

Concept for a YUFE Minor

Planning of a 30 ECTS minor offer within YUFE

Minor Title	Urban Sustainable Development
Minor Coordinator (Name, Position)	Dr Peter Vermeer
Responsible YUFE University	Maastricht University <input checked="" type="checkbox"/> University of Antwerp <input type="checkbox"/> University of Bremen <input type="checkbox"/> University Carlos III of Madrid <input type="checkbox"/> University of Cyprus <input type="checkbox"/> University of Essex <input type="checkbox"/> University of Eastern Finland <input type="checkbox"/> University of Rijeka <input type="checkbox"/> Nicolaus Copernicus University in Torun <input type="checkbox"/>
Participating YUFE Universities	Maastricht University <input type="checkbox"/> University of Antwerp <input checked="" type="checkbox"/> University of Bremen <input checked="" type="checkbox"/> University Carlos III of Madrid <input type="checkbox"/> University of Cyprus <input type="checkbox"/> University of Essex <input type="checkbox"/> University of Eastern Finland <input checked="" type="checkbox"/> University of Rijeka <input checked="" type="checkbox"/> Nicolaus Copernicus University in Torun <input checked="" type="checkbox"/> Other partners
Planned start date	February 2023
Frequency of the offer	Annual <input type="checkbox"/> every semester <input type="checkbox"/> other fall semester <input type="checkbox"/> spring semester <input checked="" type="checkbox"/>
Planned number of students	10
Minor Language(s)	English
Minimum language requirements in the program language	B2
Other admission requirements	None
Type of offer	Combined offer <input checked="" type="checkbox"/> Online offer (only if combined not possible) <input type="checkbox"/> other
Brief, summary presentation of the minor: <ul style="list-style-type: none">• Qualification goal• Study content• How are the YUFE profile characteristics fulfilled?	The minor is inspired by Kate Raworth's model of a Doughnut Economy. The model specifies both a social foundation and an ecological ceiling of sustainable living. The social foundation is based on UN development goals and the ecological ceiling is based on research of what our planetary boundaries are. The minor is conceived to give students from a wide variety of backgrounds the option to (1) choose courses on urban

	<p>sustainability that fit and expand their individual bachelors and (2) cooperate on a challenge where interdisciplinary thinking is key to success. Issues range from social justice to ecological safety and from local circumstances to global effects.</p> <p>Using the Doughnut Economy model will allow students to organize and systematize the knowledge needed to work on problems pertaining to urban sustainability. Even though touching upon all issues of the doughnut will be too much for one minor, it will help to see the issues treated in the context of other problems and will make treating issues in isolation impossible. It also serves to connect knowledge from social science and humanities disciplines with knowledge from the natural and life sciences. As part of the minor, students will be presented with a Challenge which will be dealing with an intersection of the doughnut where social foundations will be connected to environmental or ecological ceiling. A stakeholder from the region of Maastricht presents the Challenge to you. In addition to a Challenge presented to you by an external client a number of courses from the YUFE course catalogue will have to be chosen to complete the set of ILO's based on which you fulfil the ILO's of the Minor.</p>
Possible entry requirements (previous technical knowledge and skills)	None
Description of the benefits of the participants in terms of further studies, personal development and the labor market.	To be developed
Intended Learning Outcomes	<p>Upon completing this Minor, the student:</p> <ol style="list-style-type: none"> 1) accurately processes scientific knowledge 2) applies appropriate research methods to analyse problems 3) shows academic skills, such as logical reasoning, analytical thinking and argumentation. 4) is able to describe and explain different theoretical and methodological models for participation in urban sustainability. 5) is familiar with the main concepts, tools, theories, methods, workflows and critique that define the contemporary field of urban sustainability 6) understands the United Nations Sustainable Development Goals relevant to Urban Systems, and shows an appreciation of directions that may be taken to achieve these goals. 7) develops transdisciplinary expertise in the process of developing sustainable systems thinking 8) can identify and describe solutions and alternatives to achieve environmental sustainability through application of environmental assessments, policies, planning, and urban design 9) demonstrates an understanding of the major issues that contribute to urban sustainability, 10) is willing to learn new vocabularies to gain a broad understanding of sustainability-related topics. 11) functions in a respectful and appropriate manner in an intercultural context. 12) is open and tolerant towards different beliefs on sustainability-related problems.

