



Master Evolution, Ecology and Systematics



Institutes involved in MEES

Institute of Biodiversity

- Aquatic Geomicrobiology (Kirsten Küsel)
- Biodiversity Theory (Ulrich Brose, iDiv)
- Ecosystem Services (Aletta Bonn, iDiv)
- Molecular Interaction Ecology (Nicole van Dam)

Institute of Ecology and Evolution with Herbarium Haussknecht and Botanical Garden

- Ecology (Stefan Halle)
- Plant Biodiversity (Christine Römermann)
- Population Ecology (Holger Schielzeth)
- Systematic Botany (Frank Hellwig)

Institute of Zoology and Evolution with Phyletic Museum, Ernst-Haeckel-House & Biology didactics

- Developmental & Evolutionary Biology (Lennart Olsson)
- Human History (Johannes Krause)
- Zoology (Andreas Hejnol)

...and further partner institutions in and around Jena, such as, e.g.,





MEES students

...are highly international
In 2021 and 2022, students came from...

- Austria
- Bulgaria
- Columbia
- France
- Germany
- India
- Italy
- Nigeria
- Pakistan
- Peru
- Portugal
- Russia
- U.S.

Study program

1st study year

Compulsory modules Σ 30 CP

C1 - Basics in Evolutionary Research (5 CP)

C2 - Ecology and Diversity (5 CP)

C3 - Species Identification (10 CP)

C4 - Experimental Design and Analysis of Biological Data (5 CP)

C5 - Excursion EES (5 CP)

2nd study year

Required elective module Σ 30 CP

(incl. wild-card module and interdisciplinary modules)

T1 – Project Module MEES

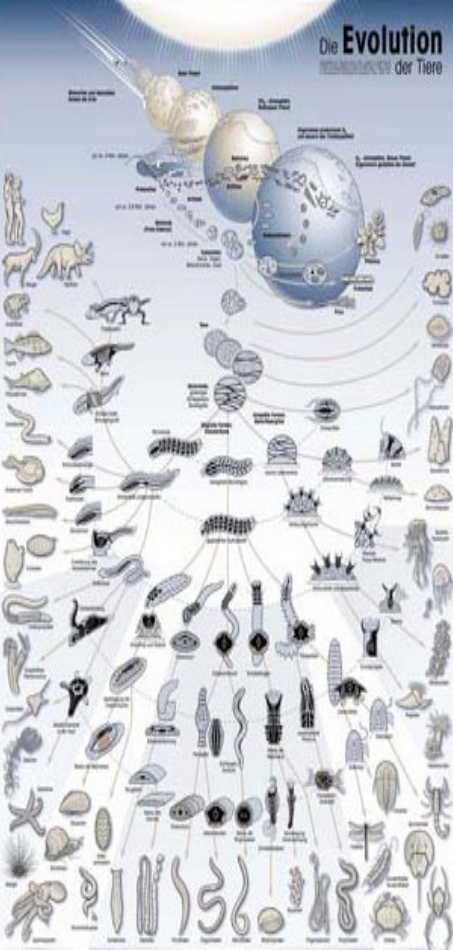
(30 CP)

T2 – Master Thesis MEES

(30 CP)

Winter term

Summer term



Compulsory Module MEES.C1

Basics in Evolutionary Research (5 CP)

Lecture

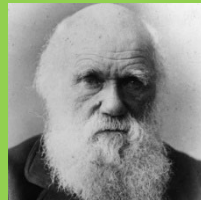
Evolutionary Ecology (1 SWS)

Nothing in biology makes sense except in the light of evolution.”

Theodosius Dobzhansky, 1973

Seminar

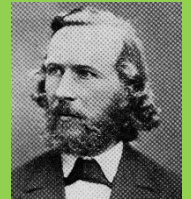
Theory of Evolution (2 SWS)



Charles Darwin

Seminar

Evolutionary Biology (2 SWS)



Ernst Haeckel

Compulsory Module MEEES.C2

Ecology and Diversity (5 CP)

Lecture

**Ecology and Diversity of Habitats
(2 SWS)**



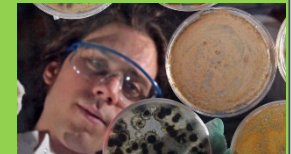
Lecture

**Ecology and Diversity of Populations
(1 SWS)**



Seminar

**From molecular diversity to ecosystem services
(1 SWS)**





Compulsory Module MEES.C3 Species Identification (10 CP)

Exercises

Advanced determination exercises

....on plants (3 SWS)



....on animals (3 SWS)



Practical

Field practice on species knowledge
(2 SWS)



Compulsory Module MEES.C5

Excursion MEES (5 CP)

Examples from last years:

- Provence (France)
- Tenerife
- Spain
- Croatia
- Central Alps
- Georgia
- French Alps
- Lago Trasimeno (Italy)
- ...



