clinical trials.
자유전공학부
College of Liberal Studies
Selected Topics Seminar 1

This seminar offers lectures and discussions on selected topics by a team of faculty members to assist students in formulating comprehensive perspectives for an integrated analysis of the topics encompassing the fields of liberal arts and sciences. The purpose of this seminar is to make students familiar with the diverse approaches and methods of different disciplines.

Selected Topics Seminar 2

This seminar offers an experience of reading and writing on selected major topics of different disciplines. Course goal is to develop students’ ability of creative thinking through group discussions of the reading materials, developing research questions, and formulating possible answers. The instructor will provide an intensive guidance for improving students’ writing skills by commenting on a series of students’ essays on assigned topics.

Individual Course Design 1

This course aims at guiding students to design his/her own courses. With this course, students would be able to find out how a field of study can be derived from the integrative combination of existing study area. The course uses individual seminar format in which a student presents design of his/her own curriculum for selected field and instructor makes comments about it.

Individual Course Design 2

This course encourages students to explore in depth one of the major topics typically dealt with in <Selected Topics Seminar 2>, while learning by doing the essentials of research methodology. It aims to develop students’ creativity and research skills by offering a chance to plan and perform one’s own research project under the guidance of the instructor, often, but not necessarily in connection with <Community Service-based Learning>, <Global Experiential Learning> or <Capstone Design>.

DEPENDENT RESEARCH 1

Independent Research 1

This seminar includes readings, lectures, discussions in English or another foreign language on selected topics of different disciplines.

Individual Course Design 2

This course offers lectures and discussions on selected topics by a team of faculty members to assist students in formulating comprehensive perspectives for an integrated analysis of the topics encompassing the fields of liberal arts and sciences. The purpose of this seminar is to make students familiar with the diverse approaches and methods of different disciplines.

Selected Topics Seminar 1

This seminar offers lectures and discussions on selected topics by a team of faculty members to assist students in formulating comprehensive perspectives for an integrated analysis of the topics encompassing the fields of liberal arts and sciences. The purpose of this seminar is to make students familiar with the diverse approaches and methods of different disciplines.

Course goal is to develop students’ ability of creative thinking through group discussions of the reading materials, developing research questions, and formulating possible answers. The instructor will provide an intensive guidance for improving students’ writing skills by commenting on a series of students’ essays on assigned topics.
This course is designed to provide self-directed learning and creative/critical thinking ability of undergraduate students in School of Liberal Studies. Students may select research themes, research methods, and advisors in interdisciplinary fields or contemporary issues. Students would submit research proposals and conduct research of their own with the support of the professor(s). Students would receive academic credits (2, A-F) based on the final reports of their research, and be recommended to present their research outcomes.

991.302

국내현장학습 2-0-4

Community Service-based Learning

This course provides students with opportunities of experiential learning through participation in the activities at service-oriented, nongovernmental and public organizations.

991.303

해외현장학습 2-0-4

Global Experiential Learning

This course intends to give yet another chance to select research topics and methods, and write an interdisciplinary research proposal.

991.304

자유연구 2 3-2-2

Independent Research 2

This course is designed to give yet another opportunity for making substantial results of interdisciplinary joint researches to those students who have successfully completed <Creative Fusion Seminar> which doesn’t require substantial results. The students may develop the joint research further as a group that had been conducted in <Creative Fusion Seminar> during the previous semester, or excavate another research topic and work together for the result of it. From this course, the students will have some experiences of group creativity for solving multi-dimensional puzzles and interdisciplinary approaches to complex problems.

991.306A

창의융합프로젝트 3-3-0

Creative Fusion Project

This course aims to give junior or senior an opportunity for experiencing a creative fusion research by interdisciplinary approaches. The students who are studying their own majors in various disciplines come together and find the emergent research topics that they begin with and discuss methods, and write an interdisciplinary research proposal together. For these activities, the students work as a group and the groups may present preliminary research results at the end of the term. From this course, the students will have some experiences of group creativity for solving multi-dimensional puzzles and interdisciplinary approaches to complex problems.

991.307

고전탐구세미나 1 3-3-0

Classics Seminar 1

This course is designed to give yet another opportunity for making substantial results of interdisciplinary joint researches to those students who have successfully finished <Independent Research 1>. Either by further developing the projects from their <Independent Research 1>, or by initiating a new research project, students are expected to enhance their abilities in self-directed learning, critical thinking, and creative problem-solving.
비판과 종합을 하는 훈련을 해야 할 것이다.

This course is designed for the third- and fourth-year students who major in various disciplines, and purposes to improve the students’ capability of critical thinking and problem solving through the reading and discussion of the ancient and modern Western classics on humanities, social sciences, natural philosophy, and natural sciences. While reading and discussing the classics together with other students who have different academic backgrounds, the students may have a chance not only to improve their knowledge of the classics but also to encounter different perspectives and approaches from other disciplines which they are not familiar with. Moreover, while crossing over disciplinary boundaries in the discussion with other students, the students may have a chance to explore the fundamnet issues raised in the classics from various perspectives and to improve their capability of creative inter-disciplinary thinking. Finally, while reading and discussing the classics, the students may have a chance to develop their own questions and to solve these questions on their own way.
This course purposes to provide junior and senior students of the College of Liberal Studies with an opportunity to conduct research projects, social service projects, problem solving projects, and many other field-related projects together with other students who have different majors, and thereby to help them to converge various perspectives. Especially, this course purposes to provide them with an opportunity to translate, or to apply, the ideas they learned in the classroom into reality. In doing so, this course would contribute to improving students’ capabilities of creative thinking, problem solving, converging, self-initiated learning, and cooperating.

Advanced Topics Project 1

This course is designed to offer an opportunity to produce finishing results by combining the outcomes of the undergraduate study. Students should complete outputs of any forms such as paper, thesis, or real prototype products of one's own design. The instructions include the basic theories and techniques for problem solving and students are expected to exercise them during practice hour. Increasing cooperation and writing ability is also included in the outcomes of the course.

Advanced Topics Project 2

This course purposes to provide junior and senior students of the College of Liberal Studies with an opportunity to conduct research projects, social service projects, problem solving projects, and many other field-related projects together with other students who have different majors, and thereby to help them to converge various perspectives. Especially, this course purposes to provide them with an opportunity to translate, or to apply, the ideas they learned in the classroom into reality. In doing so, this course would contribute to improving students’ capabilities of creative thinking, problem solving, converging, self-initiated learning, and cooperating.

Note: The text in the image appears to be in Korean, and the content may involve discussions on academic projects, research, and learning opportunities. The course is designed for junior and senior students to engage in various projects and to foster skills in problem-solving, converging, and self-initiated learning.
Courses for Teachers-Training Program
Guidance and Counselling

This course examines the concepts and principles of guidance and counselling, discusses their theoretical and practical implications. In particular, in this course the theories, practical procedure and techniques of counseling will be included to strengthen the theoretical basics for solving problems by educational communication. This course also presents the implications. In particular, in this course the theories, practical procedure and techniques of counseling will be included to strengthen the theoretical basics for solving problems by educational communication. This course also presents the implications.

Education Policy

This course targets pre-service teacher students and is an introduction to educational technology. Course topics include a brief introduction, domains as well as trends and issues of educational technology; relating theories; teaching and learning methods; instructional technology use and development in school settings.

Curriculum

This course is intended to equip pre-service teachers with knowledge of Educational Psychology and to develop pre-service teachers’ understanding of teaching-learning processes. Practical implications of various theories of Educational Psychology are dealt in depth, including cognitive development, affective development, learning theories, intelligence, students with special needs, learning motivation, and evaluation.