	<p>13) assesses the implications of his beliefs and actions on the larger community.</p> <p>14) can formulate and defend his opinion based on the acquired knowledge</p>
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Courses

This is a selection of courses from the virtual course catalogue. Availability for 22/23 is currently not known.

Course catalogues from the Maastricht Science Program and University College Maastricht for spring 2023 can also be used to choose courses from.

University of Maastricht:

Challenge Team (10 ECTS on site)
<p>ILO</p> <p>The student accurately processes scientific knowledge</p> <p>The student applies appropriate research methods to analyse problems</p> <p>The student shows academic skills, such as logical reasoning, analytical thinking and argumentation.</p> <p>To describe and explain different theoretical and methodological models for participation in urban sustainability.</p> <p>The student is willing to learn new vocabularies to gain a broad understanding of sustainability-related topics.</p> <p>The student functions in a respectful and appropriate manner in an intercultural context.</p> <p>The student is open and tolerant towards different beliefs on sustainability-related problems.</p> <p>The student assesses the implications of his beliefs and actions on the larger community.</p> <p>The student can formulate and defend his opinion based on the acquired knowledge</p>
To be developed

University of Rijeka:

Computer-based math (2 ECTS, online)
<p>ILO After completing this course, the student will be able to:</p> <ul style="list-style-type: none"> • master the fundamentals of writing Python scripts and use commands from specialized Python packages, • use mathematical literature for independent mathematical modeling of simple problems from everyday life, from the field of technical but also social sciences, • use the Python software package to solve the modeled problem and interpret the results.

This course will offer to students mathematical content with strong applicability, such as introduction to differential equations, introduction to optimisation, introduction to graph theory, introduction to numerical mathematics. These methods will then be used for developing mathematical models and problem solving using a computer programme (Python).

Introduction to Data Analysis and Visualization (5 ECTS, online)

ILO It is expected that after fulfilling all the obligations that the program provides, students will be able to:

1. Describe the basic concepts, phases, and procedures in the process of data analysis and visualization.
2. Apply methods of basic descriptive statistics to various data sets.
3. Collect, match, and clean data sets from different types of sources and different file formats.
4. Organize and manage data sets, such as selecting, merging, reshaping, filtering, sorting, grouping, aggregating data.
5. Apply basic statistical methods for the purpose of analyzing data sets.
6. Apply basic graphical methods to analyze data across different data sets.
7. Select and apply the appropriate type of graph or display for specific data sets to better identify and understand the problem.

The objectives of the course are to acquire basic knowledge of data analysis and visualization procedures, introduce data collection and adjustment procedures, perform various procedures for organizing and managing data sets, apply basic statistical methods to data analysis, basic graphical methods of research analysis, and various data visualization methods.

System Dynamics (5 ECTS, online)

ILO After fulfilling all the obligations anticipated by the course, students will be able to:

- apply system-based approach and black box method;
- identify feedback loops and determine types of feedback loops in the system;
- create models of simple dynamic systems by applying system dynamics principles;
- predict system behaviour based on system description;
- use network methods to solve problems.

The objective of the course is for students to acquire basic knowledge about system-based approach and methods and apply system dynamics to predict the behaviour of simple systems.

Interaction Design and Sustainability (2 ECTS, online)

ILO By finishing the course, the students will be able to:

1. identify the fundamental principles of governing of common-pool resources (Elinor Ostrom, Understanding Institutional Diversity, Princeton University Press, 2005) and the fundamental propositions of the theory of normative change (Christina Bicchieri, Norms in the Wild: How to Diagnose, Measure and Change Social Norms, Oxford University Press, 2016)
2. draft a design of a proposal for an interactive digital application for the purposes of assisting in the solution of a particular problem from the domain of socio-ecological sustainability
3. analyze, use and justify the elements of the interaction design (in the case of a digital application) for the purposes of the design draft of an interactive digital application, in terms of :
 - appropriateness for the recognized problem (in the context of socio-ecological sustainability according to the principles of common-pool resource governance)
 - quality of the justification of the expected development of the new habit in the users, required for the assistance in solving the recognized problem,
 - quality of user experience, particularly affordance, simplicity, usability, and motivation

The course introduces students to contemporary theories and practices of socio-ecological sustainability (identification and governance of common-pool resources, and the problem of collective action) and to fundamentals of interaction design in the context of assisting sustainability problems. The course is focused on the process of the development of practical knowledge, rooting it in contemporary insights from social sciences investigating socio-ecological sustainability.

