



HAW Hamburg  
Fakultät LS  
Life Sciences

Faculty of Life Sciences

# Module Handbook

Master of Science in Health Sciences

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**Module Handbook**  
**Master of Science**  
**Health Sciences**

**Faculty Life Sciences**  
**Department Nutrition**

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## Overview of the Modules

### 1<sup>st</sup> Semester - 10 Modules with each 3 CP

1. Concepts and Dimensions of Health Sciences and Public Health
2. Diversity in Health - Gender, Culture, Age
3. Work and Health
4. Health Economics
5. Global Health
6. Ethics
7. Qualitative Research Methods
8. Infectious Disease Epidemiology
9. Non-communicable Disease Epidemiology
10. Area of individual interest (1 Module \*\* e.g. Intercultural competences)

### 2<sup>nd</sup> Semester - 10 Modules with each 3 CP

Ten Modules are required, at least 4 Modules from part A and at least 4 modules from part B

11. Health Behaviour and Lifestyles (A)
12. Family and Community Health (A)
13. Occupational Health Research (A)
14. Health Promotion Research (A)
15. Health Systems Research (A)
16. Health Economy Research (A)
17. Instrument Development and Validation (B)
18. Research and Project Management (B)
19. Advanced Study Design and Data Analysis (B)
20. Advanced Biostatistics (B)
21. Epistemology (B)
22. Area of individual interest (1 Module) \*\*
23. Area of individual interest (1 Module) \*\*

\*\* Additional Modules of the students own choice out of academic programs of the faculty, other faculties or other Universities in foreign countries

## **Objectives**

Well trained health professionals are needed to meet the growing demand within the changing field of health care. Target group of the M.Sc. programme are graduates, seeking for in-depth knowledge and skills of research in the complex field of health sciences. The Master of Science in Health Sciences (MHS) is a two year full-time research-oriented master programme (120 CP total); that follows-on from a respective Bachelors degree. Participants of the research master programme will be trained for positions in health research, public administration, quality management and evaluation in the different institutions within the health care market, e.g. health insurances, universities, hospitals, public administrations or health consulting agencies.

The aim of the programme focuses on determinants of health and major health problems in a global and interdisciplinary perspective. In order to positively affect the health of populations its key concept is to preserve and enhance the health, well being and life expectancy of human populations by integrating scientific research knowledge, practical skills and data research experience to advance Health. It provides tools, scientific and practical skills for international public health research like in Epidemiology, Diversity -, Occupational Health -, Health Promotion-, Health Systems -, and Health Economy Research. To emphasize its international character, the programme is held in English with a broad interdisciplinary focus.

## **Internship**

The skills learnt will be practiced in a six month research training-semester intended in the third semester. Here, students can either be part of a research project with focus on public health located at the University of Applied Sciences in Hamburg or can choose a research project in public health somewhere else. The choice of internship needs to be approved by the examination committee.

In that period students can gain not only practical skills, but also knowledge about how to actively participate in a research team and how to run a project in the field of health sciences research. The training will be supervised by a professor and accompanied by a colloquium.

## **Master Thesis**

The fourth semester of the MHS programme culminates in the writing of the final paper (Master Thesis). The aim is to formulate and analyse a problem, using a suitable study design and study methods and make recommendations for a solution. The concepts and methods learned during the programme will be applied.

# Study Overview

First year of study	<p>Concepts and Dimensions of Health Sciences and Public Health</p> <p>Diversity in Health - Gender, Culture, Age</p> <p>Work and Health</p> <p>Health Economics</p> <p>Global Health</p> <p>Ethics</p> <p>Qualitative Research Methods</p> <p>Infectious Disease Epidemiology</p> <p>Non-communicable Disease Epidemiology</p> <p>Intercultural competences</p> <p>Area of individual interest (1 Module) **</p>	1 <sup>st</sup> Semester
	<p>**Additional Modules of the students own choice out of academic programs of the faculty, other Faculties or other universities in foreign countries</p>	
Second year of study	<p><b>Ten of the following Modules are required</b> (at least 4 Modules from part A and at least 4 modules from part B)</p> <div style="display: flex; justify-content: space-around;"> <div style="background-color: #1a3d54; color: white; padding: 10px; width: 45%;"> <p style="text-align: center;"><b>Area A</b></p> <p>Health Behaviour and Lifestyles</p> <p>Family and Community Health</p> <p>Occupational Health Research</p> <p>Health Promotion Research</p> <p>Health Systems Research</p> <p>Health Economy Research</p> </div> <div style="background-color: #1a3d54; color: white; padding: 10px; width: 45%;"> <p style="text-align: center;"><b>Area B</b></p> <p>Instrument Development and Validation</p> <p>Research and Project Management</p> <p>Advanced Study Design and Data Analysis</p> <p>Advanced Biostatistics</p> <p>Epistemology</p> </div> </div> <p style="text-align: center;">Area of individual interest (1 Module) **</p> <p style="text-align: center;">Area of individual interest (1 Module) **</p>	2 <sup>nd</sup> Semester
	<p>**Additional Modules of the students own choice out of academic programs of the faculty, other Faculties or other universities in foreign countries</p>	
	<p><b>6 Month Internship (Research Project)</b></p>	3 <sup>rd</sup> Semester
	<p><b>6 Month Master Thesis</b></p>	4 <sup>th</sup> Semester