Sociology of Education

This course introduces sociology of education for prospective teachers and it is part of teacher certificate program. It focuses on the relation between school education and social structure.

Evaluation

This course provides comprehensive understanding of foundations and principles of curriculum, and deals with issues that could be raised when teachers develop and practice curriculum at school level. The course also includes understanding of creative experiential activities and career education emphasized in national curriculum.
This course will focus on the understanding general principles of educational evaluation and the appropriate types of evaluation in the context of school learning. The goal of this course is to allow students to have a perspective on educational evaluation and to understand current educational evaluation system. The course also includes process-focused assessment, development and feedback of test items and drawing up student records.

**701.101A*  教育学概論  2-2-0**

Introduction to the Study of Education

This course discusses the concepts and purposes of education. It also covers current status of educational systems.

**T2184.001200 学校実験実習  2-0-4**

School Teaching Practicum

This course is composed of educational volunteer activities and a final evaluation on the activities. To complete course requirements, students can work as an assistant teacher in elementary and secondary schools and as an after-school teacher for students with learning difficulties or students with multi-cultural backgrounds. They can also work for child-care programs in elementary schools, educational activities in relation to the free-semester system, educational activities of talent donations, and so on.

The main objective of this course is to provide pre-service teachers with an opportunity to obtain speciality in curriculum and instruction as well as a sense of purpose as a teacher through educational volunteering program. Furthermore, it aims to develop a sense of community as a practitioner and a researcher working with a variety of students and teachers.

This course is composed of educational volunteer activities and a final evaluation on the activities. To compete course requirements, students can work as an assistant teacher in elementary and secondary schools and as an after-school teacher for students with learning difficulties or students with multi-cultural backgrounds. They can also work for child-care programs in elementary schools, educational activities in relation to the free-semester system, educational activities of talent donations, and so on.

**T2184.001400  教育봉사활동2  1-0-30**

Educational Volunteer Program 2

This course is composed of educational volunteer activities and a final evaluation on the activities. To compete course requirements, students can work as an assistant teacher in elementary and secondary schools and as an after-school teacher for students with learning difficulties or students with multi-cultural backgrounds. They can also work for child-care programs in elementary schools, educational activities in relation to the free-semester system, educational activities of talent donations, and so on.

**T2184.001300  教育봉사활동1  1-0-30**

Educational Volunteer Program 1

This course is composed of educational volunteer activities and a final evaluation on the activities. To compete course requirements, students can work as an assistant teacher in elementary and secondary schools and as an after-school teacher for students with learning difficulties or students with multi-cultural backgrounds. They can also work for child-care programs in elementary schools, educational activities in relation to the free-semester system, educational activities of talent donations, and so on.
이 강좌의 목적은 비평교사로 하여금 교사가 수행하는 다양한 역할과 직무에 대한 구체적인 이해를 놓임으로써 교직 임무의 초기 적용을 도와주는 데 목적이 있다. 교직윤리, 사회변화와 교육, 진로교육, 학교·학급경영, 학사·인사·행정실무 등과 같이 교사의 직무 수행에 요구되는 영역을 주제별로 다루며, 교사가 실제로 수행하는 구체적 실무적 경험을 쌓아가고 연습하는 데 중점을 두었다.

The main objective of this course is to help the prospective teachers to adapt themselves to the secondary school setting as beginning teachers and to understand teachers’ role and their administrative work. This course provides comprehensive topics needed for student management such as ‘teachers’ ethics,’ ‘social changes and education,’ ‘career education,’ ‘school and classroom management,’ ‘academic affairs, administrative management and general administrations.’

Main focus of this course is on grasping the practical knowledges and skills needed for teachers to do the practical job at the school setting.

이 강좌는 아동·청소년 발달과 관련된 중요한 이슈 또한 다룰 예정이다. 이 를 위해 이 강좌에서는 학교폭력 및 아동·청소년 발달에 대한 개념적 이해를 놓임으로써, 실제 사례들을 중심으로 학교폭력과 기타 문제들을 예방하고 문제 발생 시 효과적으로 조치할 수 있는 다양한 방법에 대해 알도록 한다. 이 강좌에서는 아동·청소년 발달을 대상으로 한 상담과 예방을 사례별로 적용에 대한 내용도 포함한다.

This course has two purposes. First, this course is intended to have pre-service teachers to understand what school violence is and rules and procedures that they have to follow to resolve the violence in school. Second, understanding the issues about character education, students’ culture, adolescents’ emotional-behavioral development characteristics, and guidance is another aim for this course.

In this course, not only conceptual understanding on school violence and children/adolescents’ development characteristics, but also practical knowledges that are required for pre-service teachers to prevent and solve school violence and other problems in school will be dealt intensively with various cases. This course also help pre-service teachers to understand the actions to prevent and report sexual violence against children/adolescents.

This course, which is a core mandatory curriculum for training intermediate school teachers, is made up of a set of lectures, discussions, and evaluation methods on the practical job at the school setting.
ment of educational materials and its pedagogical construction. The academic range of this course covers a variety of Social Studies such as history, geography, and general society.

Logic and Essay Writing in Integrated Social Studies Education

Studies such as History, general society, and geography are important parts in this course, as well as the issues of society and main topics of a variety of Social Studies. In this course, students will learn how to organize current issues of society and main topics of a variety of Social Studies such as History, general society, and geography systematically and scientifically from the integrated curriculum view and to cultivate the result logically.

Integrated Social Studies Education

This course is a core mandatory curriculum for training pre-service school teachers majoring in integrated social studies. In this course, students will survey education theories of a variety of integrated social studies from the temporal, spatial, social and ethical perspectives, and review the latest trends in the aims, curriculum, and methods of integrated social studies education in secondary school. Also, the relation between social science/personalities and integrated social studies education will be examined. The purpose of this course is based on these basic investigations, to seek the direction and methods of integrated social studies considering the present condition of Korean society. Current research tendencies and literature reviews about integrated social studies education are important parts in this course, these researches will be the basis for professionally inquiring a study of teaching materials and teaching methods.

Materials and Methods in Teaching of Integrated Social Studies Education

This course is a core mandatory curriculum for training secondary school teachers, is made up of a set of lectures, discussions, inquiry and evaluation methods on the development of educational materials and its pedagogical construction including and integrating a variety of Integrated Social Studies from the temporal, spatial, social and ethical perspectives.

Integrated Science Education

This course provides basic theories and knowledge covering the whole areas of science education, such as aims, curriculum, scientific inquiry, teaching & learning, school facilities, asessment, policy issues in science. This course pursues educational practice and knowledge reflecting the features of science as school subjects.

Materials and Methods in Teaching Integrated Science

This course has practice times following lectures, discussions, inquiry and evaluation methods on the development of educational materials and its pedagogical construction including and integrating a variety of Integrated Social Studies from the temporal, spatial, social and ethical perspectives.
701.323A Logic and Writing in Education

This course overviews methodologies for pedagogic research on school. It deals with experiment methods, data analysis, and report preparation.

701.411A History of Education

This introductory course on the history of Korean education will deal with the development of educational systems and thoughts in Korea.

701.424 Theories of Instruction

The three major factors of Korean language teaching are the Korean language, the teacher, and the learner. It is important for the teacher to help learners to enhance their linguistic competence on their own. Teaching and learning therefore should go beyond so-called teaching methods. This course will focus on a critical review and the new construction of established arguments regarding teaching and learning Korean.

701.427A Theories in Education

This course covers concepts, theories and methodologies on Education. Students can understand structures and characteristics of Education. The objective of this course is to apply theories of Education to actual school affairs including curricula and evaluation.

