



UNIVERSITÄT ZU LÜBECK

Module Guide for the Study Path

Bachelor Interdisciplinary Courses



Arbitrary semester

Tools for scientific practice (CS2450-KP02, CS2450, Werkzeuge)	1
Quality management (EW2412-KP03, WFQM)	2
Sociology of health (GW3260-KP04, SodGH)	3
Philosophy of Science (LS2807-KP04, WissTheo)	5
Intercultural skills in higher education, work and society (PS1050-KP04, IKKSBG)	7
Social Aspects of Sustainability (PS1110-KP04, GesellNach)	8
Economic Aspects of Sustainability (PS1120-KP04, OekoNach)	10
Sustainability Science with Focus on Ecology & Biotechnology (PS1500-KP05, NachWiss)	12
Ethics of Sciences (PS4620-KP04, PS4620SJ14, EthikKP04)	14
Ethics of Innovative Technologies (PS4630-KP04, EthikIT)	16
Studium Generale (PS4670-KP04, StuGen)	18
About Racism and other -isms (PS4680-KP04, Rassls)	20
Sustainable Power Supply (PS5010-KP04, EnergieZuk)	21
Scientific Teaching and Tutoring (PS5810-KP04, PS5810, WLehrKP04)	22
Study in a healthy way (PY0000-KP02, GDSSOZMED)	23
Music and the Brain (PY3215-KP04, MaB)	24

CS2450-KP02, CS2450 - Tools for scientific practice (Werkzeuge)
Duration:

1 Semester

Turnus of offer:

each winter semester

Credit points:

2

Course of study, specific field and term:

- Bachelor Interdisciplinary Courses for health sciences (optional subject), interdisciplinary competence, Arbitrary semester
- Bachelor Computer Science 2019 (compulsory), interdisciplinary competence, 3rd semester
- Bachelor Medical Informatics 2014 (optional subject), interdisciplinary competence, Arbitrary semester
- Bachelor Medical Informatics 2019 (optional subject), interdisciplinary competence, Arbitrary semester
- Bachelor Computer Science 2016 (compulsory), interdisciplinary competence, 3rd semester
- Bachelor Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester
- Bachelor Media Informatics 2014 (optional subject), interdisciplinary competence, 5th or 6th semester
- Bachelor Computer Science 2014 (compulsory), interdisciplinary competence, 3rd semester

Classes and lectures:

- Tools for scientific practice (seminar-style lectures, 2 SWS)

Workload:

- 30 Hours private studies
- 30 Hours in-classroom work

Contents of teaching:

- Programming language Python
- Markup languages (LaTeX, Markdown)
- User Interfaces and Integrated Development Environments (Jupyter Notebook)
- Software for version control (git)
- digital libraries search (DBLP, ACM, IEEE) Scientific Computing (NumPy, SciPy)
- Data processing and visualization (Pandas, matplotlib, NLTK)
- Machine Learning (scikit-learn)
- DeepLearning (Tensorflow, PyTorch)

Qualification-goals/Competencies:

- The students know diverse technical tools for scientific work.
- They can apply important technical tools from the Python Ecosystem.
- They can handle version control and markup languages.
- They are able to select appropriate tools.

Grading through:

- exercises and project assignments

Is requisite for:

- Bachelor Thesis Computer Science (CS3990-KP15, CS3990)
- Bachelor Project Computer Science (CS3701-KP05, CS3701SJ14)
- Bachelor Seminar Informatics (CS3702-KP04, CS3702)

Responsible for this module:

- Studiengangsleitung Informatik

Teacher:

- [Institute of Information Systems](#)
- Alle prüfungsberechtigten Dozentinnen/Dozenten des Studienganges

Language:

- German and English skills required

Notes:

Prerequisites for attending the module:
- None



EW2412-KP03 - Quality management (WFQM)		
Duration: 1 Semester	Turnus of offer: each winter semester	Credit points: 3
Course of study, specific field and term: <ul style="list-style-type: none">• Master Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester• Bachelor Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester• Bachelor Interdisciplinary Courses for health sciences (optional subject), interdisciplinary competence, Arbitrary semester		
Classes and lectures: <ul style="list-style-type: none">• Quality Management (lecture, 2 SWS)	Workload: <ul style="list-style-type: none">• 60 Hours private studies• 30 Hours in-classroom work	
Contents of teaching: <ul style="list-style-type: none">• basic concept of quality management• composition and organisation of a QM-system• Total Quality Management (TQM)• quality system audit• certification		
Qualification-goals/Competencies: <ul style="list-style-type: none">• The students know the basic concept of quality management• They understand the composition and organisation of a QM-system		
Grading through: <ul style="list-style-type: none">• written exam		
Responsible for this module: <ul style="list-style-type: none">• Prof. Dr. med. Christian Sina Teacher: <ul style="list-style-type: none">•		
Literature: <ul style="list-style-type: none">• :		
Language: <ul style="list-style-type: none">• offered only in German		

