Ecology

Master’s degree program

Master of Science: M Sc in Ecology

Curriculum
Within the Basel life science program, the Department of Environmental Sciences and its associates offer this comprehensive Master course for graduates with a background in biology or environmental sciences. The course builds upon the strength and leadership in functional ecology and conservation biology of the associated institutes and covers plant and animal sciences as well as ecosystem sciences. Course modules cover a wide spectrum of plant and animal ecology, ecosystem science and conservation biology, giving students the possibility of studying the interactions among organisms, between organisms and their environment, ecosystem processes and human influences on ecosystem integrity and biological diversity.

Focal area of teaching and research

Why choose an M Sc in Ecology in Basel?
- We offer a broad spectrum of course modules from which you choose your preferred topics.
- We offer attractive field courses in Switzerland and abroad.
- We employ modern laboratory methods, including molecular techniques. In our field work, we integrate plant and animal biology.
- We emphasize theory based and experimental approaches.
- Our research and teaching focuses on attractive biota such as highly diverse meadow systems, mixed forests and alpine ecosystems in Switzerland as well as arctic and tropical biota.
- The biology section of the Department of Environmental Sciences is well known for its excellent research in population biology, biodiversity and conservation as well as global change research and runs unique research facilities such as the highest biological laboratory in the Alps at Furka Pass.

Course structure

Master studies
The Master of Science degree is a postgraduate degree that requires a successfully completed Bachelor’s program. The program awards 90 ECTS credits in total. The Master’s degree program Ecology is a so called “mono-course” consisting of only one core subject. Supervised practical work over the course of one year constitutes the core of the studies.
<table>
<thead>
<tr>
<th>Curriculum master studies</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Master’s degree program Ecology</strong></td>
<td></td>
</tr>
<tr>
<td>Master’s thesis</td>
<td>50</td>
</tr>
<tr>
<td>Master’s examination</td>
<td>10</td>
</tr>
<tr>
<td>In-depth professional studies</td>
<td>30</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90</strong></td>
</tr>
</tbody>
</table>

One ECTS credit point roughly equals 30 hours of study.

**Course language**
The language of instruction is English. The Master’s thesis is to be written in English.

**Exams**
Student performance is assessed through course accompanying certificates, proof of course participation according to study contracts, a Master's thesis and through a Master's examination.

**Language stays / Internships**
No language stays or internships are required.

**Combination of subjects**
The degree programs at the Faculty of Science are generally mono-courses with the possible addition of an in-depth subject and an elective subject. The Master’s degree program Ecology does include an elective subject; however, no other subjects are required.

It is possible to study biology in combination with a second subject from the Faculty of Humanities or the sports sciences (see UNI INFO “Biologie - ausserfakultäres Fach”).

The professional exam for the teaching diploma for secondary schools requires a Master’s degree in one or two subjects (i.e. Biology). At least one of the two subjects has to be successfully completed at a Master’s level. For the second subject at least 90 ECTS credits have to be awarded in consultation with the University of Applied Sciences and Arts Northwestern Switzerland (FHNW) and the teaching commission of the respective subject. The mandatory courses in biology are stated in an information sheet which can be obtained from the Studies Secretariat Biology.

**Start of program**
The program is to be started preferably in fall but can also be started in the spring semester.

**Duration of study**
The Master’s program lasts three to four semesters. There are no restrictions on the duration of study.

**Further degrees**
Teaching diploma for secondary schools

The teaching diploma enables teaching within the general school system at the Secondary Level II and is based on the academic degree at Master’s level of a university in one or two subjects. In addition, two semesters of vocational training at the school for teacher education at FHNW have to be completed. The diploma
does not require a Master's degree in a second subject; however, it is advisable due to better career options later after graduation. Details are to be found in UNI INFO «Lehrdiplom für Maturitätsschulen».
Also see: [www.fhnw.ch/ph](http://www.fhnw.ch/ph) > Studium > Diplom Sekundarstufe II

**Doctorate**

A Master of Science in Biology qualifies for a doctorate in biochemistry, biophysics, botany, computational biology, genetics, microbiology, molecular biology, neurobiology, structural biology, cell biology or zoology. Transfaculty doctorates are possible in the fields of epidemiology, history of the sciences, medical-biological research and pharmacology.
The doctoral studies last roughly three years. After the acceptance of the dissertation there follows an oral examination covering the postgraduate studies in the doctoral subject.

**Career opportunities**

After successfully completing their Master’s degree the graduates can study further for a doctoral qualification or follow a profession in various fields of environmental and life sciences. Biology is a subject that covers many disciplines and the career opportunities include research and related activities in the fields of conservation, resource management, sustainable development, medicine, biotechnology and pharmaceutical industries. The practical advantages of the subject are found not only in basic research but also, increasingly, in business, society and politics. Numerous jobs are on offer to biology graduates, within the university and also in private industry, government service, schools and organizations, be it as researchers, communicators, teachers or advisors. For these reasons, biology can rightly be considered as this century's key science.

**Admission**

**Master studies**

The following degree allows for direct admission to the Master's degree program Ecology: Bachelor of Science (BSc) in Biology from the University of Basel.
Other Swiss or foreign degrees from an education institution recognized by the University of Basel require approval by the examination commission of the Faculty of Science.

Binding information under: [http://www.unibas.ch/admission](http://www.unibas.ch/admission)

**Application**

Application under [http://www.unibas.ch/application](http://www.unibas.ch/application); the application fee amounts to CHF 100.-. Application deadline for the fall semester is April 30, for the spring semester the deadline ends November 30.

**Enrollment**

The letter of admission also informs students on the procedure of enrollment. In general, students with a Swiss educational background do not have to be present in person for enrollment.

**Tuition fees**

**Per semester:**

Tuition fees (also for examination semesters) CHF 850.-
Individual costs of living etc. are not included.
**Scholarships and student loans**

Applications have to be sent to the responsible office of the canton in which the parents are eligible to pay tax.

**Mobility**

Semesters abroad are possible and supported by scholarship programs. The mobility programs facilitate the stay at other Swiss universities or foreign universities.

Further Information:
Student Exchange, Petersplatz 1, 4001 Basel, T +41 61 207 30 28, mobility@unibas.ch

**Further information**

**Guidelines and regulations**

- Ordnung für die Bachelor- und Masterstudiengänge an der Philosophisch-Naturwissenschaftlichen Fakultät der Universität Basel vom 05.12.2015
- Ordnung für das Masterstudium Ökologie an der Phil.-Nat. Fakultät der Universität Basel vom 13.02.2007 und Wegleitung vom 24.06.2014
- Merkblatt zur Erlangung der fachwissenschaftlichen Anerkennung für das Lehrdiplom für Maturitätsschulen in Biologie (Lehrpersonen für die Sekundarstufe II) von Mai 2016

www.bio.unibas.ch/reglemente/

**Information about the University of Basel**

- The course directory can be found under: https://www.unibas.ch/en/Studies/Course-Directory.html
- A new edition of the “Basler Studienführer” was published in 2016: www.studienberatung.unibas.ch
- Website: www.unibas.ch

**Student Advice**

Questions regarding the study of Ecology can be discussed with the Study Counselors for the Master Program Ecology.
Contacts

Study Counselors for the Master Program Ecology
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