701.427A Theories in Education

This course covers concepts, theories and methodologies on Education. Students can understand structures and characteristics of Education. The objective of this course is to apply theories of Education to actual school affairs including curricula and evaluation.

705.313* Teaching and Learning Korean Language

This course focuses on the procedure of language thinking faculty, especially performing Korean language. Creative thinking would be expressed by formed genre essays to communicate with the Korean language community. All class participants investigate proper methodology of teaching essay writing.

705.327* Theories of Thinking Faculty of Korean Language and Essay Writing Education

This course is a comprehensive survey of basis concepts, theories and practices in learning and teaching of the English language. Throughout the course, students will become familiar with current, practical issues in the area of second language teaching and learning.
Methods of Teaching English as a Foreign Language

This course is a general introduction to theoretical foundations, such as linguistic, psycholinguistic, and sociolinguistic, as well as main theories and practices for teaching English as a foreign language. This course focuses on the latest teaching learning model according to the change of educational policy and investigates teaching methods in terms of the applicability to real-world.

Materials Evaluation and Development in Teaching English as a Foreign Language

This course focuses on enhancing prospective teachers' practical knowledge and skills in materials for English language teaching and preparing them for the teaching practice in the weeks immediately following the course as well as professional teaching after graduation. The course deals with topics related to language teaching materials including the designing of syllabi, curriculum theories, and developing as well as adapting educational materials.

Logic and Writing in Teaching English as a Foreign Language

The purpose of this course is to develop the abilities for prospective English teachers to teach English expository writing to secondary school students in the future. The course is expected to design the instructional methods for teaching English expository writing effectively.

Theories in Teaching French as a Foreign Language

This course aims to compare the characteristics of the pedagogics in the theory of foreign language education and also learn about the trends of the theories in Teaching French as a Foreign Language through the changes of curriculum and teaching materials. On the basis of these theories, students will look at various types of French textbooks and teaching materials to write their lesson plans. They will practice teaching using their lesson plans. And they can prepare for the practice teaching.
독어교육과(Dept. of German Language Education)

독어교육세미나-논리 및 논술  Seminar in German Education-Logic and Writing

본 과목은 독어교육과 관련된 다양한 주제들을 학생들이 선택하여 직접 조사, 발표하고 토론하는 세미나식 수업을 통하여 우리나라 독어교육과 관련된 제반 문제점들을 찾아내고 이에 대한 해결책을 모색해 그것을 글로 논증하는 힘을 배양하는데 그 목적이 있다.

The course examines the issues and problems in German language education in Korea by researching diverse topics. Students will then try find alternative solution to these issues and demonstrate them in writing.

독문학교수법  Teaching Methods of German Literature

본 강좌는 문학의 교육적 가치, 수업방법 등을 문학이론과 연계하여 탐색하는 강좌이다. 특히 독일의 '행동 및 생산지향 문학교수법'을 중심으로 강의가 이루어질 것이다.

This course discusses the educational value of literature and pedagogical methodologies. In particular, it focuses on “Handlungsunnd Produktionsorientierter Literaturunterricht (Actions- and Production-Oriented Literary Education).”

교육재료연구 및 지도법  Materials and Methods in Teaching German Language

본 강좌는 고등학교에서 사용되고 있는 독일어 교과서들을 분석, 비교, 검토하는 한편, 교과과정에서의 독어 수업에 적용될 수 있는 자료들을 발굴, 연구하는 데 주안점을 두고 있다.

The course analyzes and compares German textbooks. It focuses on finding and studying data applying them real class room situations.

사회과학과(Dept. of Social Studies Education)

일반사회교육론  Teaching of Social Studies

본 강좌는 사회과학과 교육에 관한 가장 기본적인 과목으로서 사회과학과의 개념과 특성, 역사적 발전과정과 기초요런 등을 학습한다. 이와 함께 고등학교 사회과학과의 목표와 교육과정 및 교육방법의 변화에 대한 고찰도 가능하며, 학생들은 사회현상의 이해 및 평가를 통해 자신의 생각과 견해를 발전시킬 수 있다.

In this basic course, students will examine the major concepts, historical development, aims and objectives, curricula, and teaching methods of secondary school social studies education and an examination of trends will be placed on the materials and methods needed to teach social studies professionally. This course also focuses on the details of the social studies curricula, such as the practice of social studies teaching and the process-centered evaluation.

사회교재연구 및 지도법  Materials and Methods in Teaching Social Studies

이 강좌에서는 학생의 논리적 사고 능력을 배양하기 위한 방법으로 논술을 사회과 교육에서 어떻게 지도할 것인가에 대해 살펴본다. 특히 특정한 사회 현상에 대해 자신의 생각을 나열하는 수준을 넘어 주장과 검증의 과정을 거친다.

This course focuses on teaching essay writing as a tool in improving students’ skill in logical thinking. Especially, it is designed to investigate the role and methods of essay writing to promote higher-order thinking skills in taking one’s stand regarding many controversial issues.
This course deals with overall contents of geography education including historical background, objectives, and analysis of the secondary school curricula. Also this course deals with major theories, methodologies, practical issues of field in geography education.

M1861.000500 지역교재연구 및 지도법 3-3-0

Methods and Materials in Teaching Geography

This course will study the theory and methodology of geographical assessment and evaluation for improving the efficiency of teaching and learning. Main purposes are to develop the strategies to provoke geographical questions and to learn practical skills through critical review.

M1861.000600 지역 논리 및 논술 3-3-0

Logic and Essay Writing in Geography

This course tries to enhance historical thinking which enables students to understand the nature of historical events contextually through time and space and to deal with historical issues and documents with a critical eye. Also it encourages students to express their opinion by their essay writing.

M1865.001300 도덕 및 윤리논리 3-3-0

Theories of Moral & Ethics Education

This course deals with overall contents of geography education including historical background, objectives, and analysis of the secondary school curricula. Also this course deals with major theories, methodologies, practical issues of field in geography education.
This course is intended to help pre-service teachers' key competencies for developing and implementing effective teaching materials and the teaching & evaluation methods that will be used when they become moral and ethical education teachers in the secondary school. For these purposes, pre-service teachers will have meaningful opportunities to analyze secondary moral education textbooks and search for these application plans. Further, they will explore the effective ways to use teaching & evaluation methods.

In this course, students will study mathematics education in terms of the related topics of computers and the Internet. Algebra-geometry education employing logo micro-world and DGS and web-based creative math will be discussed in connection with the history of mathematics.
and mathematics education will be carried out.

물리교육과(Department of Physics Education)

717.329물리교육론 3-3-0

Introduction to Physics Education

물리교육에 관한 전반적인 주제들을 학습하는 과목으로서 물리학, 물리교육학적, 물리교육과정, 물리교육평가, 물리교육시설 등 중학교 및 고등학교에서 필요한 물리교육 내용을 전반적으로 다루어 물리교육에 관한 기초적인 지식을 습득하게 한다.

As a basic course on general topics in physics education, this course will cover the history and philosophy of physics and physics education, curricula, assessment, and facilities. Through the course, students will acquire general knowledge of physics education.

717.414물리교재연구및지도법 3-2-2

Materials and Methods in Teaching of Physics

중고교물리학을 학습하고 지도하는데 사용되는 다양한 교재를 조사·분석하고 이를 기초로 효과적인 학습지도 능력을 기른다.

This class analyzes various teaching materials for secondary physics in order to develop effective teaching skills.

