Algorithms

Course Name	Course type (credit/hours)	전필(3/3)	Course code	F072
	Target students Division/major/grade	정보및컴퓨터공학부/3학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화C(팔325) 금C(팔325)(팔325)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	자료구조
	Related basic courses	이산수학
	Recommanded concurrent courses	인공지능
	Related advanced courses	계산이론

Instructor	Name (title/division)	Yenewondim Sinshaw (조교수/소프트웨어융합대학 소프트웨어학과)			
	Office Room Number	팔달관 1011	Office phone Number	3857	e-mail
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

This course deals with principles and techniques for design and analysis of computer algorithms. The topics covered are mathematical induction, asymptotic analysis of algorithm efficiency, and algorithm design techniques including divide-and-conquer, dynamic programming, greedy method, branch-and-bound, backtracking, and iterative improvements. Elements of computational complexity theory, mostly on NP-completeness, is introduced and it is also discussed how to cope with computationally intractable problems.

2. Course Objectives

효율적인 알고리즘을 설계하고 분석할 수 있는 능력을 키운다.

3. Class types and activities

Mostly lectures.

Assignments consist of exercise problems on algorithm efficiency analysis, algorithm designs, and algorithm correctness. Students are supposed to invest considerable amount of time to understand course material and to solve assigment problems.

4. Teaching Method

[V] lecture

[ ] team project(presentation and case studies)

[ ] designing and production

[ ] others

[ ] discussion and debate

[ ] experiments(role-playing,etc)

[ ] on-site learning(on-site training)

5. Support Systems in Use

[V] e-class

[ ] cyber lecture

[ ] class behavior analyazing system

[ ] automatic recording system

[ ] blended learning(combination of online and offline teaching)

[ ] others

[ ] web-based assignment

6. Teaching Tools

[ ] PBL(Problem Based Learning)

[ ] TBL(Team Based Learning)

[ ] CBL(Case Based Learning)

[ ] others

7. Knowledge and ability required for taking this course

prerequisite knowledge: computer programming, discrete mathematics, data structures

tools: C language, ability to read textbook written in English.

기초지식: 컴퓨터 프로그래밍, 이산수학, 자료구조

도구능력: C 언어, 영문 교재를 읽고 이해할 수 있는 능력

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		5	
midterm exam	1	35	
final exam	1	40%	
quiz			
presentation			
discussion			
homework	6	20%	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Introduction to the Design and Analysis of Algorithms, 3rd Edition,	Anomy Levitin	Pearson	2012
	Foundations of Algorithms , 5th Edition,	Richard Neapolitan	Jones and Bartlett	2015

10. Class system and Class shedule

In the beginning of the course, concepts of algorithms, mathematical induction, asymptotic analysis are taught. The algorithm design techniques including dive-and-conquer, dynamic programming, greedy method, and iterative improvements. Then the students
will learn problems that do not have efficient algorithms, and how to cope with such problems.

강의 초반에는 알고리즘의 정의, 수학적 귀납법, 알고리즘 효율성의 점근적 분석법 등을 배운다. 그 다음에는 분할정복, 동적계획법, 그리디 방법, 퇴각검색, 분지한정 등의 알고리즘 설계 기법을 공부한다. 강의 후반에는 효율적인 알고리즘이 존재하지 않는 문제들이 있다는 사실을 배우고, 그러한 문제들을 다루는 방법에 대해서 공부한다.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction : Algorithm of a problem, Parameters of a Problem and an Instance of a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
2	Analysis of Algorithm Efficiency: Time Complexity and Space Complexity		Yenewondim Sinshaw	멀티미디어 활용 강의	보고서 평가	
3	Divide-and-Conquer Algorithm Design Methodology to Solve a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의		
4	Dynamic Programming Algorithm Design Methodology to Solve a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의	보고서 평가	
5	Dynamic Programming Algorithm Design Methodology to Solve a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의		
6	Greedy Algorithm Design Methodology to Solve a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의	보고서 평가	
7	Greedy Algorithm Design Methodology to Solve a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의		
8	Midterm Exam		Yenewondim Sinshaw		중간지필평가	
9	Backtracking Algorithm Design Methodology to Solve a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의		
10	Backtracking Algorithm Design Method/Branch-and-Bound Algorithm Design Methodology		Yenewondim Sinshaw	멀티미디어 활용 강의	보고서 평가	
11	Branch-and-Bound Algorithm Design Methodology to Solve a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의		
12	Lower Bounds of Sorting Problem by Comparison/ Distribution		Yenewondim Sinshaw	멀티미디어 활용 강의	보고서 평가	
13	Lower Bounds of Selection Problem		Yenewondim Sinshaw	멀티미디어 활용 강의		
14	Intractable Problems/NP-Hard Problems		Yenewondim Sinshaw	멀티미디어 활용 강의	보고서 평가	
15	Handling NP-hard Problems		Yenewondim Sinshaw	멀티미디어 활용 강의		
16	Final Exam		Yenewondim Sinshaw		기말지필평가	

11. Other items of notification

Algorithms

Course Name	Course type (credit/hours)	전필(3/3)	Course code	F073
	Target students Division/major/grade	정보및컴퓨터공학부/3학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화E(팔325) 금E(팔325)(팔325)	English Grade	A(100%English)
Reference to this course	Prerequisite courses	자료구조		
	Related basic courses	이산수학		
	Recommanded concurrent courses	인공지능		
	Related advanced courses	계산이론		

Instructor	Name (title/division)	Yenewondim Sinshaw (조교수/소프트웨어융합대학 소프트웨어학과)			
	Office Room Number	팔달관 1011	Office phone Number	3857	e-mail
	Office hours		Homepage address	biocomputing.ajou.ac.kr	
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

This course deals with principles and techniques for design and analysis of computer algorithms. The topics covered are mathematical induction, asymptotic analysis of algorithm efficiency, and algorithm design techniques including divide-and-conquer, dynamic programming, greedy method, branch-and-bound, backtracking, and iterative improvements. Elements of computational complexity theory, mostly on NP-completeness, is introduced and it is also discussed how to cope with computationally intractable problems.

2. Course Objectives

효율적인 알고리즘을 설계하고 분석할 수 있는 능력을 키운다.

3. Class types and activities

Mostly lectures.

Assignments consist of exercise problems on algorithm efficiency analysis, algorithm designs, and algorithm correctness. Students are supposed to invest considerable amount of time to understand course material and to solve assigment problems.

4. Teaching Method

[V] lecture

[ ] discussion and debate

[ ] team project(presentation and case studies)

[ ] experiments(role-playing,etc)

[ ] designing and production

[ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class

[ ] automatic recording system

[ ] web-based assignment

[ ] cyber lecture

[ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system

[ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)

[ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)

[ ] others

7. Knowledge and ability required for taking this course

prerequisite knowledge: computer programming, discrete mathematics, data structures

tools: C language, ability to read textbook written in English.

기초지식: 컴퓨터 프로그래밍, 이산수학, 자료구조

도구능력: C 언어, 영문 교재를 읽고 이해할 수 있는 능력

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		5	
midterm exam	1	35	
final exam	1	40%	
quiz			
presentation			
discussion			
homework	6	20%	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Introduction to the Design and Analysis of Algorithms, 3rd Edition	Anany Levitin	Pearson	2012
	Foundations of Algorithms , 5th Edition	Richard Neapolitan	Jones and Bartlett	2015

10. Class system and Class shedule

In the beginning of the course, concepts of algorithms, mathematical induction, aymptotic analysis are taught. The algorithm design techniques follow including dive-and-conquer. dynamic programming, greedy method, and iterative improvements. Then the students will learn that there are probelms that do not have efficient algorithms, and how to cope with such problems.

강의 초반에는 알고리즘의 정의, 수학적 귀납법, 알고리즘 효율성의 점근적 분석법 등을 배운다. 그 다음에는 분할정복, 동적계획법, 그리디 방법, 퇴각검색, 분지한정 등의 알고리즘 설계 기법을 공부한다. 강의 후반에는 효율적인 알고리즘이 존재하지 않는 문제들이 있다는 사실을 배우고, 그러한 문제들을 다루는 방법에 대해서 공부한다.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction : Algorithm of a problem, Parameters of a Problem and an Instance of a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
2	Analysis of Algorithm Efficiency: Time Complexity and Space Complexity		Yenewondim Sinshaw	멀티미디어 활용 강의	보고서 평가	
3	Divide-and-Conquer Algorithm Design Methodology to Solve a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의		
4	Dynamic Programming Algorithm Design Methodology to Solve a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의	보고서 평가	
5	Dynamic Programming Algorithm Design Methodology to Solve a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의		
6	Greedy Algorithm Design Methodology to Solve a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의	보고서 평가	
7	Greedy Algorithm Design Methodology to Solve a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의		
8	Midterm Exam		Yenewondim Sinshaw		중간지필평가	
9	Backtracking Algorithm Design Methodology to Solve a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의		
10	Backtracking Algorithm Design Method/Branch-and-Bound Algorithm Design Methodology		Yenewondim Sinshaw	멀티미디어 활용 강의	보고서 평가	
11	Branch-and-Bound Algorithm Design Methodology to Solve a Problem		Yenewondim Sinshaw	멀티미디어 활용 강의		
12	Lower Bounds of Sorting Problem by Comparison/ Distribution		Yenewondim Sinshaw	멀티미디어 활용 강의	보고서 평가	
13	Lower Bounds of Selection Problem		Yenewondim Sinshaw	멀티미디어 활용 강의		
14	Intractable Problems/NP-Hard Problems		Yenewondim Sinshaw	멀티미디어 활용 강의	보고서 평가	
15	Handling NP-hard Problems		Yenewondim Sinshaw	멀티미디어 활용 강의		
16	Final Exam		Yenewondim Sinshaw		기말지필평가	

11. Other items of notification

Basic Korean1

Course Name	Course type (credit/hours)	교선(3/3)	Course code	X347
	Target students Division/major/grade	/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월F(성201) 목F(성201)(성201)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	None		
	Related basic courses			
	Recommanded concurrent courses			
	Related advanced courses			

Instructor	Name (title/division)	김승희 (강사/대학 다산학부대학)			
	Office Room Number		Office phone Number		e-mail
	Office hours	before or after class hours by appointment	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

This course is designed for foreign students who have no or little background of learning Korean. This sixteen-week course intends to help students make rapid progress and accomplish beginning level proficiency of Korean language including Hangeul. Students are also expected to raise their understanding of Korean culture expanding their language experiences in the class.

2. Course Objectives

1. Students will be able to recognize basic words and expressions.
2. Students will be able to express their simple ideas using basic level of vocabulary and grammar in speaking and writing.
3. Students will be able to exchange information about familiar topics relating to themselves and their interests .
4. Students will be able to make discourse and communicate with classmates through class activities.
5. Students will be able to understand not only Korean culture but also other nations culture through social language experience during class.
6. By the end of the course, students are expected to be able to carry out basic level of communication skills and to broaden their understanding about Korean culture.

3. Class types and activities

1. Lectures are conducted through auxiliary materials such as textbooks, PPTs, and videos.
2. Practice Korean using handouts.
3. Promote opportunities to use Korean through partner activities and group activities.
4. Reinforcement of learning contents through 3-4 review activities.
5. Formation evaluation and self-evaluation through quizzes during class.

4. Teaching Method

[V] lecture

[V] discussion and debate

[ ] team project(presentation and case studies)

[V] experiments(role-playing,etc)

[ ] designing and production

[ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class

[ ] automatic recording system

[ ] web-based assignment

[ ] cyber lecture

[ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system

[ ] others

6. Teaching Tools

[V] PBL(Problem Based Learning)

[ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)

[ ] others

7. Knowledge and ability required for taking this course

None

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance	32	15	attendance both on the Zoom and off-line
midterm exam	1	25	mid-term exam
final exam	1	25	final exam
quiz	2	10	quiz
presentation			
discussion			
homework	5~10	20	5~8 times tasks
etc	수시	5	Class participation in live sessions and off-line sessions.
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	사랑해요 한국어1	서울대학교	서울대학교출판문화원	2019
Sub	세종한국어회화 1, E-book also available	세종학당재단	연세대학교 대학출판문화원	2018
Ref.(web)	세종누리학당 http://www.sejonghakdang.org/opencourse/lecture/list.do			

10. Class system and Class shedule

-1st part of the course : Mastering Hangeul, Korean alphabets focusing on connecting the sound of each letter and its form.

Reading and writing simple words and expressions.

-2nd Part of the course : Learning and improving basic communication skills focusing on listening, speaking, reading, and writing.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Orientation, Lesson 1. Hangeul-01	E	김승희			
2	Lesson 1. Hangeul-02	E	김승희			Main textbook

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
3	Lesson 2.Hangeul-03	E	김승희			
4	Lesson 2.Hangeul-04	E	김승희			
5	Review Hangeul+Greeting	E	김승희			
6	Lesson 3. 소개	E	김승희			
7	Lesson 3. 소개	E	김승희		Quiz-1(Written)	
8	Lesson 4. 물건	E	김승희			
9	Lesson 4. 물건	E	김승희			
10	Mid-term exam	E	김승희		Written test	
11	Lesson 5. 음식과 주문	E	김승희			
12	Lesson 5. 음식과 주문	E	김승희			
13	Lesson 6. 일상생활	E	김승희		Quiz-2(Written)	
14	Speech exercise & Review	E	김승희			
15	Speech	E	김승희		Speaking test	
16	Final Exam	E	김승희		Written test	

11. Other items of notification

Basic Korean1

Course Name	Course type (credit/hours)	교선(3/3)	Course code	X349
	Target students Division/major/grade	/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월B(성201) 목B(성201)(성201)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	None		
	Related basic courses			
	Recommanded concurrent courses			
	Related advanced courses			

Instructor	Name (title/division)	정미혜 (강사/대학 다산학부대학)			
	Office Room Number		Office phone Number		e-mail
	Office hours	before or after class hours by appointment	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

This course is designed for foreign students who have no or little background of learning Korean. This sixteen-week course intends to help students make rapid progress and accomplish beginning level proficiency of Korean language including Hangeul. Students are also expected to raise their understanding of Korean culture expanding their language experiences in the class.

2. Course Objectives

1. Students will be able to recognize basic words and expressions.
2. Students will be able to express their simple ideas using basic level of vocabulary and grammar in speaking and writing.
3. Students will be able to exchange information about familiar topics relating to themselves and their interests .
4. Students will be able to make discourse and communicate with classmates through class activities.
5. Students will be able to understand not only Korean culture but also other nations culture through social language experience during class.
6. By the end of the course, students are expected to be able to carry out basic level of communication skills and to broaden their understanding about Korean culture.

3. Class types and activities

1. Lecture type: Mixed with lecture, asking and answering, team activities, oral presentation.
2. Class procedure: Dictation-Lecture-Speaking and Listening Practice-Individual or team presentation
3. Class Material: Everyday lesson will be delivered using main textbook with extra visual aids PPT.
4. Self Practice: After each lesson, students need to practice things they learned from the worksheets. Homework also will be given from the worksheets.

4. Teaching Method

[V] lecture

[ ] team project(presentation and case studies)

[ ] designing and production

[ ] others

[V] discussion and debate

[V] experiments(role-playing,etc)

[ ] on-site learning(on-site training)

5. Support Systems in Use

[V] e-class

[ ] cyber lecture

[ ] class behavior analyazing system

[ ] automatic recording system

[ ] blended learning(combination of online and offline teaching)

[ ] others

[ ] web-based assignment

6. Teaching Tools

[V] PBL(Problem Based Learning)

[V] TBL(Team Based Learning)

[ ] CBL(Case Based Learning)

[ ] others

7. Knowledge and ability required for taking this course

None

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance	32	15	Attendance. 1 point reduction whenever 1 day absent. Students must attend 1/4 of total classes to receive an official grade.
midterm exam	1	25	Written Exam.
final exam	1	25	Oral Exam.
quiz	3~4	20	Dictation and writing
presentation			
discussion			
homework	10~12	10	Writing and voice recording
etc		5	Class participation
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	사랑해요 한국어 1 I Love Korean	서울대학교 언어교육원	서울대학교출판문화원	2019
Ref.	세종한국어 회화 1(English version). E-book also available/ 세종누리학당 http://www.sejonghakdang.org/opencourse/lecture/list.do	세종학당재단	세종학당재단	

10. Class system and Class shedule

-1st Session(1~6 week): Mastering Hangeul, Korean alphabets focusing on connecting the sound of each letter and its form. Reading and writing simple words and expressions.

-2nd Session(7~end): Learning and improving basic communication skills focusing on listening, speaking, reading, and writing.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Orientation	E	정미혜	Lecture		
2	Introduction to Korean Language	E	정미혜	Lecture		Main textbook
3	Lesson 1: Hangeul(1)	E	정미혜	Lecture		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Lesson 1: Hangeul(2)	E	정미혜	Lecture, Q & A	Quiz-1(Written)	
5	Lesson 2: Hangeul(3)	E	정미혜	Lecture, Q & A		
6	Lesson 3: Self-Introduction	E	정미혜	Lecture, Q & A	Quiz-2(Written)	
7	Lesson 3: Self-Introduction	E	정미혜	Lecture, Q & A		
8	Lesson 4: Items and Objects	E	정미혜			
9	Lesson 4: Items and Objects	E	정미혜			
10	Mid-term exam	E	정미혜		Written Exam.	
11	Lesson 5: Food and Orderings	E	정미혜			
12	Lesson 6: Daily Life	E	정미혜			
13	Lesson 6: Daily Life	E	정미혜		Quiz-3(Written	
14	Lesson 7: Shopping	E	정미혜			
15	Lesson 8: Times and Dates	E	정미혜			
16	Final Exam	E	정미혜		Oral exam.	

11. Other items of notification

Basic Korean1

Course Name	Course type (credit/hours)	교선(3/3)	Course code	X350
	Target students Division/major/grade	/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월D(성201) 목D(성201)(성201)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	None		
	Related basic courses			
	Recommanded concurrent courses			
	Related advanced courses			

Instructor	Name (title/division)	정미혜 (강사/대학 다산학부대학)			
	Office Room Number		Office phone Number		e-mail
	Office hours	before or after class hours by appointment	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

This course is designed for foreign students who have no or little background of learning Korean. This sixteen-week course intends to help students make rapid progress and accomplish beginning level proficiency of Korean language including Hangeul. Students are also expected to raise their understanding of Korean culture expanding their language experiences in the class.

2. Course Objectives

1. Students will be able to recognize basic words and expressions.
2. Students will be able to express their simple ideas using basic level of vocabulary and grammar in speaking and writing.
3. Students will be able to exchange information about familiar topics relating to themselves and their interests .
4. Students will be able to make discourse and communicate with classmates through class activities.
5. Students will be able to understand not only Korean culture but also other nations culture through social language experience during class.
6. By the end of the course, students are expected to be able to carry out basic level of communication skills and to broaden their understanding about Korean culture.

3. Class types and activities

1. Lecture type: Mixed with lecture, asking and answering, team activities, oral presentation.
2. Class procedure: Dictation-Lecture-Speaking and Listening Practice-Individual or team presentation
3. Class Material: Everyday lesson will be delivered using main textbook with extra visual aids PPT.
4. Self Practice: After each lesson, students need to practice things they learned from the worksheets. Homework also will be given from the worksheets.

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies)   [V] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[V] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[V] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

None

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance	32	15	Attendance. 1 point reduction whenever 1 day absent. Students must attend 1/4 of total classes to receive an official grade.
midterm exam	1	25	Written Exam.
final exam	1	25	Oral Exam.
quiz	3~4	20	Dictation and writing
presentation			
discussion			
homework	10~12	10	Writing and voice recording
etc		5	Class participation
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	사랑해요 한국어 1 I Love Korean	서울대학교 언어교육원	서울대학교출판문화원	2019
Ref.	세종한국어 회화 1(English version). E-book also available/ 세종누리학당 http://www.sejonghakdang.org/opencourse/lecture/list.do	세종학당재단	세종학당재단	

10. Class system and Class shedule

-1st Session(1~6 week): Mastering Hangeul, Korean alphabets focusing on connecting the sound of each letter and its form. Reading and writing simple words and expressions.

-2nd Session(7~end): Learning and improving basic communication skills focusing on listening, speaking, reading, and writing.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Orientation	E	정미혜	Lecture		
2	Introduction to Korean Language	E	정미혜	Lecture		Main textbook
3	Lesson 1: Hangeul(1)	E	정미혜	Lecture		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Lesson 1: Hangeul(2)	E	정미혜	Lecture, Q & A	Quiz-1(Written)	
5	Lesson 2: Hangeul(3)	E	정미혜	Lecture, Q & A		
6	Lesson 3: Self-Introduction	E	정미혜	Lecture, Q & A	Quiz-2(Written)	
7	Lesson 3: Self-Introduction	E	정미혜	Lecture, Q & A		
8	Lesson 4: Items and Objects	E	정미혜			
9	Lesson 4: Items and Objects	E	정미혜			
10	Mid-term exam	E	정미혜		Written Exam.	
11	Lesson 5: Food and Orderings	E	정미혜			
12	Lesson 6: Daily Life	E	정미혜			
13	Lesson 6: Daily Life	E	정미혜		Quiz-3(Written	
14	Lesson 7: Shopping	E	정미혜			
15	Lesson 8: Times and Dates	E	정미혜			
16	Final Exam	E	정미혜		Oral exam.	

11. Other items of notification

Bioinformatics

Course Name	Course type (credit/hours)	전필(3/3)		Course code	G062
	Target students Division/major/grade	생명과학과/3학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	월C(성103) 수C(성103)(성103)		English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	대화형프로그래밍, 통계 및 프로그래밍 관련 기타 과목
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	박대찬 (부교수/자연과학대학 생명과학과)			
	Office Room Number	원천관203	Office phone Number	2514	e-mail
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

This course is an introductory bioinformatics, foucusing on quantitative analysis of high-throughput biological data, computer algorithms, and typical data analysiss. Topics will cover basics of Python programming and analysis of nucleic acid sequence, Next Generation Sequencing, functional genomics, large-scale gene expression data, data clustering and regular expression. Students will learn key concepts of bioinformatics algorithms and theories using Python. However, note that this is not a course on learning Python programming (although we will use a few), but rather on algorithms, exploratory data analyses and their applications in high-throughput biology.

2. Course Objectives

- 교육목표
생명공학을 전공하는 학생들에게 생물학적 데이터가 주어졌을 때 정량적으로 접근하여 문제점을 해결 하고, 다양한 오픈 소프트웨어를 사용하여 데이터를 분석하고 결과를 해석할 수 있는 능력을 키우는 것을 목표로 한다.

- 학습성과
바이오인포매틱스 알고리즘의 이론적 배경을 이해한다.
연구 목적에 맞는 바이오인포매틱스 연구를 디자인하고, 데이터 종류에 맞는 분석을 전략을 수립한다.
정량적 데이터 분석 결과의 의미를 해석하고 이해한다
실험으로 생산된 데이터들을 다양한 바이오인포매틱스 분석 도구를 이용하여 분석한다.

3. Class types and activities

1. Students discuss and practice in class room after watching recording lectures.
2. We learn bioinformatics algorithms in 2nd to 5th week, and students watch a recording lecture on a topic for the week. Then, students participate lecture and practice in class room.
3. From 6th week, we learn bioinformatics using Biopython.
4. Prior to the midterm, students focus on learning bioinformatics algorithms and are familiar with the Python environment. After the midterm, students have weekly assignment and quizz.
5. The midterm and final exams are taken in classroom on campus. The midterm covers bioinformatics theories and algorithms whereas the final is project-based and poster presentation.

4. Teaching Method

[V] lecture   [ ] discussion and debate

[ ] team project(presentation and case studies) [V] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [V] web-based assignment

[ ] cyber lecture   [V] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[V] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

Python설치 및 컴퓨터 프로그래밍의 필요성에 대한 이해

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10	10점 만점에서 1회 결석마다 1점씩 감점처리함. 대리 출석 적발시 0점 처리함. (참고: 8회 이상 결석 및 상습적 대리출석의 경우 F 처리함) 지각 3회면 결석 1회로 처리함
midterm exam		30	대면시험
final exam		30	개인 프로젝트
quiz		10	실시간으로 프로그래밍을 하여 제출하는 과제. 1주 전 숙제 과제와 거의 동일한 문제로, 숙제를 직접했으면 어렵지 않게 풀 수 있는 퀴즈로 구성
presentation			
discussion			
homework		10	집에서 숙제로 제출하는 프로그래밍 과제
etc		10	수업 태도 및 pop quiz
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	파이썬을 이용한 생명정보학 실습 워크북	박대찬	아주대학교	2020
Sub	An Introduction to Bioinformatics Algorithms	Neil C. Jones and Pavel A. Pevzner	The MIT Press	2004

10. Class system and Class shedule

1. 바이오인포매틱스 알고리즘 소개
2. Python에 대한 이해 및 실습
3. 분석방법별 이론 학습 (Regular expression, Alignment, NGS, Clustering, Gene expression analysis, PCA)
4. Python을 이용한 생명정보학 문제 실습

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction	E	박대찬	이론 강의		
2	Bioinformatics algorithm 1	E	박대찬	이론 강의		녹화강의 시청

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
3	Bioinformatics algorithm 2	E	박대찬	이론 강의		녹화강의 시청
4	Bioinformatics algorithm 3	E	박대찬	이론 강의		녹화강의 시청
5	Bioinformatics algorithm 4	E	박대찬	이론 강의		녹화강의 시청
6	Python programming 1	E	박대찬	파이썬 실습		
7	Python programming 2	E	박대찬	파이썬 실습		
8	중간고사	E	박대찬			
9	Introduction to Biopython	E	박대찬	파이썬 실습		
10	Running queries on Entrez	E	박대찬	파이썬 실습		
11	Using regular expressions to analyze data	E	박대찬	파이썬 실습		
12	Alignment	E	박대찬	파이썬 실습		
13	Phylogenetic tree & BLAST	E	박대찬	파이썬 실습		
14	NGS & Gene expression analysis	E	박대찬	이론 설명		녹화강의 시청
15	Data clustering & dimensionality reduction	E	박대찬	파이썬 실습		
16	기말고사	E	박대찬			

11. Other items of notification

Business Software

Course Name	Course type (credit/hours)	전선(3/3)		Course code	I114
	Target students Division/major/grade	e-비즈니스학과/4학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	수B(다308) 금B(다308)(다308)		English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	김태훈 (조교수/경영대학 e-비즈니스학과)				
	Office Room Number	다산관 431호	Office phone Number	2719	e-mail	
	Office hours		Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	hjc10001@ajou.ac.kr

1. Introduction

The emerging technology enables firms to collect, process, analyze, and communicate large-scale data to achieve business value. Such skills of data scientists are essential to figure out customer needs and predict market trends over time. In this course, we will discuss the conceptual approaches towards the practice of data analytics to be well-prepared data scientists who can suggest hidden insights and helpful implications on businesses and be professional and successful for your future careers.

2. Course Objectives

This course introduces the fundamentals of data analytics. In class, students will use Microsoft Excel and Tableau to address business questions and discover insights by utilizing various data sets.

Upon completion of this course, students shall be able:
1. to become familiar with fundamental concepts of data analytics via lectures;
2. to perform data analytics with Microsoft Excel and Tableau via a series of in-class exercises;
3. to demonstrate data-driven insights on your own business questions by completing group projects;
4. to discuss the business-related value and opportunities of big-data initiatives by conducting case studies.

This course will also provide students with:
1. clear and deep understanding of different types of data characteristics;
2. analytics skills in analyzing large-scale data practically;
3. own logical reasoning in producing quality documents on findings and insights;
4. professional presentation skills to communicate data and findings as well as to suggest insights;
5. ability to lead a task group and work with group members effectively and efficiently;
6. preparation for future careers as data scientists in business and social environments.

3. Class types and activities

This course focuses on how to utilize software (i.e., Microsoft Excel and Tableau) with business analytics to support decision-making. A business needs to employ data visualization and predictive analytics to translate data into reliable information and insightful decisions to be competitive. This course will give you the practical insights and skills required to succeed as a data scientist in today's highly analytical and data-driven digital economy.

4. Teaching Method

- [V] lecture
- [V] team project(presentation and case studies)
- [ ] designing and production
- [ ] others

- [V] discussion and debate
- [ ] experiments(role-playing,etc)
- [ ] on-site learning(on-site training)

5. Support Systems in Use

- [V] e-class
- [ ] cyber lecture
- [ ] class behavior analyazing system

- [V] automatic recording system
- [V] blended learning(combination of online and offline teaching)
- [ ] others

- [ ] web-based assignment

6. Teaching Tools

- [V] PBL(Problem Based Learning)
- [V] TBL(Team Based Learning)

- [V] CBL(Case Based Learning)
- [ ] others

7. Knowledge and ability required for taking this course

Students need to participate in discussions in class actively with your own reasoning and questions. They can learn more with fun when they try to see the exciting phenomena and business opportunities with their active curiosity, as one of our historic scientists pointed out:

"The important thing is not to stop questioning. Curiosity has its own reason for existing. One cannot help but be in awe when [she]he contemplates the mysteries of eternity, of life, of the marvelous structure of reality. It is enough if one tries merely to comprehend a little of this mystery every day. Never lose a holy curiosity." --Albert Einstein, from the memoirs of William Miller quoted in Life magazine, p. 281, May 2, 1955.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	100 points
midterm exam		20%	200 points
final exam		20%	200 points
quiz			
presentation			
discussion			
homework		20%	In-class practice: 200 points
etc		30%	Individual/group project: 300 points
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Business Analytics, 3rd Edition	James R. Evans	Pearson	2020

10. Class system and Class shedule

A series of in-class practice will provide insights and lessons on assignments and exams. Lectures will prepare students for case studies and group projects.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Ch 1. Introduction to Business Analytics	E	김태훈	Lecture & in-class practice		
2	Ch 2. Database Analytics	E	김태훈	Lecture & in-class practice		
3	Ch 3. Data Visualization	E	김태훈	Lecture & in-class practice		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Ch 4. Descriptive Statistics	E	김태훈	Lecture & in-class practice		
5	Ch 5. Probability Distributions & Data Modeling	E	김태훈	Lecture & in-class practice		
6	Ch 6. Sampling & Estimation	E	김태훈	Lecture & in-class practice		
7	Guest Speaker Presentation & Wrap-Up	E	김태훈	Lecture & in-class discussion		
8	Midterm Exam	E	김태훈	Exam		
9	Ch 7. Statistical Inference	E	김태훈	Lecture & in-class practice		
10	Ch 8. Trendlines & Regression Analysis	E	김태훈	Lecture & in-class practice		
11	Ch 16. Decision Analysis	E	김태훈	Lecture & in-class practice		
12	Practice with Tableau	E	김태훈	Lecture & in-class practice		
13	Practice with Tableau (continued)	E	김태훈	Lecture & in-class practice		
14	Guest Speaker Presentation & Wrap-Up	E	김태훈	Lecture & in-class discussion		
15	Group Project Presentations	E	김태훈	In-class discussion		
16	Final Exam	E	김태훈	Exam		

11. Other items of notification

Note. The above class schedule is tentative and subject to change as the semester progresses.

Office hours. A student can set a Zoom meeting by appointment whenever she/he needs any advice or help on the coursework. Please feel free to email the instructor (at: taehunkim@ajou.ac.kr) to set a meeting when you are available.

Special needs. Students with special needs should speak with me at the beginning of the semester to accommodate any special requirements. As an instructor, I must maximize everyone's learning opportunities and experiences for your pleasant and productive semester.

Attendance. Note that the students who do not attend regularly (i.e., less than 75% of all the classes) without any right reasons fail this course.

Academic integrity. It is assumed that all work done for credit will result from the individual's or authorized group's unaided effort. Anyone who either gives or receives unauthorized assistance in preparing work at home or during exams in class will be subject to disciplinary action under the provisions and policies set forth by the university. Your signature on any piece of submitted work will provide assurance that you have neither given nor received any unauthorized help in its preparation.

In addition, plagiarism or any form of cheating involves a breach of student-teacher trust. That is, any work submitted under your name is expected to be your own. Be sure to document all ideas that are not your own. Instances of plagiarism or any other act of academic dishonesty will be reported to the school and may result in failure of the course. Not understanding plagiarism is not an excuse.

Business Statistics and Data Analysis

Course Name	Course type (credit/hours)	교필(3/3)	Course code	I004
	Target students Division/major/grade	경영학과/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화D(연암507) 목C(연암507)(연암507)	English Grade	A(100%English)

Reference to this course	Prerequisite courses			
	Related basic courses			
	Recommanded concurrent courses			
	Related advanced courses			

Instructor	Name (title/division)	황재연 (강사/경영대학 경영학과)		
	Office Room Number		Office phone Number		e-mail	
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)			
	Office Room Number		Office phone Number		e-mail	

1. Introduction

This is an introductory course in statistics for undergraduate students in business and economics. The course is designed to let students get familiar with basic statistical concepts and methods. The main subject in the course is statistical inference theory, which requires knowledge of basic probability theory. Students will learn some elements of probability theory, random variables, probability distributions, point estimation, confidence intervals, and hypothesis testing. In addition, basic theories on the classical regression will be discussed in the later part of the course. Microsoft Excel will be used for data handling and calculating test statistics.

2. Course Objectives

The scientist observes nature, formulate a theory, and then tests this theory against observation. In the context of statistics, scientist poses a hypothesis concerning one or more population parameters-that they equal specified values. She then samples the population and compares her observation with the hypothesis. If the observations disagree with the hypothesis, the scientist reject it. If not, she concludes either the hypothesis is true or that the sample did not detect the difference between the real and hypothesized values of the population parameter. Studying statistics allows you to get familiar to the scientific method of analysis widely applied in business and all the social and natural sciences.

과학자들은 자연현상이나 현실경제로부터 일반화된 이론을 도출하고 그 이론을 다시 관찰에 의해 검증하게 됨. 통계학 맥락에서 보면 과학자들은 모집단의 특성에 관한 이론적 가설을 제기하고 모집단으로부터 표본을 추출하여 관찰치가 가설과 일치하는지 여부를 확인. 관찰치가 가설이 주장하는 바와 크게 차이가 날 경우 그 가설을 옳지 않다고 기각하지만, 관찰치가 가설이 주장하는 바와 크게 차이가 나지 않을 경우에는 가설이 옳을 수도 있고 혹은 표본이 주장하는 가설을 기각할만큼 큰 차이를 보이지 않는다고 결론을 내림.
요약하면 통계학은 이론이 제시하는 가설을 현상에 비춰 논리적으로 검증하는 방법론임. 각각의 가설을 현상에 비추어 반증을 시도하고 반증하지 못한 가설은 현상을 설명하는 이론의 후보로서 잠정적으로 수용할 뿐임. 통계학을 배움으로서 타당한 주장과 근거없는 주장을 식별할 수 있게 될 것임

3. Class types and activities

Lecturing: basic concepts and theories
Having a Q and A sessions and strongly recommend your partipcipation.
At least 4 times of Homeworks
Good at Microsoft Excel program will make you more comepetent in your career.

4. Teaching Method

☑	lecture	☑	discussion and debate
☐	team project(presentation and case studies)	☐	experiments(role-playing,etc)
☐	designing and production	☐	on-site learning(on-site training)
☐	others		

5. Support Systems in Use

☑	e-class	☐	automatic recording system	☐	web-based assignment
☑	cyber lecture	☐	blended learning(combination of online and offline teaching)		
☐	class behavior analyazing system	☐	others		

6. Teaching Tools

☐	PBL(Problem Based Learning)	☐	CBL(Case Based Learning)
☐	TBL(Team Based Learning)	☐	others

7. Knowledge and ability required for taking this course

Math knowledge of high school level and good at Microsoft Excel program

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		5	
midterm exam	1	30	multiple choice and problem solving
final exam	1	50	multiple choice and problem solving
quiz			
presentation			
discussion			
homework	4	15	keep the due dates
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Statistics for Management and Economics, 11th ed	Gerald Keller	Cengage	2018

10. Class system and Class shedule

Descriptive Statistics: the methods of organizing, summarizing, and presenting data in a convenient and informative way
  - Graphical techniques
  - Numerical techniques
Inferential Statiscics
  - probability theory
  - random variables
  - probability distribution theory
  - estimation theory: point and interval estimation
  - hypothesis testing
  - simple regression analysis

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction: The Nature of Statistics	E	황재연	Lecture		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
2	Descriptive Statistics: Graphical and Numerical Techniques Types of Data, Measures of Central Location, Variability, Relative Standing, and Linear Relationship, Data Collection and Sampling	E	황재연	Lecture		
3	Assigning Probability to Events, Random Experiment, Sample Space, Probability Model, Axioms of Probability, Joint (Marginal, Conditional) Probability, Probability Rules and Trees, Stochastic Independence, Bayes' Law	E	황재연	Lecture		
4	Random Variables and Probability Distributions, Bivariate Distributions, Random Variables-Discrete and Continuous, Probability Distribution Functions, Probability Mass Function, (Bernoulli,)Binomial Distribution, Poisson Distribution	E	황재연	Lecture		
5	Probability Density Functions, Normal Distribution, Some Special Distribution Functions: Exponential Distribution, t-, Chi-Squared and F-Distribution	E	황재연	Lecture		
6	Sampling Distributions of the Mean, a Proportion, and the Difference between Two means	E	황재연	Lecture		
7	Sampling Distributions : Populations and Samples, Sample Distributions, Sample Moments and statistics, Law of large Numbers and Central Limit Theorem	E	황재연	Lecture		
8	Midterm Exam	E	황재연			
9	Estimation : Properties of Estimators- Unbiasedness, Efficiency, and Consistency, Confidence Interval Estimator	E	황재연	Lecture		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
10	Introduction to Hypothesis Testing : Type I and Type II Errors, Size of a Test, Power Function, P-Value, Testing the Population Mean	E	황재연	Lecture		
11	Inference about Comparing Two Populations : Inference about the Difference between Two Means, Inference about the Ratio of Two Variances, Inference about the Difference between Two Population Proportion	E	황재연	Lecture		
12	One-Way Analysis of Variance, Multiple Comparisons, Analysis of Variance Experimental Designs, Randomized Block(Two-Way) Analysis of Variance, Two-Factor Analysis of Variance	E	황재연	Lecture		
13	Simple Regression : Model, Estimating the Coefficients, Error Variable and Its Required Conditions	E	황재연	Lecture		
14	Simple Regression: Assessing the Model, Using the Regression Equation, Regression Diagnostics	E	황재연	Lecture		
15	Review: 9-15weeks	E	황재연	Lecture		
16	Final Exam	E	황재연			

11. Other items of notification

Ceramics Processing

Course Name	Course type (credit/hours)	전선(3/3)	Course code	D052
	Target students Division/major/grade	화공·신소재공학부/3학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화B(팔207) 목A(팔207)(팔207)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	화학1 또는 물리1
	Related basic courses	재료과학
	Recommanded concurrent courses	세라믹재료의 구조와 물성
	Related advanced courses	전자세라믹스

Instructor	Name (title/division)	조성범 (조교수/공과대학 신소재공학과)				
	Office Room Number		Office phone Number		e-mail	
	Office hours	편한 시간에 사전 예약 후	Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number	010-7200-3109	e-mail	aspen2011@gmail.com

1. Introduction

2. Course Objectives

　* 교육목표
세라믹스의 제조공정, 품질관리, 재료설계의 분야를 다루면서 세라믹재료의 제조공정설계, 품질관리, 재료 선택 등을 수행하는 능력 배양을 교육목표로 한다.

　* 교과목 학습성과
1. 나노재료를 포함한 신소재의 제조공정 이해
2. 품질관리의 이해와 방법설계
3. 파괴해석을 통한 재료관찰과 분석 방법
4. 제조 생산 최적화 설계 능력

3. Class types and activities

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[V] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

재료과학과 공학의 기초적 이해

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	
midterm exam		25%	
final exam		25%	
quiz			
presentation		30%	프로젝트발표 및 기타 발표
discussion			
homework		10%	리포트
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Ref.	Physical Ceramics	W. D. Kingery	Willy	1997
Ref.	세라믹공학	N. Soga	북스힐	2005
Ref.	최신 세라믹공학	D. W. Richerson	반도	1995
Ref.	Mordern Ceramic Engineering, 3rd Ed.	D. W. Richerson	Taylor & Francis	2006
Sub	Ceramic Processing and Sintering	M.N. Rahaman	CRC Press	2003
Main	Principles of Ceramic Processing	James Reed	Wiley	1995

10. Class system and Class shedule

1) 신소재 세라믹스와 다양한 무기나노재료의 전반적인 제조공정

2) 실험계획 및 데이터과학을 활용한 제조 공정의 최적화 전략

3) 배터리, 연료전지, MLCC 등 주요 세라믹공정 활용 산업의 연구개발 전략

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Orientation		조성범	강의, 토론		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
2	Powder Preparation		조성범	강의, 토론		
3	Powder Characterization		조성범	강의, 토론		
4	Additives		조성범	강의, 토론		
5	Colloidal Processing		조성범	강의, 토론		
6	Mid-term		조성범	평가	중간시험실시	
7	Green body I		조성범	강의, 토론		
8	Green body II		조성범	강의, 토론		
9	Sintering I		조성범	강의, 토론		
10	Sintering II		조성범	강의, 발표, 토론		
11	Process Optimization I		조성범	강의, 토론		
12	Process Optimization II		조성범	강의, 토론		
13	Final		조성범	평가	기말시험실시	
14	Invited Talk & Project Discussion		조성범	강의, 발표		
15	Project Presentation I		조성범	발표, 토론		
16	Project Presentation II		조성범	발표, 토론		

11. Other items of notification

세라믹 공정 디지털 전환 전문가 초청 강연

세라믹 공정을 활용한 제품 설계 및 개선방안 프로젝트 포함

Colloquium in Biological SciencesII(Capstone Design)

Course Name	Course type (credit/hours)	전필(1/1)	Course code	G058
	Target students Division/major/grade	생명과학과/4학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	토1(원534-2)(원534-2)	English Grade	A(100%English)
Reference to this course	Prerequisite courses	생명과학과 또는 관련학과 전공필수 또는 전공 선택 교과목 3개 이상		
	Related basic courses	생물학 또는 생명과학, 생물학 또는 생명과학 실험		
	Recommanded concurrent courses	생명과학특수연구 I		
	Related advanced courses	생명과학과 또는 관련학과 대학원 세미나		

Instructor	Name (title/division)	이창한 (조교수/자연과학대학 생명과학과)				
	Office Room Number	원천관 202호	Office phone Number	2621	e-mail	
	Office hours		Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

This course is designed to equip 4th year undergraduate students for successful professional life. In this course, students will learn problem solving ability and communication and presentation skills through literature survey and analysis of data/informations, Thus, this course provides students opportunity to get practical application ability for industry-university-institute collaboration research and development and have backgrounds for field training.

2. Course Objectives

◇ 교육목표
자연과학 또는 공학을 전공하는 고학년 (3학년 또는 4학년) 학생들에게 사회진출 이후 전공관련 실무적 능력 중의 하나인 발표 자료 준비와 발표 능력을 배양한다. 과학도/공학도/약학도/의학도가 해결하여야할 학문적/사회적/산업적인 문제의 원인과 결과를 정확히 파악하고, 이를 해결하는 능력을 키우기 위하여, 학생 또는 팀의 관심 주제를 정하고, 이 주제에 대한 문헌 및 데이터/정보 탐색과 정리-분석을 실시하여 그에 대하여 발표하고 상호 의견을 교환하며 소통하는 과정을 학습한다.

◇ 교과목 학습성과
본 강좌를 수강한 학생은,
- 과학도/공학도/약학도/의학도가 해결하여야할 학문적/사회적/산업적인 문제 혹은 주제에 대하여 인식한다.
- 문제해결 방법 혹은 관심주제에 대한 탐구 방법을 강구한다.
- 관심 주제(문제)에 대한 문헌 및 데이터/정보 탐색 결과를 분석하고 정리할 수 있다.
- 학문적/사회적/산업적인 문제 혹은 주제에 대하여 정리된 자료를 바탕으로 조리있게 발표하고 상호 의견을 교환하며 소통할 수 있다.

3. Class types and activities

Firstly, students determine a subject, which they are interested in or should be solved in terms of scientific/industrial/social issues/problems etc
Secondly, students survey literatures, database, journals, or any informatic sources.
Thirdly, students organize materials.
Lastly, students present.

