

Syllabus

Analysis I

Course Name	Course type (credit/hours)		전선(3/3)		Course code	
	Target students Division/major/grade		수학과/6학년		Opening semester	
	Class time and classroom		월B(팔621) 목B(팔621)(팔621)			
Reference to this course	Related basic courses		해석개론1, 해석개론2, 위상수학			
	Recommended concurrent courses					
	Related advanced courses					
Instructor	Name (title/division)		정의진			
	Office Room Number	팔달관 717호	Office phone Number	3718	e-mail	uijin@ajou.ac.kr
	Office hours		Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

1. Introduction

We understand the measure theory and Lebesgue integration so that we can easily access them appearing in many mathematical fields.

2. Course Objectives

3. Class types and activities

This course is based on lectures.

4. Teaching Method

This course is based on lectures and homeworks.

5. Knowledge and ability required for taking this course

6. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		0	
midterm exam	1	25	
final exam	1	25	
quiz			
presentation			
discussion			
homework	8	40	
etc	1	10	개별 면담 - 이해도 평가

7. Textbooks

Main/Sub	Title	Writer	Publisher	Publication year
주교재	Real Analysis, 4th Ed.	Royden		
부교재	Measure and Integral: an Introduction to Real Analysis	Wheeden/Zygmund		

8. Lecture Schedule

Week	Lecture contents	Lesson type	Remark
1	Chapter 1: Real Numbers, Sets, Functions		
2	Chapter 2. Lebesgue measure		
3	Chapter 2. Lebesgue measure		
4	Chapter 3. Lebesgue measurable functions		
5	Chapter 4. Lebesgue integration		
6	Chapter 4. Lebesgue integration		
7	Chapter 5. Further Topics on Lebesgue integration		
8	MidTerm		
9	Chapter 6. Differentiation		
10	Chapter 6. Differentiation and integration		
11	Chapter 7. L_p spaces		
12	Chapter 7. L_p spaces		
13	Chapter 8. Duality and Weak convergence		
14	Chapter 8. Duality and Weak convergence		
15	Chapter 9. Abstract spaces: Metric, Topological spaces		
16	Final Exam		

9. Others