화학교육과(Department of Chemistry Education)

718.316화학교육론 3-3-0

Theories of Chemistry Education

중등학교 화학교육에 적용할 수 있는 행동주의 학습이론, 인지학습이론, 구성주의 학습이론과 같은 학습이론들을 다룬다. 현대의 학습이론을 강조하고, 학습양식 및 학습이론과 직접 관련이 있는 교수방법도 다룬다.

This course covers learning theories applied to chemistry instruction in secondary schools. It discusses the topics such as behavioral, cognitive, and constructivist learning theories. In addition, the course emphasizes the contemporary perspectives of learning theories.

718.419화학교육연구및지도법 3-3-0

Materials and Methods in Teaching of Chemistry

과학교육과정의 변천과 우리나라 과학 교육과정을 학습한 후, 우리나라 고등학교 화학 교재 및 중학교 과학 교재의 내용을 분석한다. 중등학교 화학수업에 적용할 수 있는 교사이론을 학습하고, 주요이론의 적용을 위한 실습을 한다. 또한, 과학-기술-사회를 강조한 교수방법과 교수자료들을 익히고, 교사의 자기 평가도 다룬다.

This course studies the chemistry pedagogy for secondary schools, through the analyses of school textbooks. In addition, the course provides relevant practices.

718.442화학교육연구 3-2-2

Research in Chemistry Education

과학과 과학교육에서의 시사점을 논의한다. 화학교육의 목적과 목표 등을 배우고, 화학을 가르칠 때 필요한 평가 이론 및 방법을 익힌다. 또한, 과학에서 학습 과정을 이해할 수 있는 학생들에게 적절한 연구방법 및 화학교육 연구내용을 다룬다.

This course discusses topics regarding contemporary theories about the nature of science. Specifically, it studies the purposes and objectives of chemistry education, as well as its evaluation methods.

과학논리 및 논술 2-2-0

Logic and Writing in Science

이 강좌에서는 과학적 사고와 이해의 특징 그리고 이를 언어적 방식을 통해 의사소통하는 활동에 대한 이론적 실천적 학습을 하 고자 한다. 특히 중등학교 교사로서 학생들에게 과학적으로 사고하고 표현하는 능력을 함양하고 이를 위한 효과적인 지도방식을 실천하는 방안을 학습하게 한다. 이를 통해 과학을 지도함에 있어서 학생들의 독서 및 토론 활동이 활발해질 수 있는 실천적 방안을 탐색한다.

This course aims to teach practical as well as theoretical knowledges of the features of the thinking and understanding in science and of the linguistic ways to communicate them. Special focus will be given to the ability of secondary teachers to improve students’ thinking and expression in science and to develop effective teaching methods. Through the course, the ways to encourage students’ reading and discussion in teaching them science will be explored.
생물교육과 (Dept of Biology Education)

719.248* 탐구학습과 생물실험 지도 3-2-2

Biological Science Lab, for Inquiry Learning

본 과목은 중등생물교육과정에서 다루어지는 실험, 실험 내용을 중점적으로 다루게 된다. 실험, 실험 내용을 실제로 시행해 보고 그 내용 자체의 이해와 함께 중등 학생들의 음바른 지도와 이해를 돕기 위한 방안을 모색하게 한다.

This course covers mainly the experiment and practice of biology in the middle school curriculum. Students can do the experiment and the practice of that curriculum themselves, and try to discover better ways of teaching the material to their future students.

M1878.000220* 생명과학교육론 3-3-0

Biology Education

중학교 과학과 고등학교 생물교육을 위한 기초과정으로서 생명 교육학 전반에 걸친 기초내용을 소개하고, 생물학과 생명교육학, 생명교육 목표 및 주요 생물학적 목표론에 중점을 두어 강의한다.

As a basic course for secondary school biology, this course introduces overall educational topics, focusing on the purposes of biology education.

721.471* 지구과학교육론 3-2-2

Earth Science Teaching Theory

지구과학교육에서는 다른 과학과목의 실험과는 실험의 형태와 방법이 현격히 다르다. 예를 들면 지질학적 분야의 실험은 실험보다는 야외조사가 기본이 되고 있으며 따라서 관련기술이 중요한 연구자료가 될 수 있다. 반면에 대기, 해양, 전문에서는 이미 생산된 자료의 조사과 분석이 중요한 연구활동이 될 수 있다. 이와 같은 탐구조사과정의 차이는 실제의 실험활동을 통하여 학생들이 몸에 익히게 한다.

This course discusses unique experimental methods in earth science education. The course adopts actual experimental activities.

721.474A* 지구과학 학습지도 및 교재연구 3-2-2

Earth Science Instruction and Learning Material

4학년에 제공되는 이 과목은 장기 교육 현장에서 활용하게 될 예비 교사를 위한 총 정리적 성격의 과목이다. 지구과학의 탐구활동을 보다 높은 차원에서 운영할 수 있도록 실험 주제의 교습을 운영한다. 이러한 면에서 지구과학교육론의 속편과 같은 성격을 가지고지만 보다 고급의 실험활동을 요구하고 있다.

This course helps students, who have almost finished their undergraduate courses, to summarize what they have learned so far regarding earth science education. The course adopts various experimental activities.

721.480* 지구과학실험 및 탐구지도 3-2-2

Earth Science Inquiry and Laboratory Teaching

이 과목은 지구과학 예비 교사들에게 지구과학을 탐구적으로 지도할 수 있는 능력을 신장시켜, 지구과학의 주요 실험 활동을 이해하고, 실험과정의 내용과 목표에 부합하는 새로운 실험 활동을 개발하는 능력을 길러주는 것을 목적으로 한다. 주요 내용은 지구과학 탐구의 특성, 지구과학 탐구 학습 지도 방법 및 유의점, 지구과학 탐구 학습 지도의 실제와 반성 및 개선, 지구과학 주요 영역의 대표적인 실험 활동, 외국의 새로운 지구과학 실험 활동, 새로운 지구과학 실험 활동 개발 및 평가 등이다.

The major purposes of this lecture are (1) to enhance earth science teacher candidates’ earth science inquiry teaching ability, (2) to introduce earth science laboratory activities, and (3) to foster ability to develop new earth science laboratory activities for school earth science classroom. The characteristics of earth science inquiry, earth science inquiry teaching methods, the practice of earth science inquiry instruction, laboratory activities in earth science, new global trends in earth science laboratory teaching, and developing new earth science laboratory activities are the major topics of the lecture.

700.401A 과학논리 및 논술 2-2-0

Logic and Writing in Science

이 강좌에서는 과학적 사고와 이해의 특징 그리고 이를 언어적 방식을 통해 의사소통하는 활동에 대한 이론적 실천적 학습을 하 고자 한다. 특히 중등학교 교사로서 학생들에게 과학적으로 사고하고 표현하는 능력을 향상하고 이를 위한 효과적인 지도방식을 탐색한다.

This course aims to teach practical as well as theoretical knowledges of the features of the thinking and understanding in science and of the linguistic ways to communicate them. Special focus will be given to the ability of secondary teachers to improve students’ thinking and expression in science and to develop effective teaching methods. Through the course, the ways to encourage students’ reading and discussion in teaching them science will be explored.
This course aims to teach practical as well as theoretical knowledges of the features of the thinking and understanding in science and of the linguistic ways to communicate them. Special focus will be given to the ability of secondary teachers to improve students' thinking and expression in science and to develop effective teaching methods. Through the course, the ways to encourage students' reading and discussion in teaching them science will be explored.

722.201A Physical Education

This course deals with basic theories of physical education curriculum, and also apply these into model-based systemic instruction. The course deals with goals and objectives, contents, methods, and assessment issues in physical education. We will analyze the development programs and teaching methods.