GW3260-KP04 - Sociology of health (SodGH)		
Duration: 1 Semester	Turnus of offer: each winter semester	Credit points: 4
Course of study, specific field and term: <ul style="list-style-type: none"> • Bachelor Interdisciplinary Courses for health sciences (optional subject), Interdisciplinary modules, Arbitrary semester • Bachelor Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester 		
Classes and lectures: <ul style="list-style-type: none"> • Sociology of health (seminar, 2 SWS) 	Workload: <ul style="list-style-type: none"> • 90 Hours private studies • 30 Hours in-classroom work 	
Contents of teaching: <ul style="list-style-type: none"> • Explanatory approaches and concepts of health and disease • Social construct of health and illness • Social and cultural influences on health opportunities and disease risks • Social determinants of health and health care • Lifelong perspectives on health • Health from a Gender Perspective • Media construction of health 		
Qualification-goals/Competencies: <ul style="list-style-type: none"> • The students can describe different social science explanatory models of health and illness • Students can reflect and critically analyze the social and socio-cultural causes and contexts of health and illness and their unequal distribution in society • The students can explain and analyze health risk constellations as well as the conditions under which socially unequal health opportunities arise over the course of a lifetime. • Students can critically discuss the influence of social media on health. • Students reflect on their own understanding of health and illness against the background of social science theories and models. 		
Grading through: <ul style="list-style-type: none"> • continuous, successful participation in course, >80% 		
Responsible for this module: <ul style="list-style-type: none"> • Prof. Dr. phil. Dipl.-Soz. Katja Götz 		
Teacher: <ul style="list-style-type: none"> • Prof. Dr. phil. Dipl.-Soz. Katja Götz 		
Literature: <ul style="list-style-type: none"> • Hehlmann T, Schmidt-Semisch H, Schorb F.: Soziologie der Gesundheit - UVK Verlag, München 2018 • Paul B, Schmidt-Semisch H.: Risiko Gesundheit. Über Risiken und Nebenwirkungen der Gesundheitsgesellschaft - VS Verlag für Sozialwissenschaften, Wiesbaden 2010 • Richter M, Hurrelmann K.: Soziologie von Gesundheit und Krankheit - VS Springer, Wiesbaden 2016 • Richter M, Hurrelmann K.: Gesundheitliche Ungleichheit. Grundlagen, Probleme, Perspektiven - VS Verlag für Sozialwissenschaften 2006 • Franke A.: Modelle von Gesundheit und Krankheit - Verlag Hans Huber, Bern 2006 		
Language: <ul style="list-style-type: none"> • German and English skills required 		
Notes:		



Prerequisites for attending the module:

- None

Prerequisites for the exam:

Holding a lecture and group work.

LS2807-KP04 - Philosophy of Science (WissTheo)		
Duration: 1 Semester	Turnus of offer: every summer semester	Credit points: 4
Course of study, specific field and term: <ul style="list-style-type: none"> • Bachelor Molecular Life Science 2024 (optional subject), interdisciplinary competence, 4th or 6th semester • Bachelor Interdisciplinary Courses for health sciences (optional subject), interdisciplinary competence, Arbitrary semester • Bachelor MLS 2018 (optional subject), life sciences, 4th semester • Master Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester • Bachelor Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester • Bachelor MLS 2016 (optional subject), life sciences, 4th semester 		
Classes and lectures: <ul style="list-style-type: none"> • Basic of evolution theory: Historical and phylosophical perspectives (lecture, 2 SWS) • Basic of evolution theory: Historical and phylosophical perspectives (seminar, 1 SWS) 		Workload: <ul style="list-style-type: none"> • 75 Hours private studies • 45 Hours in-classroom work
Contents of teaching: <ul style="list-style-type: none"> • • • • • 		
Qualification-goals/Competencies: <ul style="list-style-type: none"> • • • • 		
Grading through: <ul style="list-style-type: none"> • oral presentation and essay 		
Responsible for this module: <ul style="list-style-type: none"> • Dr. phil. Staffan Müller-Wille 		
Teacher: <ul style="list-style-type: none"> • Institute for History of Medicine and Science Studies • Dr. phil. Staffan Müller-Wille • Prof. Dr. med. Cornelius Borck • Prof. Dr. rer. nat. Burghard Weiss • Prof. Dr. phil. Christoph Rehmann-Sutter • Prof. Dr. phil Christina Schües • Dr. phil. Leonhard Menges • Dr. rer. nat. Schult 		
Literature: <ul style="list-style-type: none"> • S. Shapin: Die wissenschaftliche Revolution - Frankfurt a.M. 1998 • M. Hagner: Ansichten der Wissenschaftsgeschichte - Frankfurt a.M., 2001 • I. Hacking: Einführung in die Philosophie der Naturwissenschaften - Stuttgart 1983 • Rheinberger, Hans-Jörg: Historische Epistemologie zur Einführung - Hamburg 2007 • U. Krohs und G. Toepfer: Philosophie der Biologie: Eine Einführung - Frankfurt a.M. 2005. • I. Jahn: Grundzüge der Biologiegeschichte - Jena 1990 • K. Köchy: Biophilosophie zur Einführung - Hamburg 2008 • A. Brenner: Leben. Grundwissen Philosophie - Stuttgart 2009 		



