

# COASTAL AND MARINE BIOLOGY AND ECOLOGY (LM51)

(Lecce - Università degli Studi)

## Teaching COMMUNITY ECOLOGY

GenCod A002217

**Owner professor** GIORGIO MANCINELLI

**Teaching in italian** COMMUNITY ECOLOGY

**Teaching** COMMUNITY ECOLOGY

**SSD code** BIO/07

**Reference course** COASTAL AND MARINE BIOLOGY AND ECOLOGY

**Course type** Laurea Magistrale

**Credits** 6.0

**Teaching hours** Front activity hours: 60.0

**For enrolled in** 2017/2018

**Taught in** 2017/2018

**Course year** 1

**Language** ENGLISH

**Curriculum** PERCORSO COMUNE

**Location** Lecce

**Semester** Second Semester

**Exam type** Oral

**Assessment** Final grade

**Course timetable**  
<https://easyroom.unisalento.it/Orario>

### BRIEF COURSE DESCRIPTION

The course presents a detailed analysis of fundamental theories in community ecology in relation to the general historical context of the evolution of the ecological discipline, from Charles Elton to the present day; subsequently, it addresses specific conceptual and methodological issues focused on: i) macroecology and community assembly, ii) diversity-function relationships, iii) top-down and bottom-up controls on community organization, iv) food webs. Laboratory activities focus on the formalization and analysis of ecological data using advanced statistical methods and dedicated freeware packages (R)

### REQUIREMENTS

Knowledge of basic ecological concepts provided in undergraduate ecology courses

### COURSE AIMS

To highlight and bring to students in a clear and contextualized way the most updated and discussed conceptual issues in community ecology, and at the same time provide the necessary statistical and methodological tools to analyze the structure and dynamics of natural communities

### TEACHING METHODOLOGY

Lectures – Slides available online in pdf format – Reading of seminal papers in community ecology followed by discussion (student talks) – Group activities (working groups) analyzing specific topics related with the course – Supervised practical activities conducted in the computer lab using previously prepared material made available on-line

### ASSESSMENT TYPE

Final exam consisting in i) a written review focusing on the publications read during the course and ii) written test with multiple choice questions.

### REFERENCE TEXT BOOKS

Morin - Community Ecology  
Gotelli - Null Models in Ecology  
Polis & Winemiller - Food Webs  
Bolker - Ecological Models and Data in R