

COURSE DETAIL

LIFE HISTORY OF AQUATIC ORGANISMS

Country

Netherlands

Host Institution

Wageningen University and Research Center

Program(s)

Wageningen University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Biological Sciences

UCEAP Course Number

103

UCEAP Course Suffix**UCEAP Official Title**

LIFE HISTORY OF AQUATIC ORGANISMS

UCEAP Transcript Title

LIFE HIST AQATC ORG

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

This course covers the biology and ecology of aquatic organisms, with an emphasis on life history theory. The focus in the course lies with animal species, especially those which are important for fisheries, aquaculture, and nature conservation. A wide array of subjects is treated, from the organism (reproduction, feeding, homeostasis, migration, habitat use), the population (population ecology) and the community level (fish communities), as well as a large variety of aquatic systems and diverse organism groups.

Evolutionary mechanisms can explain how organisms have adapted to certain environmental circumstances, but also that not all structures and behaviors are necessarily adaptive, or the best possible solution. From the perspective of the life history of organisms there are three concepts that are leading in this course: 1) adaptation, which is a phenotypic change in a species, caused by environmental pressures, leading towards better fitness; 2) constraint, which means that adaptations and patterns of traits in a species are restricted by the phylogeny (evolutionary history) of the species; and 3) trade-off, which is an (evolutionary) compromise in the structure, physiology, or behavior of a species. Trade-offs occur when the development of several traits is coupled, prohibiting the independent optimization of all these traits.

Language(s) of Instruction

English

Host Institution Course Number

AFI-31306

Host Institution Course Title

LIFE HISTORY OF AQUATIC ORGANISMS

Host Institution Campus

Aquaculture and Marine Resource Management

Host Institution Faculty

Host Institution Degree

Host Institution Department

