

# Evolution, Ecology and Systematics

## STUDY INFORMATION

The Master's program Evolution, Ecology and Systematics aims at students with a bachelor's degree in biology and related subjects providing expertise in botany, zoology, ecology, evolution as well as biodiversity. The study programme provides in-depth knowledge of biological systems with a clear focus on current research in organismic and evolutionary biology.

The study is interdisciplinary, so that competencies in ecology, biodiversity (including taxonomic knowledge), evolutionary biology, systematics and phylogenetics as well as collection-based research can be acquired at different organizational levels and for different groups of organisms.

## KEY FACTS

Degree  
Master of Science

Duration  
4 Semesters

Credits/ECTS  
120

Teaching language  
English

Tuition fee  
None

Semester contribution  
€ 272,80

Start of studies  
Winter semester

Application deadline  
1 April until 31 May for the  
following winter semester

Part-time possible  
Yes

Institution  
Faculty of Biological  
Sciences



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### Special features

Our mission is to provide all students with an individual profile based on a well-founded basic education. The students complete the five compulsory modules on Basics in Evolutionary Research, Ecology and Diversity, Species Identification, Experimental Design and Analysis of Biological Data, as well as an Excursion. For the required elective modules, we leave a great scope for individual choices from modules of the Institutes for Zoology and Evolutionary Research, Ecology and Evolution and Biodiversity.

In addition, there are strong links to the German Centre of Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig as well as to the Senckenberg Institut of Plant Form and Function Jena (SIP) and the Max-Planck-Institutes for Biogeochemistry and for Chemical Ecology located in Jena.

### Career opportunities

Our graduates will be able to carry out research-oriented activities at universities, non-university research institutions, museums, public authorities, associations or the private sector.

Our graduates acquire the communicative skills required to present scientific results to the public and gain international experience through the possibility of a semester abroad.

In particular, the Master's program qualifies for scientific careers and is the prerequisite for a postgraduate doctoral studies in Zoology, Botany, Systematics, Ecology, Evolutionary Biology and Functional Biodiversity Research at the University of Jena as well as in Germany and abroad. The education qualifies for scientific work in all highly topical professional fields of the organismic biology.



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### Eligibility—or what we expect of you

The study program aims at students of all biological disciplines, but has a strong focus on organismic biology. Half of the study program is devoted to elective modules which allows individualised specialisations on specific research areas in zoology, botany, ecology, microbiology, populations genetics, evolution and biodiversity. The other half of the study program comprises compulsory modules that all students have to take.

#### Because of that, students should fulfil some minimum requirements for a successful application:

- a basic training in zoology, botany and ecology
- basic knowledge of concepts in evolution, biodiversity and genetics
- experience with taxonomic species determination of animals and/or plants
- experience with statistical data analysis, preferably with R

#### Regarding soft skills, we expect the following:

- advanced use of English (writing, reading, speaking, listening)
- experience with independent search and reading of primary literature
- oral presentation skills

### Admission requirements

#### Undergraduate degree or equivalent

For this master's programme you need a subject-specific undergraduate degree (minimum 6 semesters/180 ECTS-Credits) or an equivalent degree.

The overall grade (CGPA) of the bachelor's degree must be GOOD or better (German and US systems: 2.7).

Applicants from different fields of study and applicants whose final overall grade is less than 2.7 (according to the German grading system) but who meet all other admission requirements may be admitted to the study programme if their application illustrates particular aptitude for the master's programme Evolution, Ecology and Systematics. To prove particular aptitude, a letter of motivation, a curriculum vitae, proof of previous practical experiences, and the practical orientation of the training must be admitted with the application, and professional and personal commitment must be shown.

#### Language requirements

This master's programme requires the following language proficiency: good proficiency in English (a direct proof by certificate is not compulsory).





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FRIEDRICH-SCHILLER-  
UNIVERSITÄT  
JENA

## Application documents

**CV:** Your CV should have a tabular form, containing key information on your school record and academic career.

**Motivation letter:** A motivation letter should not exceed the size of two DIN A4-pages and normally, it should contain information on your motivation for taking up this course of studies. You should elaborate on the following essential questions: Why do you desire taking up this specific course of studies? What are—in your opinion—the main features that this course of studies excels in? Which features of this course have inspired your application? Why Jena?

**University entrance qualification certificate:** Please upload at the online application system your university entrance certificate/school leaving certificate. Usually, this means the school graduation diploma (German »Abitur«), i.e. the diploma that makes you eligible for studies at an University or other institution for higher education. Be mindful of the fact that here, we do not need any University diploma but a High School diploma!