4. Teaching Method

☐	lecture	☑	discussion and debate
☑	team project(presentation and case studies)	☐	experiments(role-playing,etc)
☐	designing and production	☐	on-site learning(on-site training)
☐	others		

5. Support Systems in Use

☑	e-class	☐	automatic recording system	☐	web-based assignment
☐	cyber lecture	☑	blended learning(combination of online and offline teaching)		
☐	class behavior analyazing system	☐	others		

6. Teaching Tools

☐	PBL(Problem Based Learning)	☐	CBL(Case Based Learning)
☐	TBL(Team Based Learning)	☐	others

7. Knowledge and ability required for taking this course

- 영어 논문 또는 자료 독해 능력
- Pubmed 등 open web site exploration 및 활용 능력
- 발표를 위한 소프트웨어 활용 능력 (파워포인트 등)

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		20	출석률이 저조한 경우 10-50%를 감점하며 1/3 이상 결석시 F 학점이 주어짐
midterm exam			
final exam			
quiz			
presentation		30	최종 발표 (시간 준수, 주제, 발표 암기 여부, 발표 자세, 정량적 자료 제시 여부, 흥미 유발 여부, 질문 대응 등)
discussion			
homework		30	논문 리뷰 중간 발표 평가
etc		20	토론 및 질의 활동 평가
study hours	주당 1시간 학습이 필요		

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
	해당 사항 없음			

10. Class system and Class shedule

- 생명과학 관련 주제를 선정하고 각 학생 (혹은 팀)은 선정한 주제에 대하여 자료를 수집하여, 순서에 따라 발표
- 발표에 대한 질의 및 응답과 토론

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	강의 소개, 발표 주제 및 순서 결정	E	이창한			
2	연구 주제 탐구 방법 및 구두 발표 요령	E	이창한			
3	논문 탐색	E	이창한			
4	선택한 논문의 피드백	E	이창한			
5	논문 연구	E	이창한			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
6	논문 연구	E	이창한			
7	발표 준비	E	이창한			
8	중간고사 기간	E	이창한			
9	중간 점검 발표	E	이창한			
10	논문 연구	E	이창한			
11	논문 연구	E	이창한			
12	발표 준비	E	이창한			
13	최종발표 1	E	이창한			
14	최종발표 2	E	이창한			
15	최종발표 3	E	이창한			
16	기말고사기간	E	이창한			

11. Other items of notification

Comparing Novels with Films

Course Name	Course type (credit/hours)	교필(3/3)		Course code	X294
	Target students Division/major/grade	/1학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	월C(성201-1) 수C(성201-1)(성201-1)		English Grade	A(100%English)
Reference to this course	Prerequisite courses				
	Related basic courses				
	Recommanded concurrent courses				
	Related advanced courses				

Instructor	Name (title/division)		Joseph Ball (조교수/대학 다산학부대학)			
	Office Room Number	성호관417호	Office phone Number	2846	e-mail	
	Office hours		Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

This course concentrates on comparing novels with films. Lessons will include pair work, group tasks, and class discussions about the text. The language of instruction is English and students are expected to communicate in English during class.

2. Course Objectives

1) Students will gain confidence and improve their understanding of novels by reading

2) Students will watch films and compare them to the novels.

3) Students will make their their own short films.
This includes: writing and practicing dialogs to make a video, performing in their own film, and giving criticism about the performances.

4) Students will also learn to critique the texts with specific reasons, details, and examples.

3. Class types and activities

Students will gain confidence and improve their English speaking abilities by writing expressions and a dialog. Students will also learn to produce a film by writing it and then recording it. Lessons will include models for developing and
supporting their main ideas for the film.

4. Teaching Method

☑ lecture	☑ discussion and debate
☑ team project(presentation and case studies)	☐ experiments(role-playing,etc)
☐ designing and production	☐ on-site learning(on-site training)
☐ others	

5. Support Systems in Use

☑ e-class	☑ automatic recording system	☐ web-based assignment
☑ cyber lecture	☑ blended learning(combination of online and offline teaching)	
☐ class behavior analyazing system	☐ others	

6. Teaching Tools

☐ PBL(Problem Based Learning)	☐ CBL(Case Based Learning)
☑ TBL(Team Based Learning)	☐ others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

* Online homework should be completed before class.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		15%	
midterm exam		20%	Midterm Only
final exam			
quiz			
presentation		15%	
discussion			
homework		25%	Group Written Script
etc		25%	Group Film
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
	Harry Potter and the Sorcerer's Stone	J. K. Rowling	Scholastic Inc. Arthur A. Levine Books	1997
	Harry Potter and the Chamber of Secrets	J. K. Rowling	Scholastic Inc. Scholastic and the Lantern Design,	1999

10. Class system and Class shedule

We will follow the syllabus and of course the order of the novels.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Review of SyllabusRead Harry Potter and the Chamber of Secrets: Pages 1-11, 12-23, 24-41 Daily Discussion	K	Joseph Ball	Online & Video		
2	Read: Harry Potter and the Soceror's Stone: Pages 42-64, 65-85 Daily Discussion	K	Joseph Ball	Online & Video		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
3	Read: Harry Potter and the: Pages 86-103, 104-121 Daily Discussion	K	Joseph Ball	Online & Video		
4	Read: Harry Potter and the SS: Pages 122-139, 140-160 Daily Discussion	K	Joseph Ball	Online & Video		
5	Read: Harry Potter and the SS: Pages 161-181, 182-204, 205-226 Daily Discussion추석 Holiday No Class 9/30	K	Joseph Ball	Online & Video		
6	Read: Harry Potter and the Chamber of Secrets: Pages 227-248, 249-264, 265-282 Daily DiscussionWatch Movie for Video Class	K	Joseph Ball	Online & Video		
7	Review for Midterm ExamRead: Harry Potter and the Chamber of Secrets: Pages 283-305, 306-326, 327-341 Daily Discussion Watch Movie for Video Class	K	Joseph Ball	Online & Video		
8	Mid-term Exam 20%Read Harry Potter and the Sorcerer's Stone:Pages 1-17, 18-30, 31-45	K	Joseph Ball	Online & Video		
9	Review Guidelines for Writing the ScriptRead Harry Potter and the Sorcerer's Stone:Pages 46-60, 61-87, 88-112 Daily Discussion	K	Joseph Ball	Online & Video		
10	Review Guidelines for Performing in the FilmRead Harry Potter and the Sorcerer's Stone:Pages 113-130, 131-142, 143-162 Daily Discussion	K	Joseph Ball	Online & Video		
11	Review for Shooting the FilmRead Harry Potter and the Sorcerer's Stone:Pages 163-179, 180-193, 194-214 Daily Discussion	K	Joseph Ball	Online & Video		
12	Read Harry Potter and the Sorcerer's Stone:Pages 215-227, 228-241, 242-261 Daily Discussion Watch Movie for Video Class	K	Joseph Ball	Online & Video		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
13	Written Scripts for Films Due 25% Read Harry Potter and the Sorcerer's Stone:Pages 262-287, 288-309 Daily DiscussionWatch Movie for Video Class	K	Joseph Ball	Online & Video		
14	Final Review for Group FilmsWatch Movie for Video Class	K	Joseph Ball	Online & Video		
15	Group Films 25%	K	Joseph Ball	Online & Video		
16	Group Films 25%	K	Joseph Ball	Online & Video		

11. Other items of notification

Consumption and Popular Culture

Course Name	Course type (credit/hours)	전선(3/3)		Course code	K078
	Target students Division/major/grade	사회학과/3학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	화F(율357) 목E(율357)(율357)		English Grade	A(100%English)
Reference to this course	Prerequisite courses				
	Related basic courses	사회학개론(Introduction to Sociology), 사회학원론(The principles of Sociology)			
	Recommanded concurrent courses				
	Related advanced courses				
Instructor	Name (title/division)	김한상(부교수/사회학과)			
	Office Room Number	율414	Office phone Number	2790	e-mail	
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail	

1. Introduction

Consumerism has become a constituting principle of modern society on the global level throughout the twentieth and twenty-first centuries. It plays a central role as an origin of modern social structures and contexts. This course examines diverse social and cultural aspects related to consumption and consumerism in modern and forward-looking structural contexts, such as industrialization, globalization, and the crisis of sustainability.

2. Course Objectives

3. Class types and activities

The course has six major themes and one minor theme. Each of the six major themes has two-week sessions, comprised of two lecture sessions, one presentation session on an assigned movie, and one discussion session. The minor theme for the final week, consumer activism, is composed of one lecture session and one discussion session.

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

This course is conducted in English only. However, your proficiency in English is NOT subject to evaluation. Your participation in class is subject to evaluation. If necessary, you can consult a dictionary and/or your notes written before class when you are participating in class discussions and giving a presentation. For the short essay questions for the midterm and final exams, you will be allowed to take an open-dictionary exam to consult an English dictionary.

본 수업은 영어 100%로 진행됩니다. 그러나 여러분의 영어실력은 본 수업의 평가대상이 아닙니다. 평가의 대상이 되는 것은 여러분의 참여도와 준비성, 그리고 그에 따른 결과입니다. 수업 중 토론이나 발표 시 필요할 경우 사전을 사용하거나 미리 적어온 노트를 참고해도 무방합니다. 중간/기말 고사에서 서술형 유형의 문제가 출제될 경우 영어사전을 사용할 수 있습니다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	
midterm exam		30%	
final exam		30%	
quiz			
presentation		20%	
discussion		10%	
homework			
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Consumer Culture and Society	Wendy Wiedenhoft Murphy	SAGE	2017
Sub	The Consumer Society Reader	Juliet Schor, Douglas B. Holt eds.	The New Press	2000

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Orientation	E	김한상			
2	Commodities and Mass Consumer Society	E	김한상			
3	Commodities and Mass Consumer Society	E	김한상			Cart (2014)

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Taste and Distinction	E	김한상			
5	Taste and Distinction	E	김한상			Microhabitat (2018)
6	Consumption and Gender	E	김한상			
7	Consumption and Gender	E	김한상			Sweet Dream (1936)
8	Midterm	E	김한상			
9	Food Consumption	E	김한상			
10	Food Consumption	E	김한상			Okja (2017)
11	Tourism	E	김한상			
12	Tourism	E	김한상			The Golden Holiday (2020)
13	Consumption and Sustainability	E	김한상			
14	Consumption and Sustainability	E	김한상			Little Forest (2018)
15	Consumer Activism	E	김한상			
16	Final	E	김한상			

11. Other items of notification

기 개설된 "소비사회학"의 대체 수업임. "소비사회학"을 재수강하고자 하는 학생들은 교학팀에 대체 인정을 요청하기 바람.

Creative Media Programming

<table>
<tr><td rowspan="3">Course Name</td><td>Course type (credit/hours)</td><td colspan="2">전선(4/5)</td><td>Course code</td><td>M004</td></tr>
<tr><td>Target students Division/major/grade</td><td colspan="2">미디어학과/2학년</td><td>Openning semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time and classroom</td><td colspan="2">화12:00~13:30 (산422) 금12:00~13:30 (산422) 금6(산419) 금7(산419)(산422,산419)</td><td>English Grade</td><td>A(100%English)</td></tr>
<tr><td rowspan="4">Reference to this course</td><td>Prerequisite courses</td><td colspan="4">Computer Programming</td></tr>
<tr><td>Related basic courses</td><td colspan="4"></td></tr>
<tr><td>Recommanded concurrent courses</td><td colspan="4"></td></tr>
<tr><td>Related advanced courses</td><td colspan="4"></td></tr>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="4">Teemu H. Laine (부교수/소프트웨어융합대학 미디어학과)</td></tr>
<tr><td>Office Room Number</td><td></td><td>Office phone Number</td><td>1851</td><td>e-mail</td></tr>
<tr><td>Office hours</td><td>Thursday 9am-11am</td><td>Homepage address</td><td></td><td></td></tr>
<tr><td rowspan="2">Teaching Assistant</td><td>Name (title/division)</td><td colspan="4"></td></tr>
<tr><td>Office Room Number</td><td></td><td>Office phone Number</td><td colspan="2">e-mail</td></tr>
</table>

1. Introduction

This course introduces students to methods and tools related to creative media programming (e.g. interactive arts, games). The course covers two major creative media programming environments: Processing and Godot Game Engine.

During the first part of the course, students learn about Processing, which is a library and Integrated Development Environment (IDE) aimed at media artists, designers, media software creators, and engineers. Using Processing, students learn how to quickly create interactive applications and prototypes that use graphics, video, sound, text, etc. The first part is finalized with Team Project 1 where each team produces an interactive media app prototype using Processing.

During the second part of the course, students learn about the Godot Game Engine that is aimed for creating games and other creative media applications. Godot is famous to be beginner-friendly, and it uses the GDScript language with simple Python-like syntax. Using Godot, students learn learn how to create creative and highly interactive applications based on 2D graphics, movement, collisions, tile maps, animations, audio, and user interfaces. The second part of the course ends with Team Project 2 where each team creates a simple 2D game using Godot.

Throughout the course, students will complete individual lab assignments to learn and improve the skills needed for creative media programming.

Are you feeling that programming is hard? No worries! We'll start the course with Processing, which is very beginner-friendly tool. You'll be able to improve your coding skills comfortably! Professor, TA and your classmates will be there to support you.

Are you a good programmer? Don't worry! You can do a lot of complex stuff with Processing and Godot! I promise that you will learn many new things!

NOTE: lectures during weeks 7-10 are dedicated to Intellectual Property contents (micro major). These contents will give you a basic understanding on how to secure intellectual property of your creative ideas through patents, trademarks, etc.

2. Course Objectives

This course has the following educational goals and expected learning outcomes:
1. Learn and practice the Processing library / IDE to create highly interactive media applications
2. Learn how to program creative media applications that combine graphics, sound, video, text, and other media assets.
3. Learn the basics of a game engine to build simple 2D games.
4. Learn how to integrate various media assets into an interactive game.
5. Improve your programming ability
6. Improve team work skills
7. Improve English communication skills

3. Class types and activities

The learning contents are presented through lectures that combine theory, practical programming demonstrations, and discussions.

Students complete individual lab assignments on lecture topics. These labs which help students improve their programming skills and apply the knowledge acquired from the lectures. Professor and TA(s) provide individual support and guidance to the students for the labs.

In team projects, students will work in teams to iteratively design and implement creative media applications. The first team project will be based on Processing, whereas the second team project will be based on Godot. Both team projects are based on the knowledge and skills that the students acquire during the course. During the team projects, teams will have regular meetings with professor and TA(s) to present their progress and to get help.

There will be a KakaoTalk room where students can ask questions and discuss with Professor and TA(s) on any topic.

4. Teaching Method

[V]	lecture	[V]	discussion and debate
[V]	team project(presentation and case studies)	[ ]	experiments(role-playing,etc)
[ ]	designing and production	[ ]	on-site learning(on-site training)
[V]	others (Labs; ad-hoc discussions in KakaoTalk)		

5. Support Systems in Use

[V]	e-class	[ ]	automatic recording system	[ ]	web-based assignment
[ ]	cyber lecture	[V]	blended learning(combination of online and offline teaching)		
[ ]	class behavior analyazing system	[ ]	others		

6. Teaching Tools

☐ PBL(Problem Based Learning)	☐ CBL(Case Based Learning)
☑ TBL(Team Based Learning)	☐ others

7. Knowledge and ability required for taking this course

Students must have basic English communication skills because the course is delivered 100% in English. There may be a Korean TA but it is not guaranteed.

Moreover, students must have basic programming experience. Previous experience of developing media applications (e.g. games) is useful, but not mandatory.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		5	Attendance
midterm exam		25	Final exam
final exam			
quiz			
presentation			
discussion			
homework		25	Lab assignments
etc		45	Team Project 1 & Team Project 2
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
	Lecture notes, websites links given during the lecture			

10. Class system and Class shedule

The following topics will be covered (tentative):
    ? Processing
        ? Basics, interaction events
        ? Presentation, capturing and manipulation of graphics
        ? Playback, recording and manipulation of video; using computer vision
        ? Playback, recording and manipulation of sound
        ? Text handling, fonts, reading/writing files
    ? Godot
        ? Godot basic concepts and GDScript
        ? 2D movement and collisions
        ? Tilemaps, animations
        ? User interface
        ? Audio
        ? Navigation (pathfinding) [if there is time]
    ? Intellectual property (weeks 7-10)
        ? General information about intellectual property
        ? Patents
        ? Trademarks
        ? Monetization and licensing
        ? etc.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Course Introduction, Introduction to Creativity and Processing	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
2	Processing basics 1	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
3	Procesing basics 2	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
4	Graphics programming	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
5	Video programming, Font, text and JSON	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice, team project		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
6	Sound programming	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice, team project		
7	General Intellectual Property 1	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice, team project		
8	General Intellectual Property 2	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice, team project		
9	General Intellectual Property 3	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice, team project		
10	General Intellectual Property 4	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice, team project		
11	Introduction to Godot, GDScript basics	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice, team project		
12	Movement and Collisions 1	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice, team project		
13	Movement and Collisions 2	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice, team project		
14	TileMaps, Animations	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice, team project		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
15	User Interface, Sound	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice, team project		
16	Final Exam	E	Teemu H. Laine	Final exam		

11. Other items of notification

Detailed contents for the Intellectual Property lectures (weeks 7-10):

Week 7:

1. General Intellectual Property (Summary, Recent Trends, Materiality, Patent Dispute Cases, Introduction)
2. Creative thinking (creation of patent - invention technique, invention and conference technique)
3. Creation (patent requirements, application and examination system, job invention system, overseas patent system, SW patent system)
4. Protection and utilization (understanding specifications, interpretation and avoidance design of the scope of rights, dispute response, content of patent rights)

Week 8:

1. Information search (outline, prior art research method, use of patent information)
2. Patent map (outline, quantitative analysis, qualitative analysis)
3. Patent strategy (outline, environmental analysis, competitor analysis, patent portfolio strategy and patent strategy establishment)

Week 9:

1. Trademark rights (understanding the system, registration requirements, application and examination procedures, utilization and protection)
2. Design right (understanding system, understanding overseas design system, use of design right and unique system)
3. Copyright (work and author, content of copyright, infringement and remedy)

Week 10:

1. Intellectual Property Management Strategy
1) Freedom to Operate strategy
2) Business/Technology Linkage Strategy
2. Strategic Case Study
1. Intellectual Property Management Strategy
1) Monetization utilization strategy
2) Licensing strategy

Cross-cultural Management

Course Name	Course type (credit/hours)	전선(3/3)	Course code	I034
	Target students Division/major/grade	경영학과/2학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	()	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	김기민(Kimin Kim) (조교수/경영대학 경영학과)				
	Office Room Number	다산관 306-2호	Office phone Number	3687	e-mail	
	Office hours	Mon & Wed 3:00pm-4:00pm	Homepage address			-
Teaching Assistant	Name (title/division)					
	Office Room Number	-	Office phone Number	-	e-mail	-

1. Introduction

The contemporary global business world requires that employees and managers develop cross-cultural competence to work effectively in international assignments, on cross-cultural teams, with increasingly diverse customers and clients, and to effectively collaborate with competitors, suppliers, partners and other relevant stakeholders.

This course is designed to introduce students to comparisons of significant cross-cultural differences and help them to become familiar with ways to effectively anticipate and address cultural differences toward organizational and individual success.

2. Course Objectives

COURSE OBJECTIVES:
1. For the student to better understand how various management functions are impacted by cross-cultural differences.
2. Participants will have the opportunity to become familiar with findings from multiple real world studies of cross-cultural managerial differences.
3. Opportunities will be provided for students to develop specific skills that can be used to anticipate and successfully address cross-cultural differences at a managerial level from theoretical and practical perspectives.

LEARNING OUTCOMES:
1. Students will be able to identify potential intercultural synergies and develop strategic plans to help organizations use them to improve market penetration, employee engagement, customer loyalty, and profits.
2. Students will understand methods of optimizing human performance and potential in organizations.
3. Students will understand culture and how it impacts organizations and businesses.
4. Students will have a working knowledge of several specific countries' cultures and several domestic Korean subcultures.
5. Students will understand human diversity, how it impacts organizations and businesses, and how it relates to culture.
6. Students will demonstrate improved cultural intelligence skills and ability to work with others from different cultures.
7. Students will be aware of and have practice using specific strategies to deal with challenges posed by

3. Class types and activities

There are a few things to be fully noticed due to the format of the course: English and Cyber course.

First, being an 100% English course, all the class activities, including taking lectures, communicating with the instructor and the TA, and writing assignments and exams, shall be conducted only in English.
Also, there should be minor penalties for incorrect or inappropriate English writings for the assignments and exams.

Second, being a cyber course, most lectures are delivered via AjouBb platform through the Internet.
Students are expected to manage their own resources, such as time and PCs to access to the Internet, and have no difficulties in handling related devices.
Attendance will be checked automatically when watching video lectures in full within a limited period; "Fail" on attendance will be given when watching them with fast forward function, when closing them before completion, or when watching them after due date.
Please keep in mind that, according to the University Regulation, F grade shall be given if you fail to attend classes more than a quarter of the whole classes.

Lastly, several classes will be conducted via Online Live Lecture.
Therefore, every student is expected to handle Zoom with ones own laptops or PCs equipped with a webcam, speakers and a microphone, and keep them turned on throughout the class.
The schedule for Online Live Lecture is listed on the course schedule.

Additionally, communications between the instructor, the TA and the students shall be conducted mostly via Ajou email and AjouBb.
Students are expected to use their official Ajou email address rather than their private email accounts.
Students shall take their own responsibility for whatever consequences that may come from not checking their Ajou emails and posting on AjouBb.

4. Teaching Method

[V] lecture	[ ] discussion and debate
[ ] team project(presentation and case studies)	[ ] experiments(role-playing,etc)
[ ] designing and production	[ ] on-site learning(on-site training)
[V] others (This course provides online lecture, and requires students to conduct case analyses by	

5. Support Systems in Use

[V] e-class	[ ] automatic recording system	[V] web-based assignment
[V] cyber lecture	[V] blended learning(combination of online and offline teaching)	
[ ] class behavior analyazing system	[ ] others	

6. Teaching Tools

☑	PBL(Problem Based Learning)	☑	CBL(Case Based Learning)
☐	TBL(Team Based Learning)	☐	others

7. Knowledge and ability required for taking this course

Fluency in reading and writing in English is strongly required.

Plagiarism check will be conducted automatically for all the writings you submit onto Ajou Bb, including weekly homework, an assignment, the midterm exam and the final exam.
Please teach yourself what plagiarism is, how to avoid it, etc.; the instructor would not provide lecture on it.
Complying with the University Regulation, F grade will be given to the students who submit writings containing significantly high plagiarism rates.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10	Attendance
midterm exam	1	30	Midterm Exam
final exam	1	30	Final Exam
quiz			
presentation			
discussion			
homework	1	20	Research Report
etc	10	10	Weekly Homework
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Management Across Cultures: Challenges, Strategies, and Skills (4th ed.)	Steers and Osland	Cambridge University Press	2020

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction & Overview	E	김기민(Kimin Kim)	Cyber Lecture		
2	Global managers in a changing world	E	김기민(Kimin Kim)	Cyber Lecture		
3	Cultural environments, part 1	E	김기민(Kimin Kim)	Cyber Lecture		
4	Cultural environments, part 2	E	김기민(Kimin Kim)	Cyber Lecture		
5	Organizational environments	E	김기민(Kimin Kim)	Cyber Lecture		
6	Managerial environments	E	김기민(Kimin Kim)	Cyber Lecture		
7	Global leadership	E	김기민(Kimin Kim)	Cyber Lecture		
8	Midterm Exam	E	김기민(Kimin Kim)	-		
9	Cross-cultural communication, part 1	E	김기민(Kimin Kim)	Cyber Lecture		
10	Cross-cultural communication, part 2	E	김기민(Kimin Kim)	Cyber Lecture		
11	Managerial ethics & CSR	E	김기민(Kimin Kim)	Cyber Lecture		
12	Global partnerships & negotiations	E	김기민(Kimin Kim)	Cyber Lecture		
13	Global teams	E	김기민(Kimin Kim)	Cyber Lecture		
14	Global assignments	E	김기민(Kimin Kim)	Cyber Lecture		
15	Lessons learned: a review	E	김기민(Kimin Kim)	Cyber Lecture		
16	Final Exam	E	김기민(Kimin Kim)	-		

11. Other items of notification

Current Issues in Korean Society

Course Name	Course type (credit/hours)	교필(3/3)		Course code	X213
	Target students Division/major/grade	/		Openning semester	2022 2ND SEMESTER
	Class time and classroom	화B(성436) 목A(성436)(성436)		English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)			김병관 (부교수/사회과학대학 사회학과)	
	Office Room Number	율곡관 421	Office phone Number	2781	e-mail
	Office hours	Mon 14:00-15:00 & Thu 13:30-15:00	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

2. Course Objectives

3. Class types and activities

The lectures in this course are to be administered mostly by the professor in charge of this course.
Given the circumstance of the COVID-19 pandemic and ensuing concerns, the format of our class will depend on the university policy.
At this moment, I expect that the classes will be run in an in-person contact situation. However, if the safety concern regarding COVID-19 is altered during the semester and the university policy is changed, then we may shift to the online classes accordingly.

If ever the classes do shift to the online environment, the lectures will be provided mostly in the form of real-time online lectures in the Zoom environment and possibly pre-recorded video lectures with powerpoint slides.

Class Attendance and Participation:
Class attendance is an important part of the evaluation in this course. On top of attendance, students are expected to actively participate in class discussions in offline classes or in ZOOM sessions.

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies) [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[V] cyber lecture   [V] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		15	
midterm exam		30	
final exam		50	
quiz			
presentation			
discussion			
homework		5	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Salmon, Andrew. Modern Korea. London: John Murray Learning. 2014.			
Main	Kim, Kyung-dong and Korea Herald (eds.), Social Change in Korea. Seoul: Jimoondang. 2008.			
Ref.	Reading materials and statistial reports will be posted on e-class.			

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction: Course info and introduction	E	김병관			
2	Geography, Population, History, Economic and Political Institutions	E	김병관			
3	Legacy of Traditional culture	E	김병관			
4	Cultural Codes and Behavioral Patterns of Koreans	E	김병관			
5	How to do business in Korea	E	김병관			
6	Economy and Industry I	E	김병관			
7	Economy and Industry II	E	김병관			
8	Mid-term Exam Week	E	김병관			
9	Economy and Industry III	E	김병관			
10	Domestic Politics and Int'l Relations I	E	김병관			
11	Domestic Politics and Int'l Relations II	E	김병관			
12	Social Issues in Korea I	E	김병관			
13	Social Issues in Korea II	E	김병관			
14	Popular Culture in Korea	E	김병관			
15	What next for Korea? Students' Presentation and Discussion Session	E	김병관			
16	Final Exam Week	E	김병관			

11. Other items of notification

Data Analytics Machine Learning

Course Name	Course type (credit/hours)	전필(3/3)		Course code	I108
	Target students Division/major/grade	e-비즈니스학과/4학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	수F(다308) 금F(다308)(다308)		English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)		김태훈 (조교수/경영대학 e-비즈니스학과)			
	Office Room Number	다산관 431호	Office phone Number	2719	e-mail	
	Office hours		Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	hjc10001@ajou.ac.kr

1. Introduction

The emerging technology enables firms to collect, process, analyze, and communicate large-scale data to achieve business value. Such skills of data scientists are essential to figure out customer needs and predict market trends over time. In this course, we will discuss the conceptual approaches towards the practice of data analytics with machine learning algorithms to be well-prepared data scientists who can suggest hidden insights and helpful implications on businesses and be professional and successful for your future careers.

2. Course Objectives

This course introduces the fundamentals of data analytics. In class, students will rely on machine learning algorithms to address business questions and discover insights by utilizing various data sets.

Upon completion of this course, students shall be able:
1. to become familiar with fundamental concepts of machine learning via lectures;
2. to perform data analytics with Python as a language tool via a series of in-class exercises;
3. to demonstrate data-driven insights on your own business questions by completing group projects;
4. to discuss the business-related value and opportunities of big-data initiatives by conducting case studies.

This course will also provide students with:
1. clear and deep understanding of different types of data characteristics;
2. analytics skills in analyzing large-scale data practically;
3. own logical reasoning in producing quality documents on findings and insights;
4. professional presentation skills to communicate data mand findings as well as to suggest insights;
5. ability to lead a task group and work with group members effectively and efficiently;
6. preparation for future careers as data scientists in business and social environments.

3. Class types and activities

This course focuses on how to utilize machine learning algorithms with business analytics to support decision-making. A business needs to employ data visualization and predictive analytics to translate data into reliable information and insightful decisions to be competitive. This course will give you the practical insights and skills required to succeed as a data scientist in today's highly analytical and data-driven digital economy.

4. Teaching Method

- [V] lecture
- [V] team project(presentation and case studies)
- [ ] designing and production
- [ ] others

- [V] discussion and debate
- [ ] experiments(role-playing,etc)
- [ ] on-site learning(on-site training)

5. Support Systems in Use

- [V] e-class
- [ ] cyber lecture
- [ ] class behavior analyazing system

- [V] automatic recording system
- [V] blended learning(combination of online and offline teaching)
- [ ] others

- [ ] web-based assignment

6. Teaching Tools

- [V] PBL(Problem Based Learning)
- [V] TBL(Team Based Learning)

- [V] CBL(Case Based Learning)
- [ ] others

7. Knowledge and ability required for taking this course

Students need to participate in discussions in class actively with your own reasoning and questions. They can learn more with fun when they try to see the exciting phenomena and business opportunities with their active curiosity, as one of our historic scientists pointed out:

"The important thing is not to stop questioning. Curiosity has its own reason for existing. One cannot help but be in awe when [she]he contemplates the mysteries of eternity, of life, of the marvelous structure of reality. It is enough if one tries merely to comprehend a little of this mystery every day. Never lose a holy curiosity." --Albert Einstein, from the memoirs of William Miller quoted in Life magazine, p. 281, May 2, 1955.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance			
midterm exam		20%	200 points
final exam		20%	200 points
quiz			
presentation			
discussion			
homework		30%	300 points
etc		30%	Group project: 300 points
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	In-class handouts			

10. Class system and Class shedule

A series of in-class practice will provide insights and lessons on assignments and exams. Lectures will prepare students for case studies and group projects.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction to Data Science	E	김태훈	Lecture & in-class practice		
2	Python: Intro	E	김태훈	Lecture & in-class practice		
3	Python: Data Collection & Analysis	E	김태훈	Lecture & in-class practice		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Python: Data Visualization	E	김태훈	Lecture & in-class practice		
5	Supervised Learning: Linear Regression	E	김태훈	Lecture & in-class practice		
6	Supervised Learning: Logistic Regression	E	김태훈	Lecture & in-class practice		
7	Guest Speaker Presentation & Wrap-Up	E	김태훈	Lecture & in-class discussion		
8	Midterm Exam	E	김태훈	Exam		
9	Supervised Learning: Decision Tree	E	김태훈	Lecture & in-class practice		
10	Unsupervised Learning: Clustering & Profiling	E	김태훈	Lecture & in-class practice		
11	Unsupervised Learning: Association & Sequence	E	김태훈	Lecture & in-class practice		
12	Text Mining	E	김태훈	Lecture & in-class practice		
13	Deep Learning	E	김태훈	Lecture & in-class practice		
14	Guest Speaker Presentation & Wrap-Up	E	김태훈	Lecture & in-class discussion		
15	Group Project Presentations	E	김태훈	In-class discussion		
16	Final Exam	E	김태훈	Exam		

11. Other items of notification

Note. The above class schedule is tentative and subject to change as the semester progresses.

Office hours. A student can set a Zoom meeting by appointment whenever she/he needs any advice or help on the coursework. Please feel free to email the instructor (at: taehunkim@ajou.ac.kr) to set a meeting when you are available.

Special needs. Students with special needs should speak with me at the beginning of the semester to accommodate any special requirements. As an instructor, I must maximize everyone's learning opportunities and experiences for your pleasant and productive semester.

Attendance. Note that the students who do not attend regularly (i.e., less than 75% of all the classes) without any right reasons fail this course.

Academic integrity. It is assumed that all work done for credit will result from the individual's or authorized group's unaided effort. Anyone who either gives or receives unauthorized assistance in preparing work at home or during exams in class will be subject to disciplinary action under the provisions and policies set forth by the university. Your signature on any piece of submitted work will provide assurance that you have neither given nor received any unauthorized help in its preparation.

In addition, plagiarism or any form of cheating involves a breach of student-teacher trust. That is, any work submitted under your name is expected to be your own. Be sure to document all ideas that are not your own. Instances of plagiarism or any other act of academic dishonesty will be reported to the school and may result in failure of the course. Not understanding plagiarism is not an excuse.

Database

Course Name	Course type (credit/hours)	전선(3/3)	Course code	F085
	Target students Division/major/grade	소프트웨어학과/3학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월F(팔409) 목F(팔409)(팔409)	English Grade	A(100%English)
Reference to this course	Prerequisite courses	자료구조		
	Related basic courses	컴퓨터프로그래밍및실습, 객체지향프로그래밍및실습		
	Recommanded concurrent courses	운영체제, 컴퓨터구조, 소프트웨어공학		
	Related advanced courses	데이터베이스설계실습		

Instructor	Name (title/division)	조현석 (조교수/소프트웨어융합대학 소프트웨어학과)				
	Office Room Number	iKnow Lab.	Office phone Number	2524	e-mail	
	Office hours		Homepage address		https://sites.google.com/view/iknow-lab	
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

Database is the system which can manage large scale data and support efficient search of the data.
Database is the fundamental course of computer science and software engineering and it is very important fields in academia and industry.

The goal of this course is to study general underanding and basic conepts of database system.
This course will cover following topics
- Basic concepts and properties of the database,
- E-R model and relational algebra,
- Query languages,
- Implementation techniques of DBMS,
- Modern database techniques.

2. Course Objectives

3. Class types and activities

Lecture: All lectures are taught by instructor.
Paticipation: Participation & attitude, Every class, we will have a pop quiz (preview and review). The result will be used to measure students understanding of the course.
Exam: We will have two closed book exams. Mid-term exam and final exam.
Assignments: We will have three programming assignments for 1) top-k query, 2) SQL, 3) B+ tree
Projects: There are two projects for 1) schema design and 2) its implementation (SQL)

4. Teaching Method

[V]	lecture	[ ]	discussion and debate
[ ]	team project(presentation and case studies)	[ ]	experiments(role-playing,etc)
[V]	designing and production	[ ]	on-site learning(on-site training)
[ ]	others		

5. Support Systems in Use

[V]	e-class	[ ]	automatic recording system	[ ]	web-based assignment
[ ]	cyber lecture	[ ]	blended learning(combination of online and offline teaching)		
[ ]	class behavior analyazing system	[ ]	others		

6. Teaching Tools

[ ]	PBL(Problem Based Learning)	[ ]	CBL(Case Based Learning)
[ ]	TBL(Team Based Learning)	[ ]	others

7. Knowledge and ability required for taking this course

소프트웨어학과의 기초 과목들을 수강하고, 과제와 프로젝트에 필요한 기초적인 컴퓨터 프로그래밍 및 실습, 자료구조에 대한 이해가 필요함.

It is necessary to take basic courses (e.g., programming, data structure) of the software department.
It is required basic programming skills and data structure understanding for the course assignments and projects.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance	30	10	Participation & attitude
midterm exam	1	20	Mid-term exam (closed book)
final exam	1	20	Final exam (closed book)
quiz	20	10	Quizes
presentation			
discussion			
homework	3	20	Programming assignments for 1) top-k query, 2) SQL, 3) B+ tree
etc	2	20	Two projects for 1) schema design and 2) its implementation (SQL)
study hours	5 hours		

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Fundamentals of Database Systems, Global Edition, 7th edition	Shamkant B. Navathe, Ramez Elmasri	Pearson Higher Education	2016
Sub	Database System Concepts, 7th edition	Henry F. Korth,Abraham Silberschatz,S . Sudarshan	McGraw-Hill Education	2019
Sub	Database Management Systems	Ramakrishnan , Gehrke, Johannes	McGraw-Hill	2011

10. Class system and Class shedule

중간 고사 이전에는 데이터베이스의 기본 개념과 특성을 학습합니다.
기본적인 SQL 학습을 통해 데이터베이스 시스템을 활용하는 법을 익히고,
데이터베이스를 설계하는 방법을 배웁니다.

중간 고사 이후에는, 데이터베이스에서 실제 트랜젝션이 처리되는 원리와 검색에 사용되는 인덱싱 구조들을 배웁니다.
설계한 스키마를 직접 DBMS를 이용하여 구현합니다.

Before mid-term exam, we will study basic concepts and properties of database systems.
We will study SQL to manage the database system and E-R models for schema design.

After mid-term, we will study transactions and indexing structure of the database system.
With the designed schema, we implement the tables with DBMS.

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Database concepts	E	조현석			
2	DB system architecture	E	조현석			
3	E-R model	E	조현석			
4	SQL1	E	조현석			
5	SQL2	E	조현석			
6	Relational algebra	E	조현석			
7	Functional depedency	E	조현석			
8	Mid-term Exam	E	조현석			
9	Normalization	E	조현석			
10	Indexing	E	조현석			
11	Transaction	E	조현석			
12	Concurrency control	E	조현석			
13	Top-k query processing	E	조현석			
14	XML, big data, and NOSQL	E	조현석			
15	Modern database	E	조현석			
16	Final Exam	E	조현석			

11. Other items of notification

Developmental Psychology

Course Name	Course type (credit/hours)	전선(3/3)	Course code	K103
	Target students Division/major/grade	Psychology/ Sophomore/2학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월A(율256) 수A(율256)(율256)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	Introduction to Psychology
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)		박정수 (조교수/사회과학대학 심리학과)		
	Office Room Number	율곡관 515	Office phone Number	2769	e-mail
	Office hours	By appointment		Homepage address	
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

Lifespan development is the study of continuity and change. This course is designed to provide an overview of major theories and topics in human development.
The emphasis of this course is on infancy and childhood. The later periods of development - adolescence to old age- will be addressed in 2023, Spring Semester.

This course addresses
1) physical, cognitive, emotional, and social growth of human beings.
2) regularities as well as differences in development, asking fundamental questions about why we develop as we do.

2. Course Objectives

Learn theories, topics, and controversies in life-span human development

3. Class types and activities

Students are expected to attend class to discuss developmental topics.
Assignment topics
1) Observation of young infants
2) Interview with a preschool child
3) Critical Reading - adolescent development

4. Teaching Method

[V] lecture

[V] discussion and debate

[V] team project(presentation and case studies)

[ ] experiments(role-playing,etc)

[ ] designing and production

[ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class

[ ] automatic recording system

[ ] web-based assignment

[ ] cyber lecture

[V] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system

[V] others (Zoom)

6. Teaching Tools

[V] PBL(Problem Based Learning)

[V] CBL(Case Based Learning)

[V] TBL(Team Based Learning)

[ ] others

7. Knowledge and ability required for taking this course

Introduction to Psychology

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Electronic attendance and in-class participation. More than three absences will result in deduction of one point.
midterm exam		30%	
final exam		30%	
quiz			
presentation			
discussion		10%	
homework		20%	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	생애발달 I (영유아기에서 아동기까지) 제 7판 [Choose either in Korean or in English]	Laura E. Berk (역자: 김민희 등)	시그마 프레스	2020
Main	Development Through the Lifespan, 7th Edition [Choose either in Korean or in English]	Laura E. Berk	Pearson	2018
Ref.	Lifespan Human Development, 9th Edition	Carol K. Sigelman, Elizabeth A. Rider	Cengage learning	2017
Ref.	Child Developlemt	Feldman, R. S.	New York: Pearson Education	2012

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Orientation	E	박정수			
2	Ch1. History, Theory, and Research Strategy	E	박정수			
3	Ch2. Genetic and Environmental Foundations	E	박정수			
4	Ch3. Prenatal Development, Birth, and the Newborn Baby	E	박정수			
5	Ch4. Physical Development in Infancy and Toddlerhood	E	박정수			
6	Ch5. Cognitive Development in Infancy and Toddlerhood	E	박정수			
7	Presentation 1	E	박정수			
8	Midterm Exam	E	박정수			
9	Conference (Gerontology Society of America, 2022)	E	박정수			
10	Ch6. Emotional and Social Development in Infancy and Toddlerhood	E	박정수			
11	Ch7. Physical and Cognitive Development in Early Childhood	E	박정수			
12	Ch8. Emotional and Social Development in Early Childhood	E	박정수			
13	Ch9. Physical and Cognitive Development in Middle Childhood	E	박정수			
14	Ch10. Emotional and Social Development in Middle Childhood	E	박정수			
15	Presentation 2	E	박정수			
16	Final Exam	E	박정수			

11. Other items of notification

Digital Circuit

<table>
<tr><td rowspan="3">Course
Name</td><td>Course type
(credit/hours)</td><td>전필(3/3)</td><td>Course code</td><td>F083</td></tr>
<tr><td>Target students
Division/major/grade</td><td>정보컴퓨터공학과/정보및컴퓨터공학전공 2학년</td><td>Openning
semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time
and classroom</td><td>월E(팔409) 수E(팔409)(팔409)</td><td>English
Grade</td><td>A(100%English)</td></tr>
<tr><td rowspan="4">Reference
to this
course</td><td>Prerequisite courses</td><td colspan="3"></td></tr>
<tr><td>Related basic courses</td><td colspan="3"></td></tr>
<tr><td>Recommanded
concurrent courses</td><td colspan="3"></td></tr>
<tr><td>Related
advanced courses</td><td colspan="3">컴퓨터구조</td></tr>
</table>

<table>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="4">Paul Rajib (조교수/소프트웨어융합대학 소프트웨어학과)</td></tr>
<tr><td>Office Room
Number</td><td>팔달관 1011</td><td>Office phone
Number</td><td></td><td>e-mail</td></tr>
<tr><td>Office
hours</td><td>화A/C/E교시, 목B/D/F</td><td>Homepage
address</td><td colspan="2"></td></tr>
<tr><td rowspan="2">Teaching
Assistant</td><td>Name (title/division)</td><td colspan="4"></td></tr>
<tr><td>Office Room
Number</td><td></td><td>Office phone
Number</td><td></td><td>e-mail</td></tr>
</table>

1. Introduction

This course deals with principles and applications of digital systems.

The topics covered are Logic Gates and Boolean Algebra, Combinational Logic Circuits,

Flip-Flops and Related Devices, Digital Arithmetic: Operations and Circuits, Counters

and Registers, Integrated-Circuit Logic Families, MSI Logic Circuits, Interfacing with

the Analog World, and Memory Devices. There is a project assignment in this course to

enhance the practical skill of digital systems.

2. Course Objectives

◇ 교육목표

수강생들에게 디지털 회로의 기본 원리와 개념에 대한 이해와 동기를 부여하고 지식 응용, 공정 설계,
문제해결 방법등의 학습을 통해서 정보및컴퓨터 공학도가 해결해야 할 정보통신 관련 문제를 정확히 인식하여,
창의적인 문제해결 및 디지털 회로 설계 능력을 배양하고 디지털 회로 설계에 대한 흥미를 유발한다.