Information Technology and Society (6 ECTS, online)

ILO After learning and performing all the activities and obligations defined by the course, the student will be able to:

- I1. Explain the historical development and effects of the main elements of the information and communication technology (ICT) and information industry; from the telegraph to the Internet and mobile communication systems.
- I2. Critically analyse the main influences of information technology on economic, cultural, and historical trends, as well as the main features of modern society that is essentially determined by the intensive application of ICT.
- I3. Rethink the ways in which technology affects globalisation, as well as the areas of education and human employment.
- I4. Explain the concept of open source and comment on the positive and negative effects of open source movement on global technological development.
- I5. Critically analyze the concepts of virtual community and virtual reality; this includes the notions of privacy and surveillance in the workplace and the society in general.
- I6. Compare the approaches of dominant social networks and analyze social and psychological effects of these global network services, as well as the concepts of media manipulation and propaganda in the domain of public speech and information industry.
- I7. Explore the main perspectives of the development of new information technologies and the new challenges that these technologies bring.

This course will acquaint students with the dynamics of development and expansion of information and communication technology (ICT), as well as with economic, social and cultural effect of these technologies. The course also provides an overview of current trends, perspectives and challenges of future development of ICT.

Nicolaus Copernicus University:

Theory and Philosophy of Environmental Law (4 ECTS, online)

ILO: To be developed

The aim of the course is to provide students with knowledge of the basic principles, concepts and institutions of environmental law. This knowledge enables students to obtain the skills of interpretation and application of the institutions of environmental law in practice.

- 1) Introduction to environmental law: Constitutional provisions for environmental protection, environmental law - general institutions
- 2) Principles of environmental law
- 3) Access to environmental information and public participation in environmental decision-making in international environmental law
- 4) Access to environmental information and public participation in environmental decision-making in EU environmental law
- 5) Access to environmental information and public participation in environmental decision-making in Polish environmental law

Work and employment from human rights perspective (4 ECTS, online)

ILO: To be developed

The problem of ensuring a proper respect to human rights in employment relations has a long history in practice and in scholar literature. Broadly speaking, it includes a right to a descend work, a right to perform form which one freely chooses, a right to be free from the servitude, a right to be adequately remunerated for the work done, a right to work in a place where health and safety rules are obeyed, a right to rest, a right to associate in the unions etc. Certainly, in a course of a development of human rights some other aspects came to the light. This includes an increasing importance of the non-discrimination rule (and a need to secure positive discrimination in some cases, if needed), and the need to recognize a vulnerability of persons belonging to some peculiar groups (e.g. minors, pregnant women, disabled persons), rights related to religion (e.g. a right to wear religious symbols at work), as well as the right to self-expression, including by wearing own clothes. In times of an increasing migration an issue of employing foreign workers appeared at the front-pages of the news. In all of these aspects one has to ask himself where the responsibilities of the employer – national authorities – and the employee meet and who should be primarily responsible for meeting the requirements, which are provided for by the law. Is the situation the same in case of all categories of workers and in all of the above-mentioned themes? Can some rights of persons who are employed in the army or in public administration be contested or limit? Certainly, an issue of monitoring of employment and work-related activities and with the availability of the individual complain mechanism should also be considered.

However, some additional phenomena appear. They are seemingly on the margins of the employment activities. These concern in particular the trafficking of human beings (both in national and international context) and the illegal employment of illegally residing migrants. These aspects, unquestionably, deserve a special attention during the lecture. Examples from national and international courts will help to present the above-described themes in a practical way. They will also contribute to the awareness raising actions taken under the auspice of this lecture. It should be stressed that students will be welcomed to actively participate in the meetings.