## Description of the Modules

<b>1<sup>st</sup> Semester</b>
<b>10 Modules with each 3 CP/ Modules = 30 CP</b>

<b>Degree programme Master of Science in Health Sciences</b>	
<b>1<sup>st</sup> Module 1<sup>st</sup> Semester</b>	
<b>Name of module</b>	<b>Concepts and Dimensions of Health Sciences and Public Health</b>
<b>Module responsible</b>	<b>Prof. Dr. Dr. Karl-Heinz Wehkamp</b>
<b>Lecturers</b>	<b>Prof. Dr. Christine Faerber Prof. Dr. Detlef Krueger Prof. Dr. Ralf Reintjes Prof. Dr. Dr. Karl-Heinz Wehkamp Prof. Dr. Joachim Westenhoefer</b>
<b>Semester</b>	Winter Semester (September - February)
<b>Status</b>	Obligatory
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CP)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	-none-
<b>Max. Participants</b>	25
<b>Language</b>	English
<b>Objectives</b>	
The aim of the lecture is to:	
<ul style="list-style-type: none"> <li>• Reflect upon various meanings, dimensions and concepts of public health,</li> <li>• Become acquainted with public health perspectives of what influences population health,</li> </ul>	

- Gain familiarity with the ideas of public health,
- Develop one's theoretical perspective on the roles of public health professionals,
- Develop one's theoretical perspective on participation by the public in public health initiatives.

**Development of competencies** (*Professional, Technical, Methodological*)

The student can obtain following competencies:

- Understanding of public health,
- Ability to identify public health issues,
- Applying tools for systematic literature review (e.g. Pub med).

**Personal and social skills**

The student is able to:

- Discuss and interact with students from other professions, regions and cultures,
- Acknowledge the differences in the participants in respect to culture, gender, and region and respect those in communication.

**Content of module**

- Introduction of health sciences and public health
- Different perspectives, dimensions and concepts in public health and health sciences (e.g. nutrition, epidemiology, gender, ethics)
- Influencing factors in public health
- Different approaches of public health and biomedical public health
- Distinguishing public health from medicine
- The role of socio-economic status in determining health
- Presentation of current projects and research activities at the University of Applied Sciences, Hamburg

**Related module**

-none-



<b>Teaching and Learning Strategies/ Methodology/ Media</b>	Seminar, Group work
<b>Assessment(s)</b>	Written assignment
<b>Literature/ Working material</b>	<p>Beaglehole, R. Global public health: a new era. 2nd ed. Oxford: Oxford Univ. Press, 2009.</p> <p>Baum, F. The new public health. 3rd ed. Melbourne Oxford Univ. Press, 2008.</p> <p>World Health Organization: Working for health: an introduction to WHO (2007):  <a href="http://www.who.int/about/brochure_en.pdf">http://www.who.int/about/brochure_en.pdf</a>.</p> <p>Keleher, H.: Understanding health: a determinants approach. 2nd ed. Oxford: Oxford University Press, 2009.</p> <p>Merson, Michael H. International public health: diseases, programs, systems, and policies. 2nd ed. Sudbury, Mass, Jones and Bartlett, 2006.</p>

**Degree programme Master of Science in Health Sciences****2<sup>nd</sup> Module 1<sup>st</sup> Semester**

<b>Name of module</b>	<b>Diversity in Health - Gender, Culture, Age</b>
<b>Module responsible</b>	<b>Prof. Dr. Christine Faerber</b>
<b>Lecturer</b>	<b>Prof. Dr. Christine Faerber</b>
<b>Semester</b>	Winter Semester (September - February)
<b>Status</b>	Obligatory
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CP)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	-none-
<b>Max. Participants</b>	25
<b>Language</b>	English

**Objectives**

The aim of the lecture is to:

- Raise students' awareness to inequality in health along the lines of gender, ethnicity, age, socioeconomic status and other factors,
- Qualify students to understand theories of gender, ethnicity, race, inequality and inter-sectionality,
- Inform students about strategies to reduce inequalities,
- Enable students to conduct research/ design policies which are sensitive to inequalities.