◇ 교과목 학습성과

① 디지털 회로 내에서 일어나는 제반 현상을 수학, 기초과학, 공학의 지식과 정보기술을 이용하여 해결할
수 있다. <학습성과 1>
② 논리소자 및 IC칩 사이에서 벌어지는 다양한 현상을 이해하고 디지털 논리회로 콤포넌트 또는 시스템
개발시 문제를 정의하고 모델링하여 비용 효율적으로 해결할 수 있다. <학습성과 3>
③ 현실적 제한 조건에 따라 디지털 시스템 전체의 구조, 이를 이루는 요소, 요소들간의 관계를 창의력을
발휘하여 비용 효율적으로 설계할 수 있다. <학습성과 5>

3. Class types and activities

4. Teaching Method

☑	lecture	☑	discussion and debate
☑	team project(presentation and case studies)	☑	experiments(role-playing,etc)
☐	designing and production	☐	on-site learning(on-site training)
☐	others		

5. Support Systems in Use

☑	e-class	☐	automatic recording system	☐	web-based assignment
☐	cyber lecture	☐	blended learning(combination of online and offline teaching)		
☐	class behavior analyazing system	☐	others		

6. Teaching Tools

☐	PBL(Problem Based Learning)	☐	CBL(Case Based Learning)
☐	TBL(Team Based Learning)	☐	others

7. Knowledge and ability required for taking this course

본 과목을 수강하기 위해서는 2진 시스템을 이해하고 있어야 한다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance			
midterm exam	1회	20%	<학습성과 1> 디지털 회로 내에서 일어나는 제반현상을 수학, 기초과학, 공학의 지식과 정보기술을 이용하여 해결할 수 있는 능력을 중간고사로 평가한다.
final exam	1회	30%	<학습성과 5> 현실적 제한조건에 따라 디지털 시스템 전체의 구조, 이를 이루는 요소, 요소들간의 관계를 창의력을 발휘하여 비용 효율적으로 설계할 수 있는 능력을 기말고사로 평가한다.
quiz			
presentation			
discussion			
homework	4회	30%	<학습성과 3> 논리 소자 및 IC 칩 사이에서 벌어지는 다양한 현상을 이해하고 디지털 논리회로 콤포넌트 또는 시스템 개발 시 문제를 정의하고 모델링하여 비용 효율적으로 해결할수 있는 능력을 과제보고서 및 사례연구프로젝트 결과보고서로 평가한다.
etc	14회	20%	<학습성과 5> 현실적 제한조건에 따라 디지털 시스템 전체의 구조, 이를 이루는 요소, 요소들간의 관계를 창의력을 발휘하여 비용 효율적으로 설계할 수 있는 능력을 실습으로 평가한다.
study hours	주당 12시간		

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Digital Systems: Principles and Applications, 11th ed.	Ronald J. Tocci etc.	Pearson	2011
Main	bCube-DLC를 활용한 논리회로 실험실습	CNDI 기술연구소	CNDI	2015

10. Class system and Class shedule

디지털 회로 설계 능력 배양을 위하여,

Logic Gates and Boolean Algebra => Combinational Logic Circuits => Flip-Flops and Related

Devices => Digital Arithmetic: Operations and Circuits => Counters and Registers =>

Integrated-Circuit Logic Families => MSI Logic Circuits => Memory Devices

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Logic Gates and Boolean Algebra, 기본실습		Paul Rajib	강의, 실습	중간지필평가/과제평가	
2	Combinational Logic Circuits, 디지털 논리회로 실습장비 소개		Paul Rajib	강의, 실습	중간지필평가/과제평가	
3	- Flip-Flops and Related Devices 1 -Latchs, Flip-Flops, Timing Considerations, Applications, Synchronization, 논리 게이트 실습		Paul Rajib	강의, 실습	중간지필평가/과제평가	
4	- Flip-Flops and Related Devices 2 -Shift Registers, Schmitt-Trigger Devices, One-Shot, Clock Generator Circuits, 가산기/감산기 실습		Paul Rajib	강의, 실습	중간지필평가/과제평가	
5	- Digital Arithmetic: Operations and Circuits -Addition, Subtraction, Multiplication, Division, BCD Addition, Arithmetic Circuits, Parallel Binary Adders, IC Parallel Adder, 2's-Complement System, BCD Adder, ALU ICs, 비교기 실습		Paul Rajib	강의, 실습	중간지필평가/과제평가	
6	- Counters and Registers 1 -Asynchronous Counters, Synchronous Counters, Presettable Counters, BCD Counters, 인코더/디코더 실습		Paul Rajib	강의, 실습	기말지필평가/과제평가	
7	- Counters and Registers 2 - IC Registers, 멀티플렉서/디멀티플렉서 실습		Paul Rajib	강의, 실습	기말지필평가/과제평가	
8	- 중간 고사 -		Paul Rajib	지필평가		
9	- MSI Logic Circuits 1 -Decoders, BCD-to-7-Segment Decoder/Drivers, Encoders, MUX/DEMUX, 7-세그먼트 디코더 실습		Paul Rajib	강의, 실습	기말지필평가/과제평가	
10	- MSI Logic Circuits 2 -Magnitude Comparator, Code Converters, Data Busing, Data Bus Operation, 코드 변환기 실습		Paul Rajib	강의, 실습	기말지필평가/과제평가	
11	- Memory Devices 1 -Memory Technology, General Memory Operations, ROMs, SRAM, 병렬 가산기 실습		Paul Rajib	강의, 실습	기말지필평가/과제평가	

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
12	- Memory Devices 2 -DRAM, Expanding Word Size and Capacity, Troubleshooting Memory Systems, Latch&FF 실습		Paul Rajib	강의, 실습	기말지필평가/과제평가	
13	- Case Studies I, 레지스터 실습		Paul Rajib	발표, 실습	발표평가/과제평가	
14	- Case Studies II, 동기식 카운터 실습		Paul Rajib	발표, 실습	발표평가/과제평가	
15	- Case Studies III, 비동기식 카운터 실습		Paul Rajib	발표, 실습	발표평가/과제평가	
16	- 기말 고사 -		Paul Rajib	지필평가		

11. Other items of notification

사례연구 설계 프로젝트를 수행하지 않은 학생은 F로 평가한다.

Electricity and Magnetism 1

Course Name	Course type (credit/hours)	전필(3/3)	Course code	G006
	Target students Division/major/grade	자연과학부/2학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	수B(성337) 금B(성337)(성337)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	물리학2
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	이재웅 (조교수/자연과학대학 물리학과)			
	Office Room Number	원천관409	Office phone Number	2619	e-mail
	Office hours		Homepage address	https://sites.google.com/view/jaeunglee/home	
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

Electrodynamics will treat electric and magnetic phenomena and electromagnetic (EM) waves, which can be basic tool to understand various phenomena in optics, solid-state physics, plasma physics and electrical engineering. Basic concept and laws of electromagnetism will be studied during two semesters. In this (first) semester, students will study basic concept of electrodynamics particularly focusing on electrostatics, magnetostatics and related phenomena in matters.

2. Course Objectives

This course is aiming for providing basic knowledge on electromagnetic phenomena.

3. Class types and activities

This course mainly consists of three-hour lectures per week and homework.
An offline class will be preferred. The class can be changed to online (Recording and real-time live lecture) depending on the situation.
Coursework will be evaluated by offline exams, homework, and attendance.

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies) [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[V] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

Basic mathematical technique including differential and integral calculus will be required.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	
midterm exam	1회	40%	
final exam	1회	40%	
quiz			
presentation			
discussion			
homework		10%	
etc			
study hours	8~10 시간		

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Introduction to Electrodynamics (4th edition)	D. J. Griffiths	Pearson	2013
Main	Introduction to Electrodynamics (4th edition, new international edition)	D. J. Griffiths	Pearson	2013
Ref.	Classical electrodynamics	J. D. Jackson	Wiley	2007

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction, Vector analysis	K/E	이재웅	대면 원칙		
2	Vector analysis	K/E	이재웅	대면 원칙		
3	Electrostatics 1	K/E	이재웅	대면 원칙		
4	Electrostatics 2	K/E	이재웅	대면 원칙		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
5	Potentials 1	K/E	이재웅	대면 원칙		
6	Potentials 2	K/E	이재웅	대면 원칙		
7	Potentials 3	K/E	이재웅	대면 원칙		
8	Mid-exam (Offline)	K/E	이재웅	중간고사	대면 원칙	
9	Electric fields in matter 1	K/E	이재웅	대면 원칙		
10	Electric fields in matter 2	K/E	이재웅	대면 원칙		
11	Magnetostatistics 1	K/E	이재웅	대면 원칙		
12	Magnetostatistics 2	K/E	이재웅	대면 원칙		
13	Magnetic fields in matter 1	K/E	이재웅	대면 원칙		
14	Magnetic fields in matter 2	K/E	이재웅	대면 원칙		
15	Overview	K/E	이재웅	대면 원칙		
16	Final exam (Offline)	K/E	이재웅	기말고사	대면 원칙	

11. Other items of notification

Electroanalytical Chemistry

Course Name	Course type (credit/hours)	전선(3/3)	Course code	G069
	Target students Division/major/grade	Department of Chemistry (화학과)/2,3 학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화C(원507) 금C(원507)(원507)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	Chemistry (일반화학), Analytical Chemistry (분석화학)		
	Related basic courses	Chemistry (일반화학), Analytical Chemistry (분석화학)		
	Recommanded concurrent courses			
	Related advanced courses	Special Topics in Applied Chemistry (응용화학특론)		

Instructor	Name (title/division)	곽원진 (조교수/대학원 에너지시스템학과)			
	Office Room Number	원천관 215-3	Office phone Number	2599	e-mail
	Office hours	Check in advance for available consultation hours	Homepage address	https://sites.google.com/view/wjkwak	
Teaching Assistant	Name (title/division)				
	Office Room Number	Woncheon Hall 138-1	Office phone Number		e-mail	eocystk1166@gmail.com

1. Introduction

As interest in energy and the environment has recently increased, the importance of electrochemical principles and systems has also emerged. Among them, as an energy storage and conversion system, secondary batteries play a key role in todays industries. Battery performance is a major factor that determines the performance and development potential of various electrochemical-based devices such as electric vehicles and various portable devices. Since the electrochemical reaction occurring on the surface of the electrode is an important factor in determining the performance of the battery, it is very important to understand the electrochemical reaction mechanism. In electroanalytical chemistry, the thermodynamics and kinetics of the oxidation-reduction reactions occurring at the electrode/electrolyte interface are systematically and easily handled. In addition, a wide range of lectures and discussions are given on the development of next-generation secondary batteries. By taking this course, students can strengthen their basic skills about electrochemistry in the future and can grow as a research expert (company, research institute, university) related to secondary batteries.

2. Course Objectives

- Coursework Introduction
This course is intended to provide comprehensive coverage of fundamentals for electrochemistry and outline the principles of some important electrochemical measurements.

- Objectives
1) To understand the electrochemistry, particularly of electrode reaction, electrolyte and interfacial phenomena ♂ through an explanation of modern electrochemistry.
2) To understand the principles of some electrochemical processes and electrochemical measurements ♂ and apply the electrochemical techniques to research works.

3. Class types and activities

Lectures are conducted face-to-face, and recorded video materials are provided
in preparation for the recurrence of infectious diseases such as COVID-19 and special situations
so that students can use them to prepare and review the learning content.

Assignments will be submitted at a level to verify that students have understood the content of the lecture as needed.
Although it is an English lecture, students understanding of electrochemistry is the top priority.
Please note that the course progress plan and schedule are subject to change.

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies) [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [V] automatic recording system   [V] web-based assignment

[V] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

It is recommended that students who have taken "Chemistry 1", "Chemistry 2" and "Analytical Chemistry" will take this course.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	1 point will be deducted for one absence of lecture (8 or more absences = F grade), Recorded upload lecture video will be set to 2 weeks for attendance deadline. Real-time lectures (non-face-to-face) will be called directly to confirm attendance.
midterm exam	1	40%	Cheating = F, Closed Book Exam (For fairness, off-line face-to-face evaluation is performed following the quarantine procedures) If the COVID 19 issue becomes too serious, a non-face-to-face "Open book exam" will be considered, and "video system and printer must be prepared previously".
final exam	1	40%	Cheating = F, Closed Book Exam (For fairness, off-line face-to-face evaluation is performed following the quarantine procedures) If the COVID 19 issue becomes too serious, a non-face-to-face "Open book exam" will be considered, and "video system and printer must be prepared previously".
quiz			
presentation			
discussion			
homework		10%	Weekly assignments will be submitted at a level to ensure that students understand the content of the lecture.
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	전기화학 (Electrochemistry)	오승모	자유아카데미	2019
Sub	Electrochemical Methods (Not necessary), will be replaced by PPT materials	Allen J. Bard	Wiley	2000

10. Class system and Class shedule

This course introduces electrochemical methods of analysis.
Advanced topics in chemical equilibrium and kinetics in analytical chemistry and electrochemical methods will also be covered in this course.
Electroanalytical Chemistry course mainly focuses on electrochemical methods of analysis, including potentiometric, amperometric, coulometric, and voltammetric analysis.
Fundamentals and applications of electrochemical methods as an interdisciplinary field are also introduced.

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Orientation		곽원진	Lecture		Watching a recorded video lecture / Real-time video feedback (zoom)
2	Introduction (Electrochemistry)		곽원진	Lecture		Watching a recorded video lecture / Real-time video feedback (zoom)
3	Electrode Potential		곽원진	Lecture		Watching a recorded video lecture / Real-time video feedback (zoom)
4	Electrolytes		곽원진	Lecture		Watching a recorded video lecture / Real-time video feedback (zoom)
5	Electric double layer		곽원진	Lecture		Watching a recorded video lecture / Real-time video feedback (zoom)
6	Special topic for students		곽원진	Lecture		Watching a recorded video lecture / Real-time video feedback (zoom)
7	Summary & Rehearsal		곽원진	Lecture		Summary and Rehearsal

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
8	Mid-term Exam		곽원진	Exam	Face-to-face or Non-face-to-face	Face-to-face (medical questionnaire) / Non-face-to-face (video system and printer)
9	Review the Exam & EMSDL		곽원진	Lecture		Watching a recorded video lecture / Real-time video feedback (zoom)
10	Electrochemical Kinetics (Charge Transfer)		곽원진	Lecture		Watching a recorded video lecture / Real-time video feedback (zoom)
11	Electrochemical Kinetics (Mass Transfer)		곽원진	Lecture		Watching a recorded video lecture / Real-time video feedback (zoom)
12	Hydrodynamic methods		곽원진	Lecture		Watching a recorded video lecture / Real-time video feedback (zoom)
13	Electrochemical Measurements		곽원진	Lecture		Watching a recorded video lecture / Real-time video feedback (zoom)
14	Electric Vehicles		곽원진	Lecture		Watching a recorded video lecture / Real-time video feedback (zoom)

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
15	Summary & Rehearsal		곽원진	Lecture		Summary and Rehearsal
16	Final Exam		곽원진	Exam	Face-to-face or Non-face-to-face	Face-to-face (medical questionnaire) / Non-face-to-face (video system and printer)

11. Other items of notification

Please note that the lecture progress plan and schedule may change due to the spread of the COVID 19.
If there are any changes, I will notify you through announcements and real-time feedback.
Please send requirements to wjkwak@ajou.ac.kr for better lecture. I will try to reflect it as much as possible.
For inquiries about career counseling, please contact Prof. Kwak via the above email address.

※코로나19 확산 예방을 위한 출석인정 공지 (혹시라도 재유행할 수 있는 상황에 대한 대비를 위한 규정)
- 출석인정대상 : 본교 재학생 중 코로나19로 인한 자가격리자, 입국지연자, 증상호소자, 백신접종자
- 출석인정기간 : 자가격리 기간 (최대 14일), 바이러스로 인한 입국지연기간, 증상호소자에 대한 치료기간, 백신접종자의 백신접종일 포함 2일
  (학사운영규칙에 따라 출석인정기간은 최대 4주 이내로 제한, 그 이상의 기간이 소요될 경우 휴학 권고)
- 출석인정 증빙서류:
(1) 자가격리자 : 자가격리 통보서 1부
(2) 입국지연자 : 출입국기록 확인서 1부
(3) 백신접종자: 백신접종 확인서 1부 (3일 이상 신청 시 백신 접종 후 이상 증세가 명시된 진단서 1부 추가 제출 필요),
  어플리케이션 캡쳐화면은 인정하지 않으며, "질병관리본부 예방접종도우미 누리집" 샤이트에서 발급된 예방접종 증명서로만 인정함

증상 호소자의 경우 코로나19 검사를 받고 음성 확인을 받은 경우에만 등교
(증상호소자의 경우 코로나 검사 후 음성 확인서를 증빙으로 제출)

English Communication for English Majors

Course Name	Course type (credit/hours)	전필(3/3)	Course code	J023
	Target students Division/major/grade	영어영문학과/Freshmen	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화D(다105) 목C(다105)(다105)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	Brad Crawford (조교수/대학 다산학부대학)			
	Office Room Number	다산관 215-1	Office phone Number	2816	e-mail
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

2. Course Objectives

English Communication for English Majors (ECEM) is designed for students who have completed English Conversation 2. The focus of this course is on improving students'' abilities to have meaningful discussions about serious topics. A wide variety of readings and listening materials provide useful language examples, and stimulate interest in the topics and themes. Students are expected to actively participate in class small-group discussions, debates, and presentations based on the issues raised in the class material

3. Class types and activities

4. Teaching Method

- ☐ lecture
- ☐ team project(presentation and case studies)
- ☐ designing and production
- ☐ others
- ☐ discussion and debate
- ☐ experiments(role-playing,etc)
- ☐ on-site learning(on-site training)

5. Support Systems in Use

- ☐ e-class
- ☐ cyber lecture
- ☐ class behavior analyazing system
- ☐ automatic recording system
- ☐ blended learning(combination of online and offline teaching)
- ☐ others
- ☐ web-based assignment

6. Teaching Tools

- ☐ PBL(Problem Based Learning)
- ☐ TBL(Team Based Learning)
- ☐ CBL(Case Based Learning)
- ☐ others

7. Knowledge and ability required for taking this course

A high-intermediate to advanced level of English is assumed for students of ECEM

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	
midterm exam		15%	
final exam		15%	
quiz			
presentation		20%	
discussion		20	
homework		20	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Sub	What do you think 1	Duane Vorhees	Lis Korea	
Main	Instructor will provide additional materials			

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Course Introduction and Syllabus		Brad Crawford	lecture class-work		
2	Issues 1 & 2		Brad Crawford	lecture class-work		
3	Issues 3 & 4		Brad Crawford	lecture class-work		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Issues 5 & 6		Brad Crawford	lecture class-work		
5	Presentations		Brad Crawford	lecture class-work		
6	Issues 7 & 8		Brad Crawford	lecture class-work		
7	Issue 9 & midterm review		Brad Crawford	lecture class-work		
8	Midterm Exam		Brad Crawford	lecture class-work		
9	Issues 10 & 11		Brad Crawford	lecture class-work		
10	Issues 12 & 13		Brad Crawford	lecture class-work		
11	Issues 14 & 15		Brad Crawford	lecture class-work		
12	Debates		Brad Crawford	lecture class-work		
13	Issues 16 & 18		Brad Crawford	lecture class-work		
14	Issues 22 & 26		Brad Crawford	lecture class-work		
15	Issue 30 & review		Brad Crawford	lecture class-work		
16	Final Exam		Brad Crawford	wirryen exam		

11. Other items of notification

English Communication for English Majors

Course Name	Course type (credit/hours)	전필(3/3)	Course code	J024
	Target students Division/major/grade	영어영문학과/Freshmen	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월D(다205-A) 목D(다205-A)(다205-A)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	Kevin Hawthorne (조교수/대학 다산학부대학)			
	Office Room Number	성호관420호	Office phone Number	2830	e-mail
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

2. Course Objectives

English Communication for English Majors (ECEM) is designed for students who have a high-intermediate level of English or above. The focus of this course is on improving students abilities to have meaningful discussions about serious topics. A wide variety of readings provide useful language examples, and stimulate interest in the topics and themes. Students are expected to actively participate in class small-group discussions, debates, and presentations based on the issues raised in the class material

3. Class types and activities

Speaking lessons include pair work, small group discussions, class discussions and task-based communicative activities. There are three main speaking assignments: A group presentation, a special seminar, and an impromptu debate.

4. Teaching Method

[V] lecture   [V] discussion and debate

[V] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

A high-intermediate to advanced level of English is assumed for students of ECEM

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	
midterm exam		15%	
final exam		15%	
quiz			
presentation		30%	
discussion		10%	
homework			
etc		20%	
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Sub	Small Group Discussion Topics for Korean Students, A Modern Approach to Fluency in English,	Jack Martire	PNU Press	2013
Main	Instructor will provide additional materials			

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Course Introduction and Syllabus		Kevin Hawthorne	face-to-face		
2	Issues 1 & 2		Kevin Hawthorne	face-to-face		
3	Issues 3 & 4		Kevin Hawthorne	face-to-face		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Issues 5 & 6		Kevin Hawthorne	face-to-face		
5	Group Presentations		Kevin Hawthorne	face-to-face		
6	Issues 7 & 8		Kevin Hawthorne	face-to-face		
7	Issue 9 & midterm review		Kevin Hawthorne	face-to-face		
8	Midterm Exam		Kevin Hawthorne	face-to-face		
9	Issues 10 & 11		Kevin Hawthorne	face-to-face		
10	Issues 12 & 13		Kevin Hawthorne	face-to-face		
11	Issues 14 & 15		Kevin Hawthorne	face-to-face		
12	Individual Seminars		Kevin Hawthorne	face-to-face		
13	Issues 16 & 17		Kevin Hawthorne	face-to-face		
14	Issues 18 & review		Kevin Hawthorne	face-to-face		
15	Impromptu Debates (Oral Test)		Kevin Hawthorne	face-to-face		
16	Final Exam		Kevin Hawthorne	face-to-face		

11. Other items of notification

English Communication for English Majors (E.C.E.M.) will be taught face-to-face if Covid-19 conditions allow. Be prepared to attend classes on campus in the classroom. However, if conditions change, it may be necessary to deliver part or all of the course online. Therefore, please also be prepared to participate online using Zoom if this becomes necessary.

English Composition for English Majors

Course Name	Course type (credit/hours)	전필(3/3)		Course code	J021
	Target students Division/major/grade	인문학부/2학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	수B(다105) 금B(다105)(다105)		English Grade	A(100%English)
Reference to this course	Prerequisite courses	NA			
	Related basic courses				
	Recommanded concurrent courses				
	Related advanced courses	English Composition 2			

Instructor	Name (title/division)	Katie Mae Klemsen (조교수/대학 다산학부대학)				
	Office Room Number	다산관 215-1	Office phone Number	3243	e-mail	
	Office hours	Mon 10:30 - 12, Wed 12 - 1	Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

Composition 1 is designed to help students write effective paragraphs and produce short essays. The course focuses on writing fundamentals such as grammar, punctuation, sentence construction, clarity, and coherence, as well as paragraph development and organization, leading to a short essay. We examine basic paragraph types, including narrative, description, comparison-contrast, and process, and write paragraph and essay length assignments that reflect these rhetorical purposes. The course is recommended for students preparing for the TOEFL and TOEIC writing tests.

2. Course Objectives

During the semester, students will learn

to understand the fundamentals of English grammar and punctuation;
to support a thesis and construct a convincing argument;
to analyze and revise their own writing and the writing of others;
to understand how writers consider purpose, audience, and voice;
to understand the ways in which content, form, and context combine to create meaning and effect.

3. Class types and activities

lecture, groupwork, in-class writing

4. Teaching Method

☑	lecture	☑	discussion and debate
☐	team project(presentation and case studies)	☐	experiments(role-playing,etc)
☐	designing and production	☐	on-site learning(on-site training)
☐	others		

5. Support Systems in Use

☑	e-class	☐	automatic recording system	☑	web-based assignment
☑	cyber lecture	☑	blended learning(combination of online and offline teaching)		
☐	class behavior analyazing system	☐	others		

6. Teaching Tools

☐	PBL(Problem Based Learning)	☐	CBL(Case Based Learning)
☐	TBL(Team Based Learning)	☐	others

7. Knowledge and ability required for taking this course

basic grammar and willingness to learn

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	minus 2 points for each no-show and minus 1 point for LATE. 3 LATE= 1 no-show
midterm exam			
final exam	1	20%	
quiz			
presentation			
discussion			
homework	4	60%	2 paragraphs + 2 short essays
etc		10%	daily grades, participation and others
study hours	4-6 hrs		

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Sub	PPT files available at eclass	n/a	n/a	2008
Main	From Great Paragraphs to Great Essays ₩	Keith S. Folse	Heinle	2010

10. Class system and Class shedule

essay format
thesis statement
intro, body, conclusion
Narrative, Description
Logical Division
Narrative Essay
Opinion Essay
punctuation
grammar
clarity
grace
style
editing
peer review

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction to academic writing	E	Katie Mae Klemsen			
2	Paragraph PPT, outlining	E	Katie Mae Klemsen			
3	Thesis and topic sentences, Unit 3	E	Katie Mae Klemsen			
4	Unit 3	E	Katie Mae Klemsen			
5	Unit 4 Descriptive essay	E	Katie Mae Klemsen			
6	Conferences	E	Katie Mae Klemsen			
7	Conferences	E	Katie Mae Klemsen			
8	Mid-term Exam Period: Final Draft Due	E	Katie Mae Klemsen			
9	Unit 5: comparision essay	E	Katie Mae Klemsen			
10	Unit 5	E	Katie Mae Klemsen			
11	Unit 6: Cause and effect	E	Katie Mae Klemsen			
12	Unit 6	E	Katie Mae Klemsen			
13	Conferences	E	Katie Mae Klemsen			
14	Conferences	E	Katie Mae Klemsen			
15	EXAM- Essay 2 due	E	Katie Mae Klemsen			
16	Pick up exams and conferences	E	Katie Mae Klemsen			

11. Other items of notification

Method of Evaluation:

The course grade will be based on the following aspects of student performance:

10% Class Participation: students are expected to ask as well as answer questions in class, and actively participate in all class discussions and activities.

60% Writing Assignments: students will complete four writing assignments (2 paragraph assignments and 2 short essays).

20% Tests (exams/quizzes): students will take written tests covering the materials taught in the course.

10% Attendance: students are responsible for obtaining notes and completing assignments given on days they were absent.

Furthermore, absences will reduce the students' final grades as follows:

3 absences = 6 points off the final grade
4 absences = 8 points off the final grade
5 absences = 10 points off the final grade
6 absences = Final Grade is "F"

Note: 3 X Arriving more than 10 minutes Late = 1 Absence
2 X Arriving more than 20 minutes late = 1 Absence

English Composition for English Majors

Course Name	Course type (credit/hours)	전필(3/3)	Course code	J022
	Target students Division/major/grade	영어영문학과/2학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월E(전514) 수E(전514)(전514)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)		Philip Chivers (조교수/대학 다산학부대학)		
	Office Room Number	성호관 419	Office phone Number	031-219-2831	e-mail
	Office hours	Mon B 10.30-11.45, Weds B 10.30-11.45, Thurs B 10.30-11.45	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail	philip@ajou.ac.kr

1. Introduction

Composition 1 is designed to help students write effective paragraphs and produce short essays. The course focuses on writing fundamentals such as grammar, punctuation, sentence construction, clarity, and coherence. We will look at paragraph structure and organization, leading to a short essay. In class, we will study different types of paragraphs, which may include narrative, descriptive, comparison, and cause-effect. With skills learnt in this course, students will be able to write an academic paragraph and essays. The course is recommended for students preparing for the TOEFL, TOEIC and IELTS writing tests.

2. Course Objectives

3. Class types and activities

lecture, groupwork, in-class writing

4. Teaching Method

☑	lecture	☑	discussion and debate
☑	team project(presentation and case studies)	☐	experiments(role-playing,etc)
☐	designing and production	☐	on-site learning(on-site training)
☑	others (This course will involve individual and team writing activities. There will be group work to		

5. Support Systems in Use

☑	e-class	☐	automatic recording system	☐	web-based assignment
☐	cyber lecture	☐	blended learning(combination of online and offline teaching)		
☐	class behavior analyazing system	☐	others		

6. Teaching Tools

☐	PBL(Problem Based Learning)	☐	CBL(Case Based Learning)
☐	TBL(Team Based Learning)	☑	others (As this class is writing based, there will be a lot

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

* Online homework should be completed before class.

* We often use Google docs. Make sure that you are prepared to access Google apps.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	minus 2 points for each no-show and minus 1 point for LATE. 3 LATE= 1 no-show
midterm exam			
final exam	1	20%	1 short essay (individual)
quiz			
presentation			
discussion			
homework	4	60%	1 worksheet answering paragraph structure questions + 1 paragraphs + 1 short essays (individual) + 1 team essay
etc		10%	daily grades, participation and others
study hours	4-6 hrs		

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Etc	PPT files available in class	N/A	N/A	2022
Main	Great Writing 3 Fifth Edition	Keith S. Folse et al	Cengage Learning	2019

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction to academic writing	E	Philip Chivers			
2	Paragraph writing, formatting, topic sentences, complex sentences, writing process	E	Philip Chivers			
3	Writing mechanics, Unit 1	E	Philip Chivers			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Unit 2	E	Philip Chivers			
5	Unit 3	E	Philip Chivers			
6	Unit 4: Descriptive Essay	E	Philip Chivers			
7	Unit 4: Descriptive Essay	E	Philip Chivers			
8	Mid-Term Exam Descriptive Essay	E	Philip Chivers			
9	Unit 5: Comparison Essay	E	Philip Chivers			
10	Unit 5: Comparison Essay	E	Philip Chivers			
11	Unit 5: Comparison Essay	E	Philip Chivers			
12	Unit 6: Cause and Effect Essay	E	Philip Chivers			
13	Unit 6: Cause and Effect EssayConferences	E	Philip Chivers			
14	Unit 6: Cause and Effect Essay	E	Philip Chivers			
15	Unit 7: Classification Essay	E	Philip Chivers			
16	Final Exam Cause and Effect Essay	E	Philip Chivers			

11. Other items of notification

English Grammar

Course Name	Course type (credit/hours)	전선(3/3)	Course code	J025
	Target students Division/major/grade	영어영문학과/2학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월C(다205-A) 수C(다205-A)(다205-A)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	Fundamentals of English Structure
	Recommanded concurrent courses	
	Related advanced courses	English Syntax

Instructor	Name (title/division)	조재형 (교수/인문대학 영어영문학과)			
	Office Room Number	다산관 412	Office phone Number	2823	e-mail
	Office hours	Mon, Wed 14:00-15:00	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

The purpose of this course is to help students understand English grammr and develop their reading and writing skills in English. This course also aims to present to students some important facts of English grammar, some of which have been known for a long time, some of which are products of the tranformational revolution. In addition, this course introduces students to a linguistic, that is, scientific way of thinking about grammar.

2. Course Objectives

3. Class types and activities

This is mainly a lecture based course, and students are expected to explain sentence completion type and error identification type questions in exercises.

4. Teaching Method

[V] lecture		[V] discussion and debate
[ ] team project(presentation and case studies)		[ ] experiments(role-playing,etc)
[ ] designing and production		[ ] on-site learning(on-site training)
[ ] others		

5. Support Systems in Use

[V] e-class	[ ] automatic recording system	[ ] web-based assignment
[ ] cyber lecture	[ ] blended learning(combination of online and offline teaching)	
[ ] class behavior analyazing system	[ ] others	

6. Teaching Tools

[ ] PBL(Problem Based Learning)	[ ] CBL(Case Based Learning)
[ ] TBL(Team Based Learning)	[ ] others

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		5	
midterm exam	1	35	
final exam	1	35	
quiz	2	20	
presentation		5	
discussion			
homework			
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Exploring English Grammar, 4th Edition	Cho, Jai-Hyoung	Ajou Univ. Press	2017
Sub	English Syntax: From Word to Discourse	Berk	Oxford Univ. Press	1999
Sub	Exploring Grammar in Context	Carter, Hughes	Cambridge Univ. Press	2000
Sub	Practical English Usage	Swan, M.	Oxofrd Univ. Press	1995
Sub	Understanding and Using English Grammar	Azar, B.S.	Pearson Education	2002

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Prescriptive vs. Descriptive Grammar	E	조재형			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
2	Clause Structures	E	조재형			
3	Basic Sentence Structure	E	조재형			
4	Tenses (1)	E	조재형			
5	Tenses (II)	E	조재형			
6	Phrases (I)	E	조재형			
7	Phrases (II) / Quiz1	E	조재형	대면수업	퀴즈1지필평가	
8	Mid-term Exam	E	조재형	대면수업	중간지필평가	
9	Special Issues in English Struture	E	조재형			
10	Infinitives vs. Gerunds	E	조재형			
11	Infinitive Constructions	E	조재형			
12	Clauses	E	조재형			
13	Pronouns / Subject-Verb Agreement	E	조재형			
14	Pronoun and Antecedent Agreement	E	조재형			
15	Adverbials / Modifiers / Quiz2	E	조재형	대면수업	퀴즈2지필평가	
16	Final Exam	E	조재형	대면수업	기말지필평가	

11. Other items of notification

Entrepreneurship and Management

Course Name	Course type (credit/hours)	전필(3/3)	Course code	I060
	Target students Division/major/grade	경영학과/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화F(연암507) 목E(연암507)(연암507)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	윤천석(Chun Suk Yoon) (부교수/경영대학 글로벌경영학과)				
	Office Room Number	다산관306-1	Office phone Number	3689	e-mail	
	Office hours	수 09:00-11:15		Homepage address		
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

Business is largely all about making money, building human relationships and the pursuit of meaningfulness. In reality, people tend to look at and analyze many things from business and management perspectives. For example, students often believe they must "market" themselves to a company when applying for a job. It often seems like human relations center around a give-and-take concept. This course is designed to introduce students to the lasting fundamentals of business principles along with a comprehensive overview of immutable business principles. This course will be taught in an easily accessible way in English. Class participation is strongly recommended. Entrepreneurship is imperative in this knowlege-centered society. When you are knowledgeable, your chance of becoming a better entreprenuer is higher.

2. Course Objectives

In the era of knowledge economy, this course intends to provide students with the holistic concepts of entrepreneurship and business management. Understanding unchanging theories and concepts of business and entrepreneurship so far will help students be audacious in their future challegnes no matter where they choose to work for.

Students will be able to
Define and understand key business concepts and their consequences
Discuss key business principles and theories with business professionals
Prioritize different business concepts and apply them to their individual lives and career
Learn how enterprises work and survive in the competitive business world

3. Class types and activities

4. Teaching Method

☑	lecture	☑	discussion and debate
☑	team project(presentation and case studies)	☐	experiments(role-playing,etc)
☐	designing and production	☐	on-site learning(on-site training)
☐	others		

5. Support Systems in Use

☑	e-class	☐	automatic recording system	☐	web-based assignment
☐	cyber lecture	☑	blended learning(combination of online and offline teaching)		
☐	class behavior analyazing system	☐	others		

6. Teaching Tools

☑	PBL(Problem Based Learning)	☑	CBL(Case Based Learning)
☑	TBL(Team Based Learning)	☐	others

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		20	Students need to turn on video & audio for your computer and mobile phone.
midterm exam		40	Depending on COVID-19 situation, the test can be replaced by other other evaluation means such as a writeup.
final exam		40	Depending on COVID-19 situation, the test can be replaced by other other evaluation means.
quiz			
presentation			
discussion			
homework			
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Sub	Matsushita's business principles	PHP	PHP	
Main	Management	Peter Drucker	Harper Business	2008
Ref.(web)	https://www.youtube.com/watch?v=waN94gYwbjQ&list=PLrCHWK77IRERLyZJtphIdybn-rVORZgkF	Peter Drucker		
Ref.(web)	https://www.youtube.com/watch?v=08257W8sdNs&t=551s	JYP		

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Class orientation	E	윤천석(Chun Suk Yoon)			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
2	1. Introduction: Managment and management defined. 2. Management as a social function and liberal art 3. The dimension of management & Ch. 27 The spirtit of performance	E	윤천석(Chun Suk Yoon)			
3	Part 1: Management;s new reality	E	윤천석(Chun Suk Yoon)			
4	Part 2: Business performance/Lee Gun Hee/Son Jung Hee/Steve Jobs	E	윤천석(Chun Suk Yoon)			
5	Entrepreneurship and startup business	E	윤천석(Chun Suk Yoon)			
6	Motivating people	E	윤천석(Chun Suk Yoon)			
7	Part 3: Performance in service institutions	E	윤천석(Chun Suk Yoon)			
8	Midterm exam	E	윤천석(Chun Suk Yoon)			
9	Part 4: Produective work & achieving worker, Charlie Munger scripts	E	윤천석(Chun Suk Yoon)			
10	Part 6: Manager's work and jobs	E	윤천석(Chun Suk Yoon)			
11	Part 7: Managerial skills/Sima Qian money makers	E	윤천석(Chun Suk Yoon)			
12	Part 8: Innovation & entrepreneurship	E	윤천석(Chun Suk Yoon)			
13	Part 9: Managerial organization	E	윤천석(Chun Suk Yoon)			
14	Part 10: New demands on the indiviidual	E	윤천석(Chun Suk Yoon)			
15	Gobalism and Glocalization	E	윤천석(Chun Suk Yoon)			
16	Final exam	E	윤천석(Chun Suk Yoon)			

11. Other items of notification

Financial Management

Course Name	Course type (credit/hours)	전필(3/3)	Course code	I028
	Target students Division/major/grade	경영학과/2학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월A(다B108) 수A(다B108)(다B108)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)		김주현 (조교수/경영대학 경영학과)		
	Office Room Number	다산관 505-2	Office phone Number	3688	e-mail
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

This is an introductory course in corporate financial management. Students will become familiar with the various concepts and tools used to manage financial management issues within a framework of the "law of one price".
Topics will include, but will not necessarily be limited to, interest rates and the time value of money, valuing projects and firms, and risk and return.

2. Course Objectives

3. Class types and activities

Assignments and other class related announcements will be posted on Ajou Bb and/or through email.
There will be 2 assignments during the semester, in which you will handle real financial data.
Classes will be held face-to-face, unless public health guidelines direct otherwise.

4. Teaching Method

☑	lecture	☐	discussion and debate
☐	team project(presentation and case studies)	☐	experiments(role-playing,etc)
☐	designing and production	☐	on-site learning(on-site training)
☐	others		

5. Support Systems in Use

☑ e-class   ☐ automatic recording system   ☐ web-based assignment

☐ cyber lecture   ☐ blended learning(combination of online and offline teaching)

☐ class behavior analyazing system   ☐ others

6. Teaching Tools

☐ PBL(Problem Based Learning)   ☐ CBL(Case Based Learning)

☐ TBL(Team Based Learning)   ☐ others

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10	
midterm exam		30	
final exam		30	
quiz			
presentation			
discussion			
homework		30	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Etc	Texas Instruments BA II Plus Calculator			
Main	Corporate Finance: The Core, 5th Edition	Berk & DeMarzo	Pearson	2020

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction, the Corporation	E	김주현	Lecture		Chapter1
2	Financial Statement Analysis	E	김주현	Lecture		Chapter2
3	Financial Decision Making and the Law of One Price	E	김주현	Lecture		Chapter3
4	Time Value of Money	E	김주현	Lecture		Chapter4

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
5	Interest Rates	E	김주현	Lecture		Chapter5
6	Valuing Bonds	E	김주현	Lecture		Chapter6
7	Investment Decision Rules	E	김주현	Lecture		Chapter7
8	Midterm Exam	E	김주현			
9	Fundamentals of Capital Budgeting	E	김주현	Lecture		Chapter8
10	Valuing Stocks	E	김주현	Lecture		Chapter9
11	Capital Markets and the Pricing of Risk	E	김주현	Lecture		Chapter10
12	Optimal Portfolio Choice	E	김주현	Lecture		Chapter11
13	The Capital Asset Pricing Model	E	김주현	Lecture		Chapter11
14	Estimating the Cost of Capital	E	김주현	Lecture		Chapters 12
15	Investor Behavior and Capital Market Efficiency	E	김주현	Lecture		Chapter13
16	Final Exam	E	김주현			

11. Other items of notification

?   The TI BA II Plus financial calculator is recommended, but not required. If you choose a non-financial calculator, you may be required to calculate PV and NPV without the aid of TVM or NPV functions on a financial calculator.

?   There will be 2 assignments throughout the semester. Unless specified, each work must be original and individually done.

?Plagiarism or academic dishonesty will not be tolerated.

?In line with Article 26 of Undergraduate Operational Regulation of Ajou University, students missing more than 8 classes will be graded an F. The same article specifies which circumstances can be excepted.

?There will be penalties for assignments that are handed in late.

?All re-grading requests must be made within one week of receiving the score, in written form. On submission, the entire exam will be re-graded, and the resulting score will be final.

?Checking the blackboard and email for assignments and class-related communications will be the student's responsibility. Please register a valid email address in the system.

?Notes (PowerPoint slides and other material) provided are for use in the course only. They are not to be reproduced or redistributed outside the class.

?Allowances for personal schedules (plane tickets etc.) will not be made. It is the student's responsibility to be aware of the academic semester dates and plan accordingly.

Financial econometrics

<table>
<tr><td rowspan="3">Course Name</td><td>Course type (credit/hours)</td><td>전선(3/3)</td><td>Course code</td><td colspan="2">I082</td></tr>
<tr><td>Target students Division/major/grade</td><td>금융공학과/1학년</td><td>Openning semester</td><td colspan="2">2022 2ND SEMESTER</td></tr>
<tr><td>Class time and classroom</td><td>화D(다406) 목C(다406)(다406)</td><td>English Grade</td><td colspan="2">A(100%English)</td></tr>
<tr><td rowspan="4">Reference to this course</td><td>Prerequisite courses</td><td colspan="4">Calculus 1, 2, Elementary Financial Statistics, Advanced Financial Statistics</td></tr>
<tr><td>Related basic courses</td><td colspan="4">Econometrics (in Economics Department)</td></tr>
<tr><td>Recommanded concurrent courses</td><td colspan="4">Portfolio Management, Time series Analysis</td></tr>
<tr><td>Related advanced courses</td><td colspan="4">Mathematical Statistics, Econometrics, Data Analysis</td></tr>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="4">유재인 (부교수/경영대학 금융공학과)</td></tr>
<tr><td>Office Room Number</td><td>다산관524호</td><td>Office phone Number</td><td>3670</td><td>e-mail</td></tr>
<tr><td>Office hours</td><td colspan="2">TBA</td><td>Homepage address</td><td></td></tr>
<tr><td rowspan="2">Teaching Assistant</td><td>Name (title/division)</td><td colspan="4"></td></tr>
<tr><td>Office Room Number</td><td>Dasan 524</td><td>Office phone Number</td><td></td><td>e-mail</td></tr>
</table>

1. Introduction

In this course, I introduce multivariate data exploration. The objective of this course is to provide various multivariate econometrics methods from parametric estimation including ordinary least squares, maximum likelihood estimation (logit, probit, tobit, poisson regression, Coxs survival analysis) to nonparametric estimation including PCA factor model, kernel smoother, and K-nearest-neighbors. The general method of moment (GMM) will be also introduced. Over the course, I introduce theoretical background of the estimators, and present many real examples of data and econometrics analysis to understand how those methods are applied. A student may propose a topic for his/her project and supposed to submit a term project.

2. Course Objectives

This course is an introduction to the statistical and econometrics methods which are used both in the direct solution of managerial problems and as foundations for more advanced analytical methods. It satisfies the quantitative methods requirements of the common body of knowledge for business major.
데이터분석기초에서는 통계 자료의 기본적 특성을 파악하는 방법을 배웁니다.
특히 2021학년도 2학기에는 다양한 자료를 다각도에서 추출하고, 분석하는 방법을 중점적으로 배웁니다.
나아가, 선형, 비선형 회귀 분석 방법을 배우며, 자료의 특성에 따라 고려해야할 점을 후반부에 배웁니다.

3. Class types and activities

Homework: One homework (either theoretical or program--based) will be assigned per chapter, with roughly 1.5 to 2 weeks to be completed. The homeworks will be assigned from the lecture notes. You should try to write your solutions as if you are writing a report, meaning that you should restate the problem, explain any calculations, label all figures, and include any extra discussion that is necessary to interpret the results.

Exams: There will be an in-class midterm, and a quiz to be held before finals week at a time and place to be specified later (check my homepage later in the term to know the exact time, data and location). There is no final exam.

Term project: You are supposed to submit a proposal after a midterm-week. You keep working on your econometric project before the final week and I will give you a relevant feedback to complete your project. The term project will be due on the last day of the final week.

Grading Policy: All homeworks must be submitted on time for full credit. Late homeworks will automatically have points deducted. Your final grade will be computed as follows: 45% homework, 25% midterm, and 30% term project.