Global Governance and the Rule of Law (6 ECTS, online)

ILO: To be developed

Global governance is understood as “a dynamic process in which legal, political and economical arrangements unleash interests, change the balance of force, and lead to further reinvention of the governance scheme itself.” We need to come up with innovative approaches to global policy in the face of a legal and institutional architecture manifestly ill-equipped to address our most urgent global challenges. Global poverty, conflict, injustice and inequality are also legal and institutional regimes. Global governance research explores the ways in which they are reproduced and what might be done in response. The aim of the course is to provide a platform for new thinking about international legal and institutional arrangements in the world of an urgent need for responsibility for the future. It also aims to present what role can US and Europe play in this process. Is global governance possible? Is wider responsibility possible?

Anthropological Perspective on Everyday Life (4 ECTS, online)

ILO: To be developed

The course has two major purposes. First, the course is designed to introduce university students to the field of social and cultural anthropology by drawing upon the rich ethnographic examples. With its comparative approach to the study of cultural diversity anthropology invites us to learn about and understand the cultural otherness. Second, the course goes beyond the basic outline of introductory knowledge and shows how anthropologists explore the complexities of everyday human life. Anthropologists do travel to different parts of the world to study variety of cultures but they also study culturally distinct groups within their own cultures. In an anthropological perspective each of us is the product of a specific social setting and associated cultural tradition: people are pursuing a multitude of different interests and holding very different views about the nature of things. Anthropology can be seen as a way of getting to know ourselves through finding out about the others.

Technoscience in a Risk Society. A Workshop (3 ECTS, online)

ILO: To be developed

The main topics of the workshop are: the dynamics of technological, scientific and environmental controversies, the political role of laboratories, unintended consequences of technological inno-

vations, non-human agency shaping the future of the civilization. The course is planned as a practical introduction to selected problems of STS (science and technology studies). We will discuss its philosophical and ethical aspects.

Human rights, pluralism and cultural diversity in Europe (2 ECTS, online)

ILO: To be developed

Discussion seminar seeks to address theoretical and practical questions concerning multiculturalism and pluralism in Europe. The fundamental question we will try to discuss is as follows: Does diversity pose a threat to European identity and legal traditions, or rather on the contrary - enriches them. We will approach this question from the perspective of human rights standards.

University of Eastern Finland:

Global and Local Public Health Issues (5 ECTS, online)

ILO Along the course, students should:

- get an updated picture of major contemporary public health issues in the global context
- understand the way shared global and unique local challenges of health are connected across the world
- examine the UN Sustainable Development Goals from the public health perspective
- appreciate the role of historical, cultural and social factors in shaping population health across the world
- discuss the ethical aspects global health issues
- achieve an idea of the importance of international and global collaboration in reducing disease burden and promoting health

The course will strengthen and widen the understanding of several central topics in global health, including, for example, the following:

- Health in social context
- Maternal and child health as cornerstones of healthier future
- The growing global burden of non-communicable diseases
- The volatile and unpredictable infectious diseases

Teaching methods:

Web-based learning includes independent readings, online lectures and notes, other online material, discussion forums, quizzes, essay assignment completion of the course requires independent studying as well as active online participation (Participation in all discussion forums is compulsory); online discussion groups are central part of learning.

Reading material will be provided partly prior and partly during the course

Ethics in Intercultural Interaction (5 ECTS, online)

ILO After completing this module, the student recognizes the basic concepts of ethics. She/He is aware of forms of inequality and manifestations of discrimination in society and acknowledges relevant mechanisms in intercultural interaction. She/He is able to act upon the principle of equality in her/his profession and willing to promote equality in her/his work

Equality in society, principles of ethics, equality of opportunity in working life.

Kick-off seminar (2 h), concluding seminar (2 h), independent work 131 h consisting of following (to be specified later); reading, written assignments, analysis of material of current interest, web discussions. Study material available in the online learning environment. Lectures will be delivered via Teams.

Course timetable: February-April 2023. Exact timetable to be added later

Existential Wellbeing in Plural Societies (4 ECTS, online)

ILO: To be developed

The course "2412009 Existential Wellbeing in Plural Societies" provides information on how people in current plural societies perceive their existential wellbeing. We will learn that existential wellbeing consists of the things of which a person constructs her/his reality as meaningful. Further, we will take a look how different life stages and crises impact to the existential wellbeing and meaning in life.

