UNIVERSITÄT BAYREUTH

Module Handbook
Master's Programme
Environment,
Climate Change and Health
University of Bayreuth

Content

Module Area	Basics in Environment, Climate Change and Health
Module Title	Climate Change
Module Coordinator	Professor Dr. Buermann (lecture), Professor Dr. Dr. med. habil. Dr. phil. Dr. theol. h. c. Nagel (seminar)
Language	English
Learning outcomes	This module is interdisciplinary. In the lecture, students acquire fundamental knowledge, wherefore global environmental changes can be described by the students. Multifaceted consequences will be reflected in the seminar. Based on this knowledge, students are able to define transformation needs in different sectors and on all levels, whose implementation is necessary for a healthy life under consideration of the planetary boundaries.
Content	• Central concepts and basic principles in climate science • Naturally occurring climate variability • climate change in the past and reconstruction of past climate • circulation dynamics and global circulation models • Main anthropogenic environmental changes • Sensitive parameters and factors of global change • Causes of global changes and human impact on climate change • effects of global changes on flora and fauna, migration and food production
Teaching Formats	lecture (2 hours per week) and accompanying seminars (2 hour per week)
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health, M.Sc. Global Change Ecology (lecture)
Requirements for the Award of ECTS Points	written/ oral exam or report or presentation or term paper
ECTS Points	5: lecture: 2 ECTS; seminar: 3 ECTS
Frequency	winter semester (recommendation: 1st semester)
Workload	Lectures and seminar: 60 h Self-study (incl. assessment) 90 h Total: 150 h
Duration	1 semester

Module Area	Basics in Environment, Climate Change and Health
Module Title	Medicine and Climate Change I
Module Coordinator	Professor Dr. Dr. med. habil. Dr. phil. Dr. theol. h. c. Nagel Dr. Thomas
Language	English
Learning outcomes	The students acquire fundamental knowledge about organ systems, their anatomical localizations, their physiological functions and climate change associated diseases and health-related consequences. In this context, students will develop a deeper understanding of the multiple interrelationships between climate changes and human health.
Content	• Determinants of health • Organ systems: anatomy and physiology • Climate change-associated diseases part I
Teaching Formats	lecture (2 hours per week), accompanying seminar (2 hour per week)
Requirements for Participation	basic knowledge of human anatomy
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health
Requirements for the Award of ECTS Points	written examination (100%)
ECTS Points	5: lecture: 2ECTS, seminar: 3ECTS
Frequency	winter semester (recommendation: 1st semester)
Workload	Lectures and seminar: 60 h Self-study (incl. assessment) 90 h Total: 150 h
Duration	1 semester

Module Area	Basics in Environment, Climate Change and Health
Module Title	Global Change Ecology
Module Coordinator	Professor Dr. Beierkuhnlein, Professorin Dr. Jentsch
Language	English
Learning outcomes	Module aim is to teach about development and distribution of the variety of life on earth. Students learn about the spatial features of organisms and biotic communities on different spatial scales. The role of biodiversity for functioning ecosystem will be discussed along with global change and its impact. The lectures deal with the evolution of variety on earth, prior major extinctions, the significance of the variety of ecosystem functions and current trend. Thereby, recent (experimental) approaches in ecology, resilience and sustainability science will be introduced.
Content	• Biodiversity and genetic diversity • Current developments in biogeography • Overview of recent approaches in (disturbance) ecology, resilience, and sustainability science • Relationship between disturbance, vegetation dynamics and ecosystem functions
Teaching Formats	lecture (4 hours per week) Prof. Beierkuhnlein: 2 SWS Prof. Jentsch: 2 SWS
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health, M.Sc. Global Change Ecology
Requirements for the Award of ECTS Points	written/ oral exam or report or presentation or term paper
ECTS Points	5
Frequency	winter semester (recommendation: 1st semester)
Workload	Lectures 60 h Self-study (incl. assessment) 90 h Total: 150 h
Duration	1 semester