4. Teaching Method

[V] lecture

[V] discussion and debate

[V] team project(presentation and case studies)

[V] experiments(role-playing,etc)

[ ] designing and production

[ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class

[V] automatic recording system

[V] web-based assignment

[V] cyber lecture

[V] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system

[ ] others

6. Teaching Tools

[V] PBL(Problem Based Learning)

[V] CBL(Case Based Learning)

[V] TBL(Team Based Learning)

[ ] others

7. Knowledge and ability required for taking this course

Calculus 1, 2, Advanced Financial Statistics, Linear Algenbra

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance	매주 확인	5	TBA
midterm exam	1	25	
final exam			
quiz	1	10	One before a final week
presentation			
discussion			
homework	3	45	Group & Individual Assignment
etc	1	30	Term project
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Ref.	Introduction to Econometrics	James H. Stock, and Mark M. Watson	Pearson	
Main	Statistical analysis of financial data in S-PLUS	Carmona, R. (Rene)	Springer	2004

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Review on Probability Theory	E	유재인	녹화강의/실시간		
2	Asymptotics	E	유재인	녹화강의/실시간		
3	Univariate Exploratory Analysis: random variables, nonparametric density estimation	E	유재인	녹화강의/실시간		
4	Empirical Quantiles, fitting heavy-tailed data	E	유재인	녹화강의/실시간		
5	Multivariate data exploration, Joint distributions, marginal distributions,	E	유재인	녹화강의/실시간		
6	Factor model – principle component analysis (PCA)	E	유재인	녹화강의/실시간		
7	Parametric Regression – least-squares regression (OLS), least absolute deviations (LAD) regression	E	유재인	녹화강의/실시간		
8	Midterm	E	유재인	녹화강의/실시간		
9	Maximum likelihood Estimation	E	유재인	녹화강의/실시간		
10	Nonparametric regression – splines, K-nearest-neighbors (KNN), kernel smoothers	E	유재인	녹화강의/실시간		
11	Logit, Probit, Ordinal Logit models	E	유재인	녹화강의/실시간		
12	Truncated/censored data, Tobit model	E	유재인	녹화강의/실시간		
13	Duration models – Survival analysis, proportional hazard models, Coxs model, Accelerated failure time model	E	유재인	녹화강의/실시간		
14	Count models – Poisson model, overdispersion models	E	유재인	녹화강의/실시간		
15	Generalized Method of Moment (GMM) regression	E	유재인	녹화강의/실시간		
16	Term project	E	유재인	녹화강의/실시간		

11. Other items of notification

Financial programming 2

<table>
<tr><td rowspan="3">Course Name</td><td>Course type (credit/hours)</td><td>교필(3/3)</td><td>Course code</td><td>I007</td></tr>
<tr><td>Target students Division/major/grade</td><td>금융공학과/2학년</td><td>Openning semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time and classroom</td><td>화A(다308) 금A(다308)(다308)</td><td>English Grade</td><td>A(100%English)</td></tr>
<tr><td rowspan="4">Reference to this course</td><td>Prerequisite courses</td><td colspan="3">Calculus1, 2</td></tr>
<tr><td>Related basic courses</td><td colspan="3">Financial Management</td></tr>
<tr><td>Recommanded concurrent courses</td><td colspan="3"></td></tr>
<tr><td>Related advanced courses</td><td colspan="3">Basic Data Analysis, Computational Finance</td></tr>
</table>

<table>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="4">민찬호 (조교수/경영대학 금융공학과)</td></tr>
<tr><td>Office Room Number</td><td>다산관 505-1호</td><td>Office phone Number</td><td>3668</td><td>e-mail</td></tr>
<tr><td>Office hours</td><td></td><td>Homepage address</td><td></td><td></td></tr>
<tr><td rowspan="2">Teaching Assistant</td><td>Name (title/division)</td><td colspan="4"></td></tr>
<tr><td>Office Room Number</td><td></td><td>Office phone Number</td><td></td><td>e-mail</td></tr>
</table>

1. Introduction

Why Python?

There are various reasons that Python should be used. First, Python is free in terms of license. Python is available for all major operating systems, such as Windows, Linux/Unix, OS/2, Mac, and Amiga, among others. Being free has many benefits. When students graduate, they could apply what they have learned wherever they go. This is true for the financial community as well. This is not true for Excel and Matlab. Second, Python is powerful, flexible, and easy to learn. It is capable for solving, almost all our financial and economic estimations. Third, we could apply Python to big data. R and Python are two of the most popular open source programming languages for data analysis. Fourth, there are many useful modules in Python. Each model is developed for a special purpose. In this course, we focus on NumPy, SciPy, Matplotlib, Statsmodels, and Pandas modules.

2. Course Objectives

This course presents a set of lectures on Python programming for economics and finance, based on the design and writing by Thomas J. Sargent and John Stachurski. At the beginning of the course, the course offers a short introduction, and explains how to install Python, how to launch and quit Python. In the following classes, the course reviews basic mathematics for economists and financial analysts from a vector, matrix notations, to some probability theory. The course offers how to assign variables, vector, matrix and Tuple, calling embedded functions, writing your own functions, input data from an input file, simple data manipulations, output our data and results, and generate a Python dataset with an extension of pickle. In following chapters, the course introduces and discusses various basic concepts and formulae associated with finance, such as present value of one future cash flow, perpetuity, annuity, annuity due and relevent functions contained in SciPy and numpy.lib financial submodule, written in Python, defnition of NPV and IRR and its related rules with Python graphical presentation of time value of money, and NPV profile.

3. Class types and activities

Lectures, Real problem applications, and discussion will be provided. All materials and exams will be in English (However, the class will be conducted in KOREAN. Students discuss and answer questions in KOREAN, too.). The course will be held in half online half offline - 50% attend offline classes and the other 50% will attend online live class through live streaming. The class environment is to be announced in the first class. ATTENDING THE FIRST CLASS IS ESSENTIAL! The system changes are upon COVID-19 pandemic.

4. Teaching Method

☑	lecture	☑	discussion and debate
☑	team project(presentation and case studies)	☐	experiments(role-playing,etc)
☐	designing and production	☐	on-site learning(on-site training)
☐	others		

5. Support Systems in Use

☑	e-class	☑	automatic recording system	☐	web-based assignment
☐	cyber lecture	☑	blended learning(combination of online and offline teaching)		
☐	class behavior analyazing system	☐	others		

6. Teaching Tools

| ☑ | PBL(Problem Based Learning) | ☑ | CBL(Case Based Learning) |
| ☑ | TBL(Team Based Learning) | ☐ | others |

7. Knowledge and ability required for taking this course

Calculus 1, 2
Principles of Economics

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance	16	5	
midterm exam	1	30	
final exam	1	35	
quiz			
presentation			
discussion			
homework	4	30	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Python for Finance	Yan, Yuxing	Packt Publishing, 2nd Revised edition	2017
Ref.	QuantEcon/lecture-python-programming.notebooks	John Stachurski and Thomas Sargent		
Main	파이썬으로 배우는 금융분석 2/e	얀, 유싱	팩트 출판	2017

10. Class system and Class shedule

1. Review calculus and probability theory
2. Launch Python and understand Python environment
3. Apply Python programming for mathematical problems
4. Review a few notable financial management problems
5. Apply Python programming for financial problems

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Overiew & Setting up your python environment	K	민찬호	online		
2	Linear Algebra review	K	민찬호	online		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
3	Matrices and Linear Equations in Python	K	민찬호	online		
4	Probability Models	K	민찬호	online		
5	Random Vectors and Matrices	K	민찬호	online		PROBLEM SET
6	Python Basics: function	K	민찬호	online + offline		
7	Python Modules: NumPy and SciPy	K	민찬호	online + offline		LAB EXERCISE
8	Midterm	K	민찬호	online		TA SESSION
9	Python loops and Data manipulation	K	민찬호	online + offline		
10	Writing a Financial Calculator in Python	K	민찬호	online + offline		
11	Graphical Presentation of NPV and IRR	K	민찬호	online		PROBLEM SET
12	Sources of Data and Data Retrieving	K	민찬호	online + offline		
13	Python program for price movement	K	민찬호	online + offline		
14	Properties for a pandas DataFrame	K	민찬호	online + offline		LAB EXERCISE
15	Generate a Python dataset with an extension of .pkl or .pickle	K	민찬호	online + offline		
16	Final exam	K	민찬호	online + offline		TA SESSION

11. Other items of notification

Fundamentals of English Structure

Course Name	Course type (credit/hours)	전선(3/3)		Course code	J016
	Target students Division/major/grade	영어영문학과/영어영문학전공 1학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	월E(다205-A) 수E(다205-A)(다205-A)		English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	영어1 / 영어2
	Related advanced courses	영문법

Instructor	Name (title/division)	조재형 (교수/인문대학 영어영문학과)			
	Office Room Number	다산관 412	Office phone Number	2823	e-mail
	Office hours	Mon, Wed 14:00-15:00	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

The purpose of this course is to help students understand the structure of English, explore English grammr, and hence develop their reading and writing skills in English.
This course also provides strudents with the opportunity to develop their listening and speaking skills in English through a range of authentic audio and video recordings.

2. Course Objectives

3. Class types and activities

This is mainly a lecture based course, and students are expected to explain sentence completion type and error identification type questions in exercises

4. Teaching Method

[V] lecture

[ ] discussion and debate

[ ] team project(presentation and case studies)

[ ] experiments(role-playing,etc)

[ ] designing and production

[ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class

[ ] automatic recording system

[ ] web-based assignment

[ ] cyber lecture

[ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system

[ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)

[ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)

[ ] others

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		5	
midterm exam	1	35	
final exam	1	35	
quiz	2	20	
presentation		5	
discussion			
homework			
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Fundamental English Grammar	Cho, J.H. & H. Han	Ajou Univ. Press	2021
Sub	Fundamental of English Grammar	Azar, B.S.	Prentice Hall	1992
Sub	Grammar in Use	Murphy, R.	Cambridge Univ. Press	2000

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction / Goals Angels on a Pin: a Modern Parabl (Comprehension Check-up, Vocabulary, Word Forms, Grammatical Usage)	E	조재형			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
2	Basic Word Order: Statements / Questons / Commands / Tag Questions	E	조재형			
3	Modifiers and Modification: Modifiers of Nouns / Modifiers of Verbs / Modifiers of Adjectives and Adverbs / Modifiers of Sentence	E	조재형			
4	Tense (I): Simple Present Tense / Present Progressive Tense / Verbs Usually Used in the Simple Present, Not in the Present Progressive	E	조재형			
5	Tense (II): Simple Past Tense / Past Progressive Tense/ Past Progressive and Simple Past / Future Tense / Future Progressive Tense / Future Time Clause	E	조재형			
6	Tense (III): Present Perfect Tense / Present Perfect and Simple Past / Present Perfct Progressive Tense / Past Perfect Tense / Past Perfect Progressive Tense / Future Perfect Tense / Future Perfect Progressive Tense	E	조재형			
7	Question and Answer Session / Quiz1	E	조재형	대면수업	퀴즈1지필평가	
8	Mid-Term Exam	E	조재형	대면수업	중간지필평가	
9	Auxiliary Verbs: Expressing Ability / Expressing Permission / Expressing Obligation and Necessity / Expressing Possibility and Probability / Expressing Willingness, Characteristics, and Wants Troublesome Varbs: Transitive Verbs vs. Intransitive Verbs / The Principal Verbs Do and Make / Confusing Pairs of Transitive and Intransitive Verbs	E	조재형			
10	Infinitives and Gerunds: Verb + Infinitive / Verb + (Noun Phrase) + Infinitive / Verb + Noun Phrase + Infinitive / Verb + Gerund / Verb + Infinitive / Verb + Gerund	E	조재형			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
11	Participles: Participles as Modifiers of Nouns / Participles as Subject or Object Complements / Participle Constructions in Subordinate Clauses	E	조재형			
12	Subjunctive Mood: Demand-Class Verbs and Predicates / The Verb Wish / If-Clauses	E	조재형			
13	Articles: Articles with Singular Countable Nouns / Articles with Plural Countable Nouns / Articles with Uncountable Nouns / Articles with Names / Specific Uses of the Definite Article Prepositions: Time/ Place / Direction / Manner / Phrasal Combinations	E	조재형			
14	Nouns and Pronouns: Nouns / Pronouns / Gender Agreement: Subject-Verb Agreement	E	조재형			
15	Qustion and Answer Session / Quiz2	E	조재형	대면수업	퀴즈2지필평가	
16	Final Exam	E	조재형	대면수업	기말지필평가	

11. Other items of notification

Global Society and Governance

Course Name	Course type (credit/hours)	전선(3/3)		Course code	K057
	Target students Division/major/grade	행정학과/3학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	화D(율255) 목C(율255)(율255)		English Grade	A(100%English)
Reference to this course	Prerequisite courses				
	Related basic courses				
	Recommanded concurrent courses				
	Related advanced courses				

Instructor	Name (title/division)	이유현 (조교수/사회과학대학 행정학과)			
	Office Room Number	율곡관 521호	Office phone Number	2749	e-mail	
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

Global Society and Governance.

The subject of Global Society and Governance aims at introducing students to the study of global governance as the functioning of international relations that determine the actions of certain persons, institutions, or markets.
These rules derive mostly from international organizations, governments, and non-government entities.

The main goals of the study of the subject are for students;
1) To learn about the rules and mechanisms in international relations and in the global economy, climate change, and the attainment global agenda.
2) To learn about the Korean governance model in the era of Covid 19 crisis, offering insights for other countries.

2. Course Objectives

By the end of this course, student will recognize the importance of comparing various forms of public administration in the global society.
The student will also be eligible for explaining the role and work of IOs and non-government organizations.

3. Class types and activities

This class will be delivered 100% in English.
This class includes lectures, presentations, discussions.

Every week, students should prepare for the debate.
All class materials will be uploaded to Ajou BB every week.

4. Teaching Method

- [V] lecture
- [V] team project(presentation and case studies)
- [ ] designing and production
- [ ] others
- [V] discussion and debate
- [ ] experiments(role-playing,etc)
- [ ] on-site learning(on-site training)

5. Support Systems in Use

- [V] e-class
- [ ] cyber lecture
- [ ] class behavior analyazing system
- [ ] automatic recording system
- [V] blended learning(combination of online and offline teaching)
- [ ] others
- [ ] web-based assignment

6. Teaching Tools

- [V] PBL(Problem Based Learning)
- [V] TBL(Team Based Learning)
- [V] CBL(Case Based Learning)
- [ ] others

7. Knowledge and ability required for taking this course

Basic English communication skills.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance	32	20	including attitude, active participation in debate and team project
midterm exam			
final exam			
quiz			
presentation	1	40	
discussion			
homework	1	40	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	International Politics: Power and Purpose in Global Affairs	Paul DAnieri	Cengage Learning, Inc	2020
Sub	코로나 19와 한국의 거버넌스	박재창	박영사	2021

10. Class system and Class shedule

This class requires students active participation in class
Students should prepare their debates every week.

Students will also organize their teams for their team project.
Attendance and attitude will take into account in the final grade.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction: Problems and Questions	E	이유현			
2	Historical Evolution of International Politics	E	이유현			
3	The State, Society and the Foreign Policy Process	E	이유현			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	International Organizations	E	이유현			composition of team for team project
5	International Insecurity and the use of Force	E	이유현			
6	Political Economy , Trade and Finance	E	이유현			
7	Global Environment and the Power and Purpose	E	이유현			
8	Feedback & Q&A	E	이유현			
9	Humanities and Global governance	E	이유현			
10	Risk Governance	E	이유현			
11	Korean society and nation	E	이유현			
12	Korean governance model in the era of Covid 19	E	이유현			
13	Governance and performance evaluation	E	이유현			
14	Student presentation	E	이유현			
15	Student presentation	E	이유현			
16	Feedback & Q&A	E	이유현			

11. Other items of notification

Human Resources Management

Course Name	Course type (credit/hours)	전선(3/3)	Course code	I032
	Target students Division/major/grade	경영학부/2학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월E(다310) 수E(다310)(다310)	English Grade	A(100%English)
Reference to this course	Prerequisite courses	Organizational Behavior		
	Related basic courses			
	Recommanded concurrent courses			
	Related advanced courses			

Instructor	Name (title/division)		최명원 (교수/경영대학 경영학과)		
	Office Room Number	다산관 529호	Office phone Number	3671	e-mail
	Office hours	to be announced		Homepage address	
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

This course introduces you to the field of Human Resource Management (HRM), a systematic study of the policies, practices, and systems that influence employees' attitudes and behaviors. Throughout the semester, you will learn the principles of HRM and their applications in organizational settings. Specific topics include recruitment, selection, training & development, performance management, compensation, and employee relations.

2. Course Objectives

The basic objective of this course is to help you understand the theories and practices of HRM. Upon completion of the course, you should be able to: (a) explain the key principles of HRM, (b) explain how HRM practices are designed, and (c) explain how HRM practices can be used to achieve organizational goals.

3. Class types and activities

You are required to read the assigned chapter(s) of the textbook prior to each class session. Lecture notes will be uploaded to Ajou Blackboard (http://eclass2.ajou.ac.kr) around once a week.

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies) [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Attendance
midterm exam	1	40%	Midterm Exam
final exam	1	40%	Final Exam
quiz		10%	Quizz
presentation			
discussion			
homework			
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Human Resource Management (11th edition)	R. A. Noe, J. R. Hollenbeck, B. Gerhart, P. M. Wright	McGraw-Hill Education	2018

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Overview	E	최명원			
2	Introduction to HRM	E	최명원			
3	HR Planning & Recruitment	E	최명원			
4	Selection & Placement	E	최명원			
5	Employee Separation & Retention	E	최명원			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
6	Performance Management	E	최명원			
7	Performance Management (cont.)	E	최명원			
8	Midterm Exam	E	최명원			
9	Employee Training	E	최명원			
10	Employee Training (cont.)	E	최명원			
11	Employee Development	E	최명원			
12	Compensation	E	최명원			
13	Employee Benefits	E	최명원			
14	Employee Relations	E	최명원			
15	Global HRM	E	최명원			
16	Final Exam	E	최명원			

11. Other items of notification

IT Professional English

Course Name	Course type (credit/hours)	전선(3/3)	Course code	F095
	Target students Division/major/grade	소프트웨어학과/3학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화F(종설101) 목E(종설101)(종설101)	English Grade	A(100%English)
Reference to this course	Prerequisite courses			
	Related basic courses			
	Recommanded concurrent courses			
	Related advanced courses			

Instructor	Name (title/division)	Joseph Ball (조교수/대학 다산학부대학)			
	Office Room Number	성호관417호	Office phone Number	2846	e-mail
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

IT English is a course that concentrates on English with an Information Technology focus. Speaking lessons include pair work, small group tasks and class discussions. The language of instruction is in English and students are expected to communicate in English during class.

2. Course Objectives

(1)Notice English pronunciation, intonation and stress patterns and practice speaking more clearly for PPT activities.

(2)Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities.

(3)Use appropriate vocabulary and grammar to express their ideas about the course topics.

(4)Follow the steps in the IT Business Proposal

3. Class types and activities

Investigating New Technologies
CASE STUDY BASED ON IT BUSINESS
Presentation (PPT) ENGLISH

4. Teaching Method

[V] lecture   [V] discussion and debate

[V] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [V] automatic recording system   [V] web-based assignment

[V] cyber lecture   [V] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system [ ] others

6. Teaching Tools

[V] PBL(Problem Based Learning)   [V] CBL(Case Based Learning)

[V] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate material.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

* Online homework should be completed before class.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		15%	Attendance: Students are responsible for obtaining notes and completing assignments given on days they were absent. Furthermore, unexcused absences w
midterm exam			
final exam		30%	Individual IT Business Proposal: Students will complete a Written IT Bus. Proposal 15% and an Individual Power Point Presentations from Proposal: 15%
quiz			
presentation		10%	Daily Class Participation: Students are expected to speak English during class time. Students are expected to complete all in-class tasks. Students ar
discussion			
homework		45%	IT Form, Breakthrough Tech PPT, Infographic, Crisis Management Presentation, & Design a Car or Robot
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
	Please have a laptop for every class.			

10. Class system and Class shedule

We will simply follow the activities from the syllabus.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Review of SyllabusYour Future IT Public Limited Company Exercise 5%		Joseph Ball	Online & Video		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
2	IT Breakthrough Technologies Exercise 10%		Joseph Ball	Online & Video		
3	IT Group Infographics Group Exercise 10%		Joseph Ball	Online & Video		
4	IT Group Infographics Group Exercise 10%		Joseph Ball	Online & Video		
5	IT Group Infographics Group Exercise 10%		Joseph Ball	Online & Video		
6	IT Crisis Management Group Exercise 10%		Joseph Ball	Online & Video		
7	IT Crisis Management Group Exercise 10%		Joseph Ball	Online & Video		
8	IT Crisis Management Group Exercise 10%		Joseph Ball	Online & Video		
9	IT Crisis Management Group Exercise 10%		Joseph Ball	Online & Video		
10	Review for Individual IT Business Proposals and PPT Creating an IT Business Proposal		Joseph Ball	Online & Video		
11	Review for Individual IT Business Proposals and PPT Creating an IT Business Proposal		Joseph Ball	Online & Video		
12	Review for Individual IT Business Proposals and PPT Creating an IT Business Proposal		Joseph Ball	Online & Video		
13	Guidelines for Individual IT Product Business Proposal PPT Design a Car Group Exercise 10%		Joseph Ball	Online & Video		
14	Management Styles CEO Traits Guidelines		Joseph Ball	Online & Video		
15	Due Individual IT Business Proposal 15%		Joseph Ball	Online & Video		
16	IT Business Power Point Presentations 15%		Joseph Ball	Online & Video		
17	IT Business Power Point Presentations 15%		Joseph Ball	Online & Video		

11. Other items of notification

Industrial Relations

<table>
<tr><td rowspan="3">Course Name</td><td>Course type (credit/hours)</td><td colspan="2">전선(3/3)</td><td>Course code</td><td>I057</td></tr>
<tr><td>Target students Division/major/grade</td><td colspan="2">경영학부/3학년</td><td>Openning semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time and classroom</td><td colspan="2">월D(다310) 목D(다310)(다310)</td><td>English Grade</td><td>A(100%English)</td></tr>
</table>

<table>
<tr><td rowspan="4">Reference to this course</td><td>Prerequisite courses</td><td></td></tr>
<tr><td>Related basic courses</td><td></td></tr>
<tr><td>Recommanded concurrent courses</td><td></td></tr>
<tr><td>Related advanced courses</td><td></td></tr>
</table>

<table>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="4">정대용 (교수/경영대학 경영학과)</td></tr>
<tr><td>Office Room Number</td><td>다산관 424</td><td>Office phone Number</td><td>2840</td><td>e-mail</td><td></td></tr>
<tr><td>Office hours</td><td colspan="2">1pm-2:30pm, Tue.</td><td>Homepage address</td><td></td></tr>
<tr><td rowspan="2">Teaching Assistant</td><td>Name (title/division)</td><td colspan="5"></td></tr>
<tr><td>Office Room Number</td><td>509 Dasan Hall</td><td>Office phone Number</td><td>010-7383-4537</td><td>e-mail</td><td>ich45337@hanmail.net</td></tr>
</table>

1. Introduction

Industrial relations (IR) is the interdisciplinary field of study that concentrates on workers and their unions (and associations), employers and their organizations, government, and the environment in which these "actors" interact. This course explores the components and dynamics of IR systems and how the IR actors use rule-making processes to establish terms and conditions of employment in their environmental settings. A secondary emphasis is on international comparisons to enhance understanding of the unique qualities of the Korean IR system and an appreciation for international variations. The course utilizes an interdisciplinary approach, drawing on theories and concepts from economics, psychology, sociology, labor law, and other behavioral sciences.

2. Course Objectives

3. Class types and activities

1. We hold live online classes in Zoom due to the COVID-19 situation (A couple offline classes could be held if necessary). You must have a camera & a microphone in your computer and turn them on during class to show your face/upper body (no mask/no hat) and participate in discussions effectively. Two offline exams will be given.

2. I do not use a spoon-feeding teaching style. Learning in my class is based on collective action (discussion-bases class), and all activities in class will be conducted in English only, You are required to complete the readings prior to each class, contribute to the discussion of the material, and ask questions when you do not understand. You will learn from your classmates and help them learn. As an instructor, I am here to facilitate your mutual teaching and learning, not to give you "the answers." Active participation in discussions is expected, and your participation will be evaluated. As such, you should have an appropriate level of English skills and willingness to participate in class activities.

WARNING: If you are uncomfortable or unwilling to participate and contribute to a joint-learning environment, you should consider taking another course (or taking this course with another instructor).

4. Teaching Method

☑	lecture	☑	discussion and debate
☑	team project(presentation and case studies)	☐	experiments(role-playing,etc)
☐	designing and production	☐	on-site learning(on-site training)
☐	others		

5. Support Systems in Use

☑	e-class	☐	automatic recording system	☐	web-based assignment
☐	cyber lecture	☐	blended learning(combination of online and offline teaching)		
☐	class behavior analyazing system	☐	others		

6. Teaching Tools

☑	PBL(Problem Based Learning)	☑	CBL(Case Based Learning)
☑	TBL(Team Based Learning)	☐	others

7. Knowledge and ability required for taking this course

1. College-level English skills.
2. Willingness to participate in class activities.

NOTE: all activites in class will be conducted in English only.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance			
midterm exam	1	35%	Short essay questions.
final exam	1	35%	Short essay questions.
quiz		10%	Pop-quizzes (unannounced) will be given several times througout the semester.
presentation			
discussion			
homework			
etc		20%	Participation in class activities
study hours	3-7 hours depending on your abilties		

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Course pack (Various Articles)	Authors	Publishers	0000
Main	An Introduction to U.S. Collective Bargaining and Labor Relations	Harry C. Katz, Thomas A. Kochan, and Alexander J. S. Colvin	Cornell University Press	2017

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction to the field of IR	E	정대용			
2	Classical Theories: Adam Smith & Karl Marx	E	정대용			
3	Institutionalist View & System Approach	E	정대용			
4	Korean IR I	E	정대용			
5	Korean IR II	E	정대용			
6	Environment, the State & Labor Laws	E	정대용			
7	Union Strategies & Structures	E	정대용			
8	Mid-term Exam (Offline)	E	정대용			
9	Management Strategies & Structures	E	정대용			
10	Union Organizing & Bargaining Structures I	E	정대용			
11	Union Organizing & Bargaining Structures II	E	정대용			
12	Negotiation Process & Strikes	E	정대용			
13	Participatory Processes	E	정대용			
14	International & Comparative IR: Germany	E	정대용			
15	International & Comparative IR: Japan	E	정대용			
16	Exam Review & Final Exam (Offline)	E	정대용			

11. Other items of notification

1. My course does not fit those students whose main goal is to get a "good grade." It better fits those who enjoy the process of learning.

2. This course is offerd for upper-level undergraduate (third & fourth year) students, and its content is complex. You should take another course if you are looking for an "easy course."

3. If you already took this course with me before, you are not allowed to retake this course with me. It would be more beneficial for you to retake this course with another prof.

Introduction to AI Physics

<table>
<tr><td rowspan="3">Course
Name</td><td>Course type
(credit/hours)</td><td colspan="2">전필(3/3)</td><td>Course code</td><td>G011</td></tr>
<tr><td>Target students
Division/major/grade</td><td colspan="2">물리학과/1학년</td><td>Openning
semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time
and classroom</td><td colspan="2">월C(원540) 수C(원540)(원540)</td><td>English
Grade</td><td>A(100%English)</td></tr>
<tr><td rowspan="4">Reference
to this
course</td><td>Prerequisite courses</td><td colspan="4"></td></tr>
<tr><td>Related basic courses</td><td colspan="4"></td></tr>
<tr><td>Recommanded
concurrent courses</td><td colspan="4"></td></tr>
<tr><td>Related
advanced courses</td><td colspan="4"></td></tr>
</table>

<table>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="4">윤종희 (조교수/자연과학대학 물리학과)</td></tr>
<tr><td>Office Room
Number</td><td>원천관 411호</td><td>Office phone
Number</td><td>2580</td><td>e-mail</td></tr>
<tr><td>Office
hours</td><td></td><td>Homepage
address</td><td></td><td></td></tr>
<tr><td rowspan="2">Teaching
Assistant</td><td>Name (title/division)</td><td colspan="4"></td></tr>
<tr><td>Office Room
Number</td><td></td><td>Office phone
Number</td><td></td><td>e-mail</td></tr>
</table>

1. Introduction

The objective of Programming in Physics is to teach programming skills and computational thinking. To learn programming is important because it is required in all areas of science and engineering, although various programming languages are used. Fifty years ago, the solution to a problem in mathematics or engineering was often a formula. However, it is usually an algorithm today.

2. Course Objectives

The course objective is to learn the programming language, Python, which was designed to be easy to learn. Python is used by many universities worldwide for teaching introductory programming. It is free, open-source, and multi-platform. By learning Python, students can improve their programming skills and get computational thinking.

3. Class types and activities

There will be a theoretical lecture and 2-hour live lab course in a week.

4. Teaching Method

[V]	lecture	[ ]	discussion and debate
[ ]	team project(presentation and case studies)	[V]	experiments(role-playing,etc)
[ ]	designing and production	[ ]	on-site learning(on-site training)
[ ]	others		

5. Support Systems in Use

[V]	e-class	[ ]	automatic recording system	[ ]	web-based assignment
[V]	cyber lecture	[V]	blended learning(combination of online and offline teaching)		
[ ]	class behavior analyazing system	[ ]	others		

6. Teaching Tools

[V]	PBL(Problem Based Learning)	[ ]	CBL(Case Based Learning)
[ ]	TBL(Team Based Learning)	[ ]	others

7. Knowledge and ability required for taking this course

이전의 프로그래밍 경험은 요구되지 않으며 <일반 물리학1,2 및 수리물리학>의 지식이 있으면 필요하다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	전체 출석의 1/3이상 결석하면 F학점
midterm exam			
final exam		30%	대면평가 (예정) - 평가방법 및 평가비율은 사정에 따라 변경 될 수 있음
quiz			
presentation			
discussion			
homework		60%	
etc			
study hours	5시간		

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Lecture notes			

10. Class system and Class shedule

1) Python의 변수 사용법, 내부 함수, 그래프 그리는 방법 등 기본적인 활용 방법을 익히기
2) 파일 입출력, 사용자 정의 함수 등을 통해 데이터를 손쉽게 운용하는 프로그램 만들기
3) 물리 현상의 데이터 처리와 Fitting 방법 배우기
4) 물리학 문제를 풀기 위한 수치 계산법을 배우고 여러 다른 시스템에 적용하기

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction to the course	E	윤종희			
2	Conditionals and loops	E	윤종희			
3	Variables and basic data types	E	윤종희			
4	User-defined functions 1	E	윤종희			
5	User-defined functions 2	E	윤종희			
6	Sequences	E	윤종희			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
7	String and Dictionary	E	윤종희			
8	Midterm project	E	윤종희			
9	Text processing	E	윤종희			
10	Objects 1	E	윤종희			
11	Objects 2	E	윤종희			
12	Algorithm	E	윤종희			
13	Models 1	E	윤종희			
14	Models 2	E	윤종희			
15	Final project	E	윤종희			
16	Final exam	E	윤종희			

11. Other items of notification

Introduction to British and American Literature

Course Name	Course type (credit/hours)	전필(3/3)		Course code	J020
	Target students Division/major/grade	영어영문학과/2학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	화C(다507) 금C(다507)(다507)		English Grade	A(100%English)
Reference to this course	Prerequisite courses				
	Related basic courses	문학 전공영어 독해			
	Recommanded concurrent courses				
	Related advanced courses	영문학사, 미국문학사			

Instructor	Name (title/division)	박정식 (교수/인문대학 영어영문학과)			
	Office Room Number	다산관518	Office phone Number	2828	e-mail
	Office hours	Tue. Fri. 10:00-12:00 or by appointment	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

We will read poetry, fiction, and dramas in English and American literature and examine the characteristics, features, components of each genre to better understand the literature and learn the basics of literary analysis.

2. Course Objectives

Improving English reading and listening proficiency.
Deepening the understanding of American and English culture and literature.
Learning the basics of literary analysis and criticism.

영문 독해력 향상
영미 문화와 문학에 대한 이해 심화
문학 작품 감상, 비평, 분석 기초 배우기

3. Class types and activities

Required to read the reading assignment in advance to be prepared for the lecture, class discusssions and class activities.

4. Teaching Method

☑	lecture	☑	discussion and debate
☑	team project(presentation and case studies)	☐	experiments(role-playing,etc)
☐	designing and production	☐	on-site learning(on-site training)
☑	others ( )		

5. Support Systems in Use

☑ e-class   ☐ automatic recording system   ☐ web-based assignment

☐ cyber lecture   ☐ blended learning(combination of online and offline teaching)

☐ class behavior analyazing system   ☐ others

6. Teaching Tools

☑ PBL(Problem Based Learning)   ☐ CBL(Case Based Learning)

☐ TBL(Team Based Learning)   ☐ others

7. Knowledge and ability required for taking this course

Basic reading, listening, writing and speaking proficiency in English.

영어 읽기, 듣기, 쓰기, 말하기 기초 능력.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Presence/Participation, Contribution. -1 Point for Each Absence beyond 3
midterm exam		25%	
final exam		25%	
quiz	5+	20%	
presentation		10%	5 pts Presentation Proposal, 5 pts for Presentation
discussion			
homework		10%	5 pts for Assignment (extra pts); 5 pts for In-Class Writing and Written Comments
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Course Packet (Literary Works) on Bb	Different Authors		

10. Class system and Class shedule

Poetry, Short Story, Novel, Drama, etc.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Course Introduction	E	박정식	Lecture and Discussion	Quiz, Writing	Reading Assignment
2	Genre, Theme	E	박정식	Lecture and Discussion	Quiz, Writing	Reading Assignment
3	"Love Poem #1", "Dover Beach	E	박정식	Lecture and Discussion	Quiz, Writing	Reading Assignment
4	"A Very Short Story," "Reunion"	E	박정식	Lecture and Discussion	Quiz, Writing	Reading Assignment

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
5	"Happy Endings", "Magic"	E	박정식	Lecture and Discussion	Quiz, Writing	Reading Assignment
6	"Hills like White Elephants"	E	박정식	Lecture and Discussion	Quiz, Writing	Reading Assignment
7	"Black Cat", Review	E	박정식	Lecture and Discussion	Quiz, Writing	Reading Assignment
8	Mid-term Exam	E	박정식	Lecture and Discussion	Exam	Exam
9	"A Rose for Emily"	E	박정식	Lecture and Discussion	Quiz, Writing	Reading Assignment
10	Romeo and Juliet	E	박정식	Lecture and Discussion	Quiz, Writing	Reading Assignment
11	Romeo and Juliet	E	박정식	Lecture and Discussion	Quiz, Writing	Reading Assignment
12	Novel and Reality	E	박정식	Lecture and Discussion	Quiz, Writing	Reading Assignment
13	In Cold Blood	E	박정식	Lecture and Discussion	Quiz, Writing	Reading Assignment
14	In Cold Blood	E	박정식	Lecture and Discussion	Quiz, Writing	Reading Assignment
15	In Cold Blood, Review	E	박정식	Lecture and Discussion	Quiz, Writing	Reading Assignment
16	Final Exam	E	박정식	Lecture and Discussion	Exam	Exam

11. Other items of notification

Introduction to Financial machine learning

<table>
<tr><td rowspan="3">Course Name</td><td>Course type (credit/hours)</td><td>전선(3/3)</td><td>Course code</td><td>I079</td></tr>
<tr><td>Target students Division/major/grade</td><td>금융공학과/3학년</td><td>Openning semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time and classroom</td><td>월A(다310) 수A(다310)(다310)</td><td>English Grade</td><td>A(100%English)</td></tr>
</table>

Reference to this course	Prerequisite courses	
	Related basic courses	금융 선형대수, 통계
	Recommanded concurrent courses	
	Related advanced courses	금융딥러닝기초

<table>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="4">민찬호 (조교수/경영대학 금융공학과)</td></tr>
<tr><td>Office Room Number</td><td>다산관 505-1호</td><td>Office phone Number</td><td>3668</td><td>e-mail</td></tr>
<tr><td>Office hours</td><td></td><td>Homepage address</td><td></td><td></td></tr>
<tr><td rowspan="2">Teaching Assistant</td><td>Name (title/division)</td><td colspan="4"></td></tr>
<tr><td>Office Room Number</td><td></td><td>Office phone Number</td><td></td><td>e-mail</td></tr>
</table>

1. Introduction

This lecutres consists of basic theory and practice of machine learning. The topics we will cover includes, supervised and unsupervised learning and reinforcement learning.

2. Course Objectives

[교육목표]
기계학습의 기본 개념과 관련 알고리즘 전반에 대한 학습을 통해 주어진 데이터를 효율적으로 활용하여 의사 결정에 활용할 수 있는 능력을 배양한다.

[학습성과]
1) 기계학습 분야의 각 기본 주제 개념 및 알고리즘 동작 방식을 이해한다.
2) 주어진 데이터에 관련한 관련 문제를 도출할 수 있다.
3) 데이터 및 도출된 문제에 대한 적절한 기법을 적용, 평가를 통해 최적 기법을 선택할 수 있다.
4) 팀 기반 설계 프로젝트를 구체화하여 적절한 팀웍을 통해 진행할 수 있다.

3. Class types and activities

This course have two main parts: theory and application. In theory part we will study the underlying concept and knowledge of machine learning technique. In application, we will make use of python library to handle financial data with machine learning algorithm

4. Teaching Method

[V] lecture
[V] team project(presentation and case studies)
[V] designing and production
[ ] others

[V] discussion and debate
[ ] experiments(role-playing,etc)
[ ] on-site learning(on-site training)

5. Support Systems in Use

[V] e-class
[V] cyber lecture
[ ] class behavior analyazing system

[ ] automatic recording system
[V] blended learning(combination of online and offline teaching)
[ ] others

[ ] web-based assignment

6. Teaching Tools

[ ] PBL(Problem Based Learning)
[V] TBL(Team Based Learning)

[ ] CBL(Case Based Learning)
[ ] others

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	수업 참여도 평가
midterm exam		30%	
final exam		30%	
quiz			
presentation			
discussion			
homework		30%	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Lecture slide			
Ref.	Python machine learning:: Machine Learning and Deep Learning with Python, scikit-learn, and TensorFlow 2, Third Edition	Sebastian Raschka, Vahid Mirjalili	Packt	
Ref.	밑바닥부터 시작하는 딥러닝(Deep learning from scratch)	사이토 고키	한빛미디어/O'Reilly	

10. Class system and Class shedule

Supervised learning
Deep neural network
Unsupervised learning
Reinforcement learning

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction	K	민찬호			
2	Classification and Regression	K	민찬호			
3	Classification and Regression	K	민찬호			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Classification and Regression	K	민찬호			
5	Neural Network	K	민찬호			
6	Neural Network	K	민찬호			
7	Neural Network	K	민찬호			
8	Mid-term	K	민찬호			
9	RL	K	민찬호	프로젝트 제안발표		
10	RL	K	민찬호			
11	Clustering	K	민찬호			
12	Dimensionality reduction	K	민찬호			
13	Random Tree	K	민찬호			
14	Random Forest	K	민찬호			
15	other method	K	민찬호	프로젝트 최종발표		
16	Final	K	민찬호			

11. Other items of notification

없음

Introduction to International Relations

Course Name	Course type (credit/hours)	전필(3/3)	Course code	K071
	Target students Division/major/grade	정치외교학과/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화F(율257) 목E(율257)(율257)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	김명철 (조교수/사회과학대학 정치외교학과)				
	Office Room Number	율곡관512	Office phone Number	2744	e-mail	
	Office hours	TBA and by appointment	Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

This course is an introduction to the study of international relations. The purpose of the course is to provide a theoretical and historical basis for analyzing and understanding international relations. The major topics of this course are interstate war, international political economy, human right practices, and other current global conflicts including terrorism, environmental degradation, and nuclear proliferation. We will discuss the nature of the international system, the causes of international conflicts and the difficulties faced by states as well as non-state actors in establishing cooperation and resolving conflicts. We will also consider political dimensions of the international trade, financial, and monetary relations.

2. Course Objectives

The course will prepare you for more advanced classes in international relations. And it will also help you develop analytical skills to understand current world events.

3. Class types and activities

Lecture and Discussion

4. Teaching Method

☑ lecture	☑ discussion and debate
☐ team project(presentation and case studies)	☐ experiments(role-playing,etc)
☐ designing and production	☐ on-site learning(on-site training)
☐ others	

5. Support Systems in Use

☑ e-class	☐ automatic recording system	☐ web-based assignment
☑ cyber lecture	☐ blended learning(combination of online and offline teaching)	
☐ class behavior analyazing system	☐ others	

6. Teaching Tools

☑ PBL(Problem Based Learning)	☑ CBL(Case Based Learning)
☑ TBL(Team Based Learning)	☐ others

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		5%	
midterm exam		30%	
final exam		40%	
quiz			
presentation			
discussion		5%	
homework		10%	
etc		10%	Group Study
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World Politics: Interests, Interactions, Institutions	Jeffry A. Frieden, David A. Lake, and Kenneth A. Schultz	W. W. Norton	2018
Sub	All other readings will be posted on the Ajou Bb			

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction: Understanding International Relations	E	김명철			Friden, Lake, Schultz (Hereafter, FLS) Introduction

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
2	History and Theory	E	김명철			FLS Chp. 1; Stephen Walt; Jack Snyder
3	Analytical Models (Approaches)	E	김명철			FLS Chp. 2; Alex Wendt
4	War at the Systemic Level	E	김명철			FLS Chp. 3; Mearsheimer and Walt
5	Domestic Politics and War	E	김명철			FLS, Chp. 4
6	International Institutions and War	E	김명철			
7	International Trade	E	김명철			
8	Midterm Exam	E	김명철			
9	International Financial Relations	E	김명철			
10	International Monetary Relations	E	김명철			
11	Development and the Global Commons	E	김명철			
12	Transnational Advocacy Groups	E	김명철			
13	International Law, Norms and Human Rights	E	김명철			
14	Terrorism and New Security Threat	E	김명철			
15	Nuclear Proliferation and the Rise of New Global Rivalry	E	김명철			
16	Final Exam	E	김명철			

11. Other items of notification

Introduction to Sociology

Course Name	Course type (credit/hours)	전선(3/3)	Course code	K081
	Target students Division/major/grade	사회과학대학/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월D(율357) 목D(율357)(율357)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)		이병호 (조교수/사회과학대학 사회학과)		
	Office Room Number	율곡관408	Office phone Number	2745	e-mail
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

Sociology is a study of inequality and mobility. Sociology, according to Max Weber, is a science concerning itself with the interpretive understanding of social action and thereby with a causal explanation of its course and consequences. Given that assertion without empirical proof is not scientific, sociological inquiry should be evidence-based employing rigorous research designs and methods.
This course deals with some of the key founders of sociology who studied a broad range of topics such as inequality, class, status, race, ethnicity, gender, religion, city, and social network.
It is important not just to know their key sociological concepts and theories but also to develop sociological perspectives to make sense of these diverse issues in a more coherent way.
Throughout the course, students will learn multifaceted features of social changes in the sense that the prime objective of sociology is the study of social structure and the processes that generate and change it. Moreover, the core task in the field of sociology is to elucidate the relationship between agency and structure. So the instructor of this course aims to help students to understand dynamic social processes in an ever-complex world as a result of this agency-structure dialectic.

2. Course Objectives

The objectives of this course include
(1) To introduce sociology as a field of study and as a way of asking questions about social realities
(2) To introduce critical thinking as an essential element of social science
(3) To study a series of theories and issues that have helped to define the field of sociology
(4) To improve proficiency in academic discussions in English

3. Class types and activities

- The main format of this class for Fall 2022 semester will be that of regular lectures and discussions in the assigned classroom.
- Course syllabus and course schedule are subject to change at the discretion of the instructor.
- It is essential that students 1) do the assigned readings before coming to class, 2) think critically about the readings, and 3) actively participate in classroom discussions.

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [V] automatic recording system   [ ] web-based assignment

[V] cyber lecture   [V] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

It is highly recommended to have an intermediate level of English proficiency in reading and writing.
The instructor of this course will decide the required level of English proficiency in listening and speaking in the beginning of the semester.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		5	Allowing two unexcused absences without deduction; Eight or more unexcused absences will fail the course
midterm exam	1	40	The specific guidelines will be announced prior to midterm exam
final exam	1	45	The specific guidelines will be announced prior to final exam
quiz			
presentation			
discussion		10	Class participation via Q&A or discussion [수업태도 및 수업참여: 교수의 질문에 대한 자발적 참여, 강의내용 관련 질문 등]
homework			
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Ref.	Essential Concepts in Sociology [second edition]	Giddens and Sutton	Polity	2017
Ref.	Sociological Lives and Ideas [second edition]	Fred C. Pampel	Worth	2006

10. Class system and Class shedule

No textbook will be used.
Reading materials, written in English, will be distributed in class or posted onto our course Blackboard site.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction: Sociology as a Study of Inequality and Mobility	E	이병호			
2	Sociological Imagination: C. W. Mills	E	이병호			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
3	Sociological Imagination 2	E	이병호			
4	Core Concepts and Research Methods	E	이병호			
5	Core Concepts and Research Methods 2	E	이병호			
6	Karl Marx 1	E	이병호			
7	Karl Marx 2	E	이병호			
8	Midterm Exam	E	이병호			
9	Max Weber 1	E	이병호			
10	Max Weber 2	E	이병호			
11	Emile Durkheim 1	E	이병호			
12	Emile Durkheim 2	E	이병호			
13	Georg Simmel	E	이병호			
14	W. E. B. Du Bois	E	이병호			
15	Robert K. Merton	E	이병호			
16	Final Exam	E	이병호			

11. Other items of notification

Important Course Policies:
- ACADEMIC DISHONESTY: Any student determined to have engaged in any form of academic dishonesty including plagiarism, cheating, and attendance forgery will receive a failing grade in the course.
- I strongly recommend that questions about lectures or course materials should be asked during our class meetings.
- I cannot always respond your email messages right away, so contact me before or after class, or make an appointment with me if you have an important issue.