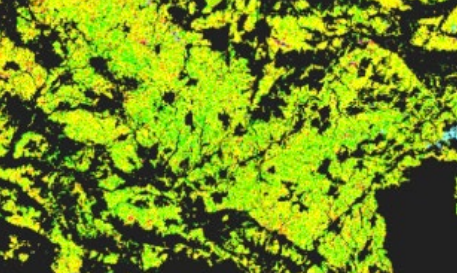
E-Modules (Required elective modules)

(Σ 30 LP)

- E1 - Comparative Evolutionary Developmental Biology
- E2 - Evolution of Insects
- E3 - Morphology
- E4 - Human History
- E5 - Paleobiology of Vertebrates
- E6 - History of Evolutionary History
- E7 - Collections in Biodiversity Research
- E8 - Plant microevolution & population genetics
- E9 - Plant phylogeny/ phylogenetics
- E10 - Cryptogam evolution and diversity
- E11 - Applied Vegetation Ecology
- E12 - Crop plants
- E13 - Functional Biodiversity Research
- E14 - Project module Habitat Description and Nature Conservation

- E15 - Ecological Concepts 1: Current Fields of Ecological Research
- E16 - Ecological Concepts 2: History of Ecological Ideas
- E17 - Evolutionary and Population genetics (Schielzeth)
- E18 - Behavioural Ecology
- E19 - Theoretical Ecology
- E20 - Ecological Networks
- E21 - Biodiversity Metastudies
- E22 - Biodiversity Science-Policy interface
- E23 - Molecular & Chemical Interaction Ecology
- E24 - Microbial Ecology
- E25 - Science Communication
- E26 - Soil Ecology

...and Interdisciplinary Models from other MSc programs
...and WildCard Modules



Flexibility

Wild Card modules & Interdisciplinary modules

Up to two 5 CP- modules according to own wishes!

WildCard Module:

- Examples of courses that might be chosen and freely combined:
 - Climate and environmental change; Stable Isotopes; Trends in Chemical Ecology;...or a meaningful alternative combination of different courses from MEES modules

Interdisciplinary Modules:

- Module from other study programs can be accepted on request!!
- Examples: Soil science; Introduction to Applied Remote Sensing; Introduction to Geoinformatics



Additional modules

- You are free to do more modules than required (> 30 CP)
- note: you have to specify E-modules as additional modules when starting these modules
- also additional modules must be completed!
- can be shown on the M.Sc. certificate with or without marks
- will not go into the final mark of the M.Sc. (i.e., optimization not possible!)

Starting the work on the MSc thesis in the second year

T1 module (30 LP) & T2 module (30 LP)

T1 – Project Module MEES

(30 CP)

- 1) Practical course MEES (100%)
(duration: 6 months)
Work on the MSc thesis.
Completed with 1 hour oral exam
- 2) EES Colloquium
Completed with proof of performance

T2 – Master Thesis MEES

(30 CP)

- Master Thesis MEES (100%)
(duration: 6 months)
Complete data acquisition, start data analyses and writing.
Completed with MSc thesis!

How to find a suitable topic for the MSc thesis?

- 1) Identify the subject on which you want to do your MSc thesis
(One year of your life!! Partly determines the direction you may want to go after the MEES)
- 2) Contact the professors, lecturers, scientists or check their webpages for suggested topics for MSc theses (typically, more topics are available than shown on the webpages)
- 3) Start thinking about your MSc thesis at least three months before the planned start.

..check the webpage of the involved institutes and working groups for most recent topics!



... important information on the German study system

Lecture period:

Winter term: mid October – mid February 2023 (15 weeks)
(with a 1-2 weeks Christmas break)

Summer term: beginning of April – mid July (14 weeks)
(Pentecost week = excursion week)

Time in-between: major excursion, block courses, exams,...
(no holidays except for Christmas break)

1 CP = workload of 30 hours (1 SWS= 15 hours + 15 hours of self-study)

"gaps" = preparation for examinations = self-study

30 CP per semester = workload of at least 60 hours/week [during lecture period]



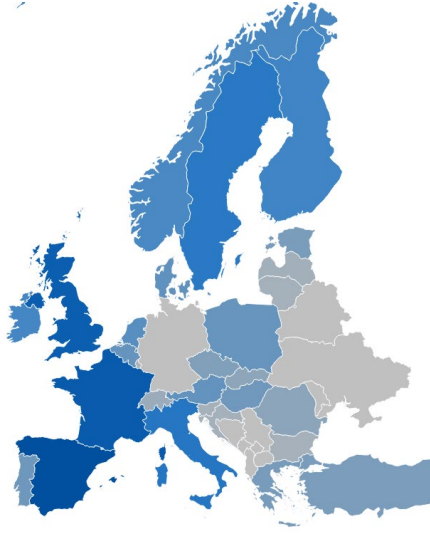
International mobility

Stays abroad as part of the MEES are possible and desirable!



Support: International office of the FSU Jena (e.g. Erasmus) and individual study advice

Erasmus: Time of application is already in the 1st MEES semester!!!



„**Learning Agreement**“ with the MEES coordinator for the possibility of recognition of completed achievements.

German Courses

https://www.uni-jena.de/en/SPZ_German_Application

Dates and online registration



Image: Pixabay / krystianwin

Winter Semester 2022/23

Here you will find information about the winter semester 2022/23.



Image: Pixabay / congerdesign

Summer Semester 2023

Here you will find information about the summer semester 2023.



Image: Pixabay / GeriArt

Intensive Courses

September 2023

In September we offer Intensive Courses at all levels.

contact: Language Centre, deutsch@uni-jena.de

Honours-Programme of the FSU Jena for future researchers

Promotion of talented students

- Participation in research activities
- Preparation for a scientific career
- Joint application by students and supervisors with a small research project

Three components:

- Honours mentoring: individual support
- Honours workshops: key qualifications and interdisciplinary exchange
- Honours funds: financial support (e.g., for travelling)

https://www.uni-jena.de/en/honours_programme



...including MEES students



And after graduation?

- PhD
 - on open project positions
 - a topic of your choice (apply for graduate scholarship of Thuringia, DBU, ...)
- Authorities and environmental agencies
- NGOs
- Planning offices
- Economy
- ...





Master Evolution, Ecology and Systematics

The Master program Ecology, Evolution and Systematics at the Friedrich Schiller University Jena offers high-level scientific education. It covers the full range from molecules to the biodiversity of communities.

<https://www.bio.uni-jena.de/MEES>