Principles of Fisheries Science

Application code = SLU-40124
Course code = BI1270
Course period = 20170322 – 20170604

Syllabus

BI1270 Principles of Fisheries Science, 15.0 credits

Principier för fiskerivetenskap

Syllabus approved: 2015-12-16 (from vt 2016)

Versions: 1. SS 2016 –

Subjects: Biology/Environmental science

Education cycle: Advanced

Advanced study in the main field: Avancerad nivå, har endast kurs/er på grundnivå som förkunskapskrav (A1N)

Marking scale: 5:Pass with Distinction, 4:Pass with Credit, 3:Pass, U:Fail
The requirements for attaining different grades are described in the course assessment criteria which are contained in a supplement to the course syllabus. Current information on assessment criteria shall be made available at the start of the course.

Prerequisites:
Equivalent to 120 credits including 60 credits in one of the following subjects: Biology, Agricultural Science, Soil Science, Geo Science, Environmental Science, Forest Science, or Technology.
Knowledge corresponding to at least 20 credits in Biology, including 10 credits in Ecology. English language proficiency demonstrated as English 6 (Swedish secondary school) or equivalent.

Objective:
The course aims at training the students in the principles of fisheries science building on the core idea of a ’cycle’ which starts from sustainable management to identify knowledge needs and bring back to advice and ecological evaluation of management actions. After completing the course, the students should be able to:
1. Describe aspects of fish biology and fish life history traits relevant for fish population dynamics
2. Explain the main ecological responses of fish populations to environmental and climate variability
3. Describe direct and indirect impacts of fisheries on fish populations and exploited food-webs
4. Apply and relate the main phases of the assessment of aquatic resources (ie, data collection, analysis and scientific advice) to the management of sustainable fisheries

**Content:**
The course has two primary objectives: to teach fisheries science, from the study of fish life history traits to the assessment of fish stocks, and to illuminate their links to the scientific advice for the management of sustainable fisheries. The course is structured in seven modules: i) introduction to fisheries management processes, ii) biological units for conservation and management, iii) fish life history traits and collection of biological data, iv) targeting, selectivity and fisheries behaviour, v) ecosystem dynamics, biodiversity and fishery oceanography, vi) stock assessment methods and advice for management, (vii) ecosystem-based advice for the management of fisheries and aquatic ecosystems.

**Implementation:**

**Requirements for examination:**
Complete and approved project work and assignments. Active participation in at least 80% of the compulsory laboratory work.

**Additional information:**
- A student who has been admitted to and registered on a course is entitled to receive teaching and/or supervision only for the course date he/she was admitted to.
- A student who for special reasons is unable to participate in compulsory elements, is entitled an opportunity to recover those elements during a course given at a later date. More information is available in the regulations for education.

**Responsible department:**
Department of Aquatic Resources