**Previous university degrees earned:** All previous University degrees (Bachelor of Arts, Bachelor of Science, etc.) if available before the application deadline—if not, please make a note of the anticipated date of issue of your degree certificate. Please upload your University degree or the most actual, detailed transcript of records/ mark sheet of all semesters available to you, should you not

hold your degree certificate at the time of application. The main document is the degree/ transcript based on which you apply for the master programme.

**Corresponding transcripts:** Detailed transcript of records/ mark sheet of your first, subject-specific University degree, with which you apply for the master's programme (minimum requirement is the transcript/mark sheet up to the semester before the last). This transcript **MUST** contain an overall cumulative grade point average or average mark.

You need at least 120 credits (ECTS) by the time you apply.

**Proof of relevant work experience:** Should you have obtained subject-specific work experience, you can upload corresponding certificates in order to support your application.

**Proof of subject-specific practical experience:** Should you have obtained subject-specific practical experience (e.g. by internships etc.), you can upload corresponding certificates in order to support your application.

## Additional application documents for international students

### Translation of foreign/external application documents

Every mandatory application document from foreign/external countries must also be available in either English OR German translation. Such a translation has to be conducted by officially acknowledged/sworn translators or translation offices.

### Proof of grading system

External/foreign degree certificates/ transcripts of records must contain information on the grading system (= description of the maximum grade possible and the minimum passing grade) used at the respective University.

### Certificate APS

Applicants with degrees from India, Vietnam or China must submit the original APS-certificate issued by the German Embassy.

### University entrance exam

Applicants from the following countries must submit a certificate of their university entrance examination/college entrance examination:

- Iran (College entrance examination certificate or certificate of pre-university course/year)
- Republic of Korea/South Korea: SAT (Scholastic Ability Test)
- People's Republic of China: College entrance examination certificate (»Gaokao«)

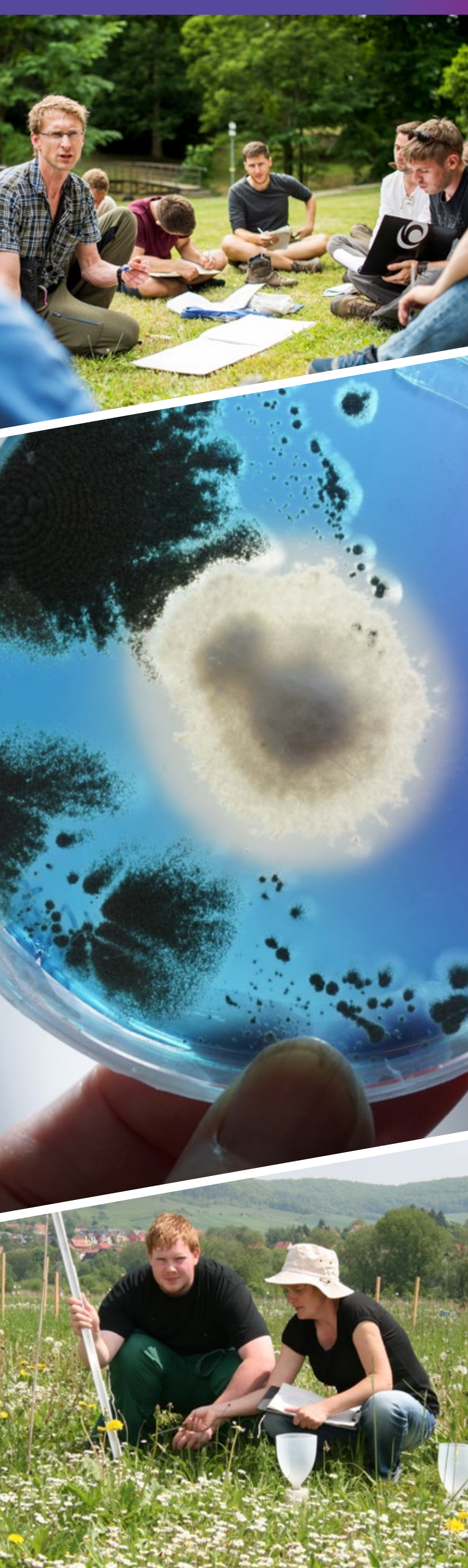
### CONTACT

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Faculty of Biological Sciences  
Institute of Ecology and  
Evolution  
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D-07743 Jena

Course website  
[bio.uni-jena.de/en/mees](http://bio.uni-jena.de/en/mees)





## UNIVERSITY LOCATION

### The History of the University

In 2008, Friedrich Schiller University Jena celebrated its 450th anniversary. Founded as an academic school by Prince-Elector Johann Friedrich the Magnanimous of Saxony in 1548, it was raised to the status of university by Emperor Ferdinand I in 1557 and opened as such in **1558**.