Language:

- offered only in German

Notes:

Part of the module LS2800

Basics understanding of molecular Biology; Interest in philosophical-ethical questions in the life sciences

PS1050-KP04 - Intercultural skills in higher education, work and society (IKKSBG)			
Duration: 1 Semester	Turnus of offer: each winter semester	Credit points: 4	Max. group size: 15
Course of study, specific field and term:			
<ul style="list-style-type: none"> • Bachelor Interdisciplinary Courses for health sciences (optional subject), interdisciplinary competence, Arbitrary semester • Master Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester • Bachelor Interdisciplinary Courses (optional subject), interdisciplinary competence, Arbitrary semester 			
Classes and lectures:		Workload:	
<ul style="list-style-type: none"> • Intercultural skills in higher education, work and society (seminar, 3 SWS) 		<ul style="list-style-type: none"> • 40 Hours private studies • 38 Hours in-classroom work • 22 Hours group work 	
Contents of teaching:			
<ul style="list-style-type: none"> • • • • • • • • 			
Qualification-goals/Competencies:			
<ul style="list-style-type: none"> • • • • • • 			
Grading through:			
<ul style="list-style-type: none"> • continuous, successful participation in course • Group work • Active Participation 			
Responsible for this module:			
<ul style="list-style-type: none"> • Prof. Dr. rer. nat. Till Tantau 			
Teacher:			
<ul style="list-style-type: none"> • International Office • Dr. Imke Lode • Matthias Holzum 			
Literature:			
<ul style="list-style-type: none"> • Hyatt, Millay: Critical Whiteness: Weißsein als Privileg - Erscheinungsjahr: 2015 • Hofstede, Geert; Hofstede, Gert Jan: Cultures and Organizations. Software of the Mind - Erscheinungsjahr: 2005 • Özkan, Ibrahim: Das Fremde als Herausforderung in der Psychotherapie - Berufsverband Deutscher Psychologinnen und Psychologen. Tag der Psychologie 2014 			
Language:			
<ul style="list-style-type: none"> • offered only in German 			

PS1110-KP04 - Social Aspects of Sustainability (GesellNach)
Duration:

1 Semester

Turnus of offer:

each winter semester

Credit points:

4

Course of study, specific field and term:

- Bachelor Interdisciplinary Courses (optional subject), interdisciplinary competence, Arbitrary semester
- Master Interdisciplinary Courses (optional subject), interdisciplinary competence, Arbitrary semester
- Bachelor Interdisciplinary Courses for health sciences (optional subject), interdisciplinary competence, Arbitrary semester

Classes and lectures:

- PS1110-S: Social Aspects of Sustainability (seminar, 1 SWS)
- PS1102-V: Social classification of sustainability science (lecture, 1 SWS)

Workload:

- 60 Hours private studies
- 30 Hours in-classroom work

Contents of teaching:

- The idea of sustainable development and its historical classification
- Foundations for theoretical concepts of sustainable development
- Foundations of sustainable development and its scientific resonance
- Basic concepts of sustainability ethics
- Fundamentals of the philosophy of science and transdisciplinary research
- Specific aspects of the methodology of sustainability science

Qualification-goals/Competencies:

- Students master the basics of ecological, social and economic assessment of the sustainability of technological developments.
- They have an understanding of which procedures are sustainable in which areas (business, medicine, research, transfer) and which criteria they must fulfil
- You will gain a general understanding of sustainability science and learn about its importance for society and current and future economic developments.

Grading through:

- portfolio exam

Responsible for this module:

- [Prof. Dr. rer. nat. Charli Kruse](#)

Teacher:

- [Institute of Medical and Marine Biotechnology](#)
- [Prof. Dr. rer. nat. Charli Kruse](#)
- Dr. rer. nat. Daniel Hans Rapoport
- Dr. rer. nat. Sandra Schumann
- Dr. rer. nat. Philipp Ciba
- Dr. rer. nat. Anna Matthießen

Literature:

- Harald Heinrichs, Gerd Michelsen: Nachhaltigkeitswissenschaften - Springer Spektrum 2014
- Joachim Pietzsch: Bioökonomie für Einsteiger - Springer Spektrum 1. Auflage 2017 Edition

Language:

- offered only in German

Notes:



Admission requirements for taking the module:

- None formal, but scientific knowledge is needed

Admission requirements for participation in module examination(s):

- Successful and regular participation in the seminar

Module Exam(s):

- PS1110-L1: Social Aspects of Sustainability, Portfolio exam consisting of: 30 points in the form of an individual term paper, 70 points in the form of a semester presentation, 100% of the (non-existent) module grade

