Zoo Biology

Programme course

7.5 credits

Djurparksbiologi

NBID60

Valid from: 2017 Spring semester

Determined by
Board of Studies for Chemistry, Biology and Biotechnology

Date determined
2017-01-25

Main field of study
Biology

Course level
Second cycle

Advancement level
A1X

Course offered for
- Applied Ethology and Animal Biology, Master's programme

Specific information
The course is not available for exchange students

Entry requirements
Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Prerequisites
120 ECTS including 90 ECTS in Biology.

Intended learning outcomes

This course aims at giving the students an insight in and understanding of ex situ conservation, and its relation to in situ conservation. After the course, the students should

- Know the importance of education, marketing and PR in conservation
- Be able to understand and communicate the value and importance of ex situ conservation in the global conservation efforts. •Be able to communicate, discuss and critically assess ethical and animal welfare factors in the field of ex situ conservation •Be able to apply population genetics theories in practical exercises in ex situ conservation •Know the basics of ex situ reproduction techniques •Be able to initiate and maintain studbooks, including the collection of new and old data from animal owners, international and national studbooks and other sources.
- Be able to analyze studbook data and, using deterministic as well as stochastic modeling, set up short and long term goals for an ex situ population, taking species specific factors, catastrophes, inbreeding depression, import/export, demography, etc., into consideration
- Know, understand and critically assess the use of assisted reproductive techniques in ex situ and in situ conservation

Course content

The organization of ex situ conservation; Stakeholders in ex situ conservation; The genetics of ex situ population management; Tools for ex situ population management; Ex situ conservation in practice: actors, space limitations, transports, husbandry, disease control, ethological issues; Case studies: selected EEPs, release programmes; Zoo involvement in in situ research and conservation projects; Politics and economics in ex situ conservation; National, EU and other international legislation; Public education and affecting public opinion; Ethics and welfare issues.

Teaching and working methods

The course consists of: (i) Formal lectures, (ii) Seminars on subjects dealt with in selected scientific papers and zoo publications, (iii) Lab exercises at Kolmården with ex situ population management computer tools, (iv) Debates on various polarized topics relevant for ex situ population management, such as wild capture, release and rehabilitation programmes, surplus vs contraception, where students will be assigned the task to present and defend a given view in a “public” hearing, and (v) Case studies of assigned ex situ conservation problems, presented as written reports and oral presentations.

Examination

UPG1	Written and oral presentations	1.5 credits	U, G
PRA1	Active participation in all seminars, labs and debates	6 credits	U, G

Grades given in the course are Fail or Pass

Grades

Two-grade scale, U, G

Department

Institutionen för fysik, kemi och biologi

Director of Studies or equivalent

Agneta Johansson

Examiner

Mats Amundin

Course website and other links

Education components

Preliminary scheduled hours: 112 h
Recommended self-study hours: 88 h

Course literature

EAZA Yearbook (CD-ROM, utdelas), World Zoo and Aquaria Conservation Strategy (pdf-format, utdelas) Population management. Förvaltare som detektiver (Princée 1998, tillgänglig i Kolmården); Genetic management of small animal populations in zoos and wildlife reserves (Princée 1998, tillgänglig i Kolmården). Managing zoo populations: compiling and analysing studbook data. Edited by J. Wilcken and C. Lees. ARAZPA, EAZA, FZGGBI (tillgänglig I Kolmården)

Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://styrdokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.