

P000174, Scientific survey methods – on-board R/V Svea, 2026 , 1.5 Hp

Kursplan

Utbildningsnivå:

Forskarnivå

Språk:

Svenska

Behörighetskrav:

Accepted for MSc or PhD studies

Mål:

1. The student should be able to describe key methods that are today used in marine ecosystem research and environmental assessment.
2. The student shall be able to demonstrate detailed knowledge in one out of two following specific methods for marine ecosystems studies: (1) Collection and analysis of active hydro-acoustic (echosounder) data, or (2) Collection and analysis of underwater image data for qualitative and quantitative assessment of biodiversity.
3. The student should show an ability to critically examine and discuss pros and cons of specific methods with regards to data quality, environmental impact, feasibility and cost effectiveness.
4. The student should be able to work independently with a specific data collection and data analysis task, and present the results orally.

Innehåll:

Day 1 (Monday). At SLU Aqua Havsfiskelaboratoriet, Lysekil

1. Welcome, presentation of participants
2. The course starts the first day with introducing lectures on the different themes led by the course leaders, taking place as a physical meeting at SLU-Aqua (Lysekil), which entails:
 - a. Introduction to the course
 - b. Ground rules for seminars set by the students, together with the course leaders.
 - c. Introduction to research and facilities at SLU Aqua
 - d. Lecture 1. Hydroacoustics for quantitative fish stock assessment and ecosystem components (fish and zooplankton)
 - e. Lecture 2. Remote video for monitoring of benthic fauna
 - f. The students divides into three groups and prepares for the excursion, set-up of protocols and assignment of tasks

4. Afternoon. Dinner at R/V Svea followed by presentation with crew, and familiarisation (security) to R/V Svea.

Day 2 (Tuesday). Onboard R/V Svea.

Expedition day 1

1. Departure R/V Svea at 06:00 with destination Bratten (offshore Natura 2000 area)
2. Data collection and methods demonstration in the Bratten area.
3. Hydroacoustics using EK80; broadband echosounder.
4. Pelagic trawling for groundtruthing
5. Sampling of zooplankton

Day 3 (Wednesday). Onboard R/V Svea.

Expedition day 2. Demonstration and data collection of:

1. Videosurveys in trawled and protected areas.
2. Deployment of baited remote underwater video (BRUV).
3. Video transects using the UW-TV

Day 4 (Thursday). Onboard R/V Svea.

1. Data analysis, work on written reports and oral presentations.
2. Hand in of written report (deadline 19:00)

Day 5 (Friday). At SLU Aqua Havsfiskelaboratoriet, Lysekil

1. Presentations of individual projects (three groups)
2. Course evaluation
3. End after lunch

Examinationsformer och fordringar för godkänd kurs:

Examination will be based on:

1. Active participation in all onboard demonstrations, data exercises, scoping of projects, actual field work (sampling)
2. Oral and written presentation of project reports (final day)
3. Grades: Pass/ Not pass (G/U) - Examinatorn har, om det finns skäl och är möjligt, rätt att ge en kompletteringsuppgift till den student som inte blivit godkänd på en examination. - Om studenten har ett beslut från SLU om riktat pedagogiskt stöd på grund av funktionsnedsättning, kan examinatorn ge ett anpassat prov eller låta studenten genomföra provet på ett alternativt sätt. - Om denna kursplan läggs ned, ska SLU besluta om övergångsbestämmelser för examination av studenter, som antagits enligt denna kursplan och ännu inte blivit godkända. - För examination av självständigt arbete (examensarbete) gäller dessutom att examinatorn kan tillåta studenten att göra kompletteringar efter inlämningsdatum. Mer information finns i utbildningshandboken.

Ansvarig institution/motsvarande:

Institutionen för akvatiska resurser

Kompletterande uppgifter

Övrig information:

- Rätten att delta i undervisning och/eller handledning gäller endast det kurstillfälle, som studenten blivit antagen till och registrerad på.
- Om det finns särskilda skäl, har studenten rätt att delta i moment som kräver obligatorisk närvaro vid ett senare kurstillfälle. Mer information finns i utbildningshandboken.