Module Area	Basics in Environment, Climate Change and Health
Module Title	Global Health Policy
Module Coordinator	Junior-Professor Dr. Dorlach
Language	English
Learning outcomes	Students acquire a basic understanding of the similarities and differences of health systems. Based on this knowledge, they are able to analyse current developments in national health systems, to identify reform needs and to evaluate relevant reform proposals
Content	• Global Influences on Health Systems • Health Systems in the Global South • Health Systems in the Global North
Teaching Formats	lecture (2 hours per week)
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health, Global Food, Nutrition and Health
Requirements for the Award of ECTS Points	written exam
ECTS Points	5
Frequency	winter semester (recommendation: 1st semester)
Workload	Lectures: 30 h Self-study (incl. assessment) 120 h Total: 150 h
Duration	1 semester

Module Area	Basics in Environment, Climate Change and Health
Module Title	Ecosystem under Climate Change and Human Impact
Module Coordinator	Dr. Hopp, Professorin Dr. Pausch, Professorin Dr. Lehndorff, Professorin Dr. Nölscher, Professor Dr. Köllner
Language	English
Learning outcomes	The module communicates basics in hydrology, soil, plant and atmospheric science with focus on changes forced by climate and human activities. Climate change and human activity puts pressure on natural resources such as water, soil fertility, and atmospheric quality as well as on ecosystem services. The module focuses on depletion and pollution of resources which are critical for natural ecosystems as well as for agroecosystems and as such for food production and human health.
Content	The lecture focusses on aspects of hydrology (water stores & water quality), soil, plant, and atmospheric science as well as on ecosystem services that are under emerging changes forced by climate and human activities. The seminar allows to deepen understanding in topics related to water, soil, plants or atmosphere with focus on climate change, pollution or land use problems. Field trips give basic practical experience in water supply and agricultural land use.
Teaching Formats	lecture (2 hours per week) accompanying seminar (2 hours per week) and field trips (2x 1 day trips)
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health
Requirements for the Award of ECTS Points	Written exam or report or presentation or term paper
ECTS Points	5
Frequency	winter semester (recommendation: 1st semester)
Workload	Lectures and seminars: 60 h Self-study (incl. assessment) 90 h Total: 150 h
Duration	1 semester

Module Area	Basics in Environment, Climate Change and Health
Module Title	Integrative Module - Lessons Learned + Lecture Series
Module Coordinator	Professor Dr. Dr. med. habil. Dr. phil. Dr. theol. h. c. Nagel, N.N.
Language	English
Learning outcomes	In Lessons Learned individual scientific background will be analysed in form of presentations given by the students. This will also help to improve presentation skills. Students also including senior students are able to share and exchange their individual experience and knowledges and to discuss current study and research issues. After attending the lecture series, students will have: - acquired basic knowledge of the most important political aspects of environment, climate change and health worldwide. - been able to put different subject areas into context with environment, climate change and health. - been able to name climate and health organization global and worldwide. - gained a deeper insight into the structure of NGOs. - been able to identify influencing factors on climate and environmental change. - acquired knowledge of current issues in global health and climate change.
Content	Main topic of the seminar Lessons Learned are presentations concerning individual (scientific) experiences and background, logistical and organisational details and repetition of scientific core skills needed for master program The Lecture Series consists of experts from the university of Bayreuth as well as from different fields within the framework of environment, climate change and health, who provide an in-depth and multi-faceted insight in this area. The experts (and senior students) report on their everyday experiences and projects in companies, governmental institutions as well as non-governmental organisations. Topics from the field of environment, climate change and health are discussed from an interdisciplinary perspective. Students have the opportunity to reflect this faceted insights or research areas with every speaker.
Teaching Formats	Lessons Learned seminar as well as Lecture Series (2 hours per week) every second week
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health
Requirements for the Award of ECTS Points	Oral exam or presentation or report
ECTS Points	5

