

Title of the module: Introduction to Aquaculture

Reference number of the module: 001-2-2015

BGU Credits: 3

ECTS credits: ??

Academic year:

Semester: 1st

Hours of instruction: 2 weekly hours

Location of instruction: Zoom; BGU
University

Language of instruction: English

Cycle: 1st year of M.Sc program.

Position: Obligatory for Aquaculture
students, elective for other students in
the BIDR.

Field of Education: Aquaculture.

Responsible department: The French-
Associates Institute for Dryland
Agriculture and Biotechnology

General prerequisites: Basic Biology,
Chemistry, Microbiology (Animal
physiology is an advantage)

Grading scale: Percentage

Module's Description:

As the demand to aquaculture products are rising while world fishers is in decline, aquaculture has been a fast growing industry in the last few decades and is yet to expand. In the present course practical aspects and theoretical background of major topics in fish culture, will be studied. Production of food and ornamental fish will be addressed. This is an introductory course that is geared for students with interest in aquaculture.

Aims of the module: To provide background on main topics related to fish production by aquaculture.

Objectives of the module: To provide broad information on major topics in aquaculture as essential background for further research in the field, or practical work in aquaculture production.

Learning outcomes of the module: On successful completion of the module, the student should be able to:

1. Understand the significance of fish production in aquaculture, including environmental and food security-related aspects.
2. Understand physiological requirements of different fish species.
3. Know the water quality parameters and their interaction with a range of culture conditions.
4. Evaluate the range of factors affecting fish production in aquaculture.

Attendance regulation: Students are expected to attend the class (at least 80% of the lectures).

Teaching arrangement and method of instruction: Frontal lectures and class discussion.

Lecturer: Dina Zilberg and Amit

Gross

Contact details:

Office phone: 972-50-3699852

Email: dzilberg@bgu.ac.il

Office hours: In coordination with
the lecturers.

Module evaluation: at the end of the semester the students will evaluate the module according to the university's evaluation process, in order to draw conclusions, and for the university's internal needs.

Confirmation: the syllabus was confirmed by the faculty academic advisory committee to be valid on

XXX (academic year)

Last update: January 2021

Assessment:

1. Fina exam

100 %

Work and assignments: An assignment in water quality will be given 1-2 weeks before the end of the class, to practice calculations.

Time required for individual work: about 2 hours per week

Module Content\ schedule and outlines:

The subjects studied will include the following:

- Introduction to world aquaculture
- Fish anatomy and physiology
- Fish nutrition
- Aquaculture technologies
- Water quality in aquaculture
- Environmental concerns
- Fish diseases and health maintenance in aquaculture

Required reading:

FAO the State of World Fisheries and Aquaculture 2020

<http://www.fao.org/3/ca9229en/ca9229en.pdf>

Boys C.E. 1998. Water Quality for Aquaculture booklet (will be provided)

Additional literature:

Evans D. H. 1998. Th Physiology of Fishes

Halver J.E. and Hardy R.W. 2002. Fish Nutrition