722.431A Logic and Essay in Physical Education

This course criticizes social problems that are related with sports. Students are encouraged to offer alternatives for existing problems, and will debate problems regarding the culture of body. We will study the history of the East and the West, as well as the moral problems related with sports.
This course will deal with the teaching and learning methodology needed in environmental education offered by schools and public institutions. It will focus on environmental education at primary and secondary schools and non-institutional environmental education. Students will search for new teaching and learning methods through field work and teaching practice.

Development of Teaching Materials in Environmental Education

The objective of this course is to enhance the students' understanding of the principles and methods of environmental teaching material development.

Logic and Essay Writing in Environment Education

In this course, students will learn how to analyzes current issues of society and main topics of environment education systematically and scientifically using environment education methodology and to cultivate the result logically.

Guidance and Counselling

This course examines the concepts and principles of guidance and counseling, discusses their theoretical and practical implications. In particular, in this course the theories, practical procedure and techniques of counseling will be included to strengthen the theoretical basics for solving problems by educational communication. This course also presents the prevention knowledge of sexual abuse and harassment against children and adolescents and the duty to report. It will develop Student Teachers’ ability to prevent and cope with sexual abuse and harassment against students in schools.
학교 현장에서의 교수·학습 이론과 실제를 다룬다. 특히, 교수 체계설계, 교육과정설계, 교육기반체계 및 매체의 교육적 활용, 교육 층 소프트웨어를 비롯한 정보통신기술의 교육적 활용 등 실질적인 지식과 기술에 대한 내용과 특성에 초점을 맞춘다. 이를 통하여 다양한 교수·학습 방법을 적용한 학습 수업의 실제 등 교육현장과 밀접한 관련이 있는 교육방법을 이해할 수 있다.

이 강좌는 교육과정의 기초와 원리에 대한 종합적인 이해를 제공하고, 교사들이 학교수준에서 교육과정을 개발하고 실천할 때 제시될 수 있는 점검을 다룬다. 이 강좌는 또한 국가교육과정에서 강조하는 창의적 체험활동과 진로교육에 대한 이해를 포함한다.

이 강좌는 기본 교육, 교육봉사활동, 평가회로 구성되며, 교육봉사활동으로 유치원 및 초등학교, 중등학교, 고등학교 학생을 대상으로 보조교사와 부진아 학생도 교육봉사활동을 실시한다.

본 강좌는 교사가 될 학생들을 대상으로 교육학개론에 대한 전 문성을 함양하는 것이 외에도 지역 사회의 학생들에게 대한 관심을 갖도록 하는 목적이 있다. 아울러 전인적인 인격을 지닌 교육실천가로서 공동체의 의식을 갖고 교사로서의 꿈을 얻기 위해선 인간이의 구현을 향하기 위한 방안을 모색하는 것이 이 강좌의 목적이었다. 이 강좌는 기본 교육, 교육봉사활동, 평가회로 구성되며, 교육봉사활동으로 유치원 및 초등학교, 중등학교, 고등학교 학생을 대상으로 보조교사, 부진아 학생도 교육봉사활동을 실시한다.

본 강좌는 교육봉사활동을 통한 학생들의 학교체험을 제공하고, 교육봉사활동을 통해 학생들의 사회성을 함양하고, 교육봉사활동을 통해 학생들의 학습성향을 더 잘 이해할 수 있도록 한다. 이 강좌는 기본 교육, 교육봉사활동, 평가회로 구성되며, 교육봉사활동으로 유치원 및 초등학교, 중등학교, 고등학교 학생을 대상으로 보조교사, 부진아 학생도 교육봉사활동을 실시한다.

본 강좌는 교육봉사활동을 통해 학생들의 사회성과 학습성향을 함양하고, 교육봉사활동을 통해 학생들의 학습성향을 더 잘 이해할 수 있도록 한다. 이 강좌는 기본 교육, 교육봉사활동, 평가회로 구성되며, 교육봉사활동으로 유치원 및 초등학교, 중등학교, 고등학교 학생을 대상으로 보조교사, 부진아 학생도 교육봉사활동을 실시한다.

이 강좌는 기본 교육, 교육봉사활동, 평가회로 구성되며, 교육봉사활동으로 유치원 및 초등학교, 중등학교, 고등학교 학생을 대상으로 보조교사, 부진아 학생도 교육봉사활동을 실시한다.

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The main objective of this course is to provide pre-service teachers with an opportunity to obtain speciality in curriculum and instruction as well as a sense of purpose as a teacher through educational volunteering program. Furthermore, it aims to develop a sense of community as a practitioner and a researcher working with a variety of students and teachers. This course is composed of educational volunteer activities and a final evaluation on the activities. To complete course requirements, students can work as an assistant teacher in elementary and secondary schools and as an after-school teacher for students with learning difficulties or students with multi-cultural backgrounds. They can also work for child-caring programs in elementary schools, educational activities in relation to the free-semester system, educational activities of talent donations, and so on.

500.E400 Educational Volunteer Service

500.E402 Teaching Practicum

This course provides experiences participating in volunteer educational programs for future teachers in the field of Plant Resources & Landscaping, Animal Resources, Agricultural Engineering, Agricultural Products Distribution, or Food Processing. Furthermore, this course requires utilization of the law in terms of school affairs.

700.020A Preparation for student management
The main objective of this course is to help the prospective teachers to adapt themselves to the secondary school setting as beginning teachers and to understand teachers’ roles and their administrative work. This course provides comprehensive topics needed for student management such as teachers’ ethics, ‘social changes and education,’ ‘career education,’ ‘school and classroom management,’ ‘academic affairs, administrative management and general administrations’. Main focus of this course is on grasping the practical knowledges and skills needed for teachers to do the practical job at the school setting.

This course provides a comprehensive introduction and review on the theory and practice of multicultural education for the pre-service teachers. By taking this course the students are expected to develop desired qualities and insights into multicultural society and schools as pre-service teachers. The course will help the students to design specific in-context activities sensitive to multicultural school environments in Korea. By actively participating at this course the students will enhance their classroom performative competences and counseling strategies for the multiracial and multi-ethnic children and youth at school. This course is composed of general lectures and workshops. In workshops the students are expected to develop and design their own subject materials with multicultural perspectives and to present and discuss them with fellow students.

이 강좌의 목적은 예비교사들이 근근 사회적 문제가 되고 있는 학교폭력에 대해 이해하고 이를 사전예방하기 위한 조치 및 사후 학교폭력 문제를 해결하는 데 필요한 규정과 절차를 이해하는 데 있다. 인성교육, 학생생활문화, 학생성장환경, 학생성공학 등 아동·청소년의 발달과 관련된 중요한 기수이며 또한 다른 영역이 다. 이를 위해 이 강좌에서는 학교폭력 및 아동·청소년 발달에 대한 개념적 이해뿐만 아니라, 실제 사례들을 중심으로 학교폭력과 기타 문제들을 예방하고 문제 발생 시 효과적으로 조치할 수 있는 다양한 방법에 대해 알도록 한다. 이 강좌에서는 아동·청소년을 대상으로 한 성장과정을 예방하고 신고하는 점에서 대한 내역도 포함한다.

This course has two purposes. First, this course is intended to have pre-service teachers to understand what school violence is and rules and procedures that they have to follow to resolve the violence in school. Second, understanding the issues about character education, students’ culture, adolescents’ emotional-behavioral development character-istics, and guidance is another aim for this course.

In this course, not only conceptual understanding on school violence and children/adolescents’ development characteristics, but also practical knowledges that are required for pre-service teachers to prevent and solve school violence and other problems in school will be dealt intensively with various cases. This course also help pre-service teachers to understand the actions to prevent and report sexual violence against children/adolescents.