During the course, the theories of existential wellbeing are studied through the following subtopics:

- 1) What is existential wellbeing?
- 2) Construction of existential wellbeing during the different phases of life.
- 3) Shattering of existential wellbeing.
- 4) Existential wellbeing and dialogue skills in plural societies.

During each of these, a subtopic is studied by watching pre-recorded lecture videos (no fixed on certain time), reading articles, attending online discussion and/or doing small assignments in the course platform. The course has small deadlines regularly linked to these tasks. In the end, a final essay is written to construct an ensemble from the subtopics.

Course dates: TBA

Spiritual and Psychological Approaches to Ecological Crisis: Fear, Care, and Hope (5 ECTS, online)

ILO After completing the course, the student will be able to

- identify central spiritual, intellectual and theological aspects relevant to ecological thought
- identify the most important trends in contemporary research
- reflect analytically the implications of ecological thought to ethics, psychology and to different traditions of spirituality

The course focuses on the spiritual and intellectual roots of ecological thought and the spirituality of ecology. It explores the psychological aspects of emerging ecological crisis: anxiety, hope, and practical action. Moreover, it sheds light on animals as part of ecological research and on the spirituality of animals, planetary thought, and ecology as a part of theology and social criticism.

The course consists of video lectures and completing learning assignments in the Moodle e-learning environment

Sustainable and Responsible Tourism Business (5 ECTS, online)

ILO The student:

- understands the parallel yet different concepts of sustainable and responsible tourism
- recognizes all aspects of sustainable and responsible tourism
- understands both the consumer perspective and the business approach on sustainability and responsibility
- can evaluate responsibility communication to consumers
- recognizes the current issues in sustainable and responsible tourism
- acknowledges the complex effects of his/her own travel behavior
- can evaluate sustainability standards, requirements and certifications in tourism

Content: Sustainable and responsible tourism, responsible travel behavior, economic responsibility, environmental responsibility, social responsibility, cultural responsibility, ethics in tourism, current issues in sustainable and responsible tourism, sustainability standards and certifications, sustainable travel business

Modes of study: Independent reading, individual assignments

Learning material: Coghlan, A. (2019). An Introduction to Sustainable Tourism Articles and other material

Link to course page on UEF WebOodi: <https://weboodi.uef.fi/weboodi/opintjakstied.jsp?OpinKohd=68841590&haettuOpas>

Biodiversity.now (3 ECTS, online)

ILO Upon successful completion of the course, the student will be able to:

- Recognize reasons for the ongoing biodiversity crisis and its consequences to the human society and personal life
- Explore own connection to nature and diverse values you assign to it
- Recognize a variety of approaches and tools to protect biodiversity, increase biodiversity and promote sustainable use of biodiversity
- Apply the issues to own field of studies/work and learn how to be part of the solution

The course consists of five modules and a pre-course part. The contents studied in the course:

- Biodiversity crises and the concept of biodiversity
- Threats to biodiversity

- Protecting biodiversity
- Topical discussions and questions in the field of biodiversity

Each module contains videos, reading materials and exercises. There are different kind of exercises to deepen thinking and to learn multidisciplinary, and quizzes to test knowledge. All the reading material and videos can be watched without passing the quizzes, but completion of course requires passing the quizzes/tests in the right order and making other exercises.

How to pass the course: Independent online studying 54 hours includes videos, reading materials, exercises and tests. Passing the course requires passing the exercises and tests.

How to study the course: Online-studying independently, spring 2023.

Materials: Online material, which includes videos, audios, reading materials and different kind of exercises. Online literature, to be announced in the course.

Additional information: This is a Climate University -course.

Keywords: Biodiversity, biodiversity crises, sustainability, environmental change

University of Antwerp:

Bio-ethics (3 ECTS, online)

ILO Upon successful completion of the course, the student will be able to:

- be acquainted with the ethical problems and discussions raised by biotechnology, biomedical sciences and human impact on the biosphere in general.
- demonstrate independent critical thinking, based on scientific relevant data and on the traditions and methods of ethical reflection that steer implicitly or explicitly the actual social-ethical debates.
- have an understanding of main ethical theories and bioethical principles and methodology. They will understand and form an opinion on important debates in bioethics.
- form and write an informed opinion on a topic in current bioethical debate.

