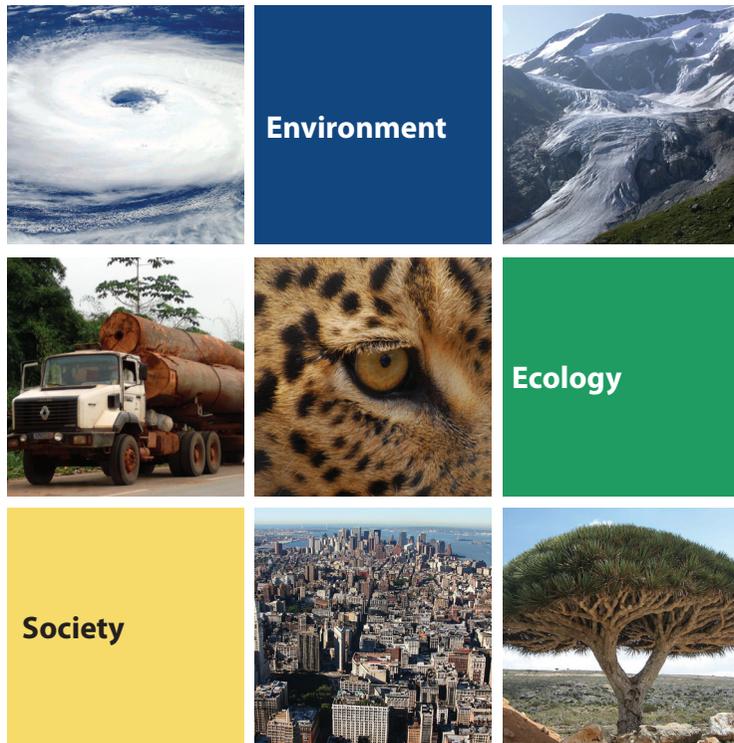




# Global Change Ecology

Graduate Program (M.Sc.) within the Elite Network of Bavaria  
[www.global-change-ecology.de](http://www.global-change-ecology.de)



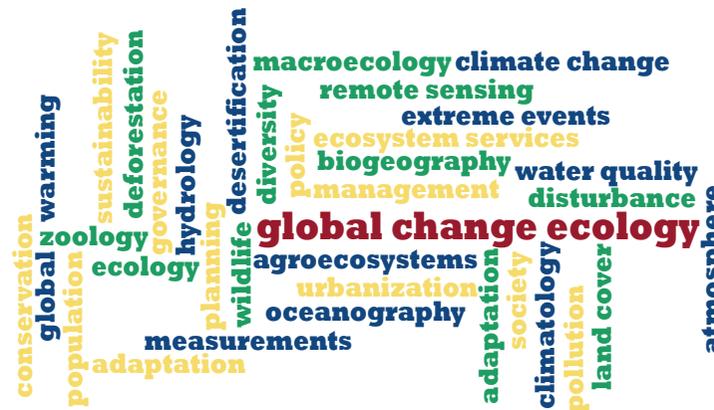
## Scope

The graduate program Global Change Ecology is devoted to understanding and analyzing the most important and consequential environmental concern of the 21st century: Global Change. Using an interdisciplinary approach, the program aims to combine natural science perspectives on global change with approaches of social science disciplines.

The elite study program combines the expertise of the Universities of Bayreuth, Augsburg and Würzburg, with that of Bavarian and international research institutions, as well as economic, administrative and international organizations.

*“The flexibility within the curriculum of Global Change Ecology allowed me to pursue my individual interests and develop my professional specialisation through, among others, summer schools and internships, while also building a shared knowledge base with interdisciplinary fellow students.”*

Daniel K., Global Change Ecology Alumna



## Background

The ecosystems of the earth are exposed to various and rapid alterations of environment, such as the global changes of climate, element cycles, land use and biodiversity.

Risks to ecological services such as the protection against natural hazards, filtration of drinking water, provision of food and other resources can be expected. Resulting consequences may include economic, social and political uncertainty.