Frequency	winter semester (Lessons Learned) and summer semester (Lecture Series) (recommendation: 1st and 2nd semester)
Workload	Seminars 30 h Self-study (incl. assessment) 120 h Total: 150 h
Duration	2 semester

Module Area	Environment, Climate Change and Health: International
Module Title	Globalization of Economies and the Environment
Module Coordinator	Professor Dr. Larch, Professor Dr. Köllner
Language	English
Learning outcomes	The increasing demand for goods and services as well as the globalization of markets has far-reaching economic, ecological, and social effects. On the one hand, developing countries could benefit economically from increased export of raw materials (e.g. biofuels) or through direct investment from industrial nations (e.g. in the agricultural sector), on the other hand, ecosystems could be sustainably damaged due to low environmental standards in developing countries. The aim of this module is to understand 1) the flows of goods and services in global financial and raw materials markets, 2) their economic and ecological effects, and 3) to critically examine environmental policy instruments.
Content	• Global Ecosystems and their services (land use, freshwater use, use of marine environment) • Basic of function, actors, evolution and crisis in financial sectors • International trade theories • Environmental economics • Consequences of international environmental trade • International policies • Utilization of natural resources • Market-based policy instruments
Teaching Formats	lecture (2 hours per week) accompanying seminar (2 hours per week)
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health, M.Sc. Global Change Ecology
Requirements for the Award of ECTS Points	written/ oral exam or report or presentation or term paper
ECTS Points	5
Frequency	summer semester (recommendation: 2nd semester)
Workload	Lectures and seminar: 60 h Self-study (incl. assessment) 90 h Total: 150 h
Duration	1 semester

Module Area	Environment, Climate Change and Health: International
Module Title	Medicine and Climate Change II
Module Coordinator	Professor Dr. Dr. med. habil. Dr. phil. Dr. theol. h. c. Nagel, Dr. Thomas
Language	English
Learning outcomes	The students acquire fundamental knowledge about climate change associated diseases and health-related consequences. In this context, students will develop a deeper understanding of the multiple interrelationships between climate changes and human health.
Content	• Definition of health (one/planetary/global health) • Climate change-associated diseases part II • Health care in different stages of life and countries
Teaching Formats	lecture (2 hours per week), accompanying seminar (2 hour per week)
Requirements for Participation	Medicine and Climate Change I
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health
Requirements for the Award of ECTS Points	written examination (100%)
ECTS Points	5: lecture: 2ECTS, seminar: 3ECTS
Frequency	summer semester (recommendation: 2nd semester)
Workload	Lectures and seminar: 60 h Self-study (incl. assessment) 90 h Total: 150 h
Duration	1 semester

Module Area	Multidisciplinary Training
Module Title	Environment and Economics
Module Coordinator	Professor Dr. Ulrich, Professor Dr. Hensher u.r. Professor Dr. Stadelmann
Language	English
Learning outcomes	In this module, students will learn basic knowledge about economic evaluations and key economic concepts. It will be taught, how the economic efficiency in health care can be measured and how economic evaluations can be performed and what is essentially needed. Economic consequences of climate change and climate protection will be analysed in particular.
Content	• Economic evaluations of health care • Economic consequences concerning climate change and climate protection • Programme budgeting and marginal analysis • Types of economic evaluation (cost-minimisation analysis, cost-effectiveness analysis, cost-utility analysis)
Teaching Formats	lecture (2 hours per week)
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health
Requirements for the Award of ECTS Points	written/ oral exam or report or term paper
ECTS Points	5
Frequency	Summer semester (recommendation: 2nd semester)
Workload	Lectures: 30 h Self-study (incl. assessment) 120 h Total: 150 h
Duration	1 semester

