Zoology and Evolutionary Biology

duration: 8 weeks; 15 credit points

time slot: first half of spring term; 3rd year

language: English

recommended lectures: Bau und Vielfalt der Tiere, Evolutionsbiologie

This course provides theoretical and practical experience in zoology, evolutionary biology and related fields. A major part of the course consists of planning and carrying out a research project. Along this line, themes such as development and writing of a research project, scientific writing, scientific presentation and discussion of current research topics are introduced. The course topics and the projects are representative of the ongoing research in the zoology/evolutionary biology groups in Basel.

The practical part of the course lasts six weeks (there is compulsory attendance). Thereafter, there are two weeks for exam preparations. The final grade is determined by the exam and the practical work.

Selected topics of the course are:

- Animal body plans
- Animal development and developmental genetics
- Organismal evolution
- Molecular evolution
- Experimental zoology

The main emphasis of the course is practical work, for example in:

- Anatomy and histology
- Microscopy, image analysis and morphometrics
- DNA-and RNA sequencing
- Phylogenetics and population genetics
- Experimental design
- Data analysis

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