- 강사 및 조교와의 연락은 상담시간 또는 이메일을 통해서 한다. 이메일을 이용할 경우 제목에 [사회학개론]을 ***반드시*** 포함하도록 한다.
- 행정사안(취업계, 공결, 출결, 시험 등)에 대한 질의는 ***반드시*** 강의 조교에게 이메일로 한다. 조교를 건너뛰고 질의할 경우 답변하지 않는 것을 원칙으로 한다.
- 다만 강사에게만 알리고자 하는 중대한 사안이 발생할 경우 조교가 아닌 강사에게 직접 연락한다.

Leadership and Entrepreneurship

<table>
<tr><td rowspan="3">Course Name</td><td>Course type (credit/hours)</td><td>전선(3/3)</td><td>Course code</td><td>I055</td></tr>
<tr><td>Target students Division/major/grade</td><td>/</td><td>Openning semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time and classroom</td><td>월E(연암104) 수E(연암104)(연암104)</td><td>English Grade</td><td>A(100%English)</td></tr>
<tr><td rowspan="4">Reference to this course</td><td>Prerequisite courses</td><td></td><td></td><td></td></tr>
<tr><td>Related basic courses</td><td></td><td></td><td></td></tr>
<tr><td>Recommanded concurrent courses</td><td></td><td></td><td></td></tr>
<tr><td>Related advanced courses</td><td></td><td></td><td></td></tr>
</table>

<table>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="5">김도영 (교수/경영대학 경영학과)</td></tr>
<tr><td>Office Room Number</td><td>다522</td><td>Office phone Number</td><td>2914</td><td>e-mail</td><td></td></tr>
<tr><td>Office hours</td><td></td><td>Homepage address</td><td></td><td></td><td></td></tr>
<tr><td rowspan="2">Teaching Assistant</td><td>Name (title/division)</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Office Room Number</td><td></td><td>Office phone Number</td><td></td><td>e-mail</td><td></td></tr>
</table>

1. Introduction

This is an English Class. 본 과목은 영어강의로 진행 될 것 입니다.

This course examines the theories and models of leadership and followership. Environmental factors, organizational objectives, company culture, and individual and group ethical standards will be examined to incorporate situational determinants of leadership effectiveness.

This course will provide a new framework on what "leadership" entails, along with developing an understanding for the skills and knowledge to how best address leadership opportunities now and in the future. Students' ability to understand and apply diverse approaches to the leadership in organizations is emphasized by readings and case analyses of pertinent management materials. The emphasis is on building a sound grasp of good practice, and on developing the ability to apply such knowledge to actual business problems.

2. Course Objectives

- Define leadership, describe the role of genetics and development on individual leadership capability and be able to identify popular distinctions in the differences between leaders versus managers. ?

- Assess the state of current leadership capacity within organizations and suggest how a leadership needs analysis can support and enhance organizational effectiveness.

- Demonstrate leadership skills through participation in experiential exercises. ? Assess personal values, beliefs and ethical standards to enhance self-awareness in regard to personal leadership behaviors and reactions to leadership behaviors of others. ? Identify how leading a team is different from leading a group of individuals. ? Identify special challenges involved in leading geographically dispersed (virtual) teams. ? Describe the role of culture in determining effective leadership perceptions and outcomes. ? Understand leadership at the Personal, Interpersonal, Team and Organizational levels (PITO) and the array of leader-follower-situation (LFS) variables that influence the leadership process

3. Class types and activities

Course materials organized by the professor ?
Case submissions ?
Team experiential exercises and assignments ?
Exams

4. Teaching Method

✓ lecture		✓ discussion and debate	
✓ team project(presentation and case studies)		✓ experiments(role-playing,etc)	
☐ designing and production		☐ on-site learning(on-site training)	
☐ others			

5. Support Systems in Use

✓ e-class	☐ automatic recording system	☐ web-based assignment
☐ cyber lecture	☐ blended learning(combination of online and offline teaching)	
☐ class behavior analyazing system	☐ others	

6. Teaching Tools

✓ PBL(Problem Based Learning)	☐ CBL(Case Based Learning)
✓ TBL(Team Based Learning)	☐ others

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance			
midterm exam	1	25	
final exam	1	35	
quiz			
presentation			
discussion		15	
homework			
etc	팀프로젝트	25	
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	To be determined			

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction	K	김도영			
2	Trait Approach	K	김도영			
3	Behavioral Approach	K	김도영			
4	Situational Approach	K	김도영			
5	Path-Goal Theory	K	김도영			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
6	Leader-Member Exchange Theory	K	김도영			
7	Transformational Leadership	K	김도영			
8	중간고사	K	김도영			
9	Authentic Leadership	K	김도영			
10	Servant Leadership	K	김도영			
11	Leadership Ethics	K	김도영			
12	Team Leadership	K	김도영			
13	Gender and Leadership	K	김도영			
14	Culture and Leadership	K	김도영			
15	Review	K	김도영			
16	기말고사	K	김도영			

11. Other items of notification

Linear Algebra 1

Course Name	Course type (credit/hours)	교필(3/3)	Course code	F114
	Target students Division/major/grade	국방디지털융합학과/2학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화C(연암907) 금C(연암907)(연암907)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	공업수학
	Recommanded concurrent courses	
	Related advanced courses	자동제어

Instructor	Name (title/division)	박종호 (조교수/소프트웨어융합대학 국방디지털융합학과)			
	Office Room Number	연암관 616호	Office phone Number	3676	e-mail
	Office hours	추후 공고	Homepage address	https://sites.google.com/ajou.ac.kr/parkjo05	
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

2. Course Objectives

Linear system의 solution, matrix의 성질, subspace들간의 관계, determinant, inverse, eigenvalues/vectors의 성질 등에 대한 이해를 목표로 한다.

3. Class types and activities

4. Teaching Method

☑	lecture	☐	discussion and debate
☐	team project(presentation and case studies)	☐	experiments(role-playing,etc)
☐	designing and production	☐	on-site learning(on-site training)
☐	others		

5. Support Systems in Use

☑	e-class	☐	automatic recording system	☐	web-based assignment
☐	cyber lecture	☐	blended learning(combination of online and offline teaching)		
☐	class behavior analyazing system	☐	others		

6. Teaching Tools

☑	PBL(Problem Based Learning)	☐	CBL(Case Based Learning)
☐	TBL(Team Based Learning)	☐	others

7. Knowledge and ability required for taking this course

기초 수리력

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		21%	결석 8회 초과: F 학점 자동 부과
midterm exam	1회	31%	
final exam	1회	31%	
quiz			
presentation			
discussion			
homework	2회	17%	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Introduction to Linear Algebra, 5th Edition	Gilbert Strang	Cambridge press	2016

10. Class system and Class shedule

구체적인 체계는 다음과 같다.

(1) Matrix and its properties (including factorization)
(2) Geometry of linear equation and its solution
(3) Four fundamental subspaces
(4) Gram-Schmidt, Cramers rule
(5) 응용: Projection, volume, power, Markov matrix

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction, geometry of linear equations	E	박종호	강의		
2	Elimination with matrices	E	박종호	강의		
3	Multiplication and inverse matrices	E	박종호	강의		
4	Factorization into A=LU	E	박종호	강의		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
5	Spaces	E	박종호	강의		
6	Null space	E	박종호	강의		
7	Complete solution to Ax=b	E	박종호	강의		
8	– 중간고사 기간 –	E	박종호	중간고사	지필평가	
9	Independence, basis, and dimension	E	박종호	강의		
10	Four fundamental subspaces, matrix spaces	E	박종호	강의		
11	Orthogonal vectors and subspaces	E	박종호	강의		
12	Projections, orthonormal bases and Gram-Schmidt	E	박종호	강의		
13	Determinant properties, formulas, and Cofactors	E	박종호	강의		
14	Cramers rule, inverses, and volume	E	박종호	강의		
15	Eigenvalues and eigenvectors	E	박종호	강의		
16	– 기말고사 기간 –	E	박종호	기말고사	지필평가	

11. Other items of notification

- 출석, 시험, 과제 등에 대한 부정행위가 있을 경우, 경중에 따라 평가에 불이익을 주거나 상벌위원회에 회부할 수 있습니다.
- 과제 카피 시 제공자와 카피 당사자 모두 동일한 패널티 적용
- 부정행위를 발견한 사람은 누구든 신고 가능 (증거 제시)

Marketing Management

<table>
<tr><td rowspan="3">Course Name</td><td>Course type (credit/hours)</td><td>전필(3/3)</td><td>Course code</td><td>I048</td></tr>
<tr><td>Target students Division/major/grade</td><td>경영학과/2학년</td><td>Openning semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time and classroom</td><td>월F(다311) 목F(다311)(다311)</td><td>English Grade</td><td>A(100%English)</td></tr>
<tr><td rowspan="4">Reference to this course</td><td>Prerequisite courses</td><td colspan="3"></td></tr>
<tr><td>Related basic courses</td><td colspan="3"></td></tr>
<tr><td>Recommanded concurrent courses</td><td colspan="3"></td></tr>
<tr><td>Related advanced courses</td><td colspan="3"></td></tr>
</table>

<table>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="5">최환호 (부교수/경영대학 경영학과)</td></tr>
<tr><td>Office Room Number</td><td>다산관 510-1</td><td>Office phone Number</td><td>2726</td><td>e-mail</td><td></td></tr>
<tr><td>Office hours</td><td></td><td>Homepage address</td><td></td><td></td><td></td></tr>
<tr><td rowspan="2">Teaching Assistant</td><td>Name (title/division)</td><td colspan="5"></td></tr>
<tr><td>Office Room Number</td><td></td><td>Office phone Number</td><td></td><td>e-mail</td><td></td></tr>
</table>

1. Introduction

This class is designed to introduce the fundamental aspects of marketing.
The class will focus on the basic marketing concepts, the role of marketing in the organization and the role of marketing in society.
Students are required to actively share their opinions and participate in class discussion with other students.

2. Course Objectives

The primary objective of this class is to provide you with a comprehensive understanding of marketing.
At the end of this course, students will be able to understand basic theoretical knowledge in core areas of business administration.
ILO (Intended Learning Objective): K1 - Students undestand basic theoretical knowledge in core areas of business administration.

3. Class types and activities

Each week,lectures will be delivered to offer fundamental understanding about each subject.
During the lecture time, students are encouraged to express and share their thoughts.
Students will also be required to carry out a group project about a given topic to achieve in-depth understanding about marketing.

4. Teaching Method

[V] lecture   [V] discussion and debate

[V] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [V] web-based assignment

[V] cyber lecture   [V] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[V] PBL(Problem Based Learning)   [V] CBL(Case Based Learning)

[V] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

Competent academic writing skills
Searching, utilising and understanding suitable academic materials

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance			
midterm exam			
final exam		55	
quiz			
presentation		35	
discussion			
homework			
etc		10	Class Participation
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Principles of Marketing 17th ed	Philip Kotler and Gary Armstrong	Pearson	2017
Ref.	Essential Reading (will be available on Ajou BB)			

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Orientation and Introduction	E	최환호			
2	Understanding Marketing	E	최환호			
3	Understanding Marketing	E	최환호			
4	Marketing Mangement Orientations	E	최환호			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
5	Customer Value and Marketing myopia	E	최환호			
6	Strategic Planning	E	최환호			
7	Mircoenvironment	E	최환호			
8	Team Project Meeting	E	최환호			
9	Macroenvironment	E	최환호			
10	Segmentation, Targeting and Positioning	E	최환호			
11	Digital Marketing	E	최환호			
12	Team Project Presentation	E	최환호			
13	Team Project Presentation	E	최환호			
14	Team Project Feedback	E	최환호			
15	Final Exam	E	최환호			
16	Feedback of Final Exam	E	최환호			

11. Other items of notification

Mathematical Physics and Numerical Methods 2

Course Name	Course type (credit/hours)	전선(3/3)		Course code	G015
	Target students Division/major/grade	물리학과/2학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	월A(성337) 수A(성337)(성337)		English Grade	A(100%English)
Reference to this course	Prerequisite courses	수학 1, 수학 2, 수리물리학 및 수치계산 1			
	Related basic courses	물리학 1, 물리학 2			
	Recommanded concurrent courses				
	Related advanced courses	전자기학 1, 전자기학 2, 양자역학 1, 전자기학 2, 통계역학			

Instructor	Name (title/division)	임준원 (조교수/자연과학대학 물리학과)			
	Office Room Number	원천관420호	Office phone Number	2579	e-mail	
	Office hours		Homepage address	https://sites.google.com/view/ajou-cmtg	
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail	

1. Introduction

This course teaches the mathematical methods essential in various subjects of physics (quantum mechanics, electromagnetism, solid state physics, thermodynamics, statistical mechanics, AI computational physics, quantum information, etc.).

This course is for the students majoring PHYSICS who already attended the Mathematics 1, 2, and Mathematical Physics and Numerical Methods 1.

Topics include Fourier series, Fourier transform, various differential equations, calculus of variations, tensor analysis, special functions, complex functions, and probability and statistics. We deal with some basic numerical analysis regarding Fourier transform and ordinary differential equations.

2. Course Objectives

본 수업을 통해서 고학년에서 배우게 될 물리학 및 공학의 다양한 주제들을 이해하기 위한 수학적 언어를 습득한다.

3. Class types and activities

Mathematics is said to be the language of physics. For example, the Schr?dingers equation for quantum mechanical wave functions of elementary particles, Maxwells equations for electromagnetic waves, and Newtons equation of motion for the classical particles, are all described by the mathematical language called the differential equations. When calculating the quantum mechanical energy levels and natural frequencies of a wave, an eigenvalue problem of a matrix must be solved, which is dealt with in the Linear Algebra Part. In order to effectively obtain the electric and magnetic fields in space when charges and currents are given, various techniques related to integration and vector analysis are required. In addition to this, there are various mathematical techniques necessary to understand physics accurately and deeply, such as complex analysis, special functions, infinite series, and Fourier transforms.

This course focuses on learning these mathematical techniques and their possible physical applications. Since the main goal is to learn the language necessary for physics, rigorous mathematical proofs are avoided if possible.

Through this course, students may gain the foundation for the understanding of the cutting-edge disciplines of physics and basic knowledge about the production and processing of data required in the research.

4. Teaching Method

- [V] lecture
- [ ] discussion and debate
- [ ] team project(presentation and case studies)
- [ ] experiments(role-playing,etc)
- [ ] designing and production
- [ ] on-site learning(on-site training)
- [ ] others

5. Support Systems in Use

- [V] e-class
- [ ] automatic recording system
- [ ] web-based assignment
- [ ] cyber lecture
- [ ] blended learning(combination of online and offline teaching)
- [ ] class behavior analyazing system
- [ ] others

6. Teaching Tools

- [ ] PBL(Problem Based Learning)
- [ ] CBL(Case Based Learning)
- [ ] TBL(Team Based Learning)
- [ ] others

7. Knowledge and ability required for taking this course

Basic knowledge on the level of Mathematics 1 and 2, and Mathematical physics and Numerical Methods 1.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance			
midterm exam	1	45	
final exam	1	45	
quiz			
presentation			
discussion			
homework	2	10	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	MATHEMATICAL METHODS IN THE PHYSICAL SCIENCES	MARY L. BOAS	Wiley	

10. Class system and Class shedule

본 과목에서는 푸리에 시리즈와 푸리에 변환을 가장 먼저 배운다. 이는 그 다음 주제인 상미분 방정식을 수치적으로 풀 때 응용될 것이다. 미분 방정식의 해로서 특수 함수들을 심도있게 다룰 예정이며, 특수 함수들의 시리즈 해들 역시 다룰 것이다. 그 다음 목표는 자연스럽게 변수가 더 많아진 경우의 편미분 방정식을 다룰것이다. 마지막으로 수리물리학 1 과 2에서 배웠던 지식들이 종합적으로 사용 될 복소함수 해석에 관해서 다룬 뒤, 통계역학 과목을 대비하여 확률과 관련된 주제들을 다루고 마친다.

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Fourier series	E	임준원			
2	Fourier transform	E	임준원			
3	Ordinary differential equations	E	임준원			
4	Ordinary differential equations	E	임준원			
5	Numerical methods for ordinary differential equations	E	임준원			
6	Calculus of variations	E	임준원			
7	Tensor analysis	E	임준원			
8	Special functions	E	임준원			
9	Special functions	E	임준원			
10	Series solutions of differential equations	E	임준원			
11	Series solutions of differential equations	E	임준원			
12	Partial differential equations	E	임준원			
13	Partial differential equations	E	임준원			
14	Functions of a complex variable	E	임준원			
15	Functions of a complex variable	E	임준원			
16	Probability and statistics	E	임준원			

11. Other items of notification

Object-oriented Programming and Practice

<table>
<tr><td rowspan="3">Course Name</td><td>Course type (credit/hours)</td><td>전필(4/5)</td><td>Course code</td><td>F089</td></tr>
<tr><td>Target students Division/major/grade</td><td>소프트웨어학과/2학년</td><td>Openning semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time and classroom</td><td>월15:00~16:30 (팔1025) 수 15:00~16:30 (팔1025) 금1(팔318) 금 2(팔318)(팔1025,팔318)</td><td>English Grade</td><td>A(100%English)</td></tr>
<tr><td rowspan="4">Reference to this course</td><td>Prerequisite courses</td><td colspan="3">C Programming</td></tr>
<tr><td>Related basic courses</td><td colspan="3">Data structure</td></tr>
<tr><td>Recommanded concurrent courses</td><td colspan="3">Algorithm</td></tr>
<tr><td>Related advanced courses</td><td colspan="3">Parallel and Distributed Programming</td></tr>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="3">Yenewondim Sinshaw (조교수/소프트웨어융합대학 소프트웨어학과)</td></tr>
<tr><td>Office Room Number</td><td>팔달관 1011</td><td>Office phone Number</td><td>3857</td></tr>
<tr><td>Office hours</td><td>e-mail</td><td>Homepage address</td><td></td></tr>
<tr><td rowspan="2">Teaching Assistant</td><td>Name (title/division)</td><td colspan="3"></td></tr>
<tr><td>Office Room Number</td><td>Office phone Number</td><td>e-mail</td><td></td></tr>
</table>

1. Introduction

? This course uses java programming language as vehicle to take you to a journey through the world of object-oriented programming paradigm. The course covers fundamental concepts object-oriented programming paradigm, namely, class, object, Interface, data encapsulation, hierarchical class Inheritance, hierarchical class polymorphism and generic programming. The course also coverers standard java Application Programming Interfaces such as Exception Handling API, Graphical User Interface API(GUI), Collection Framework, File Stream API. The course has laboratory session to apply learned theories in practice.

2. Course Objectives

At the end of the course, students will be able to
 ? Know the fundamental concepts and principles of object-oriented programming paradigm
 ? Design and implement java-based software by applying the basic principles of object oriented programming

3. Class types and activities

During lecture time, the fundamental concepts of object-oriented programming paradigm are covered. Students are encouraged to participate actively by asking questions and by answering questions. During practical session, students design and implement software using object-oriented programming style. Students are supposed to spend considerable amount of time by doing programming projects to understand this course.

4. Teaching Method

[V] lecture   [ ] discussion and debate

[ ] team project(presentation and case studies) [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system [ ] others

6. Teaching Tools

[V] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		5	
midterm exam	1	30	
final exam	1	30	
quiz			
presentation			
discussion			
homework	2	15	Programming Assignment
etc	14	20	Lab Session
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Core Java, Volume I,11th ed	Cay S. Horstmann	Prentice Hall	2016
Ref.	Java How to program early objects (10th ed.)	Paul Deitel and Harvey Deitel	Pearson	2015
Ref.	Head First Java, 2nd ed	Kathy Sierra and Bert Bates	Oreiley	2005
Ref.	Java API documentation			

10. Class system and Class shedule

In the beginning of the course, concepts of algorithms, mathematical induction, and asymptotic analysis of an algorithm are taught. Algorithm design techniques follow including dive-and-conquer, dynamic programming, greedy method, and iterative improvements. Then students will learn problems that do not have efficient algorithms (NP-hard problems), and how to cope with such problems.

* language : K-korean, E-English

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction to object-oriented programming paradigm	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
2	Fundamental programming structures of java	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
3	Objects and classes in java	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
4	Objects and classes in java	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
5	Inheritance and polymorphism	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
6	Inheritance and polymorphism	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
7	Interfaces and Lambda Expression	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
8	Midterm Exam	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
9	Inner class	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
10	Exception Handling	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
11	Generic programming	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
12	Collection Framework API	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
13	GUI Application	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
14	GUI API Application	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
15	File Stream	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
16	Final Exam	E	Yenewondim Sinshaw	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	

11. Other items of notification

Object-oriented Programming and Practice

<table>
<tr><td rowspan="3">Course Name</td><td>Course type (credit/hours)</td><td>전필(4/5)</td><td>Course code</td><td>F090</td></tr>
<tr><td>Target students Division/major/grade</td><td>소프트웨어학과/2학년</td><td>Openning semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time and classroom</td><td>월10:30~12:00 (팔325) 화4(팔318) 화5(팔318) 목10:30~12:00 (팔325)(팔318,팔325)</td><td>English Grade</td><td>A(100%English)</td></tr>
<tr><td rowspan="4">Reference to this course</td><td>Prerequisite courses</td><td colspan="3">C Programming</td></tr>
<tr><td>Related basic courses</td><td colspan="3">Data structure</td></tr>
<tr><td>Recommanded concurrent courses</td><td colspan="3">Algorithm</td></tr>
<tr><td>Related advanced courses</td><td colspan="3">Parallel and Distributed Programming</td></tr>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="3">Paul Rajib (조교수/소프트웨어융합대학 소프트웨어학과)</td></tr>
<tr><td>Office Room Number</td><td>팔달관 1011</td><td>Office phone Number</td><td>e-mail</td></tr>
<tr><td>Office hours</td><td></td><td>Homepage address</td><td></td></tr>
<tr><td rowspan="2">Teaching Assistant</td><td>Name (title/division)</td><td colspan="3"></td></tr>
<tr><td>Office Room Number</td><td></td><td>Office phone Number</td><td>e-mail</td></tr>
</table>

1. Introduction

? This course uses java programming language as vehicle to take you to a journey through the world of object-oriented programming paradigm. The course covers fundamental concepts object-oriented programming paradigm, namely, class, object, Interface, data encapsulation, hierarchical class Inheritance, hierarchical class polymorphism and generic programming. The course also coverers standard java Application Programming Interfaces such as Exception Handling API, Graphical User Interface API(GUI), Collection Framework, File Stream API. The course has laboratory session to apply learned theories in practice.

2. Course Objectives

At the end of the course, students will be able to
 ? Know the fundamental concepts and principles of object-oriented programming paradigm
 ? Design and implement java-based software by applying the basic principles of object oriented programming

3. Class types and activities

During lecture time, the fundamental concepts of object-oriented programming paradigm are covered. Students are encouraged to participate actively by asking questions and by answering questions. During practical session, students design and implement software using object-oriented programming style. Students are supposed to spend considerable amount of time by doing programming projects to understand this course.

4. Teaching Method

- [V] lecture
- [ ] team project(presentation and case studies)
- [ ] designing and production
- [ ] others
- [ ] discussion and debate
- [ ] experiments(role-playing,etc)
- [ ] on-site learning(on-site training)

5. Support Systems in Use

- [V] e-class
- [ ] cyber lecture
- [ ] class behavior analyazing system
- [ ] automatic recording system
- [ ] blended learning(combination of online and offline teaching)
- [ ] others
- [ ] web-based assignment

6. Teaching Tools

- [V] PBL(Problem Based Learning)
- [ ] TBL(Team Based Learning)
- [ ] CBL(Case Based Learning)
- [ ] others

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		5	
midterm exam	1	30	
final exam	1	30	
quiz			
presentation			
discussion			
homework	2	15	Programming Assignment
etc	14	20	Lab Session
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Core Java, Volume I,11th ed	Cay S. Horstmann	Prentice Hall	2016
Ref.	Java How to program early objects (10th ed.)	Paul Deitel and Harvey Deitel	Pearson	2015
Ref.	Head First Java, 2nd ed	Kathy Sierra and Bert Bates	Oreiley	2005
Ref.	Java API documentation			

10. Class system and Class shedule

In the beginning of the course, concepts of algorithms, mathematical induction, and asymptotic analysis of an algorithm are taught. Algorithm design techniques follow including dive-and-conquer, dynamic programming, greedy method, and iterative improvements. Then students will learn problems that do not have efficient algorithms (NP-hard problems), and how to cope with such problems.

* language : K-korean, E-English

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction to object-oriented programming paradigm	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
2	Fundamental programming structures of java	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
3	Objects and classes in java	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
4	Objects and classes in java	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
5	Inheritance and polymorphism	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
6	Inheritance and polymorphism	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
7	Interfaces and Lambda Expression	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
8	Midterm Exam	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
9	Inner class	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
10	Exception Handling	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
11	Generic programming	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
12	Collection Framework API	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
13	GUI Application	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
14	GUI API Application	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
15	File Stream	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	
16	Final Exam	E	Paul Rajib	Multimedia based lecture, active participation, and discussion	Programming projects, paper-based mid and final exam	

11. Other items of notification

Operations Management

Course Name	Course type (credit/hours)	전필(3/3)	Course code	I042
	Target students Division/major/grade	경영학부/경영학전공 2학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	수D(다B106) 금D(다B106)(다B106)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	계량경영, 통계학		
	Related basic courses	계량경영,통계학		
	Recommanded concurrent courses			
	Related advanced courses			

Instructor	Name (title/division)	이창환 (교수/경영대학 경영학과)			
	Office Room Number	다422	Office phone Number	2911	e-mail
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

2. Course Objectives

Specifically, we will discuss (1) basic concepts of business processes and management strategy, (2) key process measures and their relationships, (3) the effect of uncertainty in flows on the process performance, and (4) synchronization of flows of materials and information.

3. Class types and activities

4. Teaching Method

☐	lecture	☐	discussion and debate
☐	team project(presentation and case studies)	☐	experiments(role-playing,etc)
☐	designing and production	☐	on-site learning(on-site training)
☐	others		

5. Support Systems in Use

☑	e-class	☑	automatic recording system	☐	web-based assignment
☑	cyber lecture	☑	blended learning(combination of online and offline teaching)		
☐	class behavior analyazing system	☐	others		

6. Teaching Tools

☐	PBL(Problem Based Learning)	☐	CBL(Case Based Learning)
☐	TBL(Team Based Learning)	☐	others

7. Knowledge and ability required for taking this course

Lecture Notes/Courseware: The outline of lecture notes (mostly in Powerpoint files) and Excel data files necessary for the analyses of examples and cases will be available at http://biz.ajou.ac.kr.with Download Password: 2911. The file with heading (O) denotes initial entry, and the file with heading (M) represents modified entry.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		5%	
midterm exam	1	45%	
final exam	1	45%	
quiz			
presentation			
discussion			
homework			
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Managing Business Process Flows (MBPF)	Ravi, A., S. Chopra, S. D. Des	printice Hall	2006

10. Class system and Class shedule

Basically, the class instructional format will be a dialogue between the students and the instructor. It is important to note that strong class participation is founded on adequate preparation. You will be expected to have thoroughly reviewed the material on every class subjects prior to its discussion in class. When you are prepared, the class discussion is greatly enhanced and everyone including me learns far more than otherwise.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Processes and Strategy :Introduction		이창환			
2	Products and Processes Process Flow Measures		이창환			
3	Process Flow Measures Three Key Operational Measures Little's Law and Applications Analyzing Income Statement		이창환			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Flow Time Analysis Critical Path Method Application: Kristen's Cookie Co		이창환			
5	Uncertain Activity Times		이창환			
6	Flow Rate Analysis Capacity Measurements Product Mix Decisions Linear Programming LP in a Spreadsheet		이창환			
7	Midterm Test		이창환			
8	Inventory Analysis Inventory Basics, EOQ Price Discounts: Forward Buying		이창환			
9	Safety Inventory Safety Stock & Service Level Effect of Centralization Supply Chain Coordination		이창환			
10	Safety Capacity Capacity Analysis		이창환			
11	Queuing Models Variance Propagation		이창환			
12	Queuing Models Variance Propagation		이창환			
13	Queuing Models Variance Propagation		이창환			
14	Process Integration Synchronization & Improvement		이창환			
15	Business Ethics In Operations		이창환			
16	Final Exam		이창환			

11. Other items of notification

Operations Management

Course Name	Course type (credit/hours)	전필(3/3)	Course code	I043
	Target students Division/major/grade	경영학부/경영학전공 2학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	수F(다B106) 금F(다B106)(다B106)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	계량경영, 통계학
	Related basic courses	계량경영,통계학
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	이창환 (교수/경영대학 경영학과)			
	Office Room Number	다422	Office phone Number	2911	e-mail
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

2. Course Objectives

Specifically, we will discuss (1) basic concepts of business processes and management strategy, (2) key process measures and their relationships, (3) the effect of uncertainty in flows on the process performance, and (4) synchronization of flows of materials and information.

3. Class types and activities

4. Teaching Method

- [ ] lecture
- [ ] team project(presentation and case studies)
- [ ] designing and production
- [ ] others
- [ ] discussion and debate
- [ ] experiments(role-playing,etc)
- [ ] on-site learning(on-site training)

5. Support Systems in Use

- [x] e-class
- [x] cyber lecture
- [ ] class behavior analyazing system
- [x] automatic recording system
- [x] blended learning(combination of online and offline teaching)
- [ ] others
- [ ] web-based assignment

6. Teaching Tools

- [ ] PBL(Problem Based Learning)
- [ ] TBL(Team Based Learning)
- [ ] CBL(Case Based Learning)
- [ ] others

7. Knowledge and ability required for taking this course

Lecture Notes/Courseware: The outline of lecture notes (mostly in Powerpoint files) and Excel data files necessary for the analyses of examples and cases will be available at http://biz.ajou.ac.kr.with Download Password: 2911. The file with heading (0) denotes initial entry, and the file with heading (M) represents modified entry.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		5%	
midterm exam	1	45%	
final exam	1	45%	
quiz			
presentation			
discussion			
homework			
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Managing Business Process Flows (MBPF)	Ravi, A., S. Chopra, S. D. Des	printice Hall	2006

10. Class system and Class shedule

Basically, the class instructional format will be a dialogue between the students and the instructor. It is important to note that strong class participation is founded on adequate preparation. You will be expected to have thoroughly reviewed the material on every class subjects prior to its discussion in class. When you are prepared, the class discussion is greatly enhanced and everyone including me learns far more than otherwise.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Processes and Strategy :Introduction		이창환			
2	Products and Processes Process Flow Measures		이창환			
3	Process Flow Measures Three Key Operational Measures Little's Law and Applications Analyzing Income Statement		이창환			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Flow Time Analysis Critical Path Method Application: Kristen's Cookie Co		이창환			
5	Uncertain Activity Times		이창환			
6	Flow Rate Analysis Capacity Measurements Product Mix Decisions Linear Programming LP in a Spreadsheet		이창환			
7	Midterm Test		이창환			
8	Inventory Analysis Inventory Basics, EOQ Price Discounts: Forward Buying		이창환			
9	Safety Inventory Safety Stock & Service Level Effect of Centralization Supply Chain Coordination		이창환			
10	Safety Capacity Capacity Analysis		이창환			
11	Queuing Models Variance Propagation		이창환			
12	Queuing Models Variance Propagation		이창환			
13	Queuing Models Variance Propagation		이창환			
14	Process Integration Synchronization & Improvement		이창환			
15	Business Ethics In Operations		이창환			
16	Final Exam		이창환			

11. Other items of notification

Organic Chemistry2

Course Name	Course type (credit/hours)	전선(3/3)	Course code	D066
	Target students Division/major/grade	응용화학생명공학과/2학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월C(팔110) 수C(팔110)(팔110)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	유기화학1		
	Related basic courses	화학1, 2		
	Recommanded concurrent courses			
	Related advanced courses	천연물이용학, 의약화학		

Instructor	Name (title/division)	최준원 (조교수/대학원 분자과학기술학과)			
	Office Room Number		Office phone Number	2449	e-mail
	Office hours	화 4:30-5:30	Homepage address	https://www.jwchoigroup.com/	
Teaching Assistant	Name (title/division)				
	Office Room Number	화공실험동 202 호실	Office phone Number	2396	e-mail

1. Introduction

2. Course Objectives

다양하고 복잡한 구조를 가진 화합물의 특징과 반응을 배우며, 이를 이용하여 새로운 물질을 합성할 수 있는 능력을 배양한다.
1) 알콜 및 다양한 카르복시 화합물의 특징 및 이들의 다양한 반응, 그리고 이들 반응을 이용한 새로운 물질의 합성법을 이해한다.
2) 벤젠 화합물의 구조적 특징 및 이들의 치환반응에 대하여 이해한다.
3) 생체내 반응에 중요한 아민 화합물의 성질 및 이들의 반응에 대하여 이해한다.
4) 기존에 배운 모든 화합물을 이용한 새로운 화합물 합성을 위한 화학적 변환법을 이해한다.

3. Class types and activities

4. Teaching Method

☑ lecture	☑ discussion and debate
☐ team project(presentation and case studies)	☐ experiments(role-playing,etc)
☐ designing and production	☐ on-site learning(on-site training)
☐ others	

5. Support Systems in Use

☑ e-class	☐ automatic recording system	☐ web-based assignment
☐ cyber lecture	☑ blended learning(combination of online and offline teaching)	
☐ class behavior analyazing system	☐ others	

6. Teaching Tools

☑ PBL(Problem Based Learning)	☐ CBL(Case Based Learning)
☐ TBL(Team Based Learning)	☐ others

7. Knowledge and ability required for taking this course

유기화학1의 수강을 필수로하며, 분자모델을 사용법을 이해하는 것이 삼차원적 분자구조를 이해하는데 도움을 준다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance			
midterm exam	2	60	
final exam	1	30	
quiz			
presentation			
discussion		5	
homework	10	5	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Organic Chemistry 8th edition	William H. Brown/Brent L. Iverson/Eric Anslyn/Christopher S. Foote	Cengage	2018

10. Class system and Class shedule

수업내용은 Text의 순서인 각 화합물 형태별로 진행된다. 각 chapter는 구조의 명명법, 물리화학적 성질의 이해, 반응의 이해, 이를 응용한 합성법을 다루고 있다.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Review of Organic Chemistry 1	E	최준원			
2	Chapter 12: Spectroscopy	E	최준원			
3	Chapter 11 : Ethers, Sulfides, and Epoxides	E	최준원			
4	Chapter 15 : Organometallic Compounds	E	최준원			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
5	Chapter 16 : Aldehydes and Ketones	E	최준원			
6	Chapter 16 : Aldehydes and Ketones	E	최준원			
7	Chapter 17 : Carboxylic acid	E	최준원			
8	Midterm Exam	E	최준원			
9	Chapter 18 : Derivatives of Carboxylic acid	E	최준원			
10	Chapter 19 : Enolate Anions and Enamines	E	최준원			
11	Chapter 19 : Enolate Anions and Enamines	E	최준원			
12	Chapter 20 : Conjugated systems	E	최준원			
13	Chapter 21 : Benzene and the Concept of Aromaticity	E	최준원			
14	Chapter 22 : Reactions of Benzene and Derivatives	E	최준원			
15	Chapter 23 : Amines	E	최준원			
16	Final Exam	E	최준원			

11. Other items of notification

Organic Synthesis

Course Name	Course type (credit/hours)	전선(3/3)		Course code	G074
	Target students Division/major/grade	화학과/3학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	월B(원507) 목B(원507)(원507)		English Grade	A(100%English)
Reference to this course	Prerequisite courses	유기화학1, 유기화학2			
	Related basic courses	양자화학			
	Recommanded concurrent courses	중급유기화학, 유기금속화학			
	Related advanced courses				

Instructor	Name (title/division)	서성은 (조교수/자연과학대학 화학과)			
	Office Room Number	원천관 216호	Office phone Number	2603	e-mail	
	Office hours	schedule a meeting by email	Homepage address	https://sites.google.com/view/suhgroup	
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail	

1. Introduction

This course focuses on mastering organic reaction mechanisms using the curved arrow formalism. The course will begin with a review of basic mechanistic precepts and then move into an overview of bonding and electronic structure theory. Structure reactivity trends including electrophilicity, nucleophilicity, leaving group ability, acidity/pKa, and conformational control will be reviewed with the eye toward predicting the outcomes and mechanisms of organic reactions. The purpose of the course is to allow students to propose reasonable reaction mechanisms for any organic chemistry transformation and to predict the products of any reagent set. Grades are determined from performance on examinations and problem solving quizzes. Organic chemistry 1 and 2 are prerequisites. This course is suited for junior and senior undergraduates. This lecture was co-designed by Prof. Sung-Eun Suh (Ajou University) and Prof. Marisa C. Kozlowski (University of Pennsylvania, Philadelphia, PA, United States). Two Zoom lectures in the second half will be directly operated and delivered by Dr. Si-Jie Chen (Merck, South San Francisco, CA, United States).

2. Course Objectives

"This course is for you to be able to propose the mechanism of any organic reaction that you encounter." It is hard to draw organic reaction mechanisms because (1) there are many, many, many reactions but relatively few machanism types are searchable on Google or inside textbooks, (2) too much information (solvent, time, etc) is distracting, and (3) 3D structures can be difficult to perceive from 2D drawings. This course makes you (1) understand and utilize basic physical organic principles including orbitals, nucleophilicity, acidity, electron density, etc, (2) classify reactions by mechanism type, and (3) practice translating 2D images into different 3D representations. Do not lean on lectures but practice, practice, and then practice more and more with a big pad of paper, several pencils, and an eraser which will get you far.

3. Class types and activities

This course covers the two important textbooks, Advanced Organic Chemistry A and B (by F. A. Carey and R. J. Sundberg). Lecture materials will be provided a day ahead of classes. In-class-mechanism (ICM) questions will be provided at the end of class and, in the next class, student will take quiz "every class". In addition to the ICMs, your grade will be determined from your performance on several exams. No exams may be missed without a valid excuse in advance. After the second exam, grades will be calculated. If you are not satisfied with your grade, you can take an optional make-up exam, which can replace either the first or second exam grade.

4. Teaching Method

[V] lecture	[ ] discussion and debate
[ ] team project(presentation and case studies)	[ ] experiments(role-playing,etc)
[ ] designing and production	[ ] on-site learning(on-site training)
[ ] others	

5. Support Systems in Use

[V] e-class	[ ] automatic recording system	[ ] web-based assignment
[ ] cyber lecture	[ ] blended learning(combination of online and offline teaching)	
[ ] class behavior analyazing system	[ ] others	

6. Teaching Tools

[ ] PBL(Problem Based Learning)	[ ] CBL(Case Based Learning)
[ ] TBL(Team Based Learning)	[ ] others

7. Knowledge and ability required for taking this course

Only a set of pencils, erasers, and paper.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance			
midterm exam	1	40	Exam 1
final exam	1	40	Exam 2
quiz	20	20	Total 19 quizzes + 1 homework. "F" if three quizzes are missed.
presentation			
discussion			
homework			
etc			
study hours	>10 hours		

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Advanced Organic Chemistry, Part A, 5th Ed.	Carey, F. A.; Sundberg, R. J.	Springer	2007
Main	Advanced Organic Chemistry, Part B, 5th Ed.	Carey, F. A.; Sundberg, R. J.	Springer	2007
Sub	The Art of Writing Reasonable Organic Reaction Mechanisms, 2nd Ed	Grossman, R. B.	Springer	2003
Sub	Stereoelectronic Effects	Kirby, A. J.	Oxford Science Publications	1996
Sub	Transition Metals in the Synthesis of Complex Organic Molecules, 3rd ed.	Hegedus, L. S.	University Science Books	2010
Sub	Marchs Advanced Organic Chemistry: Reactions, Mechanisms, and Structure	Smith, M. B.; March, J.	Wiley-Interscience	2007
Sub	Modern Physical Organic Chemistry	Anslyn, E. V.; Dougherty, D. A.	UniversityScience Books	2006

10. Class system and Class shedule

This course is designed for chemistry-majored undergraduates to have deep understanding in organic chemistry. Lectures embrace most of contents in Advanced Organic Chemistry Part A while several problem sets and quizzes covers Part B. Students will be equipped with solid organic chemistry knowledge ranged from important chemistry concepts such as chemical bonding, stereochemistry, stability, and kinetic/thermodynamic control, to a wide coverage in chemical reactions and their mechanisms. It is strongly recommended that the handouts be read over before the topic is presented in class. With the preview, the lectures will prove to be more meaningful and you will be able to absorb more of the key points. Note, the class notes only provide a general outline and are deliberately missing many details.

Note: (1) In the syllabus, C&SA and C&SB refer to Carey & Sundberg, Part A and B respectively. (2) The topics and their ordering as provided below is only approximate.

본 과정은 화학을 전공한 학부생이 유기화학에 대한 깊은 이해를 갖도록 설계되었습니다. 강의는 Advanced Organic

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	(1) Introduction, Course Outline; (2) Bonding and Structure (C&SA Ch 1.1.1-1.1.2) & Mechanistic Basics (Grossman Ch 1.4-1.6); Self-Evaluation Exam	E	서성은	대면강의		
2	(3) Delocalization (C&SA Ch 1.1) & ICM01: Mechanisms of Protecting Groups 1 (C&SB Ch 3.5); [Chuseok]	E	서성은	대면강의		
3	(4) Hyperconjugation (C&SA Ch 1.1, Kirby Ch 3) & (5) Nucleophilicity, Electrophilicity, Leaving Groups (C&SA Ch 4.2, 4.3); ICM02: Mechanisms of Protecting Groups 2 (C&SB Ch 3.5) & ICM03: Mechanisms of Oxidations (C&SB Ch 12)	E	서성은	대면강의		
4	(6) Conformational Analysis 1 (C&SA Ch 2.2) & (7) Conformational Analysis 2 (C&SA Ch 2.2); ICM04: Mechanisms of Reductions (C&SB Ch 5) & ICM05: Mechanisms of Organometal Nucleophiles 1 (C&SB Ch 7.2-7.4, 8.1)	E	서성은	대면강의		
5	(8) HSAB (C&SA Ch 1.1, Kirby Ch 2.3); ICM06: Mechanisms of Organometal Nucleophiles 2 (C&SB Ch 7.1-7.2); [National Foundation Day]	E	서성은	대면강의		
6	(9) Enolate Aldol 1 (C&SA Ch 7.7); ICM07: Mechanisms of Enolization (C&SB Ch 1.1)	E	서성은	대면강의		
7	(10) Enolate Aldol 2 (C&SA Ch 7.7) & (11) Acidity (C&SA Ch 6.3); ICM08: Mechanisms of Enolate Reactions (C&SA 7.7, C&SB Ch 1.2, 2.3) & ICM09: Mechanisms of Aldol Reactions (C&SA Ch 7.7, C&SB Ch 2.1, 9.1.5, 9.2, 9.3)	E	서성은	대면강의		
8	(12) Midterm Exam	E	서성은	대면시험		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
9	(13) Stereoelectronic Effects (Kirby Ch 1, 6), π–Nucleophilicity (C&SA 5.8), Electronegativity and Group Effects (C&SA 3.4) & (14) Carbocations (C&SA Ch4.4); ICM10: Mukaiyama Aldol, Aldehyde Allylation, Prins Reaction (C&SB Ch 2.1, 9.1.5, 9.2, 9.3) & ICM11: Mechanisms of Michael Reaction, Robinson Annulation, Mannich Reaction (C&SB Ch2.1.6, 2.2, 2.6)	E	서성은	대면강의		
10	(15) Bond Distances, Angles, and Energies (C&SA Ch 1.1, 1.2, 3.1) & (16) Huckel Molecular Orbital Method (C&SA Ch 1.2, Ch 10); ICM12: Mechanisms of Tandem Reaction (C&SB Ch 2.6, 10.3) & ICM13: Mechanisms of Carbocation Rearrangements (C&SA Ch 4.4)	E	서성은	대면강의		
11	(17) Woodward Hoffman Rules (C&SA Ch 10) 1 & (18) Woodward Hoffman Rules 2 (C&SA Ch 10); ICM14: Mechanisms of Elimination Reactions (C&SA Ch 5.10, C&SB Ch. 6.6) & ICM15: Mechanisms of Peterson Olefination, Shapiro (C&SB Ch 2.4, 3.5, 5, 7.1), Olefin Metathesis (Hegedus Ch 6.5, 6.6)	E	서성은	대면강의		
12	(19) Thermodynamics vs Kinetics (C&SA Ch 3.1–3.3) & (20) Make-up Class 1; ICM16: Mechanisms of Sigmatropic Rearrangements 1 (C&SB Ch 6.4) & ICM17: Mechanisms of Sigmatropic Rearrangements 2 (C&SB Ch 6.4)	E	서성은	대면강의		
13	(21) Make-up Class 2 & (22) Make-up Class 3; ICM18: Mechanisms of Cycloadditions (C&SB Ch. 6.1, 6.2) & ICM19: Mechanisms of Ylide Elimination Reactions (C&SB Ch 2.4)	E	서성은	대면강의		
14	(23) Make-up Class 4 & (24) Kinetically-Controlled Stereoselective Reaction 1 (Lab)	E	서성은	대면강의		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
15	(25) High-Throughput Experimentations (26) Machine Learning in the Pharmaceutical Industry	E	서성은	대면강의		
16	(27) Kinetically-Controlled Stereoselective Reaction 2 (Class) & (28) Final Exam	E	서성은	대면강의 & 대면시험		

11. Other items of notification

Organizational Behavior

Course Name	Course type (credit/hours)	전필(3/3)	Course code	I017
	Target students Division/major/grade	2,3,4학년/2학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월C(연암104) 수C(연암104)(연암104)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	Only offered to sophomore and above.		
	Related basic courses			
	Recommanded concurrent courses			
	Related advanced courses			

Instructor	Name (title/division)		김도영 (교수/경영대학 경영학과)		
	Office Room Number	다522	Office phone Number	2914	e-mail
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

This course emphasizes an empirical approach to the study of individual and group behavior within the context of the organization and as affected by a wide array of emerging organizational realities. It provides current and emerging theoretical and practical knowledge for understanding topics such as individual differences (personality), research methods, perception, motivation, job satisfaction and organizational commitment, leadership, and managerial decision-making. The major objective of this course is to understand basic organizational behavior concepts and research, models, and moving from individual behavior to the group and to the organization as a whole.