Module Area	Environment, Climate Change and Health: International
Module Title	Geographical and Spatial Dimensions of Global Change
Module Coordinator	Professor Dr. Rothfuß
Language	English
Learning outcomes	The objective of this module is to gain understanding about societal and geographical perspectives on global environmental change. In this context, theories of socio-spatial inequalities to global change will be taught
Content	• Sociological and geographical perspectives on climate change-associated interactions • Social and individual differences in adaptions to global change • Social and spatial inequalities and climate change
Teaching Formats	lecture (2 hours per week)
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health, M.Sc. Human Geography
Requirements for the Award of ECTS Points	written/ oral exam or report or term paper
ECTS Points	5
Frequency	summer semester (recommendation: 2nd semester)
Workload	Lectures: 30 h Self-study (incl. assessment) 120 h Total: 150 h
Duration	1 semester

Module Area	Environment, Climate Change and Health: International
Module Title	Skills and Competences
Module Coordinator	a) Professor Dr. Dr. med. habil. Dr. phil. Dr. theol. h. c. Nagel, Dr. Thomas (academic working) b) Dr. Sommer (science and communication) c) Dr. Schweiger/Dr. Thies (project management and scientific coordination
Language	English
Learning outcomes	The aim of this module is to gain insight into inter- and transdisciplinary research. Therefore, basic knowledge in a) academic working, in b) scientific communication and c) project management are taught. a) In the seminar academic working tools, students acquire detailed and differentiated knowledge about the research process in science and presentation of results to an expert audience in form of scientific posters and presentations. Thereby an overview of methods in social and behavioural research and geography-associated science will be given. Based on this knowledge, students are able to choose the appropriate method of data collection for a range of research questions b) The seminar science and communication provides an overview of the challenges associated with scientific communication, especially science outreach typically conducted by scientists to non-expert audiences. At the end of the seminar, students will have acquitted a good understanding of the multiple factors shaping the success of different communication strategies and tools – from press releases to science-policy briefings c) In the course project management, the different nature of projects in different fields will be discussed. Typical phases and well-known challenges within project management will be introduced. As students with varied background take part, their multi-disciplinary experiences will be involved into the course. Based on skills and competences from the module, students will be able to work e.g. as teacher, researcher and networkers etc. within international and interdisciplinary collaborations.
Content	• Reporting (experimental) data • Scientific Writing • Presentation and Poster presentation • Project Management and Scientific Coordination (planning studies) • Science communications skills
Teaching Formats	different seminars (approximately 6 hours per week including block course)
Requirements for Participation	none

Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health, M.Sc. Global Change Ecology
Requirements for the Award of ECTS Points	written/ oral exam or report or presentation or term paper or research plan
ECTS Points	10: project management: 2 ECTS, science & communication: 3 ECTS, academic working: 5 ECTS
Frequency	winter semester and summer semester (recommendation: 1st and 2nd semester)
Workload	seminars: 90 h Self-study (incl. assessment) 210 h Total: 300 h
Duration	2 semester

Module Area	Multidisciplinary Training
Module Title	Global Urban Health
Module Coordinator	Professor Dr. Rothfuß
Language	English
Learning outcomes	In the seminar, students acquire knowledge on the development of urban areas in a global perspective. They will learn how health can be/is influenced by demographic structure, labour and which (urban and regional) concepts and theories exists to reflect on societal health effects.
Content	• Development of urban areas and associated health conditions in the Global North and South • Interactions of society, demographic structure, labour and health • Theories and concepts on cities, urbanity, sustainability and life quality
Teaching Formats	seminar (2 hours per week)
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health, M.Sc. Human Geography
Requirements for the Award of ECTS Points	written/ oral exam or report or term paper
ECTS Points	5
Frequency	winter semester (recommendation: 3rd semester)
Workload	Seminar: 30 h Self-study (incl. assessment) 120 h Total: 150 h
Duration	1 semester

