

Biology and Biotechnology of Microalgae (3 Credits)
001-2-2070

A course consists of weekly lessons (3 academic hours) and a 3-day practical lab work. The course covers the major aspects of microalgal biology (evolution, physiology, biochemistry, stress response) and biotechnology (cultivation strategies, metabolic engineering and applications). The course will include the following topics:

1. Introduction to Algae
2. Introduction to Algae (cont.)
3. Algal biomass composition and constituents
4. Principles for large-scale outdoor microalgae culture and operational parameters
5. Species of commercial value
6. Algal stress physiology
7. LC-PUFA biosynthesis and production
8. Nutritional value of microalgae in fish nutrition
9. Algae in fish health and nutrition
10. Genetic Engineering in Algal Biotechnology

Lab work training: 3 days, during the winter semester break

Students will start algae cultivation one week prior to the Lab work

Course Structure:

Lecture: 70% Exercise: Lab: 10% Student Presentations: 20%

Structure of Final Course-Grade:

Component	Weight
1. Presentations	50
2. Lab work report	30
3. Active participation	20
Total:	100%

Course Requirements: no requirements

Required Reading:

Relevant articles will be given during the course.