

Syllabus

Seminar in Statistics I

Course Name	Course type (credit/hours)	전선(3/3)		Course code	
	Target students Division/major/grade	/		Opening semester	2017년 2학기
	Class time and classroom				
Reference to this course	Related basic courses				
	Recommended concurrent courses				
	Related advanced courses				
Instructor	Name (title/division)				
	Office Room Number		Office phone Number	2562	e-mail qrio1010@ajou.ac.kr
	Office hours		Homepage address		
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

This is a master's/advanced undergraduate level course in mathematical statistics. The emphasis of this course is to develop the fundamental statistical concepts of inference and hypothesis testing from a classical perspective using the tools of probability theory.

2. Course Objectives

3. Class types and activities

4. Teaching Method

This class will be progressed as instructor-led courses and added the training time to give feedback about submitted homework.

5. Knowledge and ability required for taking this course

6. Method of Evaluation

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

Grades will be assigned on a curve, using the following percentages: 10% Homework, 30% Quizzes(2 times), 30% Midterm, 30% Final.
No makeup midterm or quizzes will be given. (If you miss the midterm, the final will count towards 70% of your grade.)
No late homework will be accepted; to compensate for this, we will drop the lowest score. We'll also drop the lowest quiz score (out of about three quizzes).

7. Textbooks

Main/Sub	Title	Writer	Publisher	Publication year
주교재	Introduction to Mathematical Statistics, 7th	Hogg, McKean and Craig	Pearson	2013

8. Lecture Schedule

Week	Lecture contents	Lesson type	Remark
1	Probability and Distribution Review		
2	Consistency		
3	Limiting Distributions		
4	Maximum likelihood estimation		
5	More on MLE		
6	Sufficient Statistics		
7	Minimal sufficiency; Rao–Blackwell theorem		
8	Midterm		
9	More on exponential families		
10	Simple hypotheses: ML test		
11	Power, size: Neyman–Pearson lemma		
12	Compound alternate hypotheses: uniformly most powerful tests		
13	Compound null and alternate: t–test in compound case		
14	Compound null and alternate: t–test; likelihood ratio test in compound case		
15	Nonparametric and Robust Statistics		
16	Final test		

9. Others

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