Module Area	Multidisciplinary Training
Module Title	Migration and Health
Module Coordinator	Professorin Dr. Wirtz, Aljadeeah
Language	English
Learning outcomes	The aim of the module is to learn how health and health care can be influenced by migration. Students will gain basic knowledge about interactions between migration, legal regulations, and climate change as well as between migration movements and social conditions.
Content	• migration and legal regulations • migration and climate change • migration and influence on health (care) • migration movement and social conditions
Teaching Formats	lecture (2 hours per week)
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health
Requirements for the Award of ECTS Points	written/ oral exam or report or term paper
ECTS Points	5
Frequency	winter semester (recommendation: 3rd semester)
Workload	Lectures: 30 h Self-study (incl. assessment) 120 h Total: 150 h
Duration	1 semester

Module Area	Multidisciplinary Training
Module Title	International Environmental and Sustainable Development Law
Module Coordinator	Professor Dr. Kaime
Language	English
Learning outcomes	The aim of the module is to learn what is meant by an environment and climate change law. In this context, constitutional basics will be learned and conservation law, state climate law, environmental information act, environmental private law and environmental liability law will be introduced. Furthermore, organizations, procedures and types of action will be taught.
Content	• constitutional basics • conservation law • state climate law and climate law in Europe • environmental liability law, environmental private law, environmental information act
Teaching Formats	lecture (2 hours per week) and accompanying seminar (2 hours per week)
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health
Requirements for the Award of ECTS Points	written/ oral exam or report or presentation or term paper
ECTS Points	5
Frequency	winter semester (recommendation: 3rd semester)
Workload	Lectures: 60 h Self-study (incl. assessment) 90 h Total: 150 h
Duration	1 semester

Module Area	Multidisciplinary Training
Module Title	Statistic and Analysis Tools
Module Coordinator	a) BayCEER: Archner (GIS), b) Professor Dr. Köllner/ Hänsel (Spatial Statistics and Visualization), c) N.N.
Language	English
Learning outcomes	Basic knowledge in analytical methods related to environment, climate change and health will be taught in the different seminars
Content	• a) Introduction to GIS • b) Spatial Statistics and Visualization with R • c) N.N.
Teaching Formats	different courses/seminars can be selected, in total several seminars equal to 5 ECTS points must be taken • a) Introduction to GIS (2 ECTS) (block course) • b) Spatial Statistics and Visualization with R (3 ECTS) • c) N.N.
Requirements for Participation	basic knowledge in working with R is essential for spatial statistics and visualization with R
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health; M.Sc. Global Change Ecology (GIS, Spatial Statistics and Visualization)
Requirements for the Award of ECTS Points	written/ oral exam or report or presentation or term paper or research plan
ECTS Points	5
Frequency	winter semester (recommendation: 3rd semester)
Workload	Lectures and seminars: 60 h Self-study (incl. assessment) 90 h Total: 150 h
Duration	1 semester

Module Area	Multidisciplinary Training
Module Title	Food, Climate and Health Communication
Module Coordinator	Junior-Professorin Dr. Bartelmeß, Professor Dr. Dr. med. habil. Dr. phil. Dr. theol. h. c. Nagel,
Language	English
Learning outcomes	This module explores the correlation between nutrition, climate (change) and health. Students acquire basic knowledge about communication and its social significance as well as about social and cultural aspects of health, climate change, sustainability, and correlated communication. Based on this knowledge, students are able to identify social structures and cultural norms that influence nutrition, health and climate change in real life context.
Content	• Correlation between nutrition and health (Prof. Nagel) • Nutrition and sustainability • Correlation between nutrition and climate • Definition and social significance of communication • Nutrition-based communication research • Sustainability and climate communications (recent studies/approaches) • Sociological Perspectives on food, sustainability and climate change
Teaching Formats	Lectures (2 hours per week), accompanying seminar (2 hours per week)
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health
Requirements for the Award of ECTS Points	written/ oral exam or report or presentation or term paper
ECTS Points	5
Frequency	winter semester (recommendation: 3rd semester)
Workload	Lectures and seminar: 60 h Self-study (incl. assessment) 90 h Total: 150 h
Duration	1 semester