PS1120-KP04 - Economic Aspects of Sustainability (OekoNach)		
Duration: 1 Semester	Turnus of offer: every summer semester	Credit points: 4
Course of study, specific field and term: <ul style="list-style-type: none"> • Bachelor Interdisciplinary Courses (optional subject), interdisciplinary competence, Arbitrary semester • Master Interdisciplinary Courses (optional subject), interdisciplinary competence, Arbitrary semester • Bachelor Interdisciplinary Courses for health sciences (optional subject), interdisciplinary competence, Arbitrary semester 		
Classes and lectures: <ul style="list-style-type: none"> • PS1120-S: Economic Aspects of Sustainability (seminar, 1 SWS) • PS1100-V: Sustainable bioeconomy (lecture, 1 SWS) 		Workload: <ul style="list-style-type: none"> • 60 Hours private studies • 30 Hours in-classroom work
Contents of teaching: <ul style="list-style-type: none"> • Presentation and discussion of selected fields of action: Sustainability through climate protection using the example of peatland restoration, sustainable water management, cost avoidance through flood and coastal protection in Germany. • Connection between the bioeconomy and sustainability using exemplary examples: The origin of biomass, the use of biomass for the production of fuel and chemicals, the bioeconomy from the perspective of the innovation economy, the bioeconomy as a closed-loop and interconnected system • Criteria for success of the bioeconomy 		
Qualification-goals/Competencies: <ul style="list-style-type: none"> • Students can understand the topics of sustainability, bioeconomy and biotechnology and explain them using examples • They understand the bioeconomy system and the specifics of a sustainable bioeconomy • They master the essential basics of ecology and their economic classification • They understand the importance of the bioeconomy and sustainability in the field of entrepreneurship (management, digital economy, business administration and spin-offs) 		
Grading through: <ul style="list-style-type: none"> • portfolio exam 		
Responsible for this module: <ul style="list-style-type: none"> • Prof. Dr. rer. nat. Charli Kruse 		
Teacher: <ul style="list-style-type: none"> • Institute of Medical and Marine Biotechnology • Prof. Dr. rer. nat. Charli Kruse • Dr. rer. nat. Daniel Hans Rapoport • Dr. rer. nat. Sandra Schumann • Dr. rer. nat. Philipp Ciba • Dr. rer. nat. Anna Mattheießen 		
Literature: <ul style="list-style-type: none"> • Harald Heinrichs, Gerd Michelsen: Nachhaltigkeitswissenschaften - Springer Spektrum 2014 • Joachim Pietzsch: Bioökonomie für Einsteiger - Springer Spektrum 1. Auflage 2017 Edition 		
Language: <ul style="list-style-type: none"> • offered only in German 		
Notes:		



Admission requirements for taking the module:

- None formal, but scientific knowledge is required

Admission requirements for participation in module examination(s):

- Successful and regular participation in the seminar

Module Exam(s):

- PS1120-L1: Economic Aspects of Sustainability, Portfolio exam consisting of: 30 points in the form of an individual term paper, 70 points in the form of a semester presentation, 100% of the (non-existent) module grade

PS1500-KP05 - Sustainability Science with Focus on Ecology & Biotechnology (NachWiss)		
Duration:	Turnus of offer:	Credit points:
1 Semester	every summer semester	5
Course of study, specific field and term:		
<ul style="list-style-type: none"> • Master Interdisciplinary Courses (optional subject), interdisciplinary competence, Arbitrary semester • Bachelor Interdisciplinary Courses for health sciences (optional subject), interdisciplinary competence, Arbitrary semester • Bachelor Interdisciplinary Courses (optional subject), interdisciplinary competence, Arbitrary semester 		
Classes and lectures:		Workload:
<ul style="list-style-type: none"> • PS1500-V: Sustainability Science (lecture, 2 SWS) • PS1500-S: Sustainability Science (seminar, 1 SWS) • PS1500-Ü: Sustainability Science (exercise, 1 SWS) 		<ul style="list-style-type: none"> • 90 Hours private studies • 60 Hours in-classroom work
Contents of teaching:		
<ul style="list-style-type: none"> • Introduction to scientific perspectives on sustainability • Basic concepts of ecosystem and biodiversity • Foundations for food security and healthy nutrition in the context of the bioeconomy • Review of the importance of biotechnology for the bioeconomy • Significance of chemical substances in the environment • Basics of global material cycles (earth system, climate) • Conditions for a sustainable bioeconomy • Basics on the importance of transgenic animals and plants 		
Qualification-goals/Competencies:		
<ul style="list-style-type: none"> • Students can use examples to explain the terms sustainability, bioeconomy and biotechnology • They can assess selected technological developments with regard to their influence on sustainability • They will learn exemplary different processes to get a practical insight into the bioeconomy • They understand the fundamental importance of biotechnology for a sustainable bioeconomy • They will learn about examples of the close link between sustainable bioeconomy and biotechnology • They will gain insight into the use of extracorporeal cell cultures, sustainable medical processes, and biomass production and utilization • They will learn about the construction of recirculating systems or the ecologically sound use of marine biomass • They can professionally evaluate the topics of sustainability and bioeconomy in new subject areas • They have a profound knowledge to be able to assess technologies and processes with regard to their sustainability 		
Grading through:		
<ul style="list-style-type: none"> • portfolio exam 		
Responsible for this module:		
<ul style="list-style-type: none"> • Prof. Dr. rer. nat. Charli Kruse 		
Teacher:		
<ul style="list-style-type: none"> • Institute of Medical and Marine Biotechnology • Prof. Dr. rer. nat. Charli Kruse • Dr. rer. nat. Daniel Hans Rapoport • Dr. rer. nat. Sandra Schumann • Dr. rer. nat. Philipp Ciba • Dr. rer. nat. Anna Mattheießen 		
Literature:		
<ul style="list-style-type: none"> • Harald Heinrichs, Gerd Michelsen: Nachhaltigkeitswissenschaften - Springer Spektrum; 2014 • Joachim Pietzsch: Bioökonomie für Einsteiger - Springer Spektrum; 1. Aufl. 2017 Edition • Reinhard Renneberg, Darja Süßbier, Viola Berkling, Vanya Loroch: Biotechnologie für Einsteiger - Springer Spektrum; 5. Aufl. 2018 • Daniela Thrän, Urs Moesenfechtel: Das System Bioökonomie - Springer Spektrum; 1. Aufl. 2020 		
Language:		



