

Course description
BB529: Introduction to Biodemography

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Study Board of Science

Teaching language: English
EKA: N100010102
Censorship: Second examiner: Internal
Grading: 7-point grading scale
Offered in: Odense
Offered in: Autumn
Level: Bachelor

STADS ID (UVA): N100010101
ECTS value: 5

Date of Approval: 28-03-2018

Duration: 1 semester

Version: Archive

▼ Comment

04011101 (former UVA) is identical with this course description.

▼ Entry requirements

None

▼ Academic preconditions

Students taking the course are expected to have basic knowledge of evolution.

▼ Aim

The aim of the course is to provide the student with a fundamental understanding of biodemography, which is the study of demographic characteristics, including patterns of birth and death, and how they interact with environmental drivers in animals and plants.

The course builds on the knowledge of evolution and life history gained in courses including BB525, BB531, and BB512 (which runs in parallel). The course gives an academic basis for further studies in population biology, conservation and evolution, for example during bachelor or masters projects or in BB844.

In relation to the competence profile of the degree it is the explicit focus of the course to:

- Enter into academic collaborations and structure personal learning.
- Provide skills in conducting scientific investigations, critically evaluate biological theories and express, evaluate, and solve biological problems.
- Provide knowledge and understanding of scientific theories, analytical methods, and current research topics in biology and how these are employed in biological discussions.

▼ Statement of aims

The learning objectives of the course are that the student demonstrates the ability to:

- explain how demographic data can help assess and manage species in the wild
- construct and interpret a life table
- construct and interpret a matrix population model
- formulate testable hypotheses related to demography
- describe and explain the major demographic theories
- describe and explain broad demographic patterns in several major groups of species including humans

▼ Content

The following main topics are contained in the course:

- the diversity of demographic behavior in animals and plants
- life history evolution
- life tables and matrices
- evolutionary theories of aging
- demographic data collection
- the demography of species conservation and management

▼ Literature

LITERATURE UPLOADED TO BLACKBOARD. See Blackboard for syllabus lists and additional literature references.

▼ Examination regulations

▼ Exam element a)

▼ Timing

Fall

▼ Tests

▼ Group project and an individual written report

▼ EKA

N100010102

▼ Censorship

Second examiner: Internal

▼ Grading

7-point grading scale

▼ Identification

Full name and SDU username

▼ Language

Normally, the same as teaching language

▼ Examination aids

To be announced during the course

▼ ECTS value

5

▼ Additional information

The examination form for re-examination may be different from the exam form at the regular exam.

▼ Indicative number of lessons

44 - hours per semester

▼ Teaching Method

Activities during the study phase:

- Group work addressing a biodemographic question.
- Making a poster presentation.

- Writing reports from laboratory or class exercises
- Reading assigned material

The course is structured with a combination of 1hr lectures, followed by 1hr of exercises, and hands-on tutorials, designed to reinforce the content of the lectures. There is a half-day excursion collecting data on human populations from a local cemetery. Students use this data to construct life tables, which they analyse using methods taught in classroom sessions. Matrix population modeling is taught in a series of hands-on tutorials where students learn how to predict the fates of populations under different environmental conditions. The course ends with a group project where students apply the theory and methods they have learned to address an interesting topic in biodemography. The students present the results of their project work in a conference-style poster session designed to share the knowledge gained among their classmates.

▼ **Teacher responsible**

Name	E-mail	Department
Annette Baudisch	baudisch@biology.sdu.dk	Max-Planck Odense Center

▼ **Timetable**

Show full time table

▼ **Date of Approval**

28-03-2018

▼ **Administrative Unit**

Biologisk Institut

▼ **Recommended course of study**

Profile	Programme	Semester	Period
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