The main objective of this course is to help the prospective teachers to adapt themselves to the secondary school setting as beginning teachers and to understand teachers’ roles and their administrative work. This course provides comprehensive topics needed for student management such as teachers’ ethics, ‘social changes and education,’ ‘career education,’ ‘school and classroom management,’ ‘academic affairs, administrative management and general administrations’. Main focus of this course is on grasping the practical knowledges and skills needed for teachers to do the practical job at the school setting.

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700,025 Understanding Multicultural Education

본 강좌는 다문화 교육의 이론과 실체를 가르침으로써 수강생들에 다문화 교육에 대해 천관적으로 이해하고 미래 교육자로서의 준비가 되도록 한다. 본 강좌를 통해 학생들은 다문화적 환경에서의 수업 설계와 수행 능력, 그리고 다문화가정 사례에 대한 상호 및 지도 능력을 갖출 수 있다. 강사는 일반 강의와 워크숍으로 구성되는데, 워크숍에서 수강생들은 자신의 전공과 주제에 대해 다문화교육 수업 자료를 개발하여 발표하며 관련 내용들을 대해 상호 토론을 한다.

This course provides a comprehensive introduction and review on the theory and practice of multicultural education for the pre-service teachers. By taking this course the students are expected to develop desired qualities and insights into multicultural society and schools as pre-service teachers. The course will help the students to design specific in-context activities sensitive to multicultural school environments in Korea. By actively participating at this course the students will enhance their classroom performative competences and counseling strategies for the multiracial and multi-ethnic children and youth at school. This course is composed of general lectures and workshops. In workshops the students are expected to develop and design their own subject materials with multicultural perspectives and to present and discuss them with fellow students.

705,151* Introduction to Korean Language Education

This course focuses on the procedure of language thinking, especially performing Korean language. Creative thinking would be expressed by formed genre essays to communicate with the Korean language community. All class participants investigate proper methodology of teaching essay writing.

705,313* Teaching and Learning Korean Language

In this course, not only conceptual understanding on school violence and children/adolescents’ development characteristics, but also practical knowledges that are required for pre-service teachers to prevent and solve school violence and other problems in school will be dealt intensively with various cases. This course also help pre-service teachers to understand the actions to prevent and report sexual violence against children/adolescents.

The main objective of this course is to help the prospective teachers to adapt themselves to the secondary school setting as beginning teachers and to understand teachers’ roles and their administrative work. This course provides comprehensive topics needed for student management such as teachers’ ethics, ‘social changes and education,’ ‘career education,’ ‘school and classroom management,’ ‘academic affairs, administrative management and general administrations’. Main focus of this course is on grasping the practical knowledges and skills needed for teachers to do the practical job at the school setting.

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Understanding School Violence Prevention and Students’ Developmental Characteristics

This course has two purposes. First, this course is intended to have pre-service teachers to understand what school violence is and rules and procedures that they have to follow to resolve the violence in school. Second, understanding the issues about character education, students’ culture, adolescents’ emotional-behavioral development character-istics, and guidance is another aim for this course.

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중어중문학과(Dept. of Chinese Language and Literature)

102.007A 중국어교육론 3-3-0

Teaching of Chinese

이 과목은 교육에 진출할 전공자들을 위해 개설되는 교직 과목으로 중문어 교육과 관련된 제반 문제를 학습하는 데 그 목적이 있다. 특히 한국어의 중국어 학습이 일반적으로 병합되는 여러 가지 오류와 그 문제를 효과적으로 극복할 수 있는 방법 등을 구체적인 사례를 중심으로 고찰할 것이다.

The course, designed especially for students preparing for a profession in education, aims both to develop research capabilities and to discuss specific problems in teaching the Chinese language to Korean students.

102.008 중국어교재연구 및 지도법 2-2-0

Materials and Methods in Chinese Language Education

이 과목은 교직 과목으로, 중국어학습에 필수적이라고 할 수 있는 교재의 개발과 교재에 대한 교수자 입장에서의 심층적 이해, 효율적인 지도 방법 등을 토론하기 위해 개설된 과목이다. 현장에서 중국어 교육을 담당할 전공자들은 이 과목의 수강을 통해 중국어 교육법을 체득하는 기회를 가지게 될 것이다.

A pedagogical course, this class aims to increase students' understanding of effective methods for developing and using textbooks in teaching.

102.010 중국어교과 논리 및 논술 3-3-0

Logic and Essay Writing in Chinese Curriculum

이 과목은 교직에 진출할 전공자들을 위해 개설되는 교직 과목으로, 중국어 과목의 논리 및 논술 교육을 위해 개설된 과목이다. 특히 교육 및 학습과 관련하여 창의성 발달 지도에 중점을 두며 과목과정, 평가방법, 교수법 등을 폭넓게 다룬다.

This course is designed for the students who prepare for the profession in education. The purpose of this course is to teach logic and essay writing of Chinese curriculum. Specific focus will be given to the development of creativity with regard to their learning. This course will extensively cover whole curriculum, evaluation method, and teaching method.

영어영문학과(Dept. of English Language & Literature)

707.404A 영어교육과재 및 연구법 3-3-0

Materials Evaluation and Development in Teaching English as a Foreign Language

본 강좌는 예비교사의 외국어교사에 대한 실용적인 지식과 기량의 향상에 초점을 두고, 이를 통하여 이르러는 교육실습과 졸업 이후 실제 학교 현장에서의 활용을 준비하도록 한다. 주요 내용으로는 외국어교직과정을 위한 교수목록 설계, 교재분석 방법 및 그 교수방법을 다룬다.

This course focuses on enhancing prospective teachers’ practical knowledge and skills in materials for English language teaching and preparing them for the teaching practicum in the weeks immediately following the course as well as professional teaching after graduation. The course deals with topics related to language teaching materials including the designing of syllabi, curriculum theories, and developing as well as adapting educational materials.

707.422A 영어교육논리 및 논술 2-3-0

Logic and Writing in Teaching English as a Foreign Language

이 강좌는 예비 영어교사들이 장차 중등학교 학생들에게 영어 논술을 지도할 수 있는 능력을 배양하는 것을 목적으로 한다. 강사는 영어교사들의 영어논술 작성 능력을 고양하면서 동시에 영어 논술을 효과적으로 지도할 수 있는 능력을 배양하도록 설계한다.

The purpose of this course is to develop the abilities for prospective English teachers to teach English expository writing to secondary school students in the future. The course is designed to enhance the prospective teachers’ own abilities to write English expository essays and at the same time to cultivate their instructional abilities to teach English expository writing effectively.

불어불문학과(Dept. of French Language & Literature)

708.333A 프랑스어교육과론 1 3-3-0

Theories in Teaching French as a Foreign Language 1

전통적인 교수법인 문법-번역 교수법에 반대하여 19세기 초 직업 교육법이 시도된 이래 현재 가장 널리 사용되고 있는 의사소통 접근법에 이르기까지, 프랑스어 교육법은 그 급많은 변화를 거듭해 왔다. 본 강의에서는 프랑스어 교육법의 변천과정을, 주변 학문들의 발전, 기술의 발전, 통신 수단의 발달, 등 교육법 변화에 영향을 미친 요인들에 의거하여 살펴보고, 각 교육법들이 언어의 네 기능 교육을 위해 어떤 실행방법을 밝히고 있는지를 비교 분석한다.

From teaching the grammar and the translation to teaching the conversation, the teaching method has constantly changed since the 19th century. In this course, we will look at the causes of the changes of the teaching method based on the development of related studies, the communication system and technology. We will also compare and analyze what each didactics practice for 4 types of language education.