- offered only in German

Notes:

Admission requirements for taking the module:

- None formal, but scientific knowledge is needed

Admission requirements for participation in module examination(s):

- Successful and regular participation in the seminar

Module Examination(s):

- PS1500-L1: Sustainability Science with a Focus on Ecology & Biotechnology, portfolio examination consisting of: 50 points in the form of a term paper completed independently during the semester and 50 points in the form of a presentation, 100% of the (non-existent) module grade

PS4620-KP04, PS4620SJ14 - Ethics of Sciences (EthikKP04)
Duration:

1 Semester

Turnus of offer:

each summer semester

Credit points:

4 (Typ B)

Course of study, specific field and term:

- Bachelor Interdisciplinary Courses for health sciences (optional subject), interdisciplinary competence, Arbitrary semester
- Master Medical Informatics 2019 (optional subject), interdisciplinary competence, 1st or 2nd semester
- Bachelor MES 2014 (optional subject), no specific field, Arbitrary semester
- Master MES 2014 (optional subject), no specific field, 1st or 2nd semester
- Master Medical Informatics 2014 (optional subject), interdisciplinary competence, 1st or 2nd semester
- Master Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester
- Bachelor Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester

Classes and lectures:

- Ethics in the Life Sciences (seminar, 2 SWS)

Workload:

- 65 Hours private studies
- 30 Hours in-classroom work
- 25 Hours work on an individual topic with written and oral presentation

Contents of teaching:

- Societal and ethical implications of research in biomedical sciences and technologies
- Basics of philosophy and sociology of science
- Good scientific practice
- Basics of bioethics: duties of investigators, obligations to colleagues,
- Ethics of human subjects research and animal experiments, environmental ethics. Governance of technology, risk assessment
- Neuroethics
- Ethics of AI and robotics

Qualification-goals/Competencies:

- Students can explain the methodology of the physical sciences and technology and their philosophical basis
- They can recognize ethical dimensions of practice and deciding
- They can identify and assess ethical dimensions of action and decision-making in biotechnology and AI
- They can understand relevant laws in Germany
- They can participate in current discussions in bioethics and research ethics
- They can reflect on ethical dimensions of biomedical sciences

Grading through:

- continuous, successful participation in course

Responsible for this module:

- [Prof. Dr. phil. Christoph Rehmann-Sutter](#)

Teacher:

- [Institute for History of Medicine and Science Studies](#)
- [Prof. Dr. med. Cornelius Borck](#)
- [Prof. Dr. phil. Christoph Rehmann-Sutter](#)
- Prof. Dr. phil. Christina Schües
- Dr. phil. Frank Wörler

Literature:

- Urban Wiesing (Hg.): Ethik in der Medizin. Ein Studienbuch - Stuttgart: Reclam 5. Aufl. 2020
- Ben Mepham: Bioethics. An Introduction for the Biosciences - Oxford: Oxford University Press 2008
- Jennifer A. Parks, Victoria S. Wike: Bioethics in a Changing World - Upper Saddle River, N.J.: Prentice Hall, 2010

Language:

- offered only in English



Notes:

Prerequisites for attending the module:

- None

Prerequisites for the exam:

