



UNIVERSITÄT  
BAYREUTH

**Master's Programme**

# Global Food, Nutrition and Health

**Electives Course Handbook  
(Areas C + D)  
Summer Semester 2024**

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## Food Quality and Supply Chain Management

<b>Module area</b>
C – Issues in Food, Nutrition and Health
<b>Module title (module number)</b>
Food Quality and Supply Chain Management (Fak726014)
<b>Course title (course number)</b>
Food Quality and Supply Chain Management
<b>Lecturers</b>
Prof. Dr. Christian Fikar
<b>Language</b>
English
<b>Learning outcomes</b>
After completion of the course, students will understand key concepts of supply chain management and are able to highlight the importance of quality management within the food industry. They will be able to investigate various supply chain structures and develop concepts on how to improve process quality, transparency and coordination within such systems.
<b>Content</b>
The course tackles: <ul style="list-style-type: none"><li>- Introduction to food supply chains</li><li>- Supply chain drivers and metrics</li><li>- Risk management</li><li>- Food quality management concepts</li><li>- Supply chain coordination</li><li>- Business process modelling</li></ul>
<b>Teaching formats</b>
Lecture (2 hours per week), seminar (2 hours per week)
<b>Requirements for participation</b>
none
<b>Requirements for the award of ECTS points</b>
written exam (60%); case studies and group assignments incl. presentations (40%)
<b>ECTS points</b>
5 ECTS points

Lecture Series „Planetary Health – Connecting the dots“

<b>Module area</b>
C – Issues in Food, Nutrition and Health
<b>Module title (module number)</b>
Lecture Series “Planetary Health – Connecting the dots“ (Fak726013)
<b>Course title (course number)</b>
Lecture Series “Planetary Health – Connecting the dots“ (30007)
<b>Lecturers</b>
Prof. Dr. Dr. med. habil. Dr. phil. Dr. theol. h. c. Eckhard Nagel, Prof. Dr. Wilm Quentin
<b>Language</b>
English
<b>Learning outcomes</b>
<p>After attending the lecture series, students will have:</p> <ul style="list-style-type: none"> <li>- acquired basic knowledge of the most important scientific and political aspects of environment, climate change and health worldwide.</li> <li>- Gained knowledge on the Planetary Health and its critical concepts such as planetary boundaries, etc.</li> <li>- Gained understanding of planetary health considerations on the operational and program elements of aid organizations.</li> <li>- been able to put different subject areas into context with environment, climate change and health.</li> <li>- gained a deeper insight into the structure of NGOs. acquired knowledge of current issues in global health and climate change.</li> <li>- are enabled to apply a Planetary Health lens to the fields of environment, climate change and health, but also beyond on the wider socio-political dynamics of human well-being.</li> </ul>
<b>Content</b>
<p>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 eventually 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.</p>
<b>Teaching formats</b>
<p>Different lectures from experts from the university of Bayreuth as well as from different fields. Different dates tba. Usually all 14 days.</p>
<b>Requirements for participation</b>
<p>None; open for students of the following study programmes: M.Sc. Global Food, Nutrition and Health, M. Sc. Environment, Climate Change and Health, other students of the University of Bayreuth. Parts of the lecture series are open to interested public audience after registration.</p>
<b>Requirements for the award of ECTS points</b>
<p>Essay or presentation Requirement for the submission of this module performance is the 80 % participation in the lectures.</p>
<b>ECTS points</b>
3 ECTS points

Biodiversity, Climate Change and Health

<b>Module area</b>
C – Issues in Food, Nutrition and Health
<b>Module title (module number)</b>
Biodiversity, Climate Change and Health (Fak220621)
<b>Course title (course number)</b>
Health implications of Global Change (74098) Current Research in Health implications of Global Change (74099)
<b>Lecturers</b>
Dr. Dr. h.c. PD Martin Pfeiffer; Dr. Stephanie Thomas
<b>Language</b>
English
<b>Learning outcomes</b>
At the end of this course, the students will have acquired a good understanding of how drivers such as loss of biodiversity, land use change or climate change can impact on human and animal health.
<b>Content</b>
<u>Health implications of Global Change</u> The lecture synthesizes information on the most important interlinkages between biodiversity, climate change and health. It covers the concepts of one health, and planetary health and includes an overview of related Sustainable Development Goals, CBD Aichi Targets, and the joint work program of CBD and WHO.
<u>Current Research in Health implications of Global Change</u> In the seminar we review and discuss current contributions which cover the biodiversity – climate change – health nexus especially for zoonotic infectious diseases, with a special focus on global change drivers such as biodiversity loss, land use change and climate change. This knowledge is used to articulate future research priorities.
<b>Teaching formats</b>
Lecture and seminar
<b>Requirements for participation</b>
none
<b>Requirements for the award of ECTS points</b>
Written elaboration in form of a blog entry, cartoon, policy brief or podcast script (ungraded) Seminar presentation 20 min plus discussion (graded)
<b>ECTS points</b>
5 ECTS points

