

# Syllabus

## Population Ecology

Course Name	Course type (credit/hours)	전선(3/3)		Course code		
	Target students Division/major/grade	/		Opening semester	2017년 2학기	
	Class time and classroom	목10(원534-2) 목11(원534-2) 목12(원534-2)(원534-2)				
Reference to this course	Related basic courses					
	Recommended concurrent courses					
	Related advanced courses					
Instructor	Name (title/division)					
	Office Room Number		Office phone Number	2967	e-mail	daphnia@ajou.ac.kr
	Office hours		Homepage address			
Teaching Assistant	Name (title/division)					
	Office Room Number		Office phone Number		e-mail	

### 1. Introduction

Using R, an open data analysis tool, this class covers ecological models on population structure and dynamics with understanding of ecological view points on current population' survival strategies. This class introduces competitions, prey-predator relations, meta-populations for conservation of biodiversity.

### 2. Course Objectives

### 3. Class types and activities

#### 4. Teaching Method

주교재에 대한 교수와 강의, 학생들의 모델링 프로젝트 발표 및 모델링 실습으로 구성된다.

#### 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			

모델링 숙제 40%  
모델링 프로젝트 발표 50%  
출석 10%

## 7. Textbooks

Main/Sub	Title	Writer	Publisher	Publication year
주교재	A Primer of Ecology with R	M.H.H. Setevens	Springer	2009

## 8. Lecture Schedule

Week	Lecture contents	Lesson type	Remark
1	강의 소개 및 R 개관	강의	
2	R programming	강의	
3	Simple Density-independent Growth	강의	
4	Density Independent Demography	강의	
5	Populaltion in Space	강의	
6	Lotoka-Volterra Insterspecific Competition	강의	
7	Prey-Predator Interaction	강의	
8	모델링 프로젝트 계획 발표	발표	
9	Food webs	강의	
10	Multiple Basins of Attraction	강의	
11	Competition, Colonization, and Temporal Niche Partitioning	강의	
12	Community Composition and Diversity	강의	
13	Evolution of Life History	강의	
14	Population Genetics	강의	
15	모델링 프로젝트 최종 발표	발표	

## 9. Others