708.334A 프랑스어교육과론 2 3-3-0

Theories in Teaching French as a Foreign Language 2

현재 가장 많이 사용되는 교수법 하에서 외국어로 의사소통 하는 능력을 향상시키기 위하여 교실에서 활용할 수 있는 여러 가지
In this course, we will look at various classroom activities to improve communication skills. Also, the effective ways to learn listening, speaking, reading and writing will be introduced.

**708.338A 프랑스어교과 논리 및 논술 3-3-0**

*Logic and Writing in Teaching French as a Foreign Language*

This course examines the issues and problems in German language education in Korea by researching diverse topics. Students will then try find alternative solution to these issues and demonstrate them in writing.

**M1853.000400 독어교재연구 및 지도법 3-3-0**

*Materials Research and Didactics in Teaching German Language*

This course analyzes and compares Korean high school textbooks. It focuses on finding and studying data applying them real class room situations.

**106.336A 러시아어교육론 3-3-0**

*Teaching Russian*

This course is designed for future teachers of the Russian Language. The purpose of the course is to familiarize students with general problems related to the teaching of Russian. Various kinds of common linguistic errors will be presented and discussed along with concrete examples and related solutions.

**106.337A 러시아어교재연구 및 지도법 3-3-0**

*Materials & Methods in Russian Language Education*

This course is designed for future teachers of the Russian Language. The purpose of the course is to enhance teaching skills through the examination of Russian texts. Students are required to present their teaching plans for the purpose of learning how to utilize audio-visual media.
This pedagogy course offers prospective Russian teachers an effective methodology of teaching thinking, reasoning and writing techniques in Russian. Differences in logical thinking between Korean and Russian cultural contexts will be thoroughly examined so that future Russian instructors can adequately explain and teach students those differences in thought and language between two languages.

This course is a core course in the field of history education. It deals with the issues and problems in teaching history at a secondary level. The historiographical background and educational basis of history teaching will be the main topics of the course.

This course investigates basic theories about teaching materials and texts in Korean history. It also offers theories on teaching and learning Korean history for prospective teachers.

This course is a core course in the field of history education. It deals with the issues and problems in teaching history at a secondary level. The historiographical background and educational basis of history teaching will be the main topics of the course.

This course is designed for future Spanish teachers. The purpose of the course is to familiarize students with general problems related to the Spanish education. Various kinds of common linguistic errors will be presented and discussed along with concrete examples and related solutions.

This course is designed for future Spanish teachers. The purpose of the course is to enhance teaching skills through the examination of Spanish texts. Students are required to present their teaching plans and learn how to utilize audio-visual media.

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문제와 사료를 비판적으로 인식하는 역사적 사고력을 신장시키고 이러한 바탕 위에서 그것을 글로 표현하는 능력을 향상시킨다.

このcourse tries to enhance historical thinking which enables students to understand the nature of historical events contextually through time and space and to deal with historical issues and documents with a critical eye. Also it encourages students to express their opinion by their essay writing.

712.402 역사교재연구 및 지도법 3-3-0
Materials and Methods in Teaching of Korean History

712.403 역력적 사고와 논술 2-2-0
Historical Thinking and Essay Writing

712.402 역사교재연구 및 지도법 3-3-0
Materials and Methods in Teaching of Korean History

철학과

113.300 철학 교육을 위한 논리학 3-3-0
Logic for Teaching Philosophy

113.318 철학교육론 3-3-0
Theories of Teaching Philosophy

철학과의 목표는 학생들의 논리적이고 비판적인 사고 능력을 증진시키는 것이다. 본 과목에서는 이를 위해 고등학교 철학 교육에서 형식 논리학과 비형식 논리학을 효과적으로 활용하는 법을 배운다. 먼저 과목 전반부에서는 형식 논리학과 비형식 논리학의 기본적 내용을 개괄한다. 과목 후반부에서는 고등학교 철학 교과서 및 관련 문헌들의 내용을 실제로 분석하고 평가하는데서 논리적 자세를 어위하게 활용할 수 있도록 검토한다.

The chief aim of teaching philosophy in high school is to enhance students’ ability to think logically and critically. This course investigates various ways to achieve this aim through the use of formal and informal logic in teaching philosophy. The first part of the course is devoted to a survey of formal and informal logic. The second part focuses on the discussion of how to apply logical knowledge to the actual analysis and evaluation of the materials in high school philosophy textbooks and related literature.

철학과의 교과목 목표는 각 피교육자로 하여금 자율적인 사고, 비판적인 사고, 반성적인 사고 등들을 함양토록 하여 건전한 성격과 도덕감을 갖춘 민주사회에 배출될 수 있도록 하는 데에 있다. 이 목표를 위해서 철학교육의 내용은 여러가지 형태와 가르치는 것이 효과적일지를 점검적으로 검토, 논의한다.

The purpose of philosophy classes in high school is to cultivate students’ autonomous, critical, and reflective thinking. This class researches and discusses how a high school philosophy education can encourage students to become creative members of a democratic society, with sound common sense and morality.
중고등학교 교육 과정에서 사용되는『철학』 및『논리학』 교과서와 교과서 자료를 분석하면서 그 활용법을 익히고, 참고 교과 개발 방법, 교안 작성법, 교수법, 학생평가방법 등을 강조하며, 마지막에는 심상 기회를 부여하여 교육 현장에 대한 적응력을 향상한다.

In this course, students will analyze junior and high school materials, utilizing referential materials, conveying in-depth understanding of current education. Methods of selecting teaching materials, utilizing teaching materials, teaching methods in secondary school social studies education and search for the right direction and methods for the improvement of Korean social studies education. The latest trends in social studies education and an examination of treatises will be important parts of the course. Emphasis will be placed on the materials and methods needed to teach social studies professionally. This course also focuses on the details of the social studies curricula, such as the practice of social studies teaching and the process-centered evaluation.

The purpose of religious education in middle and high schools is to convey knowledge about various religious traditions and phenomena in order to cultivate able students with religious sentiments who are capable of tactful social communication in multiracial and multireligious societies. This course explores proper contents and efficient ways of teaching for such educational programs.

This course focuses on figuring out efficient ways of teaching and utilizing teaching materials for religious education in middle and high schools by classifying and analyzing teaching materials, utilizing teaching materials for religious education, and teaching methods in secondary school social studies education. The latest trends in social studies education and an examination of treatises will be important parts of the course.

This course is a study of teaching materials and methods used in secondary school social studies. The purpose of the course is to help students prepare the curriculum and expose them to teaching methods in social studies in secondary schools. The emphasis is on curriculum construction, and various methods of teaching such as concept teaching, decision making, inquiry, value clarification, moral reasoning and value analysis.
Teaching Essay Writing in Social Studies

This course focuses on teaching essay writing as a tool in improving students’ skill in logical thinking. Especially, it is designed to investigate the role and methods of essay writing to promote higher-order thinking skills in taking one’s stand regarding many controversial issues.

Teaching of Social Studies

In this basic course, students will examine the major concepts, historical development, aims and objectives, curricula, and teaching methods of secondary school social studies education and search for the right direction and methods for the improvement of Korean social studies education. The latest trends in research on social studies education and an examination of treatises will be important parts of the course. Emphasis will be placed on the materials and methods needed to teach social studies professionally. This course also focuses on the details of the social studies curricula, such as the practice of social studies teaching and the process-centered evaluation.