**Development of competencies** (*Professional, Technical, Methodological*)

The student can obtain following competencies

- Identify and understand Gender, Diversity and inter-sectionality as concepts,
- Understand Gender Mainstreaming, Diversity Management and Affirmative Action/ Empowerment as strategies of action in the health sector and know applications,
- Ability to analyse gender, race/ ethnicity or other diversity dimensions and to make them part of their own approaches to scientific and practical work.

**Personal and social skills**

The student is able to:

- Apply in-depth knowledge across disciplinary boundaries,
- Apply the studied concepts to practice,
- Develop his/ her own research ideas and apply them systematically and analytically,
- Work in groups and discuss results.

**Content of module**

- Gender, social and biological gender/ sex, gender inequalities in health, gender and health related behaviour, intersexuality
- Diversity-Dimensions (age, ethnicity/ race, sexual orientation, religion, class/ social status, disability and their relevance for health
- Empowerment, Equal Opportunities Policies/ Affirmative Action, Gender Mainstreaming and Diversity Management as strategies and their application in the health sciences/ health sector

**Related module -none-****Teaching and Learning Strategies/ Methodology/ Media**

Seminar, Group Work, Student Presentations, Electronic platform for blended learning, Gendertraining, Diversity-Training Lecturer sets goals and standards, initiate the work process and guide the students to work autonomously.

**Assessment(s)**

Written assignment

**Literature/ Working material**

Schulz, Amy J.; Mullings, Leith (ed.) Gender, Race, Class and Health: Intersectional Approaches (Public Health/Vulnerable Populations)

Hochschild, Arlie Russell 1997: The Time Bind. When Work Becomes Home and Home Becomes Work. New York: Metropolitan/ Holt.

Recent studies on the E-learning platform and Reader

Literature Recommended to students who read German:

Hochschild, Arlie Russell 2006: Keine Zeit. Wenn die Firma zum Zuhause wird und zuhause nur Arbeit wartet.

Wiesbaden: VS-Verlag.

**Degree programme Master of Science in Health Sciences****3<sup>rd</sup> Module 1<sup>st</sup> Semester**

<b>Name of module</b>	<b>Work and Health</b>
<b>Module responsible</b>	<b>Prof. Dr. Detlef Krueger</b>
<b>Lecturer</b>	<b>Prof. Dr. Detlef Krueger</b>
<b>Semester</b>	Winter Semester (September - February)
<b>Status</b>	Obligatory
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CP)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 12h, E-learning and private study 78 h
<b>Entry Requirements</b>	Basic knowledge in Health Promotion and Medicine
<b>Max. Participants</b>	25
<b>Language</b>	English

**Objectives**

The aim of the lecture is to understand principles of prevention of illness and health promotion at work sites.

**Development of competencies** (*Professional, Technical, Methodological*)

- The student can obtain following competencies
- Planning,
- Implementation and evaluation of worksite health promotion programs,
- As well as project management skills.

**Personal and social skills**

The student is able to:

- Communicate health and health promotion issues with management, experts and employees at company level.

**Content of module**

- Gender, work and health
- Stress and strain at work
- Worksite Health Promotion
- Ageing, work environment and health
- Human Resource Management
- Evaluation Models

**Related module**

Health Promotion

**Teaching and Learning Strategies/ Methodology/ Media**

E-Learning/ Blended Learning

**Assessment(s)**

Written assignment

**Literature/ Working material**

Chenoweth, D.H. (2006). Worksite Health Promotion. Champaign: Human Kinetics.

Ilmarinen, J. (2005). Towards a longer worklife. Helsinki: FIOH.

Wilson, J.R., Corlett, E.N. (Ed.) (2005). Evaluation of Human Work. New York: Routledge, Chapman & Hall.

