

# Syllabus

## Advanced Soft Matter Engineering

Course Name	Course type (credit/hours)	전선(3/3)		Course code		
	Target students Division/major/grade	/		Opening semester	2019년 2학기	
	Class time and classroom	목11(서302) 목12(서302) 목13(서302)(서302)				
Reference to this course	Related basic courses					
	Recommended concurrent courses					
	Related advanced courses					
Instructor	Name (title/division)					
	Office Room Number		Office phone Number	2574	e-mail	tsshim@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

강의와 연성재료를 활용한 최신연구에 대한 프로젝트로 진행한다

#### 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			

지필평가 및 프로젝트 발표평가로 진행한다.

## 7. Textbooks

Main/Sub	Title	Writer	Publisher	Publication year
주교재	Soft Condensed Matter	Richard A. L. Jones	Oxford University Press	2002
주교재	Capillarity and Wetting Phenomena – Drops, Bubbles, Pearls, Waves	Pierre-Gilles de Gennes	Springer	2004

## 8. Lecture Schedule

Week	Lecture contents	Lesson type	Remark
1	Course Overview & Fundamentals of Soft Matter		
2	Fundamentals of Soft Matter : Glass Transition, Phase Equilibrium		
3	Fundamentals of Soft Matter : Phase Separation		
4	Colloids : Stokes' Law & Brownian Motion		
5	Colloids : Stability and Phase Behavior		
6	Polymers : Physics of Polymer Chains		
7	Polymers : Gels and Viscoelasticity		
8	중간고사		
9	Supramolecules : Surfactants and Micelles		
10	Supramolecules : Block Copolymers		
11	Special Topics in Soft Matter –1		
12	Special Topics in Soft Matter –2		
13	Special Topics in Soft Matter –3		
14	Term Project		
15	Term Project		
16	기말고사		

## 9. Others