Natural and Life Sciences Track: “Biodiversity and Global Change”

General Outline:

Scientists from the Biological and Geological Divisions of Frankfurt Goethe University as well as of Senckenberg Biodiversity and Climate Research Centre aim to understand the causes and dynamics of past and current changes on the globe, focusing on the evolution of Man, the dynamics of large animal populations and also of the many minute organisms, such as algae, fungi or small arthropods found in seas, lakes and soils. What do we learn from their evolution, ecological interactions the importance of the often complex biota in terms of ecosystem functions and services?

The aim of this summer course is to train young scientists in the interdisciplinary approach and skills needed to increase the awareness of fundamental questions about biodiversity and to learn methods to analyze them. Special topics will include fundamentals of evolution and evolutionary trends, macroecology, and the use of microorganisms in the reconstructions of past environments.

The students will be especially trained in the following topics and techniques:

- Evolutionary processes with a special emphasis on the evolution of Mankind
- The influence of Man on the biodiversity in the past and the present
- Macroevolution – the evolutionary change of species as found in fossils and molecular phylogenies
- The frequently neglected role of fungi for our ecosystems and daily life! We will focus on an integrative research approach on diversity, systematics, and applied aspects of the large group of fungi
- How do small organisms help us to reconstruct environments? An introduction into marine biodiversity, paleo-oceanography and paleo-climatology

Lectures, seminars, and practical courses take place in the Biosciences and Geosciences Buildings on the Riedberg Campus. The Coordinator of this year’s Natural and Life Sciences program is Prof. Dr. Bruno Streit, Professor of Ecology and Evolution of Goethe University.
Programme:
- The seminars are held in English (about 50 contact hours)
- **Excursions and study tours** to the German city of Heidelberg and the Rhine region as well as a weekend visit to the French town of Strasbourg and an optional trip to Berlin are also part of the programme. The participants in the Natural and Life Sciences Track will visit the Max Planck Institute for Biophysics.
- The **German language courses** for beginners and more advanced learners take place in small learning groups.

Requirements:
Be a graduate student (Master) or advanced in an undergraduate (Bachelor) programme (at least two years of studies). Subject orientations: biology, geology, environmental sciences, (physical) geography.

Programme fee: 2,100 € (accommodation in dormitory, seminar and cultural programme, the German language courses, all study material, health, liability and accident insurance and the transportation fee within Frankfurt).

Find out more about Frankfurt Summer School on our website: [http://summerschool.uni-frankfurt.de/](http://summerschool.uni-frankfurt.de/)

Deadline for applications: 31 March 2019

Application: [http://summerschool.uni-frankfurt.de/application/](http://summerschool.uni-frankfurt.de/application/)

Contact:
Frankfurt Summer School
Anne Le Duigou Bernig, Project Manager
International Office, Goethe University
summerschool@em.uni-frankfurt.de, Tel: 0049 6979817247