After an introduction to ethics including methodology of the discipline, the student participates in 4 seminars, each of which is devoted to a specific theme. An overview of the lessons this year:

Lesson 1: Introduction to Bioethics

Lesson 2: Moral theories

Lesson 3: Applied ethics

Lesson 4: Experiments on humans, buen vivir

Lesson 5: Biodiversity

Lesson 6: Animal experimentation

Lesson 7: Genetically modified organisms

Lesson 8: Epigenetics

Social Demography (6 ECTS, online)

ILO

- Graphical Representations: on completion of the course you know the key concepts and indicators in demography and you are familiar with graphical representations routinely used in demography and population studies.
- Data: On completion of the course you are familiar with the different types of data used in demography and population studies and you are able to comment on the strengths and weaknesses associated with different data sources.
- Demographic and Epidemiological Transitions: On completion of the course you are familiar with the concepts of the first demographic transition, the second demographic transition and the epidemiological transition and you are able to comment on European and global population trends in relation to these transitions.
- Period and Cohort Approaches: On completion of the course you understand the difference between the period and cohort approaches to the analysis of demographic events and you are able to contrast these approaches in terms of their strengths and weaknesses.
- Indicators and Methods: On completion of the course you know the main indicators and methods used in the analysis of demographic events, you can apply these techniques and measures to data and you are capable of correctly interpreting the results.
- Bias in techniques and methods: On completion of the course you are aware of the potential bias associated with different techniques and measures used in the analysis of demographic events.
- Demographic Trends on different levels: On completion of the course you can comment on recent trends in nuptiality, fertility, mortality and migration at different regional levels (Belgian, European and global perspective).
- Projections: On completion of the course you are familiar with techniques that are routinely used for population projection and simulation, and are able to comment knowledgeably on the results of recent projections.
- Population Policies: On completion of the course you can provide a detailed discussion of policy implications of recent demographic developments.
- Discrete-time hazard models: On completion of the course you are familiar with basic models for discrete-time event-history analysis, are able to apply this methodology to real-life demographic datasets and are able to report on the results correctly.

European societies today face multiple challenges that are related to demographic trends. Consider the implications of population ageing and increasing longevity for health care and social security systems, the consequences of changing household structures for poverty and social protection, low birth rates that require a revision of both labour market and family policies, or declining labour forces that threaten to curtail economic growth and that give rise to heated public debates on migration and identity throughout societies in Europe. As a result, understanding current and future challenges in European societies in many cases requires a firm understanding of how demographic trends with respect to fertility, mortality and migration in recent decades have conditioned European population trends for decades to come.

This course adopts a multilayered approach to European population issues. On a first level we consider a broad range of frequently used demographic indicators and discuss their interpretation (and limitations) to understand (and assess) the information they convey about recent demographic trends in Europe. Subsequently, on a second level, we delve into the various mechanisms that have driven demographic change with respect to mortality, union formation, fertility

and migration in recent decades to develop a learned perspective on potential future trends. Finally, on a third level, we address the complex interplay between structure and change to understand how past demographic developments with respect to fertility, mortality and migration have shaped current population composition or structures, and how these in turn condition future population trends

Philosophical Sources of European Identity (6 ECTS, online)

ILO

- Students are able to study and explore various philosophical and literary sources from significant periods of European intellectual history in order to examine, interpret and/or critically evaluate their possible contribution to how we understand Europe today.
- Students are able to recognize, employ and critically reflect upon different methodologies used to identify the affinity, degree of correspondence or relationship between philosophical sources and cultural identity.
- Students are able to apply knowledge and insights from the course to reflect upon, and engage in thoughtful debate about the influence of fundamental philosophical ideas on contemporary European culture and institutions.

This course will trace the roots and the historical development of the idea of a European Identity from a cultural-philosophical perspective. Drawing from a variety of sources, including Western philosophical, literary and historiographical texts, it will follow the philosophical tensions and evolutions that have led to our contemporary understanding of Europe. The course will especially explore which philosophical ideas (if any) have thoroughly shaped our contemporary understanding of European Identity. In this vein, the aim of this course is not only to provide an overview of the development of European identities, but also to test the limits of the autonomy of philosophical thought

Societies: facts & challenges (4 ECTS, online)

ILO Upon successful completion of the course, the student will be able to:

- Understand the links, causes and consequences of the most important social developments within the welfare state.
- Know the local, national, European and global context and is able to situate important social dilemmas within this context.
- Have a critical attitude towards this societal and institutional context and its development.