- Writing an essay and giving a lecture

PS4630-KP04 - Ethics of Innovative Technologies (EthikIT)		
Duration: 1 Semester	Turnus of offer: each winter semester	Credit points: 4
Course of study, specific field and term: <ul style="list-style-type: none"> • Bachelor Interdisciplinary Courses for health sciences (optional subject), interdisciplinary competence, Arbitrary semester • Bachelor Interdisciplinary Courses (optional subject), interdisciplinary competence, Arbitrary semester 		
Classes and lectures: <ul style="list-style-type: none"> • Ethics of Innovative Technologies (seminar, 1 SWS) • Ethics of Innovative Technologies (lecture, 2 SWS) 	Workload: <ul style="list-style-type: none"> • 30 Hours group work • 30 Hours in-classroom work • 30 Hours private studies • 30 Hours written report 	
Contents of teaching: <ul style="list-style-type: none"> • Basic concepts and methods of ethics • Ethical decision-making models • Autonomous systems in the context of social change • Case studies of new and unresolved ethical issues due to modern and emerging technologies 		
Qualification-goals/Competencies: <ul style="list-style-type: none"> • Students recognise ethical problems and can formulate them concretely and precisely. • Students will be able to analyse future and existing technologies with regard to associated ethical issues. • Students can evaluate decisions in case studies on the basis of different ethical models. • Students can argue ethically and represent their opinion in discussions. • The students are familiar with fundamental future ethical issues regarding robotisation and the development of autonomous systems and artificial intelligences. 		
Grading through: <ul style="list-style-type: none"> • continuous, successful participation in course 		
Responsible for this module: <ul style="list-style-type: none"> • Dr.-Ing. Christian Herzog 		
Teacher: <ul style="list-style-type: none"> • Institute for Electrical Engineering in Medicine • Dr.-Ing. Christian Herzog 		
Literature: <ul style="list-style-type: none"> • : various topic-related and current literature 		
Language: <ul style="list-style-type: none"> • German and English skills required 		
Notes: <p>Admission requirements for taking the module: - None</p> <p>Admission requirements for participation in module examination(s): - None</p> <p>Module Exam(s):</p> <ul style="list-style-type: none"> - Submissions in groups will be required periodically during the semester, accounting for 20% of the final assessment. - At the end of the semester a report incl. a presentation (80%) is required, whereby the respective individual performance must be identified and will be evaluated separately. - The evaluation of the report is determined from: 70% individual performance + 30% overall evaluation of the report. - To successfully pass the course, you need to be evaluated at least in terms of a sufficient performance. 		



PS4670-KP04 - Studium Generale (StuGen)		
Duration: 1 Semester	Turnus of offer: each winter semester	Credit points: 4 (Typ B)
Course of study, specific field and term: <ul style="list-style-type: none"> • Master Artificial Intelligence 2023 (optional subject), for equivalence check, Arbitrary semester • Bachelor Interdisciplinary Courses for health sciences (optional subject), interdisciplinary competence, Arbitrary semester • Master Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester • Bachelor Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester 		
Classes and lectures: <ul style="list-style-type: none"> • Studium Generale (, 1 SWS) • Studium Generale (seminar, 1 SWS) 		Workload: <ul style="list-style-type: none"> • 60 Hours private studies • 30 Hours work on an individual topic with written and oral presentation • 30 Hours in-classroom work
Contents of teaching: <ul style="list-style-type: none"> • Current social and political topics • Philosophical, cultural studies and contemporary history perspectives • Current discussions from science, politics and society • Text reading and discussions about specialized scientific texts 		
Qualification-goals/Competencies: <ul style="list-style-type: none"> • Students can see through argumentation structures • They can increase their analysis, reflection and argumentation skills • Expand knowledge of social and political issues and their current debates. • Development of a cultural, philosophical, and contemporary historical understanding of the contexts of medicine, the natural sciences, the life sciences, technology, computer science, the health sciences, and psychology. 		
Grading through: <ul style="list-style-type: none"> • continuous, successful participation in course 		
Responsible for this module: <ul style="list-style-type: none"> • Prof. Dr. phil Christina Schües Teacher: <ul style="list-style-type: none"> • Institute for History of Medicine and Science Studies • Prof. Dr. phil Christina Schües • Prof. Dr. med. Cornelius Borck • Prof. Dr. phil. Christoph Rehmann-Sutter • Dr. phil. Birgit Stammberger • externe Referent*innen 		
Literature: <ul style="list-style-type: none"> • : 		
Language: <ul style="list-style-type: none"> • offered only in German 		
Notes:		



Prerequisites for attending the module:

- None

Prerequisites for the exam:

- Active participation in the seminar
- Written elaboration according to the requirements at the beginning of the semester

Module exam(s):

- PS4670-L1: Studium Generale, ungraded seminar, 0% of module grade, must be passed.

