

# Syllabus

## Theory of Statistics

Course Name	Course type (credit/hours)		전선(3/3)		Course code	
	Target students Division/major/grade		/		Opening semester	
	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

### 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% Test 1, 30% Test 2, 30% Test 3.

## 7. Textbooks

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

## 8. Lecture Schedule

Week	Lecture contents	Lesson type	Remark
1	Some elementary statistical inferences 1		
2	Some elementary statistical inferences 2		
3	Maximum likelihood estimation 1		
4	Maximum likelihood estimation 2		
5	More on MLE		
6	Test 1		
7	Sufficient Statistics		
8	Minimal sufficiency: Rao–Blackwell theorem		
9	More on exponential families		
10	Optimal Test of hypotheses 1		
11	Optimal Test of hypotheses 2		
12	Test 2		
13	Power, size: Neyman–Pearson lemma		
14	Compound alternate hypotheses 1		
15	Compound alternate hypotheses 2		
16	Test 3		

## 9. Others

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