

Introduction to Ecology for Economists

Course title - Intitulé du cours	Introduction to Ecology for Economists
Level / Semester - Niveau /semestre	M2 / S1
School - Composante	Ecole d'Economie de Toulouse
Teacher - Enseignant responsable	PENA SUAREZ JORGE
Other teacher(s) - Autre(s) enseignant(s)	
Other teacher(s) - Autre(s) enseignant(s)	
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Other teacher(s) - Autre(s) enseignant(s)	
Lecture Hours - Volume Horaire CM	15
TA Hours - Volume horaire TD	
TP Hours - Volume horaire TP	
Course Language - Langue du cours	Anglais
TA and/or TP Language - Langue des TD et/ou TP	Anglais

Teaching staff contacts - Coordonnées de l'équipe pédagogique :

* E-mail: jorge.pena@iast.fr

* webpage: <https://jorgeapenas.wordpress.com/>

* office number: T.423

* office hours: Students can contact me by e-mail whenever they want. I will be available for Zoom meetings Wed and Fri afternoon.

Course's Objectives - Objectifs du cours :

Ecology is the scientific study of the interactions that determine the distribution and abundance of organisms.

This course is an intensive introduction to some of the main theoretical concepts in ecology for students coming from an economics background.

It will mainly focus on biotic interactions at the level of populations and communities, and will cover the following topics:

1. Introduction to ecology and evolution as scientific fields.
2. Intraspecific competition, density dependence, and population dynamics.
3. Interspecific competition.
4. Consumer-resource interactions.
5. Mutualisms.
6. Parasitism.

The concepts will be introduced by means of mathematical models and their importance illustrated by case studies.

The main goal is for economists to be sufficiently acquainted with some of the main concepts (and jargon) used in ecology to be able to interact with biologists in an efficient way, and to follow more advanced courses of the Master program.

Prerequisites - Pré requis :

* Differential calculus.

Practical information about the sessions - Modalités pratiques de gestion du cours :

Grading system - Modalités d'évaluation :

Students will be asked to read and prepare a presentation for two papers (25 % of the grade each). There will also be a final exam (50 % of the grade).

Bibliography/references - Bibliographie/références :

* *Ecology: From Individuals to Ecosystems*. Michael Begon, Colin R. Townsend, and John L. Harper. 4th Edition. Blackwell Publishing.

* *Ecology: The Experimental Analysis of Distribution and Abundance*. Charles J. Krebs. 6th Edition. Pearson Education Limited.

Distance learning – Enseignement à distance :

This year (2020-2021) all lectures will be given via Zoom. Lectures will be recorded whenever possible.