PS4680-KP04 - About Racism and other -Isms (RassIs)		
Duration: 1 Semester	Turnus of offer: each winter semester	Credit points: 4 (Typ B)
Course of study, specific field and term: <ul style="list-style-type: none"> • Bachelor Interdisciplinary Courses for health sciences (optional subject), Interdisciplinary modules, Arbitrary semester • Master Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester • Bachelor Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester 		
Classes and lectures: <ul style="list-style-type: none"> • About Racism and other -Isms (seminar, 2 SWS) 	Workload: <ul style="list-style-type: none"> • 60 Hours private studies • 30 Hours work on an individual topic with written and oral presentation • 30 Hours in-classroom work 	
Contents of teaching: <ul style="list-style-type: none"> • Current social and political discussion on racism • Conceptual reappraisal of the historical, cultural and social background of e.g. race, gender or eugenics • Reading and discussion of scientific texts • Development of perspectives critical of racism 		
Qualification-goals/Competencies: <ul style="list-style-type: none"> • Students can understand and evaluate the structures of concepts and arguments • Increasing their ability to analyse, reflect and argue • Expanding the knowledge in a subject area that is cross-disciplinary • Development of a philosophical, historical and cultural-theoretical understanding of the social contexts of psychology, medicine, natural and life sciences. 		
Grading through: <ul style="list-style-type: none"> • continuous, successful participation in course 		
Responsible for this module: <ul style="list-style-type: none"> • Prof. Dr. phil Christina Schües Teacher: <ul style="list-style-type: none"> • Institute for History of Medicine and Science Studies • Prof. Dr. phil Christina Schües 		
Literature: <ul style="list-style-type: none"> • : 		
Language: <ul style="list-style-type: none"> • German and English skills required 		
Notes: <p>Prerequisites for attending the module: - None</p> <p>Prerequisites for the exam: - Written preparation and giving a lecture during the semester</p>		

PS5010-KP04 - Sustainable Power Supply (EnergieZuk)		
Duration: 1 Semester	Turnus of offer: each winter semester	Credit points: 4 (Typ B)
Course of study, specific field and term: <ul style="list-style-type: none"> • Bachelor Interdisciplinary Courses for health sciences (optional subject), Interdisciplinary modules, Arbitrary semester • Master Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester • Bachelor Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester 		
Classes and lectures: <ul style="list-style-type: none"> • Sustainable Power Supply (lecture, 2 SWS) • Sustainable Power Supply (seminar and project work, 2 SWS) 		Workload: <ul style="list-style-type: none"> • 60 Hours work on project • 50 Hours in-classroom work • 10 Hours excursion
Contents of teaching: <ul style="list-style-type: none"> • • • • • • • 		
Qualification-goals/Competencies: <ul style="list-style-type: none"> • • 		
Grading through: <ul style="list-style-type: none"> • presentation • Oral examination 		
Responsible for this module: <ul style="list-style-type: none"> • Prof. Dr. Martin Leucker Teacher: <ul style="list-style-type: none"> • Institute of Software Technology and Programming Languages • Dr. Matthias Meinefeld 		
Literature: <ul style="list-style-type: none"> • Energy Institute (EI): Statistical Review of World Energy - https://www.energyinst.org/statistical-review • BDEW: Die Energieversorgung 2022 Jahresbericht - https://www.bdew.de/service/publikationen/jahresbericht-energieversorgung/ 		
Language: <ul style="list-style-type: none"> • offered only in German 		

PS5810-KP04, PS5810 - Scientific Teaching and Tutoring (WLehrKP04)
Duration:

1 Semester

Turnus of offer:

irregularly

Credit points:

4 (Typ B)

Course of study, specific field and term:

- Bachelor Interdisciplinary Courses for health sciences (optional subject), interdisciplinary competence, Arbitrary semester
- Master Computer Science 2019 (optional subject), interdisciplinary competence, Arbitrary semester
- Master Entrepreneurship in Digital Technologies 2020 (optional subject), interdisciplinary competence, Arbitrary semester
- Master Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester
- Bachelor Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester
- Master CLS 2016 (optional subject), Interdisciplinary modules, 3rd semester
- Master Entrepreneurship in Digital Technologies 2014 (optional subject), interdisciplinary competence, Arbitrary semester
- Master Media Informatics 2014 (optional subject), interdisciplinary competence, Arbitrary semester
- Master MES 2014 (optional subject), no specific field, 1st or 2nd semester
- Bachelor MES 2014 (optional subject), no specific field, Arbitrary semester
- Master Computer Science 2014 (optional subject), interdisciplinary competence, Arbitrary semester
- Master CLS 2010 (optional subject), interdisciplinary competence, 3rd semester
- Master Computer Science 2012 (optional subject), interdisciplinary competence, Arbitrary semester

Classes and lectures:

- Theory and Practice of Good Teaching (seminar, 1 SWS)
- Work as a tutor in a lecture (practical course, 2 SWS)

Workload:

- 60 Hours private studies and exercises
- 45 Hours oral presentation (including preparation)
- 15 Hours in-classroom work

Contents of teaching:

- Organizing and running a scientific lecture
- Basic didactics of scientific teaching
- Practical work in tutorials

Qualification-goals/Competencies:

- The participants are able to lead a student working group and to communicate technical issues to it appropriately.
- Basic pedagogical and didactical skills

Grading through:

- continuous participation in all courses of the module

Responsible for this module:

- [Prof. Dr. rer. nat. Nico Bunzeck](#)
- [Prof. Dr. rer. nat. Jürgen Prestin](#)

Teacher:

- [Institute for Mathematics](#)
- [Dr. rer. nat. Jörn Schnieder](#)
- Alle prüfungsberechtigten Dozentinnen/Dozenten des Studienganges
- Corinna Lütsch

Language:

- depends on the chosen courses

Notes:

The seminar must be attended before working as a tutor. This activity cannot be remunerated.