*“Solving global ecological problems of the future will only succeed if highly motivated and clever young people devote their energy to this enormous task.”*

Prof. Dr. Carl Beierkuhnlein, Spokesperson

## Structure

The general structure of the program (120 ECTS) brings together natural sciences (70 %) and social sciences (30%).

The obtained degree is a Master of Science. Based on additional research activity, a PhD degree can be obtained.

The courses in the graduate program require a high level of performance. Students are selected via a standardized aptitude assessment procedure that meets the highest international criteria. Bachelor degrees related to all fields of environmental science will provide for acceptance to the program. Finally, a select number of students will be accepted who may profit from excellent infrastructure and direct one-on-one communication with their supervisors.

**Apply by July 15th**

and start in October at the University of Bayreuth

see web for more details:

[www.global-change-ecology.de](http://www.global-change-ecology.de) -> application



# Global Change Ecology

Graduate Program (M.Sc.) within the Elite Network of Bavaria

UNIVERSITY OF BAYREUTH  
UNIVERSITY OF AUGSBURG  
UNIVERSITY OF WÜRZBURG

Elite Network  
of Bavaria



“Studying Global Change Ecology allowed me to meet great, highly motivated people from very different backgrounds - both within and outside the study program!”

Antonia O., Global Change Ecology Student

## Projected Occupations

Global Change Research (Universities, Research Centers)  
National Administration (Federal Agencies, Landesämter)  
Political Consulting (Environmental Policy)  
Economic Consulting (Risk Assessment, Due Diligence)  
International Organizations (UN, EU, NGOs)  
Scientific Management and Coordination

## Partnerships

The program integrates strong international partners in the field of economics (e.g. Munich RE, DLR, World Bank, Nature), research (e.g. UFZ, Smithsonian (SCBI), ZSL, MPI, Jülich), international organisations as well as governmental and non-governmental organisations (e.g. EU, UNESCO, UNEP). Internships at high ranking institutions are mandatory.

Elite Network  
of Bavaria



UNIVERSITY OF BAYREUTH  
UNIVERSITY OF AUGSBURG  
UNIVERSITY OF WÜRZBURG



## Modules & Courses

Course modules are subdivided into A, B, C and M. Hereby, A and B focus on environmental change and ecological change. The C module group addresses the interdisciplinary nature of global change, dealing with the integration of natural and social sciences. M courses aim at teaching methods relevant for other courses. The language of instruction is English. I and S modules represent the unique opportunity to credit internships and science schools as a part of the program.

**A**  
Environment

In this module group, students will have the opportunity to learn about global change. The focal point hereby is placed on the physical and chemical aspects of aquatic and terrestrial ecosystems, the dynamics of climate change, recent and historical developments, land use change as a determining factor for biotic and material changes as well as biogeochemical cycles are of particular interest.

**B**  
Ecology

In the modules of the block ecological change, the ecological effects of global change will be addressed. Among others, the topics include the response of organisms and ecosystems, land use change and human impacts, as well as the impacts on species distribution within the framework of global change and changing environmental conditions.

**C**  
Society

Global environmental changes have, on the one hand, been caused by anthropogenic influences. Simultaneously, society also has to bear the consequences of climate change and ecosystem changes. The module block C deals with the global interplay between societal and ecological changes.

**M**  
Methods

Methods courses are offered in order to deepen knowledge of methodological approaches in various fields, whereby the personal interests of students can be strengthened. The methods courses offered adhere to those applied in current global change research including statistical modeling, time series analysis, spatial analysis tools, environmental economics as well as key soft skills and more.

**I**  
Internships

The study of global change ecology lies not only in course modules, but also offers the opportunity to gain practical experience via internships. Internships are possible within four main areas including economy, research, administration (national or international) and international organizations (including consortia).

**S**  
Schools

Science schools aim at integrating students in current developments in the rapidly changing scientific field of global change research. Intensive external and internal courses allow for students to make direct contact with not only other lecturers and real-world practitioners but peers or other study programs, universities and countries.

