BIOR67, Biology: Fisheries Ecology, 15 credits

Biologi: Fiskeriekologi, 15 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2011-01-25 to be valid from 2011-01-25, spring semester 2011.

General Information

The course is an elective course for advanced studies for a Bachelor of Science or Master's degree (120 credits) in biology.

Language of instruction: English and Swedish
When necessary, the course is given in English.

Main field of studies	Depth of study relative to the degree requirements
Biology	A1F, Second cycle, has second-cycle course/s as entry requirements

Learning outcomes

The aim of the course is that students should have acquired the following knowledge and skills on completion of the course:

Knowledge and understanding

On completion of the course, the student should be able to:

- account for methodology in sampling of fish and crustaceans
- account for different methods and strategies to handle or harvest aquatic organisms

Skills and abilities

On completion of the course, the student should be able to:

- compile and present data orally and in writing
- estimate the size and structure of fish stocks
- carry out dynamic simulations of fish populations or fish communities

Judgement and approach

On completion of the course, the student should:

- from population analyses be able to suggest management recommendations for a long-term sustainable use of aquatic resources
- have the ability to critically discuss social, economic and biological considerations involved when determining fishing quota

Course content

- Equipment and methods for fishing, its selectivity, and direct and indirect consequences for aquatic populations and habitats.
- Statistical methods to estimate fish stocks and handle uncertainty.
- Calculation of relationships between number and recruitment.
- Population dynamic evaluations of systems with different complexity, from unstructured single-species systems to structured populations and multi-species systems.
- Direct and indirect effects of different harvest- and management strategies.
- The socio- and bioeconomical importance of fisheries.
- Calculation, simulation, and modelling using computers.

Projects and exercises are carried out during the course. Training in oral and written communication is included in the course.

Course design

The teaching consists of lectures, field exercises, seminars, group work, and projects. Participation in field exercises, seminars, group work, and projects, and thereby other integrated teaching, is compulsory.

Assessment

The examination consists of written assignments and of presented projects.

For students who have not passed the regular examination, an additional occasion in close connection to this is offered.

Subcourses that are part of this course can be found in an appendix at the end of this document.

This is a translation of the course
syllabus approved in Swedish

Grades

Marking scale: Fail, Pass, Pass with distinction.
To pass the entire course, passed written assignments, passed project report, and participation in all compulsory parts are required.

The final grade is decided through a joining of the results of the parts that are included in the examination.

Entry requirements

For admission to the course English B is required, and 105 credits of studies in natural sciences including knowledge equivalent to BIOC02 Ecology 15 credits, and BIOR65 Marine Ecology 15 credits, or BIOR17 Limnology 15 credits, or BIOR44 Limnology and Water Management 15 credits.

Further information

The course may not be included in a higher degree together with BIO581/BIO652/BIOR27 Fishery Ecology 15 credits.

Subcourses in BIOR67, Biology: Fisheries Ecology

Applies from H13

1111 Theory, 3,0 hp
       Grading scale: Fail, Pass
1112 Assignments, 9,0 hp
       Grading scale: Fail, Pass, Pass with distinction
1113 Exercises, 3,0 hp
       Grading scale: Fail, Pass

Applies from H10

1101 Biology: Fisheries Ecology, 15,0 hp
       Grading scale: Fail, Pass, Pass with distinction