Here are some interesting facts: Gottfried Wilhelm Leibniz was a student of the scientist Erhard Weigel in Jena 1663. **Friedrich Schiller** was a professor of history at Friedrich Schiller University Jena between 1789 and 1799. At the same time **Johann Wolfgang von Goethe**, the then State Minister of Saxe-Weimar, supported Friedrich-Schiller-Universität Jena extraordinarily. He spent a lot of time in Jena.

Jena was the centre of classical German philosophy, hosting among others: Johann Gottlob Fichte (1794–1799), Friedrich-Wilhelm Joseph Schelling (from 1798), Georg Wilhelm Friedrich Hegel (1805–1807). Numerous renowned German poets, writers and dramatists studied at Friedrich Schiller University Jena (Johann Christian Günther, Friedrich Gottlob Klopstock, Matthias Claudius, Friedrich Hölderlin, Novalis, Julius Mosen, Clemens Brentano, Gerhard Hauptmann, Kurt Tucholsky).

World-famous pedagogues such as Christian Gotthilf Salzmann, Friedrich Wilhelm August Fröbel, **Peter Petersen (Jenaplan-Schule)** studied or taught in Jena. Johann Wolfgang Doeberiner (Professor of Chemistry, 1810–1849) made the first

steps to order the chemical elements by means of his »triads«. **Ernst Haeckel** (Professor of Zoology, 1834–1909) was the most distinguished representative of evolution theory in Germany and coined the term »Oecologie« (ecology).

The physicist Hans Busch (Professor of Applied Physics, 1922–1947) worked on electron optics and developed the basic principles of electron microscopy. The Jena psychiatrist and neurologist Hans Berger (Professor, 1906–1938) developed the diagnostic method of electroencephalography (EEG).

The optician and mechanic **Carl Zeiss**, the physicist **Ernst Abbe** and the glass chemist **Otto Schott** formed an impressive collaboration at the end of the 19th century, a unique example of cooperation between science and industry that has been shaping the profile of scientific research at Friedrich Schiller University Jena to this day.

#### UNI JENA IN SOCIAL MEDIA

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# UNIVERSITY LOCATION

## The City

The city of Jena is brought to life by a fascinating combination of a historic, intellectual past, a delightful countryside, and innovative international research and industry, as well as a youthful student life. This rich variety creates a unique backdrop that gives this small lively city its special charm.

### Jena's academic and intellectual development

Jena has been one of the most famous places to study in Germany since the founding of its university, the »Alma Mater Jenensis«, in 1558. At the end of the eighteenth century, thanks to its close connection to the nearby royal seat at Weimar and support by the poet and minister Goethe, the city on the Saale went through its classical period, during which it developed into the most important intellectual centre in Germany.

### Jena's economic development

In the second half of the nineteenth century, Jena developed into an industrial city thanks to the work of the three scientific and economic giants Carl Zeiss, Otto Schott and Ernst Abbe. Their co-operation led to the creation of the world-famous Zeiss company and the Jena »Schott und Genossen« glassworks. This effective cooperation between research institutes and economic enterprises has proved its value all the way up to the present day and justifies Jena's exceptional reputation as a high-technology location.

### Jena's modern cultural scene

In addition to museums of technology, science, literature, and art history, there is also an attractive modern cultural scene in Jena. For example, the annual »Kulturarena« open-air festival attracts international stars to Jena and there are plenty of individual, top-class events among the wide range of performances at the Jena Theatre (Theaterhaus), Jena Art Society (Kunstverein), and Jena Philharmonic Orchestra.

### Jena's countryside

The traditional, innovative city is built by the middle reaches of the Saale river. The Saale valley at Jena is shaped by a host of monuments to its cultural history and is connected to many great names from history as well. Along with its many sights, the city, nestled in an almost Mediterranean landscape with limestone hills up to 400 metres high, has a variety of cycle paths and a charming area for rambling.

## ABOUT JENA

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Federal state  
Thuringia

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Altitude  
143 m above sea level

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Population  
> 110 000

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website  
[jena.de](http://jena.de)

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