

# COASTAL AND MARINE BIOLOGY AND ECOLOGY (LM51)

(Lecce - Università degli Studi)

## Teaching MARINE LIFE CYCLES AND SYMBIOTIC ASSOCIATIONS

GenCod A006025

**Owner professor** Adriana GIANGRANDE

**Teaching in italian** MARINE LIFE CYCLES AND SYMBIOTIC ASSOCIATIONS **Course year** 1

**Teaching** MARINE LIFE CYCLES AND SYMBIOTIC ASSOCIATIONS

**SSD code** BIO/05

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

**Course type** Laurea Magistrale

**Credits** 8.0

**Teaching hours** Front activity hours: 68.0

**For enrolled in** 2024/2025

**Taught in** 2024/2025

**Language** ENGLISH

**Curriculum** Curriculum Marine Biology and Ecology

**Location** Lecce

**Semester** First Semester

**Exam type** Oral

**Assessment** Final grade

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

### BRIEF COURSE DESCRIPTION

Part I: Diversity of life cycle of marine invertebrates, larval development and larval type analysis; life history diversity and evolution. Meaning of the different developmental modes. Part II. Factors structuring marine communities,. Associations among different organisms and symbiosis. Ecological implication of life cycle diversity,, factors determining spatial and temporal dynamics and community assembly rules. Supply side ecology and connectivity

### REQUIREMENTS

Basic zoological and Botanical knowledge

### COURSE AIMS

The student will be able to recognize:

Larval types of the different Phyla and their phylogenetic connections

- differences between phases of the life cycle and traits of the life history
- diversity, complexity and unity of development
- adaptations and influence in the associations between animals
- ability to summarize the topics covered and links the practical aspects
- sampling and collection techniques will also be taken into consideration
- Working hypotheses and planning

Communication skills

### TEACHING METHODOLOGY

Understanding and synthetize scientific articles will be greatly considered

### ASSESSMENT TYPE

The exam involves the analysis of publications related to course topics with the creation of a presentation plus a written exam with multiple choice and open-ended answers.

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## FULL SYLLABUS

Factor shaping community structure and relationships among different organisms, concept of symbiosis. Diversity of life cycle of marine invertebrates; larval development and larval type analysis; evolutionary implications. life-history diversity. Ecological implications (population dynamics; settlement and recruitment; recruitment limitation; pre and post settlement events; factors determining spatial and temporal dynamics and community assembly rules. Supply side ecology and Connectivity. Basic concepts on community ecology. Factors controlling the local biodiversity, importance of biotic relationships and animal associations within community. Importance of life cycle and life-history

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## REFERENCE TEXT BOOKS

material provided in class