2. Course Objectives

The major objective of this course is to understand basic organizational behavior concepts and research, models, and moving from individual behavior to the group and to the organization

3. Class types and activities

Reading assignments
Class discussion/lecture will be based upon the readings listed in this syllabus for each day and will extend the materials from time to time. Each class requires a high degree of participation. Therefore, it is critical that you complete the reading assignment before class so that you will understand the material presented in class and can contribute to the discussion if it happens.

Class Notes
Course notes are available for lectures prepared by the instructor. These course notes are NOT a replacement for your own notes; they are meant to help you organize your notes and keep up with the lecture. There will be many details discussed in class and textbook that will not be included on the notes, and you will be responsible for these details on the exam.

4. Teaching Method

☑ lecture	☑ discussion and debate
☑ team project(presentation and case studies)	☑ experiments(role-playing,etc)
☐ designing and production	☐ on-site learning(on-site training)
☐ others	

5. Support Systems in Use

☑ e-class	☐ automatic recording system	☐ web-based assignment
☐ cyber lecture	☐ blended learning(combination of online and offline teaching)	
☐ class behavior analyazing system	☐ others	

6. Teaching Tools

☑ PBL(Problem Based Learning)	☑ CBL(Case Based Learning)
☑ TBL(Team Based Learning)	☐ others

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance			
midterm exam		25%	약 1시간 10분 가량 진행되며 중간고사의 경우 40~50개의 객관식, T/F, 단답형 문제
final exam		30%	기말고사는 60~70개의 객관식 문제가 그동안 수업시간에 배운 강의 및 주교재, 부교재 내용에서 출제된다. 기말고사의 시험범위는 누적되어 기존의 중간고사 범위에서 약 30%, 중간고사 이후 범위에서 나머지 70%가 출제된다.
quiz		15%	학생들의 지속적이고 꾸준한 학습을 돕기 위해 마련한 방법이다. 수업시간에 다루는 내용이 교재의 상당 부분을 포함하기 때문에, 학생들이 사전에 교재를 읽고 수업에 출석하는 것이 매우 중요하다. 학기 중 총 4차례의 퀴즈가 주어지며 문제는 퀴즈당 7~10문제로 출제된다.
presentation			
discussion		10%	WYTs (What is Your Thought? session)의 Flipped Learning 방법을 통한 Discussion 및 응답
homework		10%	수업시간에 배운 과학적 이론과 지식을 업무현장에서의 실제 사례에 적용해보기 위한 연습이다. 각 팀은 공동으로 사례별 보고서를 작성하도록 한다. 조별 과제는 3명이 한 조를 구성함을 원칙으로 한다. 각 조에서는 공동으로 2개의 실제 사례를 선택하여 수업시간에 배운 ?
etc		10%	Class Participation
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Understanding and Managing Organizational Behavior	George, M. J. & Jones, G. R.	Pearson Education Co	

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Class Orientation & Ch. 1: Intro. To Organizational Behavior	E	김도영			
2	Intro. To Organizational Behavior (Continue)	E	김도영			
3	Intro. To Organizational Behavior (Continue) & Personality and Ability, Methods in the Study of Personality	E	김도영			
4	What is Personality? and The Trait Perspective & Individual Differences	E	김도영			
5	Work Values, Attitudes, and Moods and Emotions	E	김도영			
6	Perception and Attribution, and the Management of Diversity	E	김도영			
7	Learning and Creativity	E	김도영			
8	Midterm Week	E	김도영			
9	The Nature of Work Motivation and Managing Stress & Work-Life Balance	E	김도영			
10	Managing Stress & Work-Life Balance (Continues) and The Nature of Work Groups and Teams	E	김도영			
11	The Nature of Work Groups and Teams (Continue)	E	김도영			
12	Leaders & Leadership and Decision Making and Organizational Learning	E	김도영			
13	Decision Making and Organizational Learning (Continues)	E	김도영			
14	Power, Politics, Conflict and Negotiation and Organizational Culture and Behavior and Organizational Design and Structure	E	김도영			
15	Organizational Culture and Ethical Behavior & Organizational Change and Development	E	김도영			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
16	Final Exam	E	김도영			

11. Other items of notification

Organizational Behavior

Course Name	Course type (credit/hours)	전필(3/3)	Course code	I018
	Target students Division/major/grade	경영학부/2학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월B(다310) 목B(다310)(다310)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	정대용 (교수/경영대학 경영학과)			
	Office Room Number	다산관 424	Office phone Number	2840	e-mail	
	Office hours	1pm-2:30pm, Tue.	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number	509 Dasan Hall	Office phone Number	010-7383-4537	e-mail	ich45337@hanmail.net

1. Introduction

Industrial relations (IR) is the interdisciplinary field of study that concentrates on workers and their unions (and associations), employers and their organizations, government, and the environment in which these "actors" interact. This course explores the components and dynamics of IR systems and how the IR actors use rule-making processes to establish terms and conditions of employment in their environmental settings. A secondary emphasis is on international comparisons to enhance understanding of the unique qualities of the Korean IR system and an appreciation for international variations. The course utilizes an interdisciplinary approach, drawing on theories and concepts from economics, psychology, sociology, labor law, and other behavioral sciences.

2. Course Objectives

3. Class types and activities

1. We hold live online classes in Zoom due to the COVID-19 situation (A couple offline classes could be held if necessary). You must have a camera & a microphone in your computer and turn them on during class to show your face/upper body (no mask/no hat) and participate in discussions effectively. Two offline exams will be given.

2. I do not use a spoon-feeding teaching style. Learning in my class is based on collective action (discussion-bases class), and all activities in class will be conducted in English only, You are required to complete the readings prior to each class, contribute to the discussion of the material, and ask questions when you do not understand. You will learn from your classmates and help them learn. As an instructor, I am here to facilitate your mutual teaching and learning, not to give you "the answers." Active participation in discussions is expected, and your participation will be evaluated. As such, you should have an appropriate level of English skills and willingness to participate in class activities.

WARNING: If you are uncomfortable or unwilling to participate and contribute to a joint-learning environment, you should consider taking another course (or taking this course with another instructor).

4. Teaching Method

[V] lecture   [V] discussion and debate

[V] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[V] PBL(Problem Based Learning)   [V] CBL(Case Based Learning)

[V] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

1. College-level English skills.
2. Willingness to participate in class activities.

NOTE: all activites in class will be conducted in English only.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance			
midterm exam	1	35%	Short essay questions.
final exam	1	35%	Short essay questions.
quiz		10%	Pop-quizzes (unannounced) will be given several times througout the semester.
presentation			
discussion			
homework			
etc		20%	Participation in class activities
study hours	3-7 hours depending on your abilties		

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Course pack (Various Articles)	Authors	Publishers	0000
Main	An Introduction to U.S. Collective Bargaining and Labor Relations	Harry C. Katz, Thomas A. Kochan, and Alexander J. S. Colvin	Cornell University Press	2017

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction to the field of IR	E	정대용			
2	Classical Theories: Adam Smith & Karl Marx	E	정대용			
3	Institutionalist View & System Approach	E	정대용			
4	Korean IR I	E	정대용			
5	Korean IR II	E	정대용			
6	Environment, the State & Labor Laws	E	정대용			
7	Union Strategies & Structures	E	정대용			
8	Mid-term Exam (Offline)	E	정대용			
9	Management Strategies & Structures	E	정대용			
10	Union Organizing & Bargaining Structures I	E	정대용			
11	Union Organizing & Bargaining Structures II	E	정대용			
12	Negotiation Process & Strikes	E	정대용			
13	Participatory Processes	E	정대용			
14	International & Comparative IR: Germany	E	정대용			
15	International & Comparative IR: Japan	E	정대용			
16	Exam Review & Final Exam (Offline)	E	정대용			

11. Other items of notification

1. My course does not fit those students whose main goal is to get a "good grade." It better fits those who enjoy the process of learning.

2. This course is offerd for upper-level undergraduate (third & fourth year) students, and its content is complex. You should take another course if you are looking for an "easy course."

3. If you already took this course with me before, you are not allowed to retake this course with me. It would be more beneficial for you to retake this course with another prof.

Physical Chemistry2

Course Name	Course type (credit/hours)	전필(3/3)		Course code	G080
	Target students Division/major/grade	화학과/2학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	월E(성131) 수E(성131)(성131)		English Grade	A(100%English)

Reference to this course	Prerequisite courses	화학1 화학2			
	Related basic courses	수학 1,2 물리 1,2			
	Recommanded concurrent courses				
	Related advanced courses				

Instructor	Name (title/division)	유영동 (부교수/자연과학대학 화학과)			
	Office Room Number	원천관215-2	Office phone Number	2692	e-mail
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

2. Course Objectives

물리화학은 화학의 원리를 이해하는 중요한 학문으로 다음과 같은 개념들을 익히는데 중점을 둔다.
1. 원자 분자의 양자역학적 기술과 분광학
2. 원자 분자의 전자 구조의 이해

3. Class types and activities

4. Teaching Method

☑ lecture	☐ discussion and debate
☐ team project(presentation and case studies)	☐ experiments(role-playing,etc)
☐ designing and production	☐ on-site learning(on-site training)
☐ others	

5. Support Systems in Use

☑ e-class	☐ automatic recording system	☐ web-based assignment
☐ cyber lecture	☐ blended learning(combination of online and offline teaching)	
☐ class behavior analyazing system	☐ others	

6. Teaching Tools

☐ PBL(Problem Based Learning)	☐ CBL(Case Based Learning)
☐ TBL(Team Based Learning)	☐ others

7. Knowledge and ability required for taking this course

학부 1학년 수준의 화학, 물리, 수학에 대한 기초지식

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	
midterm exam	1	40%	
final exam	1	40%	
quiz			
presentation			
discussion			
homework		10%	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Physical Chemistry, 3rd edition	Engel, Reid	Pearson	2012
Main	Atkin's Physical Chemistry, 10th edition	P. W. Atkins	Oxford University Press	2015

10. Class system and Class shedule

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< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Chapter 12 From Classical to Quantum Mechanics		유영동			
2	Chapter 13 The Schr?dinger Equation		유영동			
3	Chapter 14 The Quantum Mechanical Postulates		유영동			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Chapter 15 Using Quantum Mechanics on Simple Systems		유영동			
5	Chapter 16 The Particle in the Box and the Real World		유영동			
6	Chapter 17 Commuting and Noncommuting Operators and the Surprising Consequences of Entanglement		유영동			
7	Discussion		유영동			
8	Mid-term exam		유영동			
9	Chapter 18 A Quantum Mechanical Model for the Vibration and Rotation of Molecules		유영동			
10	Chapter 19 The Vibrational and Rotational Spectroscopy of Diatomic Molecules		유영동			
11	Chapter 20 The Hydrogen Atom		유영동			
12	Chapter 23 The Chemical Bond in Diatomic Molecules		유영동			
13	Chapter 24 Molecular Structure and Energy Levels for Polyatomic Molecules		유영동			
14	Chapter 27 Molecular Symmetry		유영동			
15	Discussion		유영동			
16	Final exam		유영동			

11. Other items of notification

Principle of Economics1

<table>
<tr><td rowspan="3">Course
Name</td><td>Course type
(credit/hours)</td><td colspan="2">전필(3/3)</td><td>Course code</td><td>K022</td></tr>
<tr><td>Target students
Division/major/grade</td><td colspan="2">경제학과/1학년</td><td>Openning
semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time
and classroom</td><td colspan="2">월B(연암502) 목B(연암502)(연암502)</td><td>English
Grade</td><td>A(100%English)</td></tr>
<tr><td rowspan="4">Reference
to this
course</td><td>Prerequisite courses</td><td colspan="4">none</td></tr>
<tr><td>Related basic courses</td><td colspan="4">microeconomics</td></tr>
<tr><td>Recommanded
concurrent courses</td><td colspan="4"></td></tr>
<tr><td>Related
advanced courses</td><td colspan="4"></td></tr>
</table>

<table>
<tr><td rowspan="3">Instructor</td><td colspan="2">Name (title/division)</td><td colspan="4">Jong-Suk Han</td></tr>
<tr><td>Office Room
Number</td><td>Yulgokgwan 419</td><td>Office phone
Number</td><td>2717</td><td>e-mail</td><td></td></tr>
<tr><td>Office
hours</td><td colspan="2">by appointment</td><td>Homepage
address</td><td></td><td></td></tr>
<tr><td rowspan="2">Teaching
Assistant</td><td colspan="2">Name (title/division)</td><td colspan="4"></td></tr>
<tr><td>Office Room
Number</td><td></td><td>Office phone
Number</td><td></td><td>e-mail</td><td></td></tr>
</table>

1. Introduction

-This course is designed to introduce students to the fundamental principles of economic analysis.
-All students, who are not ECON major, are welcome
-Throughout the course, we try to answer:
(1) How is an equilibrium of market constructed?
(2) How does it response to any changes in economic environment?
(3) Is the resource allocation in the equilibrium efficient?
(4) Are there any possibilities that government should intervene in markets?
-For these, we develop several fundamental theories of economics. Also, we test whether the theories work in the real life.

2. Course Objectives

3. Class types and activities

All classes are lectures in person.

4. Teaching Method

☑ lecture	☑ discussion and debate
☐ team project(presentation and case studies)	☐ experiments(role-playing,etc)
☐ designing and production	☐ on-site learning(on-site training)
☐ others	

5. Support Systems in Use

☑ e-class	☐ automatic recording system	☐ web-based assignment
☐ cyber lecture	☐ blended learning(combination of online and offline teaching)	
☐ class behavior analyazing system	☐ others	

6. Teaching Tools

☑ PBL(Problem Based Learning)	☐ CBL(Case Based Learning)
☐ TBL(Team Based Learning)	☐ others

7. Knowledge and ability required for taking this course

Interests in Economics.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance			
midterm exam	1	40	
final exam	1	40	
quiz			
presentation			
discussion			
homework	2	20	10% for each set
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Economics	Acemoglu, Laibson, List	Pearson	2019

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction, Ch 1, 3	E	한종석			
2	Ch. 4	E	한종석			
3	Ch. 4	E	한종석			
4	Ch. 5	E	한종석			
5	Ch. 5	E	한종석			
6	Ch. 6	E	한종석			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
7	Ch. 7	E	한종석			
8	Mid-term	E	한종석			
9	Ch. 9	E	한종석			
10	Ch. 9	E	한종석			
11	Ch. 11	E	한종석			
12	Ch. 11	E	한종석			
13	Ch. 12	E	한종석			
14	Ch. 14	E	한종석			
15	Ch. 15	E	한종석			
16	Final	E	한종석			

11. Other items of notification

Principle of Economics2

Course Name	Course type (credit/hours)	전필(3/3)	Course code	K017
	Target students Division/major/grade	경제학과/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월C(다506) 수C(다506)(다506)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	Macroeconomics

Instructor	Name (title/division)		한종석 (조교수/사회과학대학 경제학과)		
	Office Room Number		Office phone Number	2717	e-mail
	Office hours	by appointment	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

-This course is designed to introduce students to topics studied in Macroeconomics
-Throughout the course, we are going to cover
(1) Measurements of macroeconomic aggregates
(2) How does income grow? What determines income difference across countries.
(3) Monetary system and central banks
(4) Economic fluctuation (business cycle) and Macroeconomic Policy
(5) International trade and Open Macroeconomics

2. Course Objectives

The main goals of this course are understanding topics covered in macroeconomics and apply to real world.

3. Class types and activities

The 1st month will be held by live or recorded video lecture. Whenever the Covid19 situation get better, we will convert to face-to-face lecture.

4. Teaching Method

[V] lecture

[V] discussion and debate

[ ] team project(presentation and case studies)

[ ] experiments(role-playing,etc)

[ ] designing and production

[ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class

[V] automatic recording system

[ ] web-based assignment

[ ] cyber lecture

[ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system

[ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)

[ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)

[V] others (lecture & discussion)

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance			
midterm exam		35	
final exam		35	
quiz			
presentation		10	group presentation
discussion			
homework		10	5 sets, 2 points each
etc		10	individual report (based on your group presentation)
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Economics	Acemoglu, Laibson, List	Pearson	2019

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction	E	한종석			
2	Ch19	E	한종석			
3	Ch20	E	한종석			
4	Ch20	E	한종석			
5	Ch21	E	한종석			
6	Ch22	E	한종석			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
7	Ch23	E	한종석			
8	Mid-term	E	한종석			
9	Ch24	E	한종석			
10	Ch25	E	한종석			
11	Ch26	E	한종석			
12	Ch27	E	한종석			
13	Monetary policy in Korea	E	한종석			
14	Presentation	E	한종석			
15	Presentation	E	한종석			
16	Review	E	한종석			

11. Other items of notification

Probability and Statistics 1

Course Name	Course type (credit/hours)	교필(3/3)	Course code	M001
	Target students Division/major/grade	미디어학과/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월C(산422) 수C(산422)(산422)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	Teemu H. Laine (부교수/소프트웨어융합대학 미디어학과)			
	Office Room Number		Office phone Number	1851	e-mail
	Office hours	Thursday 9am-11am	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

The world we live in is full of uncertainties. Probability is a branch of mathematics that deals with uncertainties. Our world is also full of data. Statistics is all about collecting, organizing, analyzing, interpreting, and presenting data. In this course we will study the basics of probability and statistics, which will prepare you for more advanced courses. The knowledge of probability and statistics will be very useful after graduation in everyday life and especially if you will work research and development.

2. Course Objectives

Students will gain basic understanding of probability theory and will learn the basic tools of statistics. They will then apply the learned concepts to solve real problems.

The expected learning outcomes are as follows:

1. Learn that events and their occurrences can be defined in mathematical terms.
2. Understand random variables and various uses for them.
3. Understand how random variables can be used to model random phenomena
4. Learn about different distributions (e.g. normal, geometric, binomial, Poisson)
5. Learn effective ways to do sampling in statistics
6. Learn how to make predictions in statistics and understand the meaning of confidence in these predictions

3. Class types and activities

The course uses lectures and exercises as the main teaching methods. During lectures, the professor will introduce theoretical concepts, followed by practical examples.

Lectures will be recorded and there will also be weekly live discussion and Q&A sessions where professor gives more practical demonstrations and students can ask the professor about lectures and exercises.

Mid-term and final exams are also used to test the students understanding of the course topics.

4. Teaching Method

- [V] lecture
- [ ] team project(presentation and case studies)
- [ ] designing and production
- [V] others   (Problem solving and calculations, additional support via KakaoTalk and Zoom meetings.)
- [ ] discussion and debate
- [ ] experiments(role-playing,etc)
- [ ] on-site learning(on-site training)

5. Support Systems in Use

- [V] e-class
- [ ] cyber lecture
- [ ] class behavior analyazing system
- [ ] automatic recording system
- [ ] blended learning(combination of online and offline teaching)
- [V] others   (KakaoTalk chatroom)
- [ ] web-based assignment

6. Teaching Tools

- [V] PBL(Problem Based Learning)
- [ ] TBL(Team Based Learning)
- [ ] CBL(Case Based Learning)
- [ ] others

7. Knowledge and ability required for taking this course

Students must have basic English communication skills because the course is delivered 100% in English. There may be a Korean TA but it is not guaranteed.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		5	Attendance
midterm exam		32.5	Mid-term exam
final exam		32.5	Final exam
quiz			
presentation			
discussion			
homework		30	Weekly assignments / homework
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Head First Statistics (Korean: 실생활 예제로 배우는 정말 쉬운 통계 이야기)	Griffiths	Oreilly Media	2008

10. Class system and Class shedule

During the course, students will learn the basic concepts and theories of probability, such as events, observations, random variables, density, expected value, variance, geometric distribution, binomial distribution, Poisson distribution, and normal distribution. Based on this, the main areas of statistics, such as point estimation, interval estimation, confidence intervals, hypothesis testing, and Chi-squared test will also be covered.

The lectures will follow the chapters of the textbook. Each week we cover one of the chapters, with additional examples and discussion during Q&A sessions. Moreover, each week the students will be given an assignment with multiple tasks. These assignments will relate to previously covered lectures. This way the students will not only gain the theoretical but also practical learning objectives.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Course introduction and visualizing information	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
2	Measuring central tendency	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
3	Measuring variability and spread	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
4	Calculating probabilities	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
5	Using discrete probability distributions	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
6	Permutations and combinations	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
7	Geometric, binomial and Poisson distributions	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
8	Mid-term exam	E	Teemu H. Laine	Exam		
9	Using the normal distribution 1	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
10	Using the normal distribution 2	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
11	Using statistical sampling	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
12	Estimating populations and samples	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
13	Constructing confidence intervals	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
14	Using Hypothesis tests	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
15	Chi-squared distribution	E	Teemu H. Laine	Lectures, demonstrations, discussion, practice		
16	Final exam	E	Teemu H. Laine	Exam		

11. Other items of notification

Science and Religion

Course Name	Course type (credit/hours)	교필(3/3)		Course code	X291
	Target students Division/major/grade	미확정/미확정		Openning semester	2022 2ND SEMESTER
	Class time and classroom	월A(연암105) 수A(연암105)(연암105)		English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)			이재신 (명예교수/자연과학대학 화학과)		
	Office Room Number	원천관 216	Office phone Number	2603	e-mail	
	Office hours		Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

Science and religion share a common area of interest in that science is a quest for understanding the general principles behind natural phenomena, while religion is concerned with the position and purpose of mankind in the nature. For the people who are simultaneously receiving the benefits and hazardousness of the modern day scientific technology, it is important to establish a sound perspective on religion based on correct understanding of the values and limitations of science. In this course we investigate the respective approach and perspective of the science and religion on the issues of origins of cosmos and life and the relationship between the western science and Christianity through history. The major contents covered in the lecture will be the relation between science and religion, historical investigation of the western science and Christianity, and modern scientific development about the origin of the cosmos and life. This course is related to advancing the capability of analytical and critical thinking as well as interdisciplinary studies in our university.

2. Course Objectives

The goal of this course is, first, to understand the relationship between science and religion through historical investigation on the relation between science and religion in the western society. The second goal of this course is to investigate the problem of origin of the universe and life, which is a common fundamental issue of science and religion, using modern scientific concepts and theories.

3. Class types and activities

Lecture(pre-recorded + classroom lecture). Video watching. Team project presentation.

4. Teaching Method

- ☐ lecture
- ☐ team project(presentation and case studies)
- ☐ designing and production
- ☐ others

- ☐ discussion and debate
- ☐ experiments(role-playing,etc)
- ☐ on-site learning(on-site training)

5. Support Systems in Use

- ☐ e-class
- ☐ cyber lecture
- ☐ class behavior analyazing system

- ☐ automatic recording system
- ☐ blended learning(combination of online and offline teaching)
- ☐ others

- ☐ web-based assignment

6. Teaching Tools

- ☐ PBL(Problem Based Learning)
- ☐ TBL(Team Based Learning)

- ☐ CBL(Case Based Learning)
- ☐ others

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		20	
midterm exam			
final exam	1	40	
quiz			
presentation			
discussion			
homework	2	40	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Science and religion, a historical introduction, 1st ed.	G. B. Ferngren	Johns Hopkins Univer	2002
Main	Signature in the cell	S. C. Meyer	HarperOne	2009
Ref.	A brief history of time	S. Hawking	Bantam	1998
Ref.	Darwin's doubt	S. C. Meyer	HarperOne	2013

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Definition of science and religion	E	이재신			
2	Relation between science and religion in ancient Greek	E	이재신			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
3	Relation between science and religion in Middle Ages	E	이재신			
4	Relation between science and religion during scientifix revolution	E	이재신			
5	Newtonian mechanics and cosmology	E	이재신	On site class		
6	Special relativity	E	이재신	On site class		
7	General relativity and Big Bang theory	E	이재신			
8	Cosmology and religion	E	이재신	On site class		
9	Geology and paleontology in 18 and 19 C	E	이재신			
10	Natural history during 18 and 19 C	E	이재신			
11	Charles Darwin and evolution	E	이재신			
12	Chemical evolution model	E	이재신			
13	Inference in historical science	E	이재신			
14	Intelligent design argument	E	이재신			
15	Science, materialism, and Naturalism	E	이재신	On site class		
16	Final exam.	E	이재신	Offline exam.		

11. Other items of notification

Solid-State Physics

Course Name	Course type (credit/hours)	전필(3/3)		Course code	G019
	Target students Division/major/grade	물리학과/3학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	화A(성131) 금A(성131)(성131)		English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	Quantum Mechanics
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)			이형우 (조교수/대학원 에너지시스템학과)		
	Office Room Number	원천관 416호	Office phone Number	2581	e-mail	
	Office hours		Homepage address		https://sites.google.com/view/copl/	
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

The physical understanding of various kinds of solids has been developed rapidly since the foundation of quantum mechanics in the early 20th century. Today, solid stae physics is a discipline of physics with the largest number of researchers and is being applied extensively to industries and engineering. The main topic includes the atomic structure of crystals, phonons, free electron gas and the Fermi surface in this course. This course will cover electrical and optical properties of metals, semiconductors, dielectrics, nano-materials.

2. Course Objectives

Students need to understand the basic concepts and theories of solid state physics and acquire an ability to apply them to real physical phenomena observed in nature and in laboratories.

Specifically, students need to understand
1. the atomic structure of crystals
2. the principle of crystal binding
3. elementary excitations in solids including phonons
4. thermodynamics and dynamics of free electrons and the Fermi surface
5. elementary concepts of energy band in semiconductor crystals
6. Nanostructures

3. Class types and activities

The lectures will be provided off-line. The two exams (the mid and the final) will be off-line. If there is any change, it will be notified in advance.

4. Teaching Method

[V] lecture	[ ] discussion and debate
[ ] team project(presentation and case studies)	[ ] experiments(role-playing,etc)
[ ] designing and production	[ ] on-site learning(on-site training)
[ ] others	

5. Support Systems in Use

[V] e-class	[ ] automatic recording system	[ ] web-based assignment
[ ] cyber lecture	[ ] blended learning(combination of online and offline teaching)	
[ ] class behavior analyazing system	[ ] others	

6. Teaching Tools

[ ] PBL(Problem Based Learning)	[ ] CBL(Case Based Learning)
[ ] TBL(Team Based Learning)	[ ] others

7. Knowledge and ability required for taking this course

Basic knowledge on classical mechanics, electromagnetism and quantum mechanics is essential.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance			
midterm exam	1	45	
final exam	1	45	
quiz			
presentation			
discussion			
homework	매주	10	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Introduction to Solid State Physics, 8th Ed.	Charles Kittel	Wiley	2005

10. Class system and Class shedule

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The following topics will be covered.
1. Crystal structure
2. Crystal diffraction
3. Crystal binding
4. Phonons
5. Free electron Fermi gas
6. Energy bands
7. Semiconductors
8. Fermi surfaces and Metals

These are essential topics in solid state physics which every student in physics needs to learn.
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< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Crystal Structure 1	E	이형우	온라인 영상강의 및 실시간 화상 강의 혼합		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
2	Crystal Structure 2	E	이형우	온라인 영상강의 및 실시간 화상 강의 혼합		
3	Wave diffraction and the reciprocal lattice 1	E	이형우	온라인 영상강의 및 실시간 화상 강의 혼합		
4	Wave diffraction and the reciprocal lattice 2	E	이형우	온라인 영상강의 및 실시간 화상 강의 혼합		
5	Crystal binding 1	E	이형우	온라인 영상강의 및 실시간 화상 강의 혼합		
6	Crystal binding 2	E	이형우	온라인 영상강의 및 실시간 화상 강의 혼합		
7	Phonons:Crystal vibrations	E	이형우	온라인 영상강의 및 실시간 화상 강의 혼합		
8	Midterm Exam	E	이형우		대면 방식의 지필 고사	
9	Phonons:Thermal properties	E	이형우	온라인 영상강의 및 실시간 화상 강의 혼합		
10	Free electron Fermi gas 1	E	이형우	온라인 영상강의 및 실시간 화상 강의 혼합		
11	Free electron Fermi gas 2	E	이형우	온라인 영상강의 및 실시간 화상 강의 혼합		
12	Energy Band 1	E	이형우	온라인 영상강의 및 실시간 화상 강의 혼합		
13	Energy Band 2	E	이형우	온라인 영상강의 및 실시간 화상 강의 혼합		
14	Semiconductor	E	이형우	온라인 영상강의 및 실시간 화상 강의 혼합		
15	Fermi Surfaces and Metals	E	이형우	온라인 영상강의 및 실시간 화상 강의 혼합		
16	Final Exam	E	이형우		대면 방식의 지필 고사	

11. Other items of notification

Spanish Language

Course Name	Course type (credit/hours)	교선(3/3)		Course code	X331
	Target students Division/major/grade	/2학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	수B(성334) 금B(성334)(성334)		English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	오윤미 (조교수/인문대학 불어불문학과)			
	Office Room Number	Dasan Hall 405-2	Office phone Number	3308	e-mail	
	Office hours	Wed E, Fri E	Homepage address	
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail	

1. Introduction

This course is intended for students who have never learned Spanish and wish to learn it for the first time. The objective of the course is to help them develop basic knowledge and understanding of Spanish language and culture. It will be entirely conducted in English and all students are required to use English (and Spanish) during the class.

This course has to do with "foreign language proficiency" according to competency-based education in our university.

2. Course Objectives

This introductory class is designed for students who have not previously studied Spanish language and aims to provide them with opportunities to learn basic knowledge of Spanish language (i.e. pronunciation, vocabulary, expressions) and its culture.

3. Class types and activities

During each class, students will study the pronunciation, grammar, vocabulary, expressions of Spanish language by means of lectures, pairworks and role-playings. Audio-visual materials will be used to help students to improve their knowledge of Spanish culture and language.

4. Teaching Method

- [V] lecture
- [ ] team project(presentation and case studies)
- [ ] designing and production
- [ ] others
- [ ] discussion and debate
- [V] experiments(role-playing,etc)
- [ ] on-site learning(on-site training)

5. Support Systems in Use

- [V] e-class
- [V] cyber lecture
- [ ] class behavior analyazing system
- [ ] automatic recording system
- [ ] blended learning(combination of online and offline teaching)
- [ ] others
- [ ] web-based assignment

6. Teaching Tools

- [ ] PBL(Problem Based Learning)
- [ ] TBL(Team Based Learning)
- [ ] CBL(Case Based Learning)
- [ ] others

7. Knowledge and ability required for taking this course

An interest in Spanish language and culture

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	
midterm exam		30%	
final exam		40%	
quiz			
presentation		15%	Presentation in Spanish (e.g. singing a song, reciting a poem, performing a scene of theatre or movie or role-playing)
discussion			
homework			
etc		5%	Participation and performance during the class
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	초급 스페인어 1	신자영, 이만기, 김은경, 라이몬 블랑카포르트	서울대학교출판문화원	2013

10. Class system and Class shedule

In this course, students will acquire basic knowledge of Spanish (from its pronunciation to its grammar) in English.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Course introduction, Lecci?n inicial. Alfabeto y pronunciaci?n	E	오윤미			
2	Lecci?n 1. Saludos y presentaciones	E	오윤미			
3	Lecci?n 2. En el aula	E	오윤미			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Lecci?n 2. En el aula - Lecci?n 3. ¿De d?nde eres?	E	오윤미			
5	Lecci?n 3. ¿De d?nde eres?	E	오윤미			
6	Lecci?n 4. En mi casa y en mi barrio	E	오윤미			
7	Lecci?n 5. La vida universitaria	E	오윤미			
8	Midterm exam	E	오윤미			
9	Lecci?n 6. Esta es mi familia	E	오윤미			
10	Lecci?n 7. ¡Feliz cumplea?os!	E	오윤미			
11	Lecci?n 7. ¡Feliz cumplea?os! - Lecci?n 8. ¿Qu? tiempo hace hoy?	E	오윤미			
12	Lecci?n 8. ¿Qu? tiempo hace hoy?	E	오윤미			
13	Presentation	E	오윤미			
14	Lecci?n 9. ¿Qu? vas a hacer este fin de semana?	E	오윤미			
15	Lecci?n 10. Me gusta jugar al f?tbol	E	오윤미			
16	Final exam	E	오윤미			

11. Other items of notification

The course schedule may be subject to change depending on class progress.

Speaking and Writing in English

Course Name	Course type (credit/hours)	교필(3/3)		Course code	X481
	Target students Division/major/grade	/1학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	화F(율260) 목E(율260)(율260)		English Grade	A(100%English)
Reference to this course	Prerequisite courses	N/A			
	Related basic courses	N/A			
	Recommanded concurrent courses	N/A			
	Related advanced courses	N/A			

Instructor	Name (title/division)	김희진 (강의교수/대학 다산학부대학)				
	Office Room Number		Office phone Number		e-mail	
	Office hours	by appointment		Homepage address		
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	oftheno@ajou.ac.kr

1. Introduction

English 1 for international students is designed for beginning students whose native language is not English. This course aims to develop the speaking, listening, and reading skills of learners. Students are expected to learn and familiarize themselves with basic grammatical concepts and practice applying them so as to gain a good command of the written and spoken English language. In this course, participants should expect to develop the followings:

-their understanding of English vocabulary and structures (i.e., grammar)
-their reading skills through various thematic contents
-their listening skills to elaborate details for further understanding
-their presentation skills

2. Course Objectives

3. Class types and activities

Students are encouraged to actively participate in class. After the lecture given by the professor, the students (in pairs) will practice what they have learned with their partners. They will also get an opportunity to present to the class what they have practiced. There will also be quizzes as well as a mid-term and final exam.

4. Teaching Method

[V] lecture   [V] discussion and debate

[V] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[V] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

Basic English grammar Reading and listening abilities for college level
문서작성을 위한 워드프로세싱 능력 (과제)
아주Bb 사용능력

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10	
midterm exam	1	25	
final exam	1	25	
quiz	2	20	
presentation			
discussion			
homework	4	15	
etc		5	
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Grammar in Context 1A (6th ed.)	Sandra N.Elbaum	National Geographic Learning	2017

10. Class system and Class shedule

Students are encouraged to actively participate in class. After the lecture given by the professor, the students will (in pairs) practice what they have learned with their partners. They will also get an opportunity to present to the class what they have practiced. There will also be quizzes as well as a mid-term and final exam.Students are expected to complete and submit 4 assignments given during the semester.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Course introduction		김희진			
2	Be: present (reading 2)		김희진			
3	Be: present (reading 3)		김희진			
4	The simple present (reading 2)		김희진			
5	The simple present		김희진			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
6	Singular and plural nouns/there is (are)/articles (reading 1)		김희진			
7	Singular and plural nouns/there is (are)/articles (reading 1)		김희진			
8	Midterm Exam		김희진			
9	Possession/object pronouns/questions about the subject (reading 2)		김희진			
10	Possession/object pronouns/questions about the subject (reading 3)		김희진			
11	The present continuous (reading 1)		김희진			
12	The present continuous		김희진			
13	The future (reading 1)		김희진			
14	The future		김희진			
15	review week		김희진			
16	Final exam		김희진			

11. Other items of notification

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Speaking and Writing in English

<table>
<tr><td rowspan="3">Course Name</td><td>Course type (credit/hours)</td><td>교필(3/3)</td><td>Course code</td><td>X482</td></tr>
<tr><td>Target students Division/major/grade</td><td>Freshmen/1학년</td><td>Openning semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time and classroom</td><td>화B(성233) 목A(성233)(성233)</td><td>English Grade</td><td>A(100%English)</td></tr>
<tr><td rowspan="4">Reference to this course</td><td>Prerequisite courses</td><td colspan="3"></td></tr>
<tr><td>Related basic courses</td><td colspan="3"></td></tr>
<tr><td>Recommanded concurrent courses</td><td colspan="3"></td></tr>
<tr><td>Related advanced courses</td><td colspan="3"></td></tr>
</table>

<table>
<tr><td rowspan="3">Instructor</td><td colspan="2">Name (title/division)</td><td colspan="4">Philip Chivers (조교수/대학 다산학부대학)</td></tr>
<tr><td>Office Room Number</td><td>성호관 419</td><td>Office phone Number</td><td>031-219-2831</td><td>e-mail</td><td></td></tr>
<tr><td>Office hours</td><td colspan="2">Tues B 12.00-13.15, Weds B 10.30-11.45, Thurs C 10.30-11.45</td><td>Homepage address</td><td></td><td></td></tr>
<tr><td rowspan="2">Teaching Assistant</td><td colspan="2">Name (title/division)</td><td colspan="4"></td></tr>
<tr><td>Office Room Number</td><td></td><td>Office phone Number</td><td></td><td>e-mail</td><td>philip@ajou.ac.kr</td></tr>
</table>

1. Introduction

English 1 is a required course for all undergraduate students. This course concentrates on English speaking and writing. Speaking lessons include pair work, small group tasks and class discussions. Writing lessons prepare students for academic paragraph-writing. The language of instruction is English and students are expected to communicate in English during class.

2. Course Objectives

(1)Notice English pronunciation, intonation and stress patterns and practice speaking more clearly. (related to P07)

(2)Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities. (related to P07)

(3)Use appropriate vocabulary and grammar to express their ideas about the course topics. (related to P07)

(4)Follow the steps in the writing process. (related to P07)

(5)Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding sentence. (related to P07)

(6)Write using complete sentences, avoiding fragments and run-on sentences. (related to P07)

(7)Write using capital letters, periods and commas correctly. (related to P07)

(8)Write with acceptable academic style and proper paragraph format. (related to P07)

3. Class types and activities

Students will gain confidence and improve their English speaking abilities by practicing expressions and dialogs and making their own conversations. Students will also learn to produce an academic paragraph from a model which includes a topic sentence, supporting sentences and a concluding sentence, developing and supporting a main idea with specific reasons, details and examples.

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[V] others (This class will involve lots of group work to improve fluency through conversation practice.

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

* Online homework should be completed before class.

* We often use Google docs. Make sure that you are prepared to access Google apps.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Unexcused absences will reduce the attendance grade as follows: 2 unexcused absences = 2 points off the attendance grade 3 unexcused absences = 4
midterm exam		15%	Mid-Term Exam
final exam		15%	Final Exam
quiz			Students will participate in several online quizzes which will contribute to their participation score
presentation		30%	Students will perform a presentation during the course as well as a final oral test which will evaluate the student's speaking skills
discussion		10%	Students are expected to speak English during class time. Students are expected to complete all in-class tasks as well as homework assignments, includ
homework		20%	Students will complete one academic paragraph and additional writing assignments. Writing is evaluated on the correct use of formal English, the organ
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2 (third edition)	Johannsen, K. and Tarver-Chase, R.	National Geographic Learning/Cengage Learning, 2015	

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Course Introduction	E	Philip Chivers			
2	Academic Writing	E	Philip Chivers			
3	Academic Writing	E	Philip Chivers			
4	Academic Writing / Unit 1 - Food for Life	E	Philip Chivers			
5	Unit 1 - Food for Life / Unit 2 - Express Yourself	E	Philip Chivers			
6	Unit 3 - Cities	E	Philip Chivers			
7	Unit 4 - The Body / Unit 5 - Challenges	E	Philip Chivers			
8	MID-TERM EXAM	E	Philip Chivers			
9	Unit 8 - Conservation	E	Philip Chivers			
10	Unit 9 - Life Now and in the Past	E	Philip Chivers			
11	Formal Presentations	E	Philip Chivers			
12	Unit 10 - Travel	E	Philip Chivers			
13	Unit 11 - Careers	E	Philip Chivers			
14	Unit 12 - Celebrations	E	Philip Chivers			
15	Speaking Test	E	Philip Chivers			
16	FINAL EXAM	E	Philip Chivers			

11. Other items of notification

Speaking and Writing in English

Course Name	Course type (credit/hours)	교필(3/3)	Course code	X483
	Target students Division/major/grade	Freshmen/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화B(성334) 목A(성334)(성334)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	Kevin Hawthorne (조교수/대학 다산학부대학)			
	Office Room Number	성호관420호	Office phone Number	2830	e-mail
	Office hours	화3:00-4:30, 수3:00-4:30	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

English 1 is a required course for all undergraduate students. This course concentrates on English speaking and writing. Speaking lessons include pair work, small group tasks and class discussions. Writing lessons prepare students for academic paragraph-writing. The language of instruction is English and students are expected to communicate in English during class.

2. Course Objectives

(1)Notice English pronunciation, intonation and stress patterns and practice speaking more clearly. (related to P07)

(2)Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities. (related to P07)

(3)Use appropriate vocabulary and grammar to express their ideas about the course topics. (related to P07)

(4)Follow the steps in the writing process. (related to P07)

(5)Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding sentence. (related to P07)

(6)Write using complete sentences, avoiding fragments and run-on sentences. (related to P07)

(7)Write using capital letters, periods and commas correctly. (related to P07)

(8)Write with acceptable academic style and proper paragraph format. (related to P07)

3. Class types and activities

English 1 will be taught face-to-face in the classroom this semester (unless there is a policy change).
Please be prepared to attend class, and to carefully follow all necessary Covid-19 safety measures.

(If there is a policy change, students will be notified)

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [V] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Unexcused absences will reduce the attendance grade as follows: 2 unexcused absences = 2 points off the attendance grade 3 unexcused absences = 4
midterm exam		15%	Mid-Term Exam
final exam		15%	Final Exam
quiz			
presentation		20%	Students will complete several oral assignments during the course as well as a final oral test which will evaluate the student's speaking skills in an
discussion		20%	Students are expected to speak English during class time. Students are expected to complete all in-class tasks as well as homework assignments, includ
homework		20%	Students will complete one academic paragraph and additional writing assignments. Writing is evaluated on the correct use of formal English, the organ
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2 (third edition)	Johannsen, K. and Tarver-Chase, R.	National Geographic Learning/Cengage Learning, 2020	2020

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Course introduction	E	Kevin Hawthorne	face-to-face		
2	Unit 1 - Food from the Earth	E	Kevin Hawthorne	face-to-face		
3	Unit 2 - Express Yourself	E	Kevin Hawthorne	face-to-face		
4	Unit 3 - Cities	E	Kevin Hawthorne	face-to-face		
5	Unit 4 - The Body	E	Kevin Hawthorne	face-to-face		
6	Unit 5 - Challenges	E	Kevin Hawthorne	face-to-face		
7	Unit 6 - Transitions	E	Kevin Hawthorne	face-to-face		
8	MID-TERM EXAM	E	Kevin Hawthorne	face-to-face		
9	Unit 7 - Luxuries	E	Kevin Hawthorne	face-to-face		
10	Unit 8 - Nature	E	Kevin Hawthorne	face-to-face		
11	Unit 9 - Life in the Past	E	Kevin Hawthorne	face-to-face		
12	Unit 10 - Travel	E	Kevin Hawthorne	face-to-face		
13	Unit 11 - Careers	E	Kevin Hawthorne	face-to-face		
14	Unit 12 - Celebrations	E	Kevin Hawthorne	face-to-face		
15	Review	E	Kevin Hawthorne	face-to-face		
16	FINAL EXAM	E	Kevin Hawthorne	face-to-face		

11. Other items of notification

English 1 will be taught face-to-face in the classroom this semester (unless there is a policy change).
Please be prepared to attend class, and to carefully follow all necessary Covid-19 safety measures.