This course discusses some actual problems of the welfare state:

- Growth and crisis of the welfare state
- Welfare, economic growth, inflation, employment
- Demographic developments
- Social organisation of the welfare state

- Government as redistributor
- Poverty and inequality
- Distribution of public services
- Political democracy
- Effectiveness of social policy

Evolutionary Responses to Global Change (4 ECTS, online)

ILO

- Students acquire insights in the effects of global change on organismal traits ranging from morphology to life history.
- Students know how to detect changes in these traits over time, and how to link them to environmental drivers.
- Students appreciate the difference between plastic, genetic and epigenetic changes. Know how to distinguish between these types of changes.
- Students recognize that the capability of species to adapt genetically is limited and know the nature of the constraints.
- Students know how to measure the strength of selection and the response to selection in the field.
- Students understand the concept of niche conservatism, its relevance to global change biology and recent challenges of the idea.
- Students know how to estimate phylogenetic signals in environmental and organismal traits.
- Students appreciate the role that micro-evolution plays in shaping interactions between species and in the functioning of food webs and ecosystems.
- Students understand how dispersal may rescue threatened populations but may also thwart local adaptation.
- Students appreciate the lessons that can be drawn from past global change events.
- Students know how historical patterns of niche evolution can be used to predict adaptability.

The course describes how global change has induced modifications in the morphology, physiology, behaviour, phenology and life history of species. Approaches used to document these changes, and to test the link with global change, are introduced from case studies on a variety of taxa, traits and environmental drivers.

It is shown that modifications can be plastic, genetic or epigenetic in nature. Students learn how traditional and molecular techniques can be used to distinguish between different types of changes.

It is explained how genetic adaptation can be hampered by a dearth of heritable variation, by genetic constraints, gene flow and trade-offs; that micro-evolutionary response may lag behind on environmental change; and that an initially hefty response may decay over time. Techniques are introduced that can measure both the strength of and response to selection in the field.

Students are familiarized with the idea of niche conservatism and its relevance to climate change biology.

It is explained that niches are now thought to be less conservative than previously assumed and that ecological and evolutionary time scales may overlap. Techniques used to estimate phylogenetic signal in niche and other traits are introduced.

The course explains how adaptation and dispersal interactively affect a species' vulnerability to global change: how dispersal may interfere with local adaptation and how dispersal traits themselves can evolve in response to environmental drivers.

The relevance of micro-evolution in changing biotic interactions and ecosystem dynamics is discussed. It is explained how intraspecific genetic variation and micro-evolution may lead to eco-evolutionary feedbacks affecting predator-prey and host-parasite interactions, and more generally influence the functioning of ecosystems and stability of food webs.

The course also explores how historical information (e.g. changes that occurred during Pleistocene global change) and past niche evolution can be used to predict responses to global change

University of Bremen

Sustainability Marketing (3 ECTS, online)

ILO

- Understanding of how to integrate complex, sustainable concerns into marketing.
- Knowledge of social and environmental factors that complement conventional consumer and market science
- Ability to integrate ethical values into marketing strategies
- Understanding of the new consumer-focused sustainability branding mix
- Ability to use concrete bundles of measures to accelerate the necessary transformation
- Knowledge of the contribution of innovation and marketing to the transformation towards a sustainable society

Whether it is coping with 'Peak Oil', meeting the challenge of climate change, helping farmers in poorer countries through fair trade, or finding ways to keep discarded products out of the landfills, sustainability issues are the biggest challenges facing businesses. The course shows how the complexities of sustainability issues can be integrated into marketing. The systematic, step-by-step approach of sustainability marketing involves: an analysis of socio-ecological priorities to complement conventional consumer and market research; an integration of ethical values into marketing strategy; the development of sustainability marketing strategies; a new consumer-oriented sustainability marketing mix of the '4 Cs' (Customer Solutions, Communications, Customer Cost, Convenience) to replace the outmoded and producer-oriented '4 Ps'; and finally an analysis how innovation and marketing can go beyond responding to social change to contribute to a transformation to a more sustainable society. The course is ideally suited to both students and practitioners at many different levels and disciplines, including marketing, innovation, CSR, sustainability and environmental management.