Module Area	Multidisciplinary Training
Module Title	Environmental and Resource Technology
Module Coordinator	Professor Dr. Jess, Professor Dr. Helbig
Language	English
Learning outcomes	The module focuses on the earth planet and its atmosphere, on greenhouse and warming effects as well as on anthropogenic material and energy flows and their limitations. Energy and water demand, stable ecosystems and production and recycling of waste will be discussed.
Content	• Bio geosphere • Energy balance of the earth • Anthropogenic material and energy flows and limitations • Energy demand and stable ecosystems • Sustainability product engineering • Water demand and resources • Production and recycling of waste • Agricultural technology
Teaching Formats	Lectures (4 hours per week) Prof. Jess: 2 SWS Prof. Helbig: 2 SWS
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health
Requirements for the Award of ECTS Points	written/ oral exam or report or presentation or term paper
ECTS Points	5
Frequency	winter semester (recommendation: 3rd semester)
Workload	Lectures: 60 h Self-study (incl. assessment) 90 h Total: 150 h
Duration	1 semester

Module Area	Multidisciplinary Training
Module Title	Tools in Social Research
Module Coordinator	Professor Dr. Dr. med. habil. Dr. phil. Dr. theol. h. c. Nagel
Language	English
Learning outcomes	The students acquire detailed and differentiated knowledge about the research process in the social sciences with a specific focus on qualitative and quantitative research methods. Based on this knowledge, student are able to choose the appropriate method of data collection for a range of research questions. Furthermore, they are able to develop designs for qualitative and quantitative studies. Finally, students acquire a basic understanding of qualitative and descriptive quantitative data analysis.
Content	Free choice of different elective subjects: • Qualitative research methods (interviews, focus groups, participant observation, document analysis) • Quantitative research methods (questionnaires, experimental approaches) • Descriptively analysing and reporting quantitative and qualitative data
Teaching Formats	Lectures (2 hours per week) and accompanying seminar (2 hour per week)
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health
Requirements for the Award of ECTS Points	written/ oral exam or report or presentation or term paper or research plan
ECTS Points	5
Frequency	winter semester (recommendation: 3rd semester)
Workload	Lectures and seminar: 60 h Self-study (incl. assessment) 90 h Total: 150 h
Duration	1 semester

Module Area	Multidisciplinary Training
Module Title	Sport Ecology
Module Coordinator	Professor Dr. Steinbauer
Language	English
Learning outcomes	The students acquire basic knowledge about ecology, in particular about characteristics and complexities of ecosystems. Students will learn which rural requirements are needed for outdoor sports and how nature and land-use is influenced by outdoor sports. In this context solution possibilities for environmental sport exercises will be taught.
Content	• Basics to ecology and conservation • Land-use due to outdoor sports, impact on nature • Solution possibilities for an environmental land-use and outdoor sport
Teaching Formats	Lectures (2 hours per week) and accompanying seminar (2 hour per week)
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health, M.Sc. Global Change Ecology, M.Sc. Geo-Ecology, M.Sc. Sport Ecology
Requirements for the Award of ECTS Points	written/ oral exam or report or presentation or term paper or research plan
ECTS Points	5
Frequency	winter semester (recommendation: 3rd semester)
Workload	Lectures and seminar 60 h Self-study (incl. assessment) 90 h Total: 150 h
Duration	1 semester

Module Area	Multidisciplinary Training
Module Title	Global Political Economy of Food and Nutrition
Module Coordinator	Junior-Professor Dr. Dorlach
Language	English
Learning outcomes	Students acquire a basic understanding of the political and economic processes that shape nutrition and health outcomes at the global level. Based on this knowledge, they are able to analyse current global developments in nutrition and health and to evaluate pertinent reform proposals.
Content	• Effects and structure of the World Food System • Actors and Institutions of Global Food Governance • State Actors in the World Food System
Teaching Formats	Lectures (2 hours per week)
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health
Requirements for the Award of ECTS Points	Written exam
ECTS Points	5
Frequency	winter semester (recommendation: 3rd semester)
Workload	Lectures and seminar 30 h Self-study (incl. assessment) 120 h Total: 150 h
Duration	1 semester

