



UNIVERSIDADE FEDERAL DE SANTA CATARINA
CENTRO DE CIÊNCIAS BIOLÓGICAS
DEPARTAMENTO DE ECOLOGIA E ZOOLOGIA
PROGRAMA DE PÓS-GRADUAÇÃO EM ECOLOGIA

Code: ECO 3101000

Course name: Population Ecology

No. of Credits: 4 credits

Total Classroom Hours: 60 hours of theoretical-practical classes

Instructors responsible: Dr. Fábio Daura-Jorge (daurajorge@gmail.com), Dr. Selvino Neckel (selvino.neckel@ufsc.br)

Semester/Year: 01/2022.

Period: Three concentrated modules: 17 to 20/04, 22 to 23/04 and 02/05.

Classes schedule: 08:00 a.m. to 12:00 noon and 2:00 p.m. to 6:00 p.m. (see detailed schedule)

Number of students: 20 (special students are accepted as long as they are already enrolled in a graduate program)

Place of the classes and communication systems: The face-to-face activities will take place in the classroom but can be alternated with online remote activities. The field activities on April 22 and 23 will be held in Orleans and Laguna, respectively. Asynchronous communication can be done through messages sent via Moodle. Moodle's chat and forum can also be used for communication.

Student attendance: In person and online, by appointment with professors

Prerequisites: None

Syllabus: Evolutionary and systemic approaches in ecology. Main theories and models in population ecology. Distribution and abundance. Demography. Population growth and regulation. Population interactions. Ecological theories and biological conservation.

Teaching methodology:

The course will be carried out in a concentrated way in three modules, with classroom and field classes, synchronous and asynchronous activities will also be used and Moodle will be used as a support environment for teaching and learning and other online technological resources. The teachers will be responsible for preparing and making available the material, organizing the AVEA (Virtual Environment) and the assessment activities. Questions can be discussed via email or in the discussion forums. Attendance and participation in the activities and access to the posted weekly activities will also be used to count student attendance.

Evaluation method:

Assignment submission and participation in activities; seminars in pairs (review submission, presentation, and participation in discussion forums).

Legislation:

Is forbidden to record, photograph or copy the lessons made available on Moodle. Unauthorized use of original material taken from the classes constitutes counterfeiting - violation of copyright - according to Law 9610/98 - Copyright Law.

Program Content and Timeline:

Content and instructors	Date	Time
Presentation, introductory lesson, text discussion and distribution of seminars (Fábio e Selvino)	17/04	14-16h
Exponential and logistic Growth (Fábio)	18/04	8-12h
Competition and predation dynamics (Fábio)	18/04	14-18h
Estimation of Population parameter (Fábio)	19/04	8-12h
Population viability analysis(Fábio)	19/04	14-18h
Structured Populations (Selvino)	20/04	8-12h
Metapopulations and field work preparation (Selvino)	20/04	14-18h
Field work classes in Orleans - PAESF (Selvino)	22/04	Full time
Field work classes in Laguna (Fabio)	23/04	Full time
Seminars presentation (Fábio e Selvino)	02/05	8-12hs
Seminars presentation (Fábio e Selvino)	02/05	14-18h

Bibliografia

According to UFSC Normative Resolution of July 21, 2020 Art.14, §2o, The main bibliography of the disciplines should be thought from the digital collection available in the University Library, as a way to ensure access to students, or, in case of unavailability in those means, teachers should provide digital versions of the materials required at the time of presentation of the activity projects to departments and course colleges

Bibliografia Principal:

Articles on Population Ecology accessed via Portal Periódicos CAPES

Bibliografia adicional:

- BEGON, M. & MORTIMER, M. 1990. Population ecology: A unified study of animals and plants. 2nd ed., Blackwell Scientific Publications, Oxford.
- GOTELLI, N.J. 2007. Ecologia. Londrina: editora Planta
- HANSKI, I. A. & Gilpin, M. E. 1997. Metapopulation biology: ecology, genetics, and evolution. Academic Press, San Diego-London.
- KREBS, C.J. 1989. Ecological methodology. Harper Collins Publishers New York.
- LUDWIG, J.A. & REYNOLDS, J.F. 1988. Statistical ecology: A primer on method and computing. John Wiley & Sons, New York.
- ROCKWOOD, L. L. 2006. Introduction to population ecology Malden: Blackwell