Die Sustainable Development Goals – Globale Ziele und Zukunftskompetenzen (3 ECTS, online)

ILO

- Kennenlernen der 17 Nachhaltigkeitsziele der UN sowie deren politischen Entstehungsgeschichte und Entwicklung

- Erlernen von wichtigen Indikatoren zur Messung der Ziele
- Verstehen der Synerigen, Zielkonflikte, Widersprüche und Zusammenhänge der Nachhaltigkeitsziele
- Kenntnis über politische Programme zur Zielerreichung

Die Veranstaltung befasst sich ausführlich und systematisch mit den SDGs. Der Reihenfolge nach werden die 17 SDGs zunächst in Einführungsvideos zusammengefasst vorgestellt. Im Hauptteil werden dann die Kerninhalte der SDGs und ihre jeweiligen Beiträge zu einer nachhaltigen Entwicklung aus interdisziplinärer Perspektive wissenschaftlich fundiert herausgestellt. Dabei wird auf die wesentlichen Ziele und Indikatoren eingegangen. Zudem werden zentrale Wechselwirkungen und Zielkonflikte zwischen einzelnen SDGs analysiert und damit einhergehende Herausforderungen erläutert. Neben der internationalen Perspektive steht insbesondere der deutsche Beitrag zur Erreichung der SDGs im Rahmen der Deutschen Nachhaltigkeitsstrategie im Fokus. Abschließend werden im Rahmen von Experteninterviews konkrete praxisorientierte Ansätze zur Umsetzung der SDGs vorgestellt.

Psychologie des sozial-ökologischen Wandels (online)

ILO

- Erkennen der Notwendigkeit und des Umfangs einer sozial-ökologischen Transformation sowie der Implikationen für das Individuum
- Umweltpsychologisches Wissen in den Bereichen Umwelt- und Risikowahrnehmung, individuelle Verhaltensänderung, kollektives Umwelthandeln und Partizipation
- Kennenlernen von Umsetzungsmöglichkeiten dieses Wissens im Alltag und im eigenen Umweltschutzengagement
- Entwicklung von Visionen einer nachhaltigen Gesellschaft und Reflexion der Bedeutung dieses Wandels aus psychologischer Sicht

In dieser Veranstaltung wird die Rolle der Psychologie in der Transformation hin zu einer nachhaltigen Gesellschaft erörtert und orientiert sich dabei an einer Mehrebenenperspektive (vgl. Göpel, The Great Mindshift, 2016). Der Schwerpunkt liegt zunächst auf der individuellen Wahrnehmung von Umweltproblemen und auf psychologische Einflussfaktoren die individuelle Verhaltensänderung beeinflussen. Im Anschluss wird dieser Blickwinkel auf kollektives Handeln sowie auf politisches Engagement und Partizipation erweitert. Die Abschlussvorlesung diskutiert schließlich, wie das „Gute Leben“ in einer transformierten Gesellschaft aus psychologischer Sicht aussehen könnte.

Die Vorlesungen gliedern sich jeweils in zwei Theorieblöcke und einen Anwendungsblock; im Letzteren werden die Inhalte der ersten beiden Blöcke in die Mehrebenenperspektive eingeordnet und anschließend eine praxisnahe Anwendung des jeweiligen Themas vorgestellt.

Sociology meets Psychology: Acting socially sustainably in Organisations. (6 ECTS, online)

ILO To be developed

General Studies Series: "Sociology meets Psychology: Acting Socially Sustainably in Organisations"

Key question for the General Studies series: In accordance with my research perspective as a scientific psychologist in the area of social and work psychology, within the General Studies series for Bachelor students (also open to Master students) at the Institute of Sociology of the University of Bremen we ask: How does "acting socially sustainably in organizations" look like? What does that include and how can this objective be reached on the level of management, intermediates, and employees? While organisations demonstrate sustainable actions often externally with e.g. donations, a playground for the community, etc., we need to have a closer look at the micro-dynamics within the organization. The goal of acting socially sustainably in organisations is reflected systematically on a structural, interactional, and individual level and from interdisciplinary perspectives. Overall, the complex interdependency of a variety of subject matters will become apparent, worked on in theory and with practice training.