Materials and Methods in Teaching Social Studies

This course is a study of teaching materials and methods used in secondary school social studies. The purpose of the course is to help students prepare the curriculum and expose them to teaching methods in social studies in secondary schools. The emphasis is on curriculum construction, and various methods of teaching such as concept teaching, decision making, inquiry, value clarification, moral reasoning and value analysis.
지리교육 목표와 지리교육과정에 따라 지리교육이 효율적으로 진행되었는가 평가하는 방법과 기본적인 교육평가이론 등을 학습한다. 학생들의 주요 개념과 논리에 대한 이해도를 평가하는 다양한 방법, 저질교사의 평가방법, 수행평가방법 등을 탐색하고, 학생의 탐구력을 높일 수 있는 틈을 개발하고 이를 비판적으로 검토해 보는 연습을 통하여 평가의 실제를 익힌다.

This course will study the theory and methodology of geographical assessment and evaluation for improving the efficiency of teaching and learning. Main purposes are to develop the strategies to provoke geographical thinking and to learn practical skills through critical review.

수리과학부(Dept. of Mathematical Sciences)

715.218B 수학교육과 교육공학 2-2-0
Educational Technology in Mathematics Education

컴퓨터와 인터넷은 어떤 수학을 가르치는가와 어떻게 수학을 가르치는가 하는 문제와 관련되어 있다. 이 교과에서는 이러한 문제들을 학습한다. 특히 LOGO 마이크로 월드와 움직이는 기하환경을 통한 대수-기하 학습 및 인터넷미션 창의적 수학을 수학사와 연계하여 학습한다.

In this course, students will study mathematics education in terms of the related topics of computers and the Internet. Algebra-geometry education employing logo micro-world and DGS and web-based creative math will be discussed in connection with the history of mathematics.

715.313A 수학교재연구 및 지도법 2-2-0
Materials and Methods in Teaching of Mathematics

중고등학교 수학 교재를 교수학적인 측면에서 분석하고, 이를 바탕으로 교육과정 개발과 수업 설계를 검토한다.

This class analyzes various teaching materials for secondary mathematics in order to develop effective teaching skills.

715.315* 수학교육론 3-3-0
Teaching of Mathematics

중고등학교 수학교육 과정과 수학사를 기반으로 수학 교수학습 이론과 그 적용을 다룬다.

This course aims to teach practical as well as theoretical knowledges of the features of the thinking and understanding in science and of the linguistic ways to communicate them. Special focus will be given to the ability of secondary teachers to improve students’ thinking and expression in science and to develop effective teaching methods. Through the course, the ways to encourage students’ reading and discussion in teaching them science will be explored.
Physics Teaching Methods

This course addresses the development of practices and analysis in teaching physics in our secondary school science curriculum. We will conduct the important issues such as the nature of Physics knowledge, the foundation of Physics education, theory and practices of 'good' teaching in detail. We will conduct the important issues such as the nature of Physics knowledge, the foundation of Physics education, theory and practices of 'good' teaching in detail. We expect students become a pre-service teacher who is able to do reflective practice.

Theories of Chemistry Education

This course covers learning theories applied to chemistry instruction in secondary schools. It discusses the topics such as behavioral, cognitive, and constructivist learning theories. In addition, the course emphasizes the contemporary perspectives of learning theories.

Materials and Methods in Teaching of Chemistry

This course studies the chemistry pedagogy for secondary schools, through the analyses of school textbooks. In addition, the course emphasizes the contemporary perspectives of learning theories.

Logic and Essay Writing in Science

This course provides experiences in terms of logic and essay writing for future teachers in the field of Plant Resources & Landscaping, Animal Resources, Agricultural Engineering, Agricultural Products Distribution, or Food Processing.

Furthermore, it aims to develop creative talents in relation to agriculture and life science.

The students will be able to make full use of data obtained from scanning newspapers and internet websites to support rationale of their opinion.
This course will develop ideas for fine arts education by comparing educational organization, activities, and materials. The relationship between fine arts education and fine arts materials will be studied, with an emphasis on actual arts education in schools.

600.E309A 디자인・공예교육론 3-3-0

Materials & Methods in Crafts and Design Education

This course explores the problems of essay-related Art Education through class discussion and writing. Students could practice critical writing in diverse viewpoints on traditional art, contemporary art and art education. This course is open to students who make their own career as art teachers in the art worlds.

600.E310A 디자인・공예교육연구 및 지도법 3-3-0

Materials & Methods in Crafts and Design Education

This course develops ideas for Crafts & Design education by analyzing many programs provided as new models of Crafts & Design education.

600.E311 Training in Design・Crafts Education Theory and Essay

This subject is about researching the problems for Design and Craft education through critical writing and debates. By raising students’ knowledge to adhere their critical viewpoint...
and have fundamental background understanding in the field on one hand, and make students practice critical writing with various perspectives about Design and Craft education.

생활과학대학 (College of Human Ecology)

350.301A 가정과교육론 3-3-0

Teaching of Home Economics

가정과 교육의 이론적 기초와 실제를 학습하는 것을 목표로 하며, 이러한 학습을 통해서 가정과 교육의 특성과 의의, 과목내용 체계 및 학습지도 원리를 익히고, 이를 바탕으로 가정과 교육을 보다 활성화시키기 위한 방안을 모색한다.

Based on the theory and practice of teaching home economics, the meaning, principles, and curriculum of teaching will be learned in this course.

350.302A 가정과교재연구 및 지도법 3-3-0

Materials and Methods in Home Economics Education

재 외국의 가정과 교재 개발 및 지도법, 우리나라의 중등학교 가정과 수업 실천사례의 비관적 분석 및 검토를 통해, 자주적이고 창의적인 교재 및 지도법을 개발하고자 한다.

This course is for students in the Divisions of Clothing and Textiles and the Division of Food and Nutrition who plan to obtain the home economics teaching license. The purpose of the course is to learn to develop and apply practical materials to home economics education.

350.309 가정과논술지도법 2-2-0

Logical Thinking and Writing in Home Economics Education

가정과 영역에 필요한 논리적인 사고와 글쓰기 능력을 개발하기 위해 필요한 이론을 학습하며, 이를 토대로 학생들의 창의성 발달을 도모할 수 있는 방안을 도출해보고자 한다.

This course is developed to educate how to teach logical thinking and writing in the field of home economics education. The theories and practical technics enhancing creativity through logical thinking and writing will be introduced.

음악대학 (College of Music)

650.4328 음악교재연구 및 지도법 3-3-0

Materials and Methods in Music Education

1. 음악교육의 발달 과정을 살펴본다.
2. 현대 음악교육의 철학과 방법론을 학습한다.
3. 음악과 교육과정을 분석한다.
4. 초등 음악교재를 분석한다.
5. 음악과 교수와 학습방법을 개발한다.

In this course, students will: study the developmental process of musical education; study the philosophy and methodology of modern musical education; analyze the process of music education; analyze elementary musical texts; and overview ways of teaching and learning.

650.4415 음악교육론 2-2-0

Teaching of Music

이 강좌는 실용학문인 음악교육에 대하여 개괄하고, 학교현장에서 음악교사로서 필요한 지식과 능력을 기르며 음악과목교육에 대한 기반을 다진다.

This course defines music education as a practical science. It will establish the foundation needed for music teachers, by covering subject matters, knowledge and skills necessary.

650.4417 음악의 논리와 표현 3-3-0

Logic and Expression in Music

음악의 악리적 측면에 있어서의 개념 및 용어의 정확한 이해를 도모하고 이를 통해 음악적 논리를 창작, 연주, 더 나아가 글로 정확히 표현할 수 있는 능력을 향상하게 한다.

In this <Logic and Expression in Music> class, students learn to exactly understand concepts and terms of music in terms of music theoretical aspects and cultivate abilities to express musical logic by means of composition, performance, and further, writing.