Module Area	Summer School
Module Title	Summer School
Module Coordinator	Professor Dr. Dr. med. habil. Dr. phil. Dr. theol. h. c. Nagel, N.N.
Language	English
Learning outcomes	During summer schools students can interact with foreign students, lecturers, reals-world practitioners, (inter-)national organizations and companies. Moreover, students come into contact with current topics and research results concerning environment, climate change and health. Within the summer school students should be able to present their own research plans and results during poster presentations or scientific talks.
Content	Summer school can take place at the university of Bayreuth or at any other company or organization. It must last at least 10 days in total. However, two summer schools with each lasting at least 5 days are also welcome. Topics of the summer schools should deal with current issues concerning environment, climate change and health. Within the summer school, academic working tools and good practical science should be taught or discussed during poster presentations and scientific talks Moreover, personal skills and cores skills should be addressed.
Teaching Formats	Summer schools including different seminars, workshops, poster presentations and scientific talks
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health other students of the university of Bayreuth and people from outside
Requirements for the Award of ECTS Points	Written exam or report or presentation or term paper or research plan
ECTS Points	5
Frequency	Winter/ summer semester (recommendation: 3rd semester)
Workload	Lectures and seminar 60 h Self-study (incl. assessment) 90 h Total: 150 h
Duration	10 days (1x 10 days or 2x 5 days)

Module Area	Internship
Module Title	Internship
Module Coordinator	Professor Dr. Dr. med. habil. Dr. phil. Dr. theol. h. c. Nagel, N.N.
Language	English
Learning outcomes	Internships offer the opportunity to gain practical experience in an international, interprofessional team. Thereby, individual-initiative should be promoted.
Content	Internships are possible within different areas concerning environment, climate change and health (e.g. research, administration). The chosen business can be national or international (preferred). Internship must last at least 3 months.
Teaching Formats	internship
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health
Requirements for the Award of ECTS Points	non-graded report or presentation
ECTS Points	10
Frequency	Winter/ summer semester (recommendation: 3rd semester)
Workload	Self-study (incl. assessment) 300 h Total: 300 h
Duration	3 months

Module Area	Master thesis
Module Title	Master thesis
Module Coordinator	Professor Dr. Dr. med. habil. Dr. phil. Dr. theol. h. c. Nagel, Professor Dr. Beierkuhnlein, Professorin Dr. Jentsch, Junior-Professor Dr. Dorlach, Dr. Hopp, Professorin Dr. Pausch, Professorin Dr. Lehndorff, Professor Dr. Larch, Professor Dr. Köllner, Professor Dr. Rothfuß, Junior-Professorin Dr. Bartelmeß, Professor Dr. Jess, Professor Dr. Steinbauer, Professor Dr. Ulrich
Language	English
Learning outcomes	A topic within natural science, law or any other environment, climate change and health-related topic should be processed by the students independently. To complete the master thesis successfully, the students should be able to use appropriate methods, that are learned within the whole master programme
Content	• Problem detection and structuring • Explanation concerning the used methods • Discussion in context of solution possibilities • Presentation of limitations and perspectives
Teaching Formats	Self-study with corresponding supervision
Requirements for Participation	none
Usability of the Module	open for students of the following study programmes: M.Sc. Environment, Climate Change and Health
Requirements for the Award of ECTS Points	Master thesis (graded) and presentation/disputation (not-graded)
ECTS Points	30
Frequency	Winter/ summer semester (recommendation: 4th semester)
Workload	Self-study (incl. assessment) 900 h Total: 900 h
Duration	6 months