## Malnutrition – from Theory and Practice

<b>Module area</b>
C – Issues in Food, Nutrition and Health
<b>Module title</b>
Malnutrition – from Theory to Practice (Fak726012)
<b>Course title (course number)</b>
Malnutrition – from Theory to Practice (30028)
<b>Lecturers</b>
Josefa Kahal; Dr. Galia Shefel-Hilel
This course is an external course at our partner university Tel-Hai-College Israel.
<b>Language</b>
English
<b>Content and learning outcomes</b>
The course will provide students with knowledge and skills on assessment, diagnosis and management of malnutrition using the NCP model. Furthermore, the students will discuss policy dilemmas about malnutrition and evaluate appropriate diagnosis tools from a global perspective. A special focus will be on interdisciplinary teamwork in the treatment of malnutrition.
<b>Teaching formats</b>
Seminar
<b>Requirements for participation</b>
The course is limited in admission. There 8 places for students from University of Bayreuth. Interested students should be dieticians or have a background in nutrition and are asked to contact <a href="mailto:Katja.Buehlmeier@uni-bayreuth.de">Katja.Buehlmeier@uni-bayreuth.de</a> and send a short letter of motivation (max. 1 Page) and a small CV until <b>15 March 2023</b> .
<b>Requirements for the award of ECTS points</b>
This information is given by the lecturers.
<b>ECTS points</b>
5 ECTS points

## Grundlagen der Nachhaltigkeit

<b>Module area</b>
D – Theories, Methods and Skills
<b>Module title</b>
Grundlagen der Nachhaltigkeit (Fak521281)
<b>Course title (course number)</b>
Grundlagen der Nachhaltigkeit Vorlesung (57070) Grundlagen der Nachhaltigkeit Seminar (57072)
<b>Lecturers</b>
Prof. Dr. Manuel Steinbauer and others
<b>Language</b>
Deutsch
<b>Content and learning outcomes</b>
Information will be given by the lecturers
<b>Teaching formats</b>
Lecture (2 hours per week) and seminar (1 hour per week)
<b>Requirements for participation</b>
none
<b>Requirements for the award of ECTS points</b>
Information will be given by the lecturers
<b>ECTS points</b>
5 ECTS points

Environment and Economics

<b>Module area</b>
D – Theories, Methods and Skills
<b>Module title</b>
Environment and Economics (Fak323127)
<b>Course title (course number)</b>
Environment and Economics (34110)
<b>Lecturers</b>
Prof. Dr. Stadelmann, Prof. Dr. Volker Ulrich
<b>Language</b>
English
<b>Learning outcomes</b>
In this module, students will first be acquainted with basic conceptual tools in economics. They will learn how economic analysis can help to understand and solve problems related to the environment, climate, and public health. Course participants will understand the importance of incentives, markets, market failure, and the interaction between markets and government. The module focuses on an economical way of thinking about real world problems. Special attention will be given to the health care sector. It is being taught, how the economic efficiency in health care can be measured and how economic evaluations can be performed.
<b>Content</b>
<ul style="list-style-type: none"> <li>- Analyze the importance of economic incentives</li> <li>- Understand the relevance of market failure and solutions to market failure</li> <li>- Evaluate link between economic performance and the environment</li> <li>- Analyze economic consequences of climate change and costs/benefits of climate protection</li> <li>- Perform economic evaluations related to health care sector</li> <li>- Explore types of economic evaluations (cost-minimization analysis, cost-effectiveness analysis, cost-utility analysis)</li> <li>- Programme budgeting and marginal analysis in health care sector</li> </ul>
<b>Teaching formats</b>
Lecture (3 hours per week)
<b>Requirements for participation</b>
none
<b>Requirements for the award of ECTS points</b>
Information will be given by the lecturers
<b>ECTS points</b>
5 ECTS points

Science Communication

<b>Module area</b>
D – Theories, Methods and Skills
<b>Module title (module number)</b>
Science Communication (Fak721985)
<b>Course title (course number)</b>
Science Communication (70193)
<b>Lecturers</b>
Prof. Dr. Tina Bartelmeß
<b>Language</b>
English
<b>Learning outcomes</b>
Students acquire knowledge of the theoretical foundations of communicating science to the public. They deal with scientific literature and prepare it for specific target groups. They develop and practise various strategies to reach target groups effectively. In addition, students acquire skills in writing texts and designing visual representations to effectively communicate scientific findings to the public.
<b>Content</b>
<ul style="list-style-type: none"><li>- Scientists and the public</li><li>- Perspectives of research on scholarly and science communication</li><li>- Target groups and their characterisation</li><li>- Models, theories and approaches of science communication</li><li>- Texts, visuals, types, media, and practices of science communication</li></ul>
<b>Teaching formats</b>
Seminar
<b>Requirements for participation</b>
none
<b>Requirements for the award of ECTS points</b>
essay (100%)
<b>ECTS points</b>
3 ECTS points

