

Syllabus

Analysis II

Course Name	Course type (credit/hours)		전선(3/3)		Course code	
	Target students Division/major/grade		수학과/6학년		Opening semester	
	Class time and classroom		월F(팔621) 목F(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

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	Review: Lebesgue measure, measurable functions, Lebesgue integration		
2	Chapter 6. Differentiation		
3	Chapter 7. L_p spaces		
4	Chapter 7. L_p spaces		
5	Chapter 8. Duality and Weak convergence		
6	Chapter 9–12. Abstract spaces: Metric spaces, Topological spaces		
7	Chapter 9–12. Abstract spaces: Metric spaces, Topological spaces		
8	MidTerm Period		
9	Chapter 13. Normed linear spaces		
10	Chapter 16. Hilbert spaces		
11	Chapter 17. General Measure		
12	Chapter 18. General Measure – Integration		
13	Chapter 19. General L_p spaces		
14	Chapter 19. General L_p spaces – Riesz Representation		
15	Review and Further topics		
16	Final Exam Period		

9. Others