Study Plan

Compulsory	
Macro- and Microevolutionary Analysis	6 CP
Essentials of Evolutionary Biology	6 CP
Essentials of Ecology	6 CP
Teaching Skills	6 CP
Advanced Biometry	6 CP
Project Conceptualization	6 CP
Master Thesis	30 CP
Elective	
Modules in Evolution and Ecology e.g. Behavioural Ecology, Entomology, Biomimetics, Ecological modelling, Ecomorphology, Ecotoxicology, Electron Microscopy, Histology, Evolution in Plant Populations, Limnology, Marine Biology, Nature Conservation, Plant Ecology, Quantitative Genetics, Visual Ecology **Field Courses and Excursions** e.g. Swabian Alp, Federsee, Alps, Lapland, North Sea, Mediterranean Sea, Red Sea, Indonesia, Brazil	24 CP
Modules in Biology	18 CP
Modules from other Disciplines	12 CP
Total credits	**120 CP**

CP: ECTS credit points

Biology@Tübingen

The Department of Biology

Germany's first faculty of natural sciences was founded in Tübingen in 1863. Today, its Department of Biology has grown into one of the strongest research departments in Germany covering evolution and ecology, microbiology and infection biology, neurobiology, molecular plant biology, and molecular cell biology and immunology. We cooperate closely with the Faculty of Medicine and the three local Max Planck Institutes.

The University of Tübingen

Innovative. Interdisciplinary. International. Since 1477. These have been the University of Tübingen's guiding principles in research and teaching ever since it was founded. With this long tradition, the University of Tübingen is one of the most respected universities in Germany. Recently, its institutional strategy was successfully selected for funding in the Excellence Initiative sponsored by the German federal and state governments, making Tübingen one of Germany's eleven universities distinguished with that title of excellence. Tübingen has also proven its status as a leading research university in many national and international competitions – in key rankings Tübingen is listed among the best universities for the Humanities and Social Sciences as well as for Science and Medicine.

Academic Advisory Service: Dr. Matthias Stoll
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EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN

Evolution and Ecology

Master of Science

Mathematisch-Naturwissenschaftliche Fakultät

Study Profile

The Master's Program in Evolution and Ecology offers training in the study of organisms and how they deal with a rapidly changing world.

Our research and teaching aims at understanding the causes and consequences of biological change over time and space. We have a strong conceptual background in organismal field biology and test our working hypotheses using observations and experiments under natural and semi-natural conditions. This also requires a range of laboratory and theoretical approaches. Consequently, our MSc students often change between their rubber boots and a lab coat in the course of their project.

The curriculum teaches the skills enabling graduates to make informed contributions to a sustainable future. Graduates are qualified for a PhD in our research school EVEREST or similar international research institutions, for jobs in environmental impact evaluation, conservation policy, experimental design and statistics, ecotoxicology, bionics, and scientific collections.

Research Questions

How do diverse communities cope with change?
Find out whether biodiversity makes populations more resilient to climate change or species invasion.

How do I optimize an experiment?
Become confident in planning experiments and using statistics across systems.

How can modelling support empirical results?
Acquire the skills to model organismal interactions, trait performance or conservation policy.

Which landscapes are worth preserving?
Integrate data from population genetics, field censuses, remote sensing and public databases.

What is the evolvability of a given trait?
Apply quantitative genetics to assess how complex traits respond to selection and evolution.

How do micropollutants affect organisms?
Perform eco-physiological tests to assess the effects of environmental pollutants on animals.

How do organisms adapt phenotypically?
Test how organisms respond to novel challenges through modified behaviour and resource allocation.

Admission requirements

To enroll, a B. Sc. in Biology with a German grade of 2.5 or better (or international equivalent), fluency in English (level B2) and minimal proficiency in German (level B1) is required.

Further information:

Department of Biology
uni-tuebingen.de/en/8411

Institute of Evolution and Ecology (EvE)
uni-tuebingen.de/en/441

M. Sc. Evolution and Ecology
uni-tuebingen.de/en/109882

Enrollment
uni-tuebingen.de/en/study/application-and-enrollment/

EVEREST
www.everest.uni-tuebingen.de

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