The course instructor in charge of the respective course will issue a certificate of achievement for the module.

PY0000-KP02 - Study in a healthy way (GDSSOZMED)		
Duration: 1 Semester	Turnus of offer: each winter semester	Credit points: 2
Course of study, specific field and term: <ul style="list-style-type: none"> • Bachelor Interdisciplinary Courses (optional subject), Interdisciplinary modules, Arbitrary semester • Bachelor Interdisciplinary Courses for health sciences (optional subject), interdisciplinary competence, Arbitrary semester 		
Classes and lectures: <ul style="list-style-type: none"> • Healthy studying lecture (lecture, 1 SWS) • Healthy studying course (seminar, 1 SWS) 	Workload: <ul style="list-style-type: none"> • 30 Hours work on project • 30 Hours in-classroom work 	
Contents of teaching: <ul style="list-style-type: none"> • • • • • • • • • 		
Qualification-goals/Competencies: <ul style="list-style-type: none"> • • • • • 		
Grading through: <ul style="list-style-type: none"> • continuous participation (>80%) 		
Responsible for this module: <ul style="list-style-type: none"> • Prof. Dr. med. Edgar Voltmer 		
Teacher: <ul style="list-style-type: none"> • Institute for Social Medicine and Epidemiology • Institute of Anatomy • Prof. Dr. med. Thomas Kötter, MPH • Dr. med. Imke Weyers • Juliana Wiechert, Dipl.-Psych. • Katrin Obst, Dipl.-Psych. 		
Literature: <ul style="list-style-type: none"> • : • : • : 		
Language: <ul style="list-style-type: none"> • offered only in German 		

PY3215-KP04 - Music and the Brain (MaB)		
Duration: 1 Semester	Turnus of offer: each winter semester	Credit points: 4
Course of study, specific field and term: <ul style="list-style-type: none"> • Bachelor Interdisciplinary Courses for health sciences (optional subject), psychology, Arbitrary semester • Bachelor Interdisciplinary Courses (optional subject), psychology, Arbitrary semester 		
Classes and lectures: <ul style="list-style-type: none"> • PY3215-S: Music and the Brain (seminar, 2 SWS) 	Workload: <ul style="list-style-type: none"> • 90 Hours private studies • 30 Hours in-classroom work 	
Contents of teaching: <ul style="list-style-type: none"> • Special musical abilities: synesthesia and perfect pitch • Deficits in musical perception and processing: amusia and musical anhedonia • Motor control while making music and corresponding movement disorders (focal dystonia) • Therapeutic use of music • Music performance anxiety and mental health in musicians • Music and memory, attention, and emotion 		
Qualification-goals/Competencies: <ul style="list-style-type: none"> • The students gain knowledge in perception, processing, production of music in humans • They gain the ability to present scientific and clinical results, as well as the critical discussion about research and publications • The students receive competences in personal development, especially regarding the communication and cooperation in a team by structured work in small groups with different backgrounds of profession 		
Grading through: <ul style="list-style-type: none"> • presentation 		
Responsible for this module: <ul style="list-style-type: none"> • Prof. Dr. rer. nat. Daniel S. Scholz 		
Teacher: <ul style="list-style-type: none"> • University of Music Lübeck • externe Referent*innen 		
Literature: <ul style="list-style-type: none"> • Altenmüller, E., Furuya, S., Scholz, D. S., & Ioannou, C. I. (2019): Brain Research in Music Performance - In M. H. Thaut & D. A. Hodges (Eds.), <i>The Oxford Handbook of Music and the Brain</i> (pp. 458-486). Oxford University Press, (2019) • Münte, T. F., Altenmüller, E., & Jäncke, L. (2002): The musician's brain as a model of neuroplasticity - <i>Nature Reviews Neuroscience</i>, (2002) • Vuust, P., Heggli, O. A., Friston, K. J., & Kringelbach, M. L.: <i>Music in the brain - Nature Reviews Neuroscience</i>, (2022) 		
Language: <ul style="list-style-type: none"> • English, except in case of only German-speaking participants 		
Notes: <p>Admission requirements for taking the module: - None</p> <p>Admission requirements for participation in module examination(s): - Successful seminar design in groups of 3 or 4 as specified at the beginning of the semester</p> <p>Module Exam(s): - PY3215-L1: Music and the Brain, presentation, 100% of the (non-existent) module grade</p>		