(If there is a policy change, students will be notified)

Speaking and Writing in English

Course Name	Course type (credit/hours)	교필(3/3)	Course code	X484
	Target students Division/major/grade	Freshmen/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화B(성201) 목A(성201)(성201)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)			Nicholas McGhie (조교수/대학 다산학부대학)		
	Office Room Number	성호관 419호	Office phone Number	031-219-3256	e-mail	
	Office hours		Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

2. Course Objectives

(1)Notice English pronunciation, intonation and stress patterns and practice speaking more clearly. (related to P07)

(2)Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities. (related to P07)

(3)Use appropriate vocabulary and grammar to express their ideas about the course topics. (related to P07)

(4)Follow the steps in the writing process. (related to P07)

(5)Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding sentence. (related to P07)

(6)Write using complete sentences, avoiding fragments and run-on sentences. (related to P07)

(7)Write using capital letters, periods and commas correctly. (related to P07)

(8)Write with acceptable academic style and proper paragraph format. (related to P07)

3. Class types and activities

Students will gain confidence and improve their English speaking abilities by practicing expressions and dialogs and making their own conversations. Students will also learn to produce an academic paragraph from a model which includes a topic sentence, supporting sentences and a concluding sentence, developing and supporting a main idea with specific reasons, details and examples.

4. Teaching Method

- ☐ lecture
- ☐ team project(presentation and case studies)
- ☐ designing and production
- ☐ others
- ☐ discussion and debate
- ☐ experiments(role-playing,etc)
- ☐ on-site learning(on-site training)

5. Support Systems in Use

- ☑ e-class
- ☐ cyber lecture
- ☐ class behavior analyazing system
- ☐ automatic recording system
- ☐ blended learning(combination of online and offline teaching)
- ☐ others
- ☐ web-based assignment

6. Teaching Tools

- ☐ PBL(Problem Based Learning)
- ☐ TBL(Team Based Learning)
- ☐ CBL(Case Based Learning)
- ☐ others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Unexcused absences will reduce the attendance grade as follows: 2 unexcused absences = 2 points off the attendance grade 3 unexcused absences = 4
midterm exam		15%	Mid-Term Exam
final exam		15%	Final Exam
quiz			
presentation		20%	Students will complete several oral assignments during the course as well as a final oral test which will evaluate the student's speaking skills in an
discussion		20%	Students are expected to speak English during class time. Students are expected to complete all in-class tasks as well as homework assignments, includ
homework		20%	Students will complete one academic paragraph and additional writing assignments. Writing is evaluated on the correct use of formal English, the organ
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2 (3rd Edition)	Johannsen, K. and Tarver-Chase, R.	National Geographic Learning/Cengage Learning, 2019	

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Interviews	E	Nicholas McGhie			
2	Unit 1 - Food from the Earth	E	Nicholas McGhie			
3	Unit 2 - Express Yourself	E	Nicholas McGhie			
4	Unit 3 - Cities	E	Nicholas McGhie			
5	Unit 4 - The Body	E	Nicholas McGhie			
6	Unit 5 - Challenges	E	Nicholas McGhie			
7	Unit 6 - Transitions	E	Nicholas McGhie			
8	MID-TERM EXAM	E	Nicholas McGhie			
9	Unit 7 - Luxuries	E	Nicholas McGhie			
10	Unit 8 - Nature	E	Nicholas McGhie			
11	Unit 9 - Life in the Past	E	Nicholas McGhie			
12	Unit 10 - Travel	E	Nicholas McGhie			
13	Unit 11 - Careers	E	Nicholas McGhie			
14	Unit 12 - Celebrations	E	Nicholas McGhie			
15	Review	E	Nicholas McGhie			
16	FINAL EXAM	E	Nicholas McGhie			

11. Other items of notification

Speaking and Writing in English

<table>
<tr><td rowspan="3">Course Name</td><td>Course type (credit/hours)</td><td>교필(3/3)</td><td>Course code</td><td>X485</td></tr>
<tr><td>Target students Division/major/grade</td><td>1st Year/1학년</td><td>Openning semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time and classroom</td><td>화B(성333) 목A(성333)(성333)</td><td>English Grade</td><td>A(100%English)</td></tr>
</table>

<table>
<tr><td rowspan="4">Reference to this course</td><td>Prerequisite courses</td><td></td></tr>
<tr><td>Related basic courses</td><td></td></tr>
<tr><td>Recommanded concurrent courses</td><td></td></tr>
<tr><td>Related advanced courses</td><td></td></tr>
</table>

<table>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="5">Katie Mae Klemsen (조교수/대학 다산학부대학)</td></tr>
<tr><td>Office Room Number</td><td>다산관 215-1</td><td>Office phone Number</td><td>3243</td><td>e-mail</td><td></td></tr>
<tr><td>Office hours</td><td></td><td>Homepage address</td><td></td><td></td><td></td></tr>
<tr><td rowspan="2">Teaching Assistant</td><td>Name (title/division)</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Office Room Number</td><td></td><td>Office phone Number</td><td></td><td>e-mail</td><td></td></tr>
</table>

1. Introduction

English 1 is a required course for all undergraduate students. This course concentrates on English speaking and writing. Speaking lessons include pair work, small group tasks and class discussions. Writing lessons prepare students for academic paragraph-writing. The language of instruction is English and students are expected to communicate in English during class.

2. Course Objectives

(1)Notice English pronunciation, intonation and stress patterns and practice speaking more clearly. (related to P07)

(2)Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities. (related to P07)

(3)Use appropriate vocabulary and grammar to express their ideas about the course topics. (related to P07)

(4)Follow the steps in the writing process. (related to P07)

(5)Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding sentence. (related to P07)

(6)Write using complete sentences, avoiding fragments and run-on sentences. (related to P07)

(7)Write using capital letters, periods and commas correctly. (related to P07)

(8)Write with acceptable academic style and proper paragraph format. (related to P07)

3. Class types and activities

Students will gain confidence and improve their English speaking abilities by practicing expressions and dialogs and making their own conversations. Students will also learn to produce an academic paragraph from a model which includes a topic sentence, supporting sentences and a concluding sentence, developing and supporting a main idea with specific reasons, details and examples.

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies) [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[V] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Unexcused absences will reduce the attendance grade as follows: 2 unexcused absences = 2 points off the attendance grade; 3 absences = 4 points off; 4 absences = 6 points off; 5 absences = 4 points off; 6 unexcused absences = F
midterm exam		15%	Mid-Term Exam
final exam		15%	Final Exam
quiz			
presentation		20%	Students will complete a final oral test which will evaluate each student's speaking skills in an unscripted conversation or interview.
discussion		20%	Participation: Students are expected to speak English during class time and to complete all in-class tasks as well as homework assignments.
homework		20%	Students will complete one academic paragraph and additional writing assignments. Writing is evaluated on the correct use of formal English, the organization of the paragraph, adequate development of the subject and proper formatting.
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2 (third edition)	Johannsen, K. and Tarver-Chase, R.	National Geographic Learning/Cengage Learning	2020

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction and syllabus; Classroom English	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)		
2	Formal English	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)		
3	Unit 1 – Food from the Earth	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)		
4	Formal English, sentence-level correction & editing	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)		
5	Unit 2 – Express Yourself	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)		
6	Paragraph formatting, structure	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)		
7	Unit 2 – Express Yourself	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)		
8	MID-TERM EXAM	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)		
9	Unit 3 – Cities	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)		
10	Paragraph structure – Supporting sentences	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)		
11	Unit 3 – Cities	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)		
12	Unit 4 – The Body	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)		
13	Unit 4 – The Body	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
14	Unit 5 – Challenges	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)실시간화상 (live online class)		
15	Review	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)		
16	FINAL EXAM	E	Katie Mae Klemsen	대면 (pandemic conditions permitting)		

11. Other items of notification

Speaking and Writing in English

Course Name	Course type (credit/hours)	교필(3/3)	Course code	X486
	Target students Division/major/grade	공통/공통	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월B(성233) 목B(성233)(성233)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	Brad Crawford (조교수/대학 다산학부대학)				
	Office Room Number	다산관 215-1	Office phone Number	2816	e-mail	
	Office hours		Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

2. Course Objectives

Course Goals

1) Students will gain confidence and improve their English speaking abilities by practicing expressions and dialogs and making their own conversations.

2) Students will learn to produce an academic paragraph from a model which includes a topic sentence, supporting sentences and a concluding sentence,   developing and supporting a main idea with specific reasons, details and examples.

Course Objectives - English 1 students will be able to:

(1) Notice English pronunciation, intonation and stress patterns and practice speaking more clearly.

(2) Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities.

(3) Use appropriate vocabulary and grammar to express their ideas about the course topics.

(4) Follow the steps in the writing process.

(5) Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding

3. Class types and activities

4. Teaching Method

- [V] lecture
- [V] team project(presentation and case studies)
- [ ] designing and production
- [ ] others
- [ ] discussion and debate
- [ ] experiments(role-playing,etc)
- [ ] on-site learning(on-site training)

5. Support Systems in Use

- [V] e-class
- [ ] cyber lecture
- [ ] class behavior analyazing system
- [ ] automatic recording system
- [ ] blended learning(combination of online and offline teaching)
- [ ] others
- [ ] web-based assignment

6. Teaching Tools

- [ ] PBL(Problem Based Learning)
- [V] TBL(Team Based Learning)
- [ ] CBL(Case Based Learning)
- [ ] others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate chapter in the textbook.
수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	
midterm exam		15%	
final exam		15%	
quiz			
presentation		20%	
discussion		20%	
homework		20%	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2: Third edition	Johannsen, Kristen & Tarver, Rebecca	National Geographic Learning	2015

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Interview with Instructor	K	Brad Crawford			
2	Class introduction, Get to know your classmates, Chapter 1	K	Brad Crawford			
3	Writing: Paragraph Structure	K	Brad Crawford		Brainstorming Due	
4	Chapter 2	K	Brad Crawford		First Draft Due	

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
5	Writing: Paragraph Format *Writing Assignment #1	K	Brad Crawford			
6	Chapter 3	K	Brad Crawford		Final Draft Due	
7	Chapter 4	K	Brad Crawford			
8	Midterm Exam	K	Brad Crawford			
9	Chapter 6	K	Brad Crawford			
10	Chapter 7	K	Brad Crawford			
11	Chapter 10	K	Brad Crawford			
12	Chapter 11	K	Brad Crawford			
13	Chapter 12	K	Brad Crawford		Group Report	
14	Review and wrap-up	K	Brad Crawford			
15	Oral Test	K	Brad Crawford			
16	Final Exam	K	Brad Crawford			

11. Other items of notification

Speaking and Writing in English

<table>
<tr><td rowspan="3">Course Name</td><td>Course type (credit/hours)</td><td>교필(3/3)</td><td>Course code</td><td>X487</td></tr>
<tr><td>Target students Division/major/grade</td><td>Freshmen/1학년</td><td>Openning semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time and classroom</td><td>월B(성104) 목B(성104)(성104)</td><td>English Grade</td><td>A(100%English)</td></tr>
<tr><td rowspan="4">Reference to this course</td><td>Prerequisite courses</td><td colspan="3"></td></tr>
<tr><td>Related basic courses</td><td colspan="3"></td></tr>
<tr><td>Recommanded concurrent courses</td><td colspan="3"></td></tr>
<tr><td>Related advanced courses</td><td colspan="3"></td></tr>
</table>

<table>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="5">Scott Scattergood (조교수/대학 다산학부대학)</td></tr>
<tr><td>Office Room Number</td><td>성호관420호</td><td>Office phone Number</td><td>1824</td><td>e-mail</td><td></td></tr>
<tr><td>Office hours</td><td>Mon, Wed, 1:30 - 2:30; Thur, 12-1</td><td>Homepage address</td><td colspan="3"></td></tr>
<tr><td rowspan="2">Teaching Assistant</td><td>Name (title/division)</td><td colspan="5"></td></tr>
<tr><td>Office Room Number</td><td></td><td>Office phone Number</td><td></td><td>e-mail</td><td></td></tr>
</table>

1. Introduction

English 1 is a required course for all undergraduate students. This course concentrates on English speaking and writing. Speaking lessons include pair work, small group tasks and class discussions. Writing lessons prepare students for academic paragraph-writing. The language of instruction is English and students are expected to communicate in English during class.

2. Course Objectives

(1)Notice English pronunciation, intonation and stress patterns and practice speaking more clearly.

(2)Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities.

(3)Use appropriate vocabulary and grammar to express their ideas about the course topics.

(4)Follow the steps in the writing process.

(5)Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding sentence.

(6)Write using complete sentences, avoiding fragments and run-on sentences.

(7)Write using capital letters, periods and commas correctly.

(8)Write with acceptable academic style and proper paragraph format.

3. Class types and activities

Students will gain confidence and improve their English speaking abilities by practicing expressions and dialogs and making their own conversations. Students will also learn to produce an academic paragraph from a model which includes a topic sentence, supporting sentences and a concluding sentence, developing and supporting a main idea with specific reasons, details and examples.

4. Teaching Method

[V] lecture

[V] discussion and debate

[ ] team project(presentation and case studies)

[ ] experiments(role-playing,etc)

[ ] designing and production

[ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class

[ ] automatic recording system

[ ] web-based assignment

[ ] cyber lecture

[ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system

[ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)

[ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)

[ ] others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook or the material in the Lectures Notes section of Blackboard.
수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Unexcused absences will reduce the attendance grade as follows: 2 absences = 2 points off; 3 absences = 4 points off; 4 absences = 6 points off...
midterm exam		15%	Mid-Term Exam
final exam		15%	Final Exam
quiz			
presentation		20%	Students will complete several oral assignments during the course as well as a final oral test which will evaluate the student's speaking skills in an
discussion		20%	Students are expected to speak English during class time. Students are expected to complete all in-class tasks as well as homework assignments, includ
homework		20%	Students will complete one academic paragraph and additional writing assignments. Writing is evaluated on the correct use of formal English, the organ
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2 (third edition)	Johannsen, K. and Tarver-Chase, R.	National Geographic Learning/Cengage Learning	2020

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Interviews / pronunciation	E	Scott Scattergood			
2	Conversations	E	Scott Scattergood			
3	Writing Part 1	E	Scott Scattergood			
4	Writing Part 2	E	Scott Scattergood			
5	Unit 1 - Food for Life	E	Scott Scattergood			
6	Unit 2 Express Yourself	E	Scott Scattergood			
7	Unit 3 Cities	E	Scott Scattergood			
8	MID-TERM EXAM	E	Scott Scattergood			
9	Speaking Test preparation	E	Scott Scattergood			
10	Midterm Speaking Test	E	Scott Scattergood			
11	Unit 4 The Body	E	Scott Scattergood			
12	Advice	E	Scott Scattergood			
13	Unit 8 - Conservation	E	Scott Scattergood			
14	Conditional Sentences	E	Scott Scattergood			
15	Review and Final Speaking Test	E	Scott Scattergood			
16	FINAL EXAM	E	Scott Scattergood			

11. Other items of notification

Speaking and Writing in English

Course Name	Course type (credit/hours)	교필(3/3)	Course code	X488
	Target students Division/major/grade	1st Year/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월B(다506) 목B(다506)(다506)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	Donald Hearn (조교수/대학 다산학부대학)				
	Office Room Number	다산관 215-2호	Office phone Number	2817	e-mail	
	Office hours		Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

English 1 is a required course for all undergraduate students. This course concentrates on English speaking and writing. Speaking lessons include pair work, small group tasks and class discussions. Writing lessons prepare students for academic paragraph-writing. The language of instruction is English and students are expected to communicate in English during class.

2. Course Objectives

(1)Notice English pronunciation, intonation and stress patterns and practice speaking more clearly. (related to P07)

(2)Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities. (related to P07)

(3)Use appropriate vocabulary and grammar to express their ideas about the course topics. (related to P07)

(4)Follow the steps in the writing process. (related to P07)

(5)Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding sentence. (related to P07)

(6)Write using complete sentences, avoiding fragments and run-on sentences. (related to P07)

(7)Write using capital letters, periods and commas correctly. (related to P07)

(8)Write with acceptable academic style and proper paragraph format. (related to P07)

3. Class types and activities

Students will gain confidence and improve their English speaking abilities by practicing expressions and dialogs and making their own conversations. Students will also learn to produce an academic paragraph from a model which includes a topic sentence, supporting sentences and a concluding sentence, developing and supporting a main idea with specific reasons, details and examples.

4. Teaching Method

- [V] lecture
- [ ] team project(presentation and case studies)
- [ ] designing and production
- [ ] others
- [V] discussion and debate
- [ ] experiments(role-playing,etc)
- [ ] on-site learning(on-site training)

5. Support Systems in Use

- [V] e-class
- [V] cyber lecture
- [ ] class behavior analyazing system
- [ ] automatic recording system
- [ ] blended learning(combination of online and offline teaching)
- [ ] others
- [ ] web-based assignment

6. Teaching Tools

- [ ] PBL(Problem Based Learning)
- [ ] TBL(Team Based Learning)
- [ ] CBL(Case Based Learning)
- [ ] others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Unexcused absences will reduce the attendance grade as follows: 2 unexcused absences = 2 points off the attendance grade; 3 absences = 4 points off; 4 absences = 6 points off; 5 absences = 4 points off; 6 unexcused absences = F
midterm exam		15%	Mid-Term Exam
final exam		15%	Final Exam
quiz			
presentation		20%	Students will complete a final oral test which will evaluate each student's speaking skills in an unscripted conversation or interview.
discussion		20%	Participation: Students are expected to speak English during class time and to complete all in-class tasks as well as homework assignments.
homework		20%	Students will complete one academic paragraph and additional writing assignments. Writing is evaluated on the correct use of formal English, the organization of the paragraph, adequate development of the subject and proper formatting.
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2 (third edition)	Johannsen, K. and Tarver-Chase, R.	National Geographic Learning/Cengage Learning	2020

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction and syllabus; Classroom English	E	Donald Hearn	대면 (pandemic conditions permitting)		
2	Formal English	E	Donald Hearn	대면 (pandemic conditions permitting)		
3	Unit 1 - Food from the Earth	E	Donald Hearn	대면 (pandemic conditions permitting)		
4	Formal English, sentence-level correction & editing	E	Donald Hearn	대면 (pandemic conditions permitting)		
5	Unit 2 - Express Yourself	E	Donald Hearn	대면 (pandemic conditions permitting)		
6	Paragraph formatting, structure	E	Donald Hearn	대면 (pandemic conditions permitting)		
7	Unit 2 - Express Yourself	E	Donald Hearn	대면 (pandemic conditions permitting)		
8	MID-TERM EXAM	E	Donald Hearn	대면 (pandemic conditions permitting)		
9	Unit 3 - Cities	E	Donald Hearn	대면 (pandemic conditions permitting)		
10	Paragraph structure - Supporting sentences	E	Donald Hearn	대면 (pandemic conditions permitting)		
11	Unit 3 - Cities	E	Donald Hearn	대면 (pandemic conditions permitting)		
12	Unit 4 - The Body	E	Donald Hearn	대면 (pandemic conditions permitting)		
13	Unit 4 - The Body	E	Donald Hearn	대면 (pandemic conditions permitting)		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
14	Unit 5 - Challenges	E	Donald Hearn	대면 (pandemic conditions permitting)실시간화상 (live online class)		
15	Review	E	Donald Hearn	대면 (pandemic conditions permitting)		
16	FINAL EXAM	E	Donald Hearn	대면 (pandemic conditions permitting)		

11. Other items of notification

Speaking and Writing in English

Course Name	Course type (credit/hours)	교필(3/3)	Course code	X489
	Target students Division/major/grade	Freshmen/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월B(다109) 목B(다109)(다109)	English Grade	A(100%English)

Reference to this course	Prerequisite courses			
	Related basic courses			
	Recommanded concurrent courses			
	Related advanced courses			

Instructor	Name (title/division)		Philip Chivers (조교수/대학 다산학부대학)			
	Office Room Number	성호관 419	Office phone Number	031-219-2831	e-mail	
	Office hours	Tues B 12.00-13.15, Weds B 10.30-11.45, Thurs C 10.30-11.45	Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	philip@ajou.ac.kr

1. Introduction

English 1 is a required course for all undergraduate students. This course concentrates on English speaking and writing. Speaking lessons include pair work, small group tasks and class discussions. Writing lessons prepare students for academic paragraph-writing. The language of instruction is English and students are expected to communicate in English during class.

2. Course Objectives

(1)Notice English pronunciation, intonation and stress patterns and practice speaking more clearly. (related to P07)

(2)Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities. (related to P07)

(3)Use appropriate vocabulary and grammar to express their ideas about the course topics. (related to P07)

(4)Follow the steps in the writing process. (related to P07)

(5)Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding sentence. (related to P07)

(6)Write using complete sentences, avoiding fragments and run-on sentences. (related to P07)

(7)Write using capital letters, periods and commas correctly. (related to P07)

(8)Write with acceptable academic style and proper paragraph format. (related to P07)

3. Class types and activities

Students will gain confidence and improve their English speaking abilities by practicing expressions and dialogs and making their own conversations. Students will also learn to produce an academic paragraph from a model which includes a topic sentence, supporting sentences and a concluding sentence, developing and supporting a main idea with specific reasons, details and examples.

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[V] others (This class will involve lots of group work to improve fluency through conversation practice.

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

* Online homework should be completed before class.

* We often use Google docs. Make sure that you are prepared to access Google apps.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Unexcused absences will reduce the attendance grade as follows: 2 unexcused absences = 2 points off the attendance grade 3 unexcused absences = 4
midterm exam		15%	Mid-Term Exam
final exam		15%	Final Exam
quiz			Students will participate in several online quizzes which will contribute to their participation score
presentation		30%	Students will perform a presentation during the course as well as a final oral test which will evaluate the student's speaking skills
discussion		10%	Students are expected to speak English during class time. Students are expected to complete all in-class tasks as well as homework assignments, includ
homework		20%	Students will complete one academic paragraph and additional writing assignments. Writing is evaluated on the correct use of formal English, the organ
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2 (third edition)	Johannsen, K. and Tarver-Chase, R.	National Geographic Learning/Cengage Learning, 2015	

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Course Introduction	E	Philip Chivers			
2	Academic Writing	E	Philip Chivers			
3	Academic Writing	E	Philip Chivers			
4	Academic Writing / Unit 1 - Food for Life	E	Philip Chivers			
5	Unit 1 - Food for Life / Unit 2 - Express Yourself	E	Philip Chivers			
6	Unit 3 - Cities	E	Philip Chivers			
7	Unit 4 - The Body / Unit 5 - Challenges	E	Philip Chivers			
8	MID-TERM EXAM	E	Philip Chivers			
9	Unit 8 - Conservation	E	Philip Chivers			
10	Unit 9 - Life Now and in the Past	E	Philip Chivers			
11	Formal Presentations	E	Philip Chivers			
12	Unit 10 - Travel	E	Philip Chivers			
13	Unit 11 - Careers	E	Philip Chivers			
14	Unit 12 - Celebrations	E	Philip Chivers			
15	Speaking Test	E	Philip Chivers			
16	FINAL EXAM	E	Philip Chivers			

11. Other items of notification

Speaking and Writing in English

Course Name	Course type (credit/hours)	교필(3/3)		Course code	X503
	Target students Division/major/grade	/1학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	수B(율260) 금B(율260)(율260)		English Grade	A(100%English)

Reference to this course	Prerequisite courses	N/A			
	Related basic courses	N/A			
	Recommanded concurrent courses	N/A			
	Related advanced courses	N/A			

Instructor	Name (title/division)	김희진 (강의교수/대학 다산학부대학)			
	Office Room Number		Office phone Number	e-mail	
	Office hours	by appointment	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number	e-mail	oftheno@ajou.ac.kr

1. Introduction

English 1 for international students is designed for beginning students whose native language is not English. This course aims to develop the speaking, listening, and reading skills of learners. Students are expected to learn and familiarize themselves with basic grammatical concepts and practice applying them so as to gain a good command of the written and spoken English language. In this course, participants should expect to develop the followings:

-their understanding of English vocabulary and structures (i.e., grammar)
-their reading skills through various thematic contents
-their listening skills to elaborate details for further understanding
-their presentation skills

2. Course Objectives

3. Class types and activities

Students are encouraged to actively participate in class. After the lecture given by the professor, the students (in pairs) will practice what they have learned with their partners. They will also get an opportunity to present to the class what they have practiced. There will also be quizzes as well as a mid-term and final exam.

4. Teaching Method

☑	lecture	☑	discussion and debate
☑	team project(presentation and case studies)	☐	experiments(role-playing,etc)
☐	designing and production	☐	on-site learning(on-site training)
☐	others		

5. Support Systems in Use

☑	e-class	☐	automatic recording system	☐	web-based assignment
☐	cyber lecture	☐	blended learning(combination of online and offline teaching)		
☐	class behavior analyazing system	☐	others		

6. Teaching Tools

☐	PBL(Problem Based Learning)	☐	CBL(Case Based Learning)
☑	TBL(Team Based Learning)	☐	others

7. Knowledge and ability required for taking this course

Basic English grammar Reading and listening abilities for college level
문서작성을 위한 워드프로세싱 능력 (과제)
아주Bb 사용능력

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10	
midterm exam	1	25	
final exam	1	25	
quiz	2	20	
presentation			
discussion			
homework	4	15	
etc		5	
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Grammar in Context 1A (6th ed.)	Sandra N.Elbaum	National Geographic Learning	2017

10. Class system and Class shedule

Students are encouraged to actively participate in class. After the lecture given by the professor, the students will (in pairs) practice what they have learned with their partners. They will also get an opportunity to present to the class what they have practiced. There will also be quizzes as well as a mid-term and final exam.Students are expected to complete and submit 4 assignments given during the semester.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Course introduction		김희진			
2	Be: present (reading 2)		김희진			
3	Be: present (reading 3)		김희진			
4	The simple present (reading 2)		김희진			
5	The simple present		김희진			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
6	Singular and plural nouns/there is (are)/articles (reading 1)		김희진			
7	Singular and plural nouns/there is (are)/articles (reading 1)		김희진			
8	Midterm Exam		김희진			
9	Possession/object pronouns/questions about the subject (reading 2)		김희진			
10	Possession/object pronouns/questions about the subject (reading 3)		김희진			
11	The present continuous (reading 1)		김희진			
12	The present continuous		김희진			
13	The future (reading 1)		김희진			
14	The future		김희진			
15	review week		김희진			
16	Final exam		김희진			

11. Other items of notification

.

Speaking and Writing in English

Course Name	Course type (credit/hours)	교필(3/3)	Course code	X504
	Target students Division/major/grade	공통/공통	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월C(다B109) 수C(다B109)(다B109)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)		Brad Crawford (조교수/대학 다산학부대학)		
	Office Room Number	다산관 215-1	Office phone Number	2816	e-mail
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

2. Course Objectives

Course Goals

1) Students will gain confidence and improve their English speaking abilities by practicing expressions and dialogs and making their own conversations.

2) Students will learn to produce an academic paragraph from a model which includes a topic sentence, supporting sentences and a concluding sentence,   developing and supporting a main idea with specific reasons, details and examples.

Course Objectives - English 1 students will be able to:

(1) Notice English pronunciation, intonation and stress patterns and practice speaking more clearly.

(2) Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities.

(3) Use appropriate vocabulary and grammar to express their ideas about the course topics.

(4) Follow the steps in the writing process.

(5) Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding

3. Class types and activities

4. Teaching Method

- [V] lecture
- [V] team project(presentation and case studies)
- [ ] designing and production
- [ ] others
- [ ] discussion and debate
- [ ] experiments(role-playing,etc)
- [ ] on-site learning(on-site training)

5. Support Systems in Use

- [V] e-class
- [ ] cyber lecture
- [ ] class behavior analyazing system
- [ ] automatic recording system
- [ ] blended learning(combination of online and offline teaching)
- [ ] others
- [ ] web-based assignment

6. Teaching Tools

- [ ] PBL(Problem Based Learning)
- [V] TBL(Team Based Learning)
- [ ] CBL(Case Based Learning)
- [ ] others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate chapter in the textbook.
수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	
midterm exam		15%	
final exam		15%	
quiz			
presentation		20%	
discussion		20%	
homework		20%	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2: Third edition	Johannsen, Kristen & Tarver, Rebecca	National Geographic Learning	2015

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Interview with Instructor	K	Brad Crawford			
2	Class introduction, Get to know your classmates, Chapter 1	K	Brad Crawford			
3	Writing: Paragraph Structure	K	Brad Crawford		Brainstorming Due	
4	Chapter 2	K	Brad Crawford		First Draft Due	

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
5	Writing: Paragraph Format *Writing Assignment #1	K	Brad Crawford			
6	Chapter 3	K	Brad Crawford		Final Draft Due	
7	Chapter 4	K	Brad Crawford			
8	Midterm Exam	K	Brad Crawford			
9	Chapter 6	K	Brad Crawford			
10	Chapter 7	K	Brad Crawford			
11	Chapter 10	K	Brad Crawford			
12	Chapter 11	K	Brad Crawford			
13	Chapter 12	K	Brad Crawford		Group Report	
14	Review and wrap-up	K	Brad Crawford			
15	Oral Test	K	Brad Crawford			
16	Final Exam	K	Brad Crawford			

11. Other items of notification

<h1 style="text-align:center">Speaking and Writing in English</h1>

Course Name	Course type (credit/hours)	교필(3/3)		Course code	X505
	Target students Division/major/grade	Freshmen/1학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	월C(성104) 수C(성104)(성104)		English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	Scott Scattergood (조교수/대학 다산학부대학)			
	Office Room Number	성호관420호	Office phone Number	1824	e-mail	
	Office hours	Mon, Wed, 1:30 - 2:30; Thur, 12-1	Homepage address	
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail	

1. Introduction

English 1 is a required course for all undergraduate students. This course concentrates on English speaking and writing. Speaking lessons include pair work, small group tasks and class discussions. Writing lessons prepare students for academic paragraph-writing. The language of instruction is English and students are expected to communicate in English during class.

2. Course Objectives

(1)Notice English pronunciation, intonation and stress patterns and practice speaking more clearly.

(2)Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities.

(3)Use appropriate vocabulary and grammar to express their ideas about the course topics.

(4)Follow the steps in the writing process.

(5)Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding sentence.

(6)Write using complete sentences, avoiding fragments and run-on sentences.

(7)Write using capital letters, periods and commas correctly.

(8)Write with acceptable academic style and proper paragraph format.

3. Class types and activities

Students will gain confidence and improve their English speaking abilities by practicing expressions and dialogs and making their own conversations. Students will also learn to produce an academic paragraph from a model which includes a topic sentence, supporting sentences and a concluding sentence, developing and supporting a main idea with specific reasons, details and examples.

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook or the material in the Lectures Notes section of Blackboard.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Unexcused absences will reduce the attendance grade as follows: 2 absences = 2 points off; 3 absences = 4 points off; 4 absences = 6 points off...
midterm exam		15%	Mid-Term Exam
final exam		15%	Final Exam
quiz			
presentation		20%	Students will complete several oral assignments during the course as well as a final oral test which will evaluate the student's speaking skills in an
discussion		20%	Students are expected to speak English during class time. Students are expected to complete all in-class tasks as well as homework assignments, includ
homework		20%	Students will complete one academic paragraph and additional writing assignments. Writing is evaluated on the correct use of formal English, the organ
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2 (third edition)	Johannsen, K. and Tarver-Chase, R.	National Geographic Learning/Cengage Learning	2020

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Interviews / pronunciation	E	Scott Scattergood			
2	Conversations	E	Scott Scattergood			
3	Writing Part 1	E	Scott Scattergood			
4	Writing Part 2	E	Scott Scattergood			
5	Unit 1 - Food for Life	E	Scott Scattergood			
6	Unit 2 Express Yourself	E	Scott Scattergood			
7	Unit 3 Cities	E	Scott Scattergood			
8	MID-TERM EXAM	E	Scott Scattergood			
9	Speaking Test preparation	E	Scott Scattergood			
10	Midterm Speaking Test	E	Scott Scattergood			
11	Unit 4 The Body	E	Scott Scattergood			
12	Advice	E	Scott Scattergood			
13	Unit 8 - Conservation	E	Scott Scattergood			
14	Conditional Sentences	E	Scott Scattergood			
15	Review and Final Speaking Test	E	Scott Scattergood			
16	FINAL EXAM	E	Scott Scattergood			

11. Other items of notification

Speaking and Writing in English

Course Name	Course type (credit/hours)	교필(3/3)	Course code	X506
	Target students Division/major/grade	1st Year/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월C(성201) 수C(성201)(성201)	English Grade	A(100%English)
Reference to this course	Prerequisite courses			
	Related basic courses			
	Recommanded concurrent courses			
	Related advanced courses			

Instructor	Name (title/division)		Donald Hearn (조교수/대학 다산학부대학)			
	Office Room Number	다산관 215-2호	Office phone Number	2817	e-mail	
	Office hours			Homepage address		
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

English 1 is a required course for all undergraduate students. This course concentrates on English speaking and writing. Speaking lessons include pair work, small group tasks and class discussions. Writing lessons prepare students for academic paragraph-writing. The language of instruction is English and students are expected to communicate in English during class.

2. Course Objectives

(1)Notice English pronunciation, intonation and stress patterns and practice speaking more clearly. (related to P07)

(2)Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities. (related to P07)

(3)Use appropriate vocabulary and grammar to express their ideas about the course topics. (related to P07)

(4)Follow the steps in the writing process. (related to P07)

(5)Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding sentence. (related to P07)

(6)Write using complete sentences, avoiding fragments and run-on sentences. (related to P07)

(7)Write using capital letters, periods and commas correctly. (related to P07)

(8)Write with acceptable academic style and proper paragraph format. (related to P07)

3. Class types and activities

Students will gain confidence and improve their English speaking abilities by practicing expressions and dialogs and making their own conversations. Students will also learn to produce an academic paragraph from a model which includes a topic sentence, supporting sentences and a concluding sentence, developing and supporting a main idea with specific reasons, details and examples.

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[V] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Unexcused absences will reduce the attendance grade as follows: 2 unexcused absences = 2 points off the attendance grade; 3 absences = 4 points off; 4 absences = 6 points off; 5 absences = 4 points off; 6 unexcused absences = F
midterm exam		15%	Mid-Term Exam
final exam		15%	Final Exam
quiz			
presentation		20%	Students will complete a final oral test which will evaluate each student's speaking skills in an unscripted conversation or interview.
discussion		20%	Participation: Students are expected to speak English during class time and to complete all in-class tasks as well as homework assignments.
homework		20%	Students will complete one academic paragraph and additional writing assignments. Writing is evaluated on the correct use of formal English, the organization of the paragraph, adequate development of the subject and proper formatting.
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2 (third edition)	Johannsen, K. and Tarver-Chase, R.	National Geographic Learning/Cengage Learning	2020

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction and syllabus; Classroom English	E	Donald Hearn	대면 (pandemic conditions permitting)		
2	Formal English	E	Donald Hearn	대면 (pandemic conditions permitting)		
3	Unit 1 - Food from the Earth	E	Donald Hearn	대면 (pandemic conditions permitting)		
4	Formal English, sentence-level correction & editing	E	Donald Hearn	대면 (pandemic conditions permitting)		
5	Unit 2 - Express Yourself	E	Donald Hearn	대면 (pandemic conditions permitting)		
6	Paragraph formatting, structure	E	Donald Hearn	대면 (pandemic conditions permitting)		
7	Unit 2 - Express Yourself	E	Donald Hearn	대면 (pandemic conditions permitting)		
8	MID-TERM EXAM	E	Donald Hearn	대면 (pandemic conditions permitting)		
9	Unit 3 - Cities	E	Donald Hearn	대면 (pandemic conditions permitting)		
10	Paragraph structure - Supporting sentences	E	Donald Hearn	대면 (pandemic conditions permitting)		
11	Unit 3 - Cities	E	Donald Hearn	대면 (pandemic conditions permitting)		
12	Unit 4 - The Body	E	Donald Hearn	대면 (pandemic conditions permitting)		
13	Unit 4 - The Body	E	Donald Hearn	대면 (pandemic conditions permitting)		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
14	Unit 5 - Challenges	E	Donald Hearn	대면 (pandemic conditions permitting)실시간화상 (live online class)		
15	Review	E	Donald Hearn	대면 (pandemic conditions permitting)		
16	FINAL EXAM	E	Donald Hearn	대면 (pandemic conditions permitting)		

11. Other items of notification

Speaking and Writing in English

Course Name	Course type (credit/hours)	교필(3/3)	Course code	X507
	Target students Division/major/grade	Freshmen/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월C(성233) 수C(성233)(성233)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	Philip Chivers (조교수/대학 다산학부대학)			
	Office Room Number	성호관 419	Office phone Number	031-219-2831	e-mail
	Office hours	Tues B 12.00-13.15, Weds B 10.30-11.45, Thurs C 10.30-11.45	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail philip@ajou.ac.kr

1. Introduction

English 1 is a required course for all undergraduate students. This course concentrates on English speaking and writing. Speaking lessons include pair work, small group tasks and class discussions. Writing lessons prepare students for academic paragraph-writing. The language of instruction is English and students are expected to communicate in English during class.

2. Course Objectives

(1)Notice English pronunciation, intonation and stress patterns and practice speaking more clearly. (related to P07)

(2)Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities. (related to P07)

(3)Use appropriate vocabulary and grammar to express their ideas about the course topics. (related to P07)

(4)Follow the steps in the writing process. (related to P07)

(5)Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding sentence. (related to P07)

(6)Write using complete sentences, avoiding fragments and run-on sentences. (related to P07)

(7)Write using capital letters, periods and commas correctly. (related to P07)

(8)Write with acceptable academic style and proper paragraph format. (related to P07)

3. Class types and activities

Students will gain confidence and improve their English speaking abilities by practicing expressions and dialogs and making their own conversations. Students will also learn to produce an academic paragraph from a model which includes a topic sentence, supporting sentences and a concluding sentence, developing and supporting a main idea with specific reasons, details and examples.

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[V] others (This class will involve lots of group work to improve fluency through conversation practice.

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

* Online homework should be completed before class.

* We often use Google docs. Make sure that you are prepared to access Google apps.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Unexcused absences will reduce the attendance grade as follows: 2 unexcused absences = 2 points off the attendance grade 3 unexcused absences = 4
midterm exam		15%	Mid-Term Exam
final exam		15%	Final Exam
quiz			Students will participate in several online quizzes which will contribute to their participation score
presentation		30%	Students will perform a presentation during the course as well as a final oral test which will evaluate the student's speaking skills
discussion		10%	Students are expected to speak English during class time. Students are expected to complete all in-class tasks as well as homework assignments, includ
homework		20%	Students will complete one academic paragraph and additional writing assignments. Writing is evaluated on the correct use of formal English, the organ
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2 (third edition)	Johannsen, K. and Tarver-Chase, R.	National Geographic Learning/Cengage Learning, 2015	

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Course Introduction	E	Philip Chivers			
2	Academic Writing	E	Philip Chivers			
3	Academic Writing	E	Philip Chivers			
4	Academic Writing / Unit 1 - Food for Life	E	Philip Chivers			
5	Unit 1 - Food for Life / Unit 2 - Express Yourself	E	Philip Chivers			
6	Unit 3 - Cities	E	Philip Chivers			
7	Unit 4 - The Body / Unit 5 - Challenges	E	Philip Chivers			
8	MID-TERM EXAM	E	Philip Chivers			
9	Unit 8 - Conservation	E	Philip Chivers			
10	Unit 9 - Life Now and in the Past	E	Philip Chivers			
11	Formal Presentations	E	Philip Chivers			
12	Unit 10 - Travel	E	Philip Chivers			
13	Unit 11 - Careers	E	Philip Chivers			
14	Unit 12 - Celebrations	E	Philip Chivers			
15	Speaking Test	E	Philip Chivers			
16	FINAL EXAM	E	Philip Chivers			

11. Other items of notification

Speaking and Writing in English

<table>
<tr><td rowspan="3">Course Name</td><td>Course type (credit/hours)</td><td>교필(3/3)</td><td>Course code</td><td>X508</td></tr>
<tr><td>Target students Division/major/grade</td><td>Freshmen/1학년</td><td>Openning semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time and classroom</td><td>월C(성234) 수C(성234)(성234)</td><td>English Grade</td><td>A(100%English)</td></tr>
<tr><td rowspan="4">Reference to this course</td><td>Prerequisite courses</td><td colspan="3"></td></tr>
<tr><td>Related basic courses</td><td colspan="3"></td></tr>
<tr><td>Recommanded concurrent courses</td><td colspan="3"></td></tr>
<tr><td>Related advanced courses</td><td colspan="3"></td></tr>
</table>

<table>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="4">Kevin Hawthorne (조교수/대학 다산학부대학)</td></tr>
<tr><td>Office Room Number</td><td>성호관420호</td><td>Office phone Number</td><td>2830</td><td>e-mail</td></tr>
<tr><td>Office hours</td><td>화3:00-4:30, 수3:00-4:30</td><td>Homepage address</td><td colspan="2"></td></tr>
<tr><td rowspan="2">Teaching Assistant</td><td>Name (title/division)</td><td colspan="4"></td></tr>
<tr><td>Office Room Number</td><td></td><td>Office phone Number</td><td></td><td>e-mail</td></tr>
</table>

1. Introduction

English 1 is a required course for all undergraduate students. This course concentrates on English speaking and writing. Speaking lessons include pair work, small group tasks and class discussions. Writing lessons prepare students for academic paragraph-writing. The language of instruction is English and students are expected to communicate in English during class.

2. Course Objectives

(1)Notice English pronunciation, intonation and stress patterns and practice speaking more clearly. (related to P07)

(2)Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities. (related to P07)

(3)Use appropriate vocabulary and grammar to express their ideas about the course topics. (related to P07)

(4)Follow the steps in the writing process. (related to P07)

(5)Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding sentence. (related to P07)

(6)Write using complete sentences, avoiding fragments and run-on sentences. (related to P07)

(7)Write using capital letters, periods and commas correctly. (related to P07)

(8)Write with acceptable academic style and proper paragraph format. (related to P07)

3. Class types and activities

English 1 will be taught face-to-face in the classroom this semester (unless there is a policy change).
Please be prepared to attend class, and to carefully follow all necessary Covid-19 safety measures.

(If there is a policy change, students will be notified)

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies) [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [V] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Unexcused absences will reduce the attendance grade as follows: 2 unexcused absences = 2 points off the attendance grade 3 unexcused absences = 4
midterm exam		15%	Mid-Term Exam
final exam		15%	Final Exam
quiz			
presentation		20%	Students will complete several oral assignments during the course as well as a final oral test which will evaluate the student's speaking skills in an
discussion		20%	Students are expected to speak English during class time. Students are expected to complete all in-class tasks as well as homework assignments, includ
homework		20%	Students will complete one academic paragraph and additional writing assignments. Writing is evaluated on the correct use of formal English, the organ
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2 (third edition)	Johannsen, K. and Tarver-Chase, R.	National Geographic Learning/Cengage Learning, 2020	2020

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Course introduction	E	Kevin Hawthorne	face-to-face		
2	Unit 1 - Food from the Earth	E	Kevin Hawthorne	face-to-face		
3	Unit 2 - Express Yourself	E	Kevin Hawthorne	face-to-face		
4	Unit 3 - Cities	E	Kevin Hawthorne	face-to-face		
5	Unit 4 - The Body	E	Kevin Hawthorne	face-to-face		
6	Unit 5 - Challenges	E	Kevin Hawthorne	face-to-face		
7	Unit 6 - Transitions	E	Kevin Hawthorne	face-to-face		
8	MID-TERM EXAM	E	Kevin Hawthorne	face-to-face		
9	Unit 7 - Luxuries	E	Kevin Hawthorne	face-to-face		
10	Unit 8 - Nature	E	Kevin Hawthorne	face-to-face		
11	Unit 9 - Life in the Past	E	Kevin Hawthorne	face-to-face		
12	Unit 10 - Travel	E	Kevin Hawthorne	face-to-face		
13	Unit 11 - Careers	E	Kevin Hawthorne	face-to-face		
14	Unit 12 - Celebrations	E	Kevin Hawthorne	face-to-face		
15	Review	E	Kevin Hawthorne	face-to-face		
16	FINAL EXAM	E	Kevin Hawthorne	face-to-face		

11. Other items of notification

English 1 will be taught face-to-face in the classroom this semester (unless there is a policy change).
Please be prepared to attend class, and to carefully follow all necessary Covid-19 safety measures.