## Impact Entrepreneurship (Master) – Developing Social and Ecological Innovations

<b>Module area</b>
D – Theories, Methods and Skills
<b>Module title</b>
Impact Entrepreneurship (Master) – Developing Social and Ecological Innovations (Fak324906)
<b>Course title (course number)</b>
Impact Entrepreneurship (Master) – Developing Social and Ecological Innovations (00495)
<b>Lecturers</b>
Prof. Dr. Eva Jakob, Social Entrepreneurship (module coordinator) Prof. Dr. Rebecca Preller, Entrepreneurial Behavior (module coordinator) Prof. Dr. Tina Bartelmeß, Ernährungssoziologie Prof. Dr. Frank Döpfer, Umweltgerechte Produktionstechnik Prof. Dr. Manuel Steinbauer, Sportökologie
<b>Language</b>
English
<b>Learning outcomes</b>
The aim is to connect interdisciplinary master's students from all faculties and to enable them to jointly develop solutions for social and/or ecological problems using innovative methods. Examples of these are acute and global challenges such as biodiversity loss, climate change, environmentally friendly production/additive manufacturing, nutrition and smart cities. By taking the course, sustainable, impact-oriented action can be experienced and solutions to global problems are developed. Through this course, you will not only learn a range of methods to address global challenges, but also develop a deeper understanding of these challenges, which is especially enhanced through interdisciplinary collaboration.
<b>Content</b>
You will learn advanced knowledge in the field of impact entrepreneurship (i.e., solving social and/or ecological problems through innovative methods). Furthermore, you will learn how to develop your own sustainable solutions for social and/or ecological challenges. In addition to obtaining a foundation of scientifically based content on impact entrepreneurship, you will learn the necessary tools and their application in practice-oriented workshops and will also be personally advised in a team by the interdisciplinary lecturers. Schedule: 1. Kick-off event (topic/problem presentation) 2. Interactive workshops (development of ideas/solutions, business models) 3. Independent further development of the project 4. Personal coaching (individual team advice) 5. Final presentations 6. Submission of the concept
<b>Teaching formats</b>
Lectures, interactive workshops and personal coaching (3 hours per week)
<b>Requirements for participation</b>
Registration by email to: <a href="mailto:impact-eship@uni-bayreuth.de">impact-eship@uni-bayreuth.de</a> ; for the organizational planning of the course, a short application with three sentences regarding your motivation should be attached.
<b>Requirements for the award of ECTS points</b>
The module examination consists of a presentation and the submission of a written solution concept.
<b>ECTS points</b>
6 ECTS points

Scientific Writing for Planetary Health

<b>Module area</b>
D – Theories, Methods and Skills
<b>Module title (module number)</b>
Scientific Writing for Planetary Health (Fak726015)
<b>Course title (course number)</b>
Scientific Writing for Planetary Health (30031)
<b>Lecturers</b>
Prof. Dr. Dr. med. habil. Dr. phil. Dr. theol. h. c. Eckhard Nagel, Prof. Dr. Wilm Quentin
<b>Language</b>
English
<b>Learning outcomes</b>
The aim of this module is to acquire skills in scientific writing and to gain insight into inter- and transdisciplinary research in the field of planetary health.
<b>Content</b>
The course will introduce the basics of scientific writing. It will consist of overview presentations about essential elements, including writing and introduction, methods, results, and conclusion section, visualising results, writing an abstract, developing a title. In addition, they will learn about different types of journals, factors to consider when selecting a journal, the peer-review process, and how to respond to reviewer comments. Each class will consist of a theoretical introduction to these topics, and the practical application of this knowledge. In addition, most classes will include a group presentation of students, discussing an existing paper in the field of planetary health.
<b>Teaching formats</b>
Seminar (2 hours per week)
<b>Requirements for participation</b>
None List of preparatory reading: <ul style="list-style-type: none"> <li>• The Lancet 2015: Planetary health: a new science for exceptional action</li> <li>• Transdisciplinary Research Priorities for Human and Planetary Health in the Context of the 2030 Agenda for Sustainable Development</li> <li>• Writing a scientific article: A step-by-step guide for beginners</li> <li>• HERA EU Research Agenda</li> </ul>
<b>Requirements for the award of ECTS points</b>
Small tasks during semester
<b>ECTS points</b>
3 ECTS points