(If there is a policy change, students will be notified)

Speaking and Writing in English

<table>
<tr><td rowspan="3">Course Name</td><td>Course type (credit/hours)</td><td>교필(3/3)</td><td>Course code</td><td>X509</td></tr>
<tr><td>Target students Division/major/grade</td><td>Freshmen/1학년</td><td>Openning semester</td><td>2022 2ND SEMESTER</td></tr>
<tr><td>Class time and classroom</td><td>월C(성235) 수C(성235)(성235)</td><td>English Grade</td><td>A(100%English)</td></tr>
<tr><td rowspan="4">Reference to this course</td><td>Prerequisite courses</td><td colspan="3"></td></tr>
<tr><td>Related basic courses</td><td colspan="3"></td></tr>
<tr><td>Recommanded concurrent courses</td><td colspan="3"></td></tr>
<tr><td>Related advanced courses</td><td colspan="3"></td></tr>
</table>

<table>
<tr><td rowspan="3">Instructor</td><td>Name (title/division)</td><td colspan="4">Nicholas McGhie (조교수/대학 다산학부대학)</td></tr>
<tr><td>Office Room Number</td><td>성호관 419호</td><td>Office phone Number</td><td>031-219-3256</td><td>e-mail</td></tr>
<tr><td>Office hours</td><td></td><td>Homepage address</td><td></td><td></td></tr>
<tr><td rowspan="2">Teaching Assistant</td><td>Name (title/division)</td><td colspan="4"></td></tr>
<tr><td>Office Room Number</td><td></td><td>Office phone Number</td><td></td><td>e-mail</td></tr>
</table>

1. Introduction

2. Course Objectives

(1)Notice English pronunciation, intonation and stress patterns and practice speaking more clearly. (related to P07)

(2)Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities. (related to P07)

(3)Use appropriate vocabulary and grammar to express their ideas about the course topics. (related to P07)

(4)Follow the steps in the writing process. (related to P07)

(5)Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding sentence. (related to P07)

(6)Write using complete sentences, avoiding fragments and run-on sentences. (related to P07)

(7)Write using capital letters, periods and commas correctly. (related to P07)

(8)Write with acceptable academic style and proper paragraph format. (related to P07)

3. Class types and activities

Students will gain confidence and improve their English speaking abilities by practicing expressions and dialogs and making their own conversations. Students will also learn to produce an academic paragraph from a model which includes a topic sentence, supporting sentences and a concluding sentence, developing and supporting a main idea with specific reasons, details and examples.

4. Teaching Method

☐ lecture   ☐ discussion and debate

☐ team project(presentation and case studies) ☐ experiments(role-playing,etc)

☐ designing and production   ☐ on-site learning(on-site training)

☐ others

5. Support Systems in Use

☑ e-class   ☐ automatic recording system   ☐ web-based assignment

☐ cyber lecture   ☐ blended learning(combination of online and offline teaching)

☐ class behavior analyazing system ☐ others

6. Teaching Tools

☐ PBL(Problem Based Learning)   ☐ CBL(Case Based Learning)

☐ TBL(Team Based Learning)   ☐ others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Unexcused absences will reduce the attendance grade as follows: 2 unexcused absences = 2 points off the attendance grade 3 unexcused absences = 4
midterm exam		15%	Mid-Term Exam
final exam		15%	Final Exam
quiz			
presentation		20%	Students will complete several oral assignments during the course as well as a final oral test which will evaluate the student's speaking skills in an
discussion		20%	Students are expected to speak English during class time. Students are expected to complete all in-class tasks as well as homework assignments, includ
homework		20%	Students will complete one academic paragraph and additional writing assignments. Writing is evaluated on the correct use of formal English, the organ
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2 (3rd Edition)	Johannsen, K. and Tarver-Chase, R.	National Geographic Learning/Cengage Learning, 2019	

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Interviews	E	Nicholas McGhie			
2	Unit 1 - Food from the Earth	E	Nicholas McGhie			
3	Unit 2 - Express Yourself	E	Nicholas McGhie			
4	Unit 3 - Cities	E	Nicholas McGhie			
5	Unit 4 - The Body	E	Nicholas McGhie			
6	Unit 5 - Challenges	E	Nicholas McGhie			
7	Unit 6 - Transitions	E	Nicholas McGhie			
8	MID-TERM EXAM	E	Nicholas McGhie			
9	Unit 7 - Luxuries	E	Nicholas McGhie			
10	Unit 8 - Nature	E	Nicholas McGhie			
11	Unit 9 - Life in the Past	E	Nicholas McGhie			
12	Unit 10 - Travel	E	Nicholas McGhie			
13	Unit 11 - Careers	E	Nicholas McGhie			
14	Unit 12 - Celebrations	E	Nicholas McGhie			
15	Review	E	Nicholas McGhie			
16	FINAL EXAM	E	Nicholas McGhie			

11. Other items of notification

<h1 style="text-align:center">Speaking and Writing in English</h1>

Course Name	Course type (credit/hours)	교필(3/3)	Course code	X513
	Target students Division/major/grade	공통/공통	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화B(성104) 목A(성104)(성104)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	Brad Crawford (조교수/대학 다산학부대학)				
	Office Room Number	다산관 215-1	Office phone Number	2816	e-mail	
	Office hours		Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

2. Course Objectives

Course Goals

1) Students will gain confidence and improve their English speaking abilities by practicing expressions and dialogs and making their own conversations.

2) Students will learn to produce an academic paragraph from a model which includes a topic sentence, supporting sentences and a concluding sentence,   developing and supporting a main idea with specific reasons, details and examples.

Course Objectives - English 1 students will be able to:

(1) Notice English pronunciation, intonation and stress patterns and practice speaking more clearly.

(2) Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities.

(3) Use appropriate vocabulary and grammar to express their ideas about the course topics.

(4) Follow the steps in the writing process.

(5) Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding

3. Class types and activities

4. Teaching Method

- [V] lecture
- [V] team project(presentation and case studies)
- [ ] designing and production
- [ ] others
- [ ] discussion and debate
- [ ] experiments(role-playing,etc)
- [ ] on-site learning(on-site training)

5. Support Systems in Use

- [V] e-class
- [ ] cyber lecture
- [ ] class behavior analyazing system
- [ ] automatic recording system
- [ ] blended learning(combination of online and offline teaching)
- [ ] others
- [ ] web-based assignment

6. Teaching Tools

- [ ] PBL(Problem Based Learning)
- [V] TBL(Team Based Learning)
- [ ] CBL(Case Based Learning)
- [ ] others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate chapter in the textbook.
수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	
midterm exam		15%	
final exam		15%	
quiz			
presentation		20%	
discussion		20%	
homework		20%	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2: Third edition	Johannsen, Kristen & Tarver, Rebecca	National Geographic Learning	2015

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Interview with Instructor	K	Brad Crawford			
2	Class introduction, Get to know your classmates, Chapter 1	K	Brad Crawford			
3	Writing: Paragraph Structure	K	Brad Crawford		Brainstorming Due	
4	Chapter 2	K	Brad Crawford		First Draft Due	

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
5	Writing: Paragraph Format *Writing Assignment #1	K	Brad Crawford			
6	Chapter 3	K	Brad Crawford		Final Draft Due	
7	Chapter 4	K	Brad Crawford			
8	Midterm Exam	K	Brad Crawford			
9	Chapter 6	K	Brad Crawford			
10	Chapter 7	K	Brad Crawford			
11	Chapter 10	K	Brad Crawford			
12	Chapter 11	K	Brad Crawford			
13	Chapter 12	K	Brad Crawford		Group Report	
14	Review and wrap-up	K	Brad Crawford			
15	Oral Test	K	Brad Crawford			
16	Final Exam	K	Brad Crawford			

11. Other items of notification

Speaking and Writing in English

Course Name	Course type (credit/hours)	교필(3/3)	Course code	X514
	Target students Division/major/grade	Freshmen/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화B(성332) 목A(성332)(성332)	English Grade	A(100%English)
Reference to this course	Prerequisite courses			
	Related basic courses			
	Recommanded concurrent courses			
	Related advanced courses			

Instructor	Name (title/division)	Scott Scattergood (조교수/대학 다산학부대학)			
	Office Room Number	성호관420호	Office phone Number	1824	e-mail
	Office hours	Mon, Wed, 1:30 – 2:30; Thur, 12-1	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

English 1 is a required course for all undergraduate students. This course concentrates on English speaking and writing. Speaking lessons include pair work, small group tasks and class discussions. Writing lessons prepare students for academic paragraph-writing. The language of instruction is English and students are expected to communicate in English during class.

2. Course Objectives

(1)Notice English pronunciation, intonation and stress patterns and practice speaking more clearly.

(2)Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities.

(3)Use appropriate vocabulary and grammar to express their ideas about the course topics.

(4)Follow the steps in the writing process.

(5)Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding sentence.

(6)Write using complete sentences, avoiding fragments and run-on sentences.

(7)Write using capital letters, periods and commas correctly.

(8)Write with acceptable academic style and proper paragraph format.

3. Class types and activities

Students will gain confidence and improve their English speaking abilities by practicing expressions and dialogs and making their own conversations. Students will also learn to produce an academic paragraph from a model which includes a topic sentence, supporting sentences and a concluding sentence, developing and supporting a main idea with specific reasons, details and examples.

4. Teaching Method

☑ lecture	☑ discussion and debate
☐ team project(presentation and case studies)	☐ experiments(role-playing,etc)
☐ designing and production	☐ on-site learning(on-site training)
☐ others	

5. Support Systems in Use

☑ e-class	☐ automatic recording system	☐ web-based assignment
☐ cyber lecture	☐ blended learning(combination of online and offline teaching)	
☐ class behavior analyazing system	☐ others	

6. Teaching Tools

☐ PBL(Problem Based Learning)	☐ CBL(Case Based Learning)
☐ TBL(Team Based Learning)	☐ others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook or the material in the Lectures Notes section of Blackboard.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Unexcused absences will reduce the attendance grade as follows: 2 absences = 2 points off; 3 absences = 4 points off; 4 absences = 6 points off...
midterm exam		15%	Mid-Term Exam
final exam		15%	Final Exam
quiz			
presentation		20%	Students will complete several oral assignments during the course as well as a final oral test which will evaluate the student's speaking skills in an
discussion		20%	Students are expected to speak English during class time. Students are expected to complete all in-class tasks as well as homework assignments, includ
homework		20%	Students will complete one academic paragraph and additional writing assignments. Writing is evaluated on the correct use of formal English, the organ
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2 (third edition)	Johannsen, K. and Tarver-Chase, R.	National Geographic Learning/Cengage Learning	2020

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Interviews / pronunciation	E	Scott Scattergood			
2	Conversations	E	Scott Scattergood			
3	Writing Part 1	E	Scott Scattergood			
4	Writing Part 2	E	Scott Scattergood			
5	Unit 1 - Food for Life	E	Scott Scattergood			
6	Unit 2 Express Yourself	E	Scott Scattergood			
7	Unit 3 Cities	E	Scott Scattergood			
8	MID-TERM EXAM	E	Scott Scattergood			
9	Speaking Test preparation	E	Scott Scattergood			
10	Midterm Speaking Test	E	Scott Scattergood			
11	Unit 4 The Body	E	Scott Scattergood			
12	Advice	E	Scott Scattergood			
13	Unit 8 - Conservation	E	Scott Scattergood			
14	Conditional Sentences	E	Scott Scattergood			
15	Review and Final Speaking Test	E	Scott Scattergood			
16	FINAL EXAM	E	Scott Scattergood			

11. Other items of notification

Speaking and Writing in English

Course Name	Course type (credit/hours)	교필(3/3)	Course code	X515
	Target students Division/major/grade	1st Year/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화B(다506) 목A(다506)(다506)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	Donald Hearn (조교수/대학 다산학부대학)			
	Office Room Number	다산관 215-2호	Office phone Number	2817	e-mail
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

English 1 is a required course for all undergraduate students. This course concentrates on English speaking and writing. Speaking lessons include pair work, small group tasks and class discussions. Writing lessons prepare students for academic paragraph-writing. The language of instruction is English and students are expected to communicate in English during class.

2. Course Objectives

(1)Notice English pronunciation, intonation and stress patterns and practice speaking more clearly. (related to P07)

(2)Speak more confidently and with less hesitation by repeatedly speaking English in pairs, groups and whole-class activities. (related to P07)

(3)Use appropriate vocabulary and grammar to express their ideas about the course topics. (related to P07)

(4)Follow the steps in the writing process. (related to P07)

(5)Write using paragraph structure, which includes a topic sentence, supporting sentences, and a concluding sentence. (related to P07)

(6)Write using complete sentences, avoiding fragments and run-on sentences. (related to P07)

(7)Write using capital letters, periods and commas correctly. (related to P07)

(8)Write with acceptable academic style and proper paragraph format. (related to P07)

3. Class types and activities

Students will gain confidence and improve their English speaking abilities by practicing expressions and dialogs and making their own conversations. Students will also learn to produce an academic paragraph from a model which includes a topic sentence, supporting sentences and a concluding sentence, developing and supporting a main idea with specific reasons, details and examples.

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[V] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

* Before each class please preview the appropriate unit in the textbook.
  수업시간 전에 반드시 책을 읽어 오시기 바랍니다.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Unexcused absences will reduce the attendance grade as follows: 2 unexcused absences = 2 points off the attendance grade; 3 absences = 4 points off; 4 absences = 6 points off; 5 absences = 4 points off; 6 unexcused absences = F
midterm exam		15%	Mid-Term Exam
final exam		15%	Final Exam
quiz			
presentation		20%	Students will complete a final oral test which will evaluate each student's speaking skills in an unscripted conversation or interview.
discussion		20%	Participation: Students are expected to speak English during class time and to complete all in-class tasks as well as homework assignments.
homework		20%	Students will complete one academic paragraph and additional writing assignments. Writing is evaluated on the correct use of formal English, the organization of the paragraph, adequate development of the subject and proper formatting.
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	World English 2 (third edition)	Johannsen, K. and Tarver-Chase, R.	National Geographic Learning/Cengage Learning	2020

10. Class system and Class shedule

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction and syllabus; Classroom English	E	Donald Hearn	대면 (pandemic conditions permitting)		
2	Formal English	E	Donald Hearn	대면 (pandemic conditions permitting)		
3	Unit 1 - Food from the Earth	E	Donald Hearn	대면 (pandemic conditions permitting)		
4	Formal English, sentence-level correction & editing	E	Donald Hearn	대면 (pandemic conditions permitting)		
5	Unit 2 - Express Yourself	E	Donald Hearn	대면 (pandemic conditions permitting)		
6	Paragraph formatting, structure	E	Donald Hearn	대면 (pandemic conditions permitting)		
7	Unit 2 - Express Yourself	E	Donald Hearn	대면 (pandemic conditions permitting)		
8	MID-TERM EXAM	E	Donald Hearn	대면 (pandemic conditions permitting)		
9	Unit 3 - Cities	E	Donald Hearn	대면 (pandemic conditions permitting)		
10	Paragraph structure - Supporting sentences	E	Donald Hearn	대면 (pandemic conditions permitting)		
11	Unit 3 - Cities	E	Donald Hearn	대면 (pandemic conditions permitting)		
12	Unit 4 - The Body	E	Donald Hearn	대면 (pandemic conditions permitting)		
13	Unit 4 - The Body	E	Donald Hearn	대면 (pandemic conditions permitting)		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
14	Unit 5 - Challenges	E	Donald Hearn	대면 (pandemic conditions permitting)실시간화상 (live online class)		
15	Review	E	Donald Hearn	대면 (pandemic conditions permitting)		
16	FINAL EXAM	E	Donald Hearn	대면 (pandemic conditions permitting)		

11. Other items of notification

Strategic Management(Capstone Design))

Course Name	Course type (credit/hours)	전필(3/3)		Course code	I024
	Target students Division/major/grade	경영학부/4학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	월B(다111) 목B(다111)(다111)		English Grade	A(100%English)
Reference to this course	Prerequisite courses				
	Related basic courses				
	Recommanded concurrent courses				
	Related advanced courses				

Instructor	Name (title/division)			김경호 (교수/경영대학 경영학과)		
	Office Room Number	다산관431호	Office phone Number	3672	e-mail	
	Office hours	Web/Fri: 4pm-5pm; Other times available by appointment	Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

This course introduces students to issues associated how to formulate and implement firm strategy in the global environment. It draws on building a fundamental understanding of how and why some firms achieve and sustain superior performance. This course primarily aims at enabling students to understand and analyze the factors that affect organizations' long-run economic performance and to provide them with the tools to make recommendations to organization on how they can improve their long-term performance.

2. Course Objectives

This course provides students with specific tools that will enable them:
to assess the structure of firms' external environments and understand how these affect expected long-run industry performance
to evaluate firms competitive positioning and interaction, and assess firm-level resources and capabilities
to develop appropriate and superior strategies at the business-unit and corporate levels
to assess the dynamics of competition and understand how economic, social, political, and technological forces can determine the need for strategic re-positioning and affect long-term profitability
to understand and manage the complex ethical and social issues facing organizations as they develop and implement their strategies
This class is designed to function like an MBA course and to prepare students (a) for potential MBA courses in the future and (b) for professional experience. Thus, this emphasizes class preparation and class discussion

3. Class types and activities

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4. Teaching Method

[V] lecture   [V] discussion and debate

[V] team project(presentation and case studies)   [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)   [V] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance			
midterm exam		30	
final exam			
quiz			
presentation		30	Consulting Project
discussion		30	In class participation
homework		10	Individual Assignment
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Reading Articles will be distributed for each class			
Sub	The Management of Strategy-Concepts(over 10th Edition)	Ireland, Hoskisson, and Hitt	Cengage	

10. Class system and Class shedule

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Session 1: Introduction and Course Overview/Session 2: Conceptual and Practical Introduction Strategy	E	김경호			
2	Session 3: Understanding The Five Forces/ Session 4: Economics of Industry	E	김경호			

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
3	Session 5 : Industry Trends, Dynamics, and Evolution/ Session 6: Competitive Positioning Concepts	E	김경호			
4	Session 7 : Competitive Positioning In Action /Session 8: Competitive positioning in action – dual advantage	E	김경호			
5	Session 9 : Firm strategy and industry evolution (I) /Session 10: Firm Strategy and Industry Evolution (II)	E	김경호			
6	Session 11: Corporate strategy concepts, Session 12 : Corporate strategy in practice (I)	E	김경호			
7	Session 13: Target company introduction, Session 14: Midterm review	E	김경호			
8	Session 15 and 16 : Midterm Exam (Good Luck!!!)– No Class–	E	김경호			
9	Session 17 and 18: Time for Team Project (Meeting with Faculty is available on demand)	E	김경호			
10	Session 19: Strategy Implementation – Governance /Session 20: Strategy Implementation In Action ? Social Responsibility	E	김경호			
11	Session 21: Concepts In Technology Strategy /Session 22: Understanding Disruptive Change (I)	E	김경호			
12	Session 23: Understanding Disruptive Change (II)/Session 24: Firm Strategy – Cooperative Strategy	E	김경호			
13	Session 25: Global Strategy /Session 26: Organizational Structure and Control Mechanism	E	김경호			
14	Session 27 and 28: Time For Team Projects	E	김경호			
15	Session 29 and 30: Team Project Final Presentation	E	김경호			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
16	Session 31 and 32: Final Exam Week	E	김경호			

11. Other items of notification

System Programming and Practice

Course Name	Course type (credit/hours)	전필(4/5)		Course code	F075
	Target students Division/major/grade	소프트웨어학과/2학년		Openning semester	2022 2ND SEMESTER
	Class time and classroom	월13:30~15:00 (팔409) 수4(팔318) 수5(팔318) 목13:30~15:00 (팔409)(팔318,팔409)		English Grade	A(100%English)
Reference to this course	Prerequisite courses	Computer Organization and Architecture, Computer Programming and Practice			
	Related basic courses	Data Structure			
	Recommanded concurrent courses	Computer Networks			
	Related	Operating Systems			
Instructor	Name (title/division)	오상은 (조교수/소프트웨어융합대학 소프트웨어학과)			
	Office Room Number	팔달관 606호	Office phone Number	2437	e-mail	
	Office hours		Homepage address	https://sites.google.com/view/sangeunoh	
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail	

1. Introduction

- This course handles the overall concepts of system software. The course covers core system applications like assembler, linker, and loader, focusing on the hypothetical computer architecture, called SIC. And the course also deals with basic concepts of operating systems focusing on Unix-based systems.
- In this course, systematic practical training is provided. The practical training includes assembly programming using a SIC simulator called SicTools and system programming (Linux API, I/O device control) using a Raspberry Pi board.

2. Course Objectives

This course aims to discuss various functionalities of system software and emphasize system application capabilities.
Through this course, students will learn the following:
(1) Students will learn the basic concepts and process of program building.
(2) Students will learn the basic concepts of the Linux file system and device drivers.
(3) Students will understand the concepts and functionalities of an assembler and linking loaders.
(4) Students will be able to apply and understand Linux device drivers on the embedded practice board.

3. Class types and activities

- Lectures, practice, and team projects are conducted concurrently.
- In principle, both lectures and practice are face-to-face classes but may be changed to live conference calls (via Zoom) or recorded lecture videos according to the corona virus situation.

4. Teaching Method

- [V] lecture
- [ ] discussion and debate
- [V] team project(presentation and case studies)
- [V] experiments(role-playing,etc)
- [ ] designing and production
- [ ] on-site learning(on-site training)
- [ ] others

5. Support Systems in Use

- [V] e-class
- [ ] automatic recording system
- [ ] web-based assignment
- [ ] cyber lecture
- [ ] blended learning(combination of online and offline teaching)
- [ ] class behavior analyazing system
- [ ] others

6. Teaching Tools

- [V] PBL(Problem Based Learning)
- [ ] CBL(Case Based Learning)
- [V] TBL(Team Based Learning)
- [ ] others

7. Knowledge and ability required for taking this course

- 컴퓨터 구조에 관한 기본 지식 (Basic Knowledge on Computer Architecture)
- C 언어 사용 능력 (C Programming Language Usability)
- 자료구조 이해 (Understanding of Data Structures)

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Subject to change.
midterm exam		15%	Subject to change.
final exam		30%	Subject to change.
quiz			
presentation			
discussion			
homework		45%	Assignments: 15% + Team project 30%. Subject to change.
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	System Software: An Introduction to Systems Programming, 3rd Edition	L. L. Beck	Pearson Education	1997
Main	System Programming with C and Unix	Adam Hoover	Addison Wesley	2010
Sub	Operating System Concepts, 10th Edition	A. Silberschatz, P.B. Galvin and G. Gagne	Wiley	2018
Sub	Computer Systems: A Programmers Perspective, 3rd Edition	Randal E. Bryant and David R. OHallaron	Pearson	2015

10. Class system and Class shedule

- 시스템 소프트웨어와 관련된 Linux OS 를 비롯한 Assembler, Loader, Linker 및 리눅스 시스템 소프트웨어의 주요기능을 강의하고, 실습과제 및 프로젝트 진행을 통하여 응용과정을 경험한다.
  This course will discuss topics related to system software such as Linux OS, Assemblers, Loaders, Linkers, and Basic functionalities of Linux systems software. The course will also include a lecture-based learning portion and a practice portion to re-learn the concepts in real-world implementations.
- Embedded Linux 기반 Raspberry Pi를 기반으로 실습 및 프로젝트를 진행함으로써 시스템프로그램 활용 능력을 키운다.
  The practice portion of the course and the final project will be designed around an embedded board. We will start with a set of lectures on the usage of the embedded boards and move on the learning how the linker/loader, cross-complier, device drivers are used within the Embedded Linux OS within the board.

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction to System Programming	E	오상은	Lecture & Practice		
2	System Software & Computer Architecture	E	오상은	Lecture & Practice		
3	Assembler & SciTools Practice	E	오상은	Lecture & Practice		
4	Assembler & SciTools Practice	E	오상은	Lecture & Practice		
5	Assembler & SciTools Practice	E	오상은	Lecture & Practice		
6	Assembler & Linking Loader	E	오상은	Lecture & Practice		
7	Linking Loader	E	오상은	Lecture & Practice		
8	Midterm Exam	E	오상은			
9	Introduction to Operating Systems & Raspberry Pi Practice	E	오상은	Lecture & Practice		
10	Linux OS	E	오상은	Lecture & Practice		
11	Team Project Proposal Presentation	E	오상은	Lecture & Practice		
12	I/O Operations	E	오상은	Lecture & Practice		
13	Processes & Threads	E	오상은	Lecture & Practice		
14	Inter-Process Communications	E	오상은	Lecture & Practice		
15	Team Project Final Presentation	E	오상은	Lecture & Practice		
16	Final Exam	E	오상은			

11. Other items of notification

System Programming and Practice

Course Name	Course type (credit/hours)	전필(4/5)			Course code	F076
	Target students Division/major/grade	소프트웨어학과/2학년			Openning semester	2022 2ND SEMESTER
	Class time and classroom	월16:30~18:00 (팔309) 목16:30~18:00 (팔309) 금4(팔328) 금5(팔328)(팔 309,팔328)			English Grade	A(100%English)
Reference to this course	Prerequisite courses	Computer Organization and Architecture, Computer Programming and Practice				
	Related basic courses	Data Structure				
	Recommanded concurrent courses	Computer Networks				
	Related	Operating Systems				
Instructor	Name (title/division)	오상은 (조교수/소프트웨어융합대학 소프트웨어학과)				
	Office Room Number	팔달관 606호	Office phone Number	2437	e-mail	
	Office hours		Homepage address	https://sites.google.com/view/sangeunoh		
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

- This course handles the overall concepts of system software. The course covers core system applications like assembler, linker, and loader, focusing on the hypothetical computer architecture, called SIC. And the course also deals with basic concepts of operating systems focusing on Unix-based systems.
- In this course, systematic practical training is provided. The practical training includes assembly programming using a SIC simulator called SicTools and system programming (Linux API, I/O device control) using a Raspberry Pi board.

2. Course Objectives

This course aims to discuss various functionalities of system software and emphasize system application capabilities.
Through this course, students will learn the following:
(1) Students will learn the basic concepts and process of program building.
(2) Students will learn the basic concepts of the Linux file system and device drivers.
(3) Students will understand the concepts and functionalities of an assembler and linking loaders.
(4) Students will be able to apply and understand Linux device drivers on the embedded practice board.

3. Class types and activities

- Lectures, practice, and team projects are conducted concurrently.
- In principle, both lectures and practice are face-to-face classes but may be changed to live conference calls (via Zoom) or recorded lecture videos according to the corona virus situation.

4. Teaching Method

☑	lecture	☐	discussion and debate
☑	team project(presentation and case studies)	☑	experiments(role-playing,etc)
☐	designing and production	☐	on-site learning(on-site training)
☐	others		

5. Support Systems in Use

☑	e-class	☐	automatic recording system	☐	web-based assignment
☐	cyber lecture	☐	blended learning(combination of online and offline teaching)		
☐	class behavior analyazing system	☐	others		

6. Teaching Tools

☑	PBL(Problem Based Learning)	☐	CBL(Case Based Learning)
☑	TBL(Team Based Learning)	☐	others

7. Knowledge and ability required for taking this course

- 컴퓨터 구조에 관한 기본 지식 (Basic Knowledge on Computer Architecture)
- C 언어 사용 능력 (C Programming Language Usability)
- 자료구조 이해 (Understanding of Data Structures)

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	Subject to change.
midterm exam		15%	Subject to change.
final exam		30%	Subject to change.
quiz			
presentation			
discussion			
homework		45%	Assignments: 15% + Team project 30%. Subject to change.
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	System Software: An Introduction to Systems Programming, 3rd Edition	L. L. Beck	Pearson Education	1997
Main	System Programming with C and Unix	Adam Hoover	Addison Wesley	2010
Sub	Operating System Concepts, 10th Edition	A. Silberschatz, P.B. Galvin and G. Gagne	Wiley	2018
Sub	Computer Systems: A Programmers Perspective, 3rd Edition	Randal E. Bryant and David R. OHallaron	Pearson	2015

10. Class system and Class shedule

- 시스템 소프트웨어와 관련된 Linux OS 를 비롯한 Assembler, Loader, Linker 및 리눅스 시스템 소프트웨어의 주요기능을 강의하고, 실습과제 및 프로젝트 진행을 통하여 응용과정을 경험한다.
   This course will discuss topics related to system software such as Linux OS, Assemblers, Loaders, Linkers, and Basic functionalities of Linux systems software. The course will also include a lecture-based learning portion and a practice portion to re-learn the concepts in real-world implementations.
- Embedded Linux 기반 Raspberry Pi를 기반으로 실습 및 프로젝트를 진행함으로써 시스템프로그램 활용 능력을 키운다.
   The practice portion of the course and the final project will be designed around an embedded board. We will start with a set of lectures on the usage of the embedded boards and move on the learning how the linker/loader, cross-complier, device drivers are used within the Embedded Linux OS within the board.

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction to System Programming	E	오상은	Lecture & Practice		
2	System Software & Computer Architecture	E	오상은	Lecture & Practice		
3	Assembler & SciTools Practice	E	오상은	Lecture & Practice		
4	Assembler & SciTools Practice	E	오상은	Lecture & Practice		
5	Assembler & SciTools Practice	E	오상은	Lecture & Practice		
6	Assembler & Linking Loader	E	오상은	Lecture & Practice		
7	Linking Loader	E	오상은	Lecture & Practice		
8	Midterm Exam	E	오상은			
9	Introduction to Operating Systems & Raspberry Pi Practice	E	오상은	Lecture & Practice		
10	Linux OS	E	오상은	Lecture & Practice		
11	Team Project Proposal Presentation	E	오상은	Lecture & Practice		
12	I/O Operations	E	오상은	Lecture & Practice		
13	Processes & Threads	E	오상은	Lecture & Practice		
14	Inter-Process Communications	E	오상은	Lecture & Practice		
15	Team Project Final Presentation	E	오상은	Lecture & Practice		
16	Final Exam	E	오상은			

11. Other items of notification

The principles of Sociology 2

Course Name	Course type (credit/hours)	전필(3/3)	Course code	K080
	Target students Division/major/grade	사회학과/1학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월B(율528) 목B(율528)(율528)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	호정화 (교수/사회과학대학 사회학과)			
	Office Room Number	율곡관 420호	Office phone Number	2778	e-mail
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

Sociology is a scientific discipline of society and people within it. Its main subjects are the process and outcome of complex interplay between society and people. The scope of sociology is extremely wide, ranging from day-to-day interaction between two friends to international relations over environmental issues. Sociology has unique perspectives to understand society and individual lives: sociological imagination which aims to understand individual and private issues in the context of broader social and public structure. This course aims to introduce sociology by exposing students to essential concepts of sociology, various subfields, and classical and contemporary social issues. Students who have taken this course successfully will gain sociological imagination and will be able to apply this perspective to various public and private issues and to understand private and public lives in different lights.

2. Course Objectives

Students who have taken this course successfully will gain sociological imagination and will be able to apply this perspective to various public and private issues and to understand private and public lives in different lights.

3. Class types and activities

Combination of lectures by lecturer and seminar-style discussions by students

4. Teaching Method

- [V] lecture
- [V] team project(presentation and case studies)
- [ ] designing and production
- [ ] others

- [V] discussion and debate
- [ ] experiments(role-playing,etc)
- [ ] on-site learning(on-site training)

5. Support Systems in Use

- [V] e-class
- [ ] cyber lecture
- [ ] class behavior analyazing system

- [ ] automatic recording system
- [ ] blended learning(combination of online and offline teaching)
- [ ] others

- [ ] web-based assignment

6. Teaching Tools

- [ ] PBL(Problem Based Learning)
- [ ] TBL(Team Based Learning)

- [ ] CBL(Case Based Learning)
- [ ] others

7. Knowledge and ability required for taking this course

Sociological curiosity, ability and motibation to ask sociological questions and to answer them.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance	14	10	
midterm exam			
final exam	1	35	
quiz			
presentation			
discussion	1	15	
homework	1	40	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Sociology	A. Giddens, P. Sutton	Polity	2021
Main	Essential concepts in sociology	A. Giddens, P. Sutton	Polity	2021
Sub	현대사회학	A. Giddens, P. Sutton	을유문화사	2018
Sub	사회학의 핵심 개념들	A. Giddens, P. Sutton	을유문화사	2018

10. Class system and Class shedule

사회조사의 전 과정을 이론적으로 학습하고 실습한다.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction	E	호정화			
2	Sociological imagination, again	E	호정화			
3	Sociological research methods	E	호정화			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Social interactions and everyday life-1	E	호정화			
5	Social interactions and everyday life-2	E	호정화			
6	The life course-1	E	호정화			
7	The life course-2	E	호정화			
8	Midterm exam	E	호정화			
9	Family and intimate relationships-1	E	호정화			
10	Family and intimate relationships-2	E	호정화			
11	Health, illness and disability-1	E	호정화			
12	Health, illness and disability-2	E	호정화			
13	Crime and deviance-1	E	호정화			
14	Crime and deviance-2	E	호정화			
15	Review	E	호정화			
16	Final exam	E	호정화			

11. Other items of notification

Theory of Computation

Course Name	Course type (credit/hours)	전선(3/3)	Course code	F087
	Target students Division/major/grade	소프트웨어학과/3학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	화D(팔409) 목C(팔409)(팔409)	English Grade	A(100%English)
Reference to this course	Prerequisite courses	Discrete mathematics		
	Related basic courses	Algorithms		
	Recommanded concurrent courses	AI		
	Related advanced courses			

Instructor	Name (title/division)	조다정 (조교수/소프트웨어융합대학 소프트웨어학과)			
	Office Room Number		Office phone Number	2635	e-mail
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

This course provides formal language and automata theory. We study the fundamental knowledge on computation and computability. In particular, we examine finite-state automata (regular languages), pushdown automata (context-free languages) and Turing machines (unrestricted languages).

2. Course Objectives

The goal of this course is to provide students with an understanding of basic concepts in the theory of computation, including models of computation such as Turing machines; theory of programming languages, including grammars, parsing, syntax and semantics.
At the end of this course students will:
-be able to construct finite state machines and the equivalent regular expressions.
-be able to prove the equivalence of languages described by finite state machines and regular expressions.
-be able to construct pushdown automata and the equivalent context free grammars.
-be able to prove the equivalence of languages described by pushdown automata and context free grammars.
-be able to construct Turing machines and Post machines.
-be able to prove the equivalence of languages described by Turing machines and Post machines

3. Class types and activities

Mostly lectures.
6 assignments (pop-quiz or homework) will be issued.
The goal of assignment is to give you practice in mastering the course material. Specifically,
you should spend at least 100?120 minutes trying to solve each problem beforehand.

4. Teaching Method

[V] lecture

[ ] discussion and debate

[ ] team project(presentation and case studies)

[ ] experiments(role-playing,etc)

[ ] designing and production

[ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class

[ ] automatic recording system

[ ] web-based assignment

[ ] cyber lecture

[ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system

[ ] others

6. Teaching Tools

[ ] PBL(Problem Based Learning)

[ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)

[ ] others

7. Knowledge and ability required for taking this course

Knowledge about discrete mathematics (e.g., graphs, trees, logic, and proof techniques) is required for taking
this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10%	
midterm exam		40%	
final exam		40%	
quiz		10%	
presentation			
discussion			
homework			
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Introduction to Automata Theory, Languages, and Computation, 3rdedition	Hopcroft, Motwani and Ullman	Pearson Addison Wesley	

10. Class system and Class shedule

This course covers the following topics:
-Introduction: Chapter 1
-Finite-state automata: Chapter 2
-Regular languages and expressions: Chapter 3
-Regular language properties: Chapter 4
-Context-free languages: Chapter 5
-Pushdown automata: Chapter 6
-Context-free language properties: Chapter 7
-Turing machines: Chapter 8

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction	E	조다정			
2	Finite-State automata	E	조다정			
3	Regular expressions and languages	E	조다정			

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Regular expressions and languages	E	조다정			
5	Regular expressions and languages	E	조다정			
6	Regular language properties	E	조다정			
7	Regular language properties	E	조다정			
8	Midterm exam	E	조다정			
9	Context-free languages	E	조다정			
10	Context-free languages	E	조다정			
11	Pushdown automata	E	조다정			
12	Context-free language properties	E	조다정			
13	Context-free language properties	E	조다정			
14	Turing machines	E	조다정			
15	Turing machines	E	조다정			
16	Final exam	E	조다정			

11. Other items of notification

Traffic Study

Course Name	Course type (credit/hours)	전필(3/3)	Course code	E011
	Target students Division/major/grade	교통시스템공학과/2학년	Openning semester	2022 2ND SEMESTER
	Class time and classroom	월B(팔211) 목B(팔211)(팔211)	English Grade	A(100%English)

Reference to this course	Prerequisite courses	없음		
	Related basic courses	없음		
	Recommanded concurrent courses	교통조사실습		
	Related advanced courses	교통제어		

Instructor	Name (title/division)	소재현 (조교수/공과대학 교통시스템공학과)			
	Office Room Number		Office phone Number	2535	e-mail
	Office hours	매주 월요일 13시-17시	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number	팔달관 1008호	Office phone Number		e-mail	haneuli59@ajou.ac.kr

1. Introduction

Observation of real traffic conditions and drivers behaviors has always been the basis for traffic engineering studies. Therefore, good traffic engineers should be familiar with diverse methods to collect any traffic data necessary for in-depth traffic engineering studies. To this end, this class, Traffic Study, is initiated to deliver various skills and methodologies for field traffic data collection in a safe and efficient way.

2. Course Objectives

This course is designed to deliver students with followings;
1) Basic theories related with traffic studies,
2) Safety issues during traffic studies,
3) Skills and techniques for traffic studies,
4) Interpretation skill on the collected data, and
5) Basic statistical skill to analyze the data.

3. Class types and activities

Course Structure:
The course works will be conducted based on the following four steps;
Step1: Explanation on basic concepts, usages, and examples,
Step2: Explanation on the methodologies for diverse traffic studies,
Step3: Practices using examples and homework, and
Step4: Questions and answers, feedback to the subject step, if necessary.

4. Teaching Method

- [V] lecture
- [V] team project(presentation and case studies)
- [ ] designing and production
- [ ] others
- [ ] discussion and debate
- [ ] experiments(role-playing,etc)
- [ ] on-site learning(on-site training)

5. Support Systems in Use

- [V] e-class
- [ ] cyber lecture
- [ ] class behavior analyazing system
- [ ] automatic recording system
- [V] blended learning(combination of online and offline teaching)
- [ ] others
- [ ] web-based assignment

6. Teaching Tools

- [ ] PBL(Problem Based Learning)
- [ ] TBL(Team Based Learning)
- [V] CBL(Case Based Learning)
- [ ] others

7. Knowledge and ability required for taking this course

All students are required to understand basic concepts and terminologies related with traffic engineering and traffic flow analysis in advance. Students will use appropriate software like Excel to conduct actual traffic studies and analyses.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		5	Attendance
midterm exam	1	25	Mid-term examination
final exam	1	35	final examination
quiz			
presentation	1	25	Project and presentation
discussion			
homework		10	homeworks
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Manual of Transportation Engineering Studies (2nd Edition)	Institute of Transportation Engineers	ITE	2010
Ref.	Traffic Engineering	Roess, Roger 외	Prentice Hall	2011
Ref.	교통공학원론	도철웅	청문각	2004

10. Class system and Class shedule

Lectures are given twice weekly. Lectures include a mixture of presentation of material using PowerPoint and interactive exercises. Participation is encouraged, but not required. Attendance will be taken at each lecture. It is noted that absences for the first lectures do not count in grading. There are no lectures on exam days.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction & Safety during traffic studies	K	소재현	Lecture		
2	Volume Studies	K	소재현	Lecture		
3	Spot Speed Studies	K	소재현	Lecture		

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Intersection and Driveway Studies: Introduction & Delay	K	소재현	Lecture		
5	Intersection and Driveway Studies: Queue length & Saturation Flow and Lost Time	K	소재현	Lecture		
6	Intersection and Driveway Studies: Gap and Gap acceptance & Sight Distance	K	소재현	Lecture		
7	Compliance with Traffic Control Devices	K	소재현	Lecture		
8	Midterm examination	K	소재현	-		
9	Travel-Time and Delay Studies	K	소재현	Lecture		
10	Public Transportation Studies	K	소재현	Lecture		
11	Goods Movement Studies	K	소재현	Lecture		
12	Parking Studies	K	소재현	Lecture		
13	Traffic Collision Studies	K	소재현	Lecture		
14	Alternative Safety Studies	K	소재현	Lecture		
15	Transportation Planning Data	K	소재현	Lecture		
16	Final examination	K	소재현	-		

11. Other items of notification

Homework is an essential tool for learning class materials and exercising methodologies for traffic studies. Except when stated otherwise, homework will be due at the beginning of the class time as noted. Late homework will not be accepted. In addition, homework should be done without any assistance from other students. No cheating on homework is allowed. Any suspicious homework will not be accepted. Each homework must have a cover sheet saying the name and ID of the student. It is noted that the homework without a cover sheet will not be accepted.

Western Music History

Course Name	Course type (credit/hours)	교필(3/3)		Course code	X252
	Target students Division/major/grade	/		Openning semester	2022 2ND SEMESTER
	Class time and classroom	수D(성232) 금D(성232)(성232)		English Grade	A(100%English)

Reference to this course	Prerequisite courses	
	Related basic courses	
	Recommanded concurrent courses	
	Related advanced courses	

Instructor	Name (title/division)	채수아 (강사/대학 다산학부대학)			
	Office Room Number		Office phone Number		e-mail
	Office hours	Friday 15-16	Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

This course is designed to develop a knowledge of the principal events in the course of development of classical music in western history. By providing familiarity with classical music, students will develop interest in classical music and appreciate various styles in each historical period. This class is related to the aesthetic, convergence, and cultural openness of our university.

2. Course Objectives

Student will gain knowledge and understanding of western classical music of various styles, historical periods, and cultural sources.

Students will have easy and close access to Western classical music.
Students will realize the timeless charm of classical music that makes everyones life rich and full.
Students will have the ability to choose valuable classical music to listen to.

3. Class types and activities

1. live. face to face class
2. lecture, listening/watching various materials
3. discussion, Q & A

4. Teaching Method

[V] lecture   [V] discussion and debate

[ ] team project(presentation and case studies) [ ] experiments(role-playing,etc)

[ ] designing and production   [ ] on-site learning(on-site training)

[ ] others

5. Support Systems in Use

[V] e-class   [ ] automatic recording system   [ ] web-based assignment

[ ] cyber lecture   [ ] blended learning(combination of online and offline teaching)

[ ] class behavior analyazing system   [ ] others

6. Teaching Tools

[V] PBL(Problem Based Learning)   [ ] CBL(Case Based Learning)

[ ] TBL(Team Based Learning)   [ ] others

7. Knowledge and ability required for taking this course

English comprehension

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10	
midterm exam		30	
final exam		30	
quiz			
presentation			
discussion			
homework		30	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Ref.	A History of Western Music	Burkholder, Grout, Palisca	WW Norton & Co.	2019
Ref.	고전음악의 이해	허영한, 이석원	심설당	1994

10. Class system and Class shedule

Starting from the ancient Greek music, lectures will be conducted by chronological order and various musical styles;

Middle-age
Renaissance era

Baroque period
Classical period
Romantic period
Impressionism
20th & 21st century music

Also by various musical genres;

Vocal music
Instrumental music: orchestral music; chamber music; opera; solo repertoires, etc.

< Class Schedule >

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	An overview of western classical music history, Ancient Greek music, Middle Age	E	채수아	Lecture & listening		
2	Renaissance era, Early Baroque music	E	채수아	Lecture & listening		
3	Baroque period: Bach, Handel, Vivaldi, Scarlatti, etc.	E	채수아	Lecture & listening		
4	Baroque period, Rococo style, Galant style	E	채수아	Lecture & listening		
5	Classical period: Haydn, Mozart	E	채수아	Lecture & listening		
6	Mozart, Beethoven	E	채수아	Lecture & listening		
7	Beethoven	E	채수아	Lecture & listening		
8	Mid-terms	E	채수아		written exam	
9	Romantic period: Schubert, Mendelssohn, etc.	E	채수아	Lecture & listening		
10	Chopin, Schumann, etc.	E	채수아	Lecture & listening		
11	Liszt, Brahms, etc.	E	채수아	Lecture & listening		
12	Eastern European music: Dvorak, Smetana, the Mighty Handful, etc.	E	채수아	Lecture & listening		
13	Impressionists: Debussy, Ravel	E	채수아	Lecture & listening		
14	20th century: the 2nd Viennese school, Neo-classicism, Avant-garde	E	채수아	Lecture & listening		
15	The synthesis of Eastern and Western music	E	채수아	Lecture & listening		
16	Finals	E	채수아		written exam	

11. Other items of notification