Degree programme Master of Science in Health Sciences	
4 <sup>th</sup> Module, 1 <sup>st</sup> Semester	
<b>Name of module</b>	<b>Health Economics</b>
<b>Module responsible</b>	<b>Prof. Dr. York Zoellner</b>
<b>Lecturer</b>	<b>Prof. Dr. York Zoellner</b>
<b>Semester</b>	Winter Semester (September - February)
<b>Status</b>	Obligatory
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CPs)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	Basic knowledge in Economics (as acquired e.g. through "Introduction to Economics" in the BSc programme)
<b>Max. Participants</b>	25
<b>Language</b>	English
<p><b>Objectives</b></p> <p>The aim of this module is to introduce students to the discipline of health economics and familiarise them with key applications.</p> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>Upon successful completion of the module, students will be able to:</p> <ul style="list-style-type: none"> <li>• Apply economic theory to the special context of a healthcare system,</li> <li>• Assess the pros and cons of market and governmental solutions in healthcare,</li> <li>• Scrutinize and predict the effect of different incentives in provider, consumer and payer behaviours,</li> <li>• Put the different decision-making criteria (such as efficiency, equity, and ethics) into perspective.</li> </ul> <p><b>Personal and social skills</b></p> <p>Upon successful completion of the module, students will be able to:</p> <ul style="list-style-type: none"> <li>• Discuss health economic concepts and applications in reasonable depth,</li> </ul>	

- Critically appraise media broadcasts, press releases and the contemporary political debate,
- Address different stakeholders in the healthcare system with knowledge and confidence.

**Content of module**

- Basic economic tools in healthcare analysis
- Supply and demand
- Information and insurance markets
- Key players in the healthcare sector
- Social insurance

**Related module**

Health Economics Research, Health Systems Research

**Teaching and Learning Strategies/ Methodology/ Media**

Lecture/ seminar, group work, break-out sessions, independent research, peer presentations

**Assessment(s)**

Exam and/ or assignment

**Literature/ Working material**

Folland, Goodman, Stano. The Economics of Health and Health Care (5<sup>th</sup> Ed.). New Jersey: Pearson/Prentice Hall, 2007.

Morris, Devlin, Parkin. Economic Analysis in Health Care. Chichester: Wiley, 2007.

Drummond M, McGuire A. Economic evaluation in health care. Oxford: OUP, 2001.

Dix Smith M (Ed.). Health care cost, quality, and outcomes. ISPOR Book of Terms. Lawrenceville: ISPOR, 2003.

Degree programme Master of Science in Health Sciences	
5 <sup>th</sup> Module 1 <sup>st</sup> Semester	
<b>Name of module</b>	<b>Global Health</b>
<b>Module responsible</b>	<b>Prof. Dr. Dr. Karl-Heinz Wehkamp</b>
<b>Lecturer</b>	<b>Prof. Dr. Dr. Karl-Heinz Wehkamp</b>
<b>Semester</b>	Winter Semester (September - February)
<b>Status</b>	Obligatory
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CP)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	-none-
<b>Max. Participants</b>	25
<b>Language</b>	English
<p><b>Objectives</b></p> <p>The aim of the lecture is to raise awareness of the global challenges like poverty, inequities, diseases, epidemics and the need to improve health throughout the world. Furthermore to reflect that global health is not just about health, the critical and integrated relationships among public health policies, health systems, healthcare, education, economic development, and business leadership and management require a simultaneous consideration of these issues.</p> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>The student can obtain following competencies:</p> <ul style="list-style-type: none"> <li>• Apply in-depth knowledge in public health policies,</li> <li>• Apply the studied concepts to practice,</li> <li>• Develop his/ her own research ideas,</li> <li>• Work in groups and discuss results.</li> </ul>	



**Personal and social skills**

The student is able to:

- Work in a multi-cultural environment and team
- Discuss and to reflect the results in the context of global health.

**Content of module**

- Global context of public health
- Current global health status, health consequences of globalization, monitoring the impact of globalization on health
- Global health policies and Health Systems
- Public health in different regions  
(e.g. Western and Eastern Europe, North America, Latin America, Africa, Asia, Australia)
- Health reports from around the world
- Main health challenges, current political strategies, strengths and problems
- Design of health systems
- Health situation, health system and health policies in some elected countries  
(e.g. Cameroon, Canada, Zimbabwe, Kenya, China, Barbados, Hungary)
- Globalization, conflict and humanitarian responses
- United Nations (UN) Organisations (its programmes, policies, conferences)
- Non Governmental Organisations (NGOs)
- European Union (EU) and its public health policies
- World Bank, Micro Credits, World Trade Organization (WTO)

**Related module** -none-

<b>Teaching and Learning Strategies/ Methodology/ Media</b>	Seminar, Discussions, Presentations
<b>Assessment(s)</b>	Written assignment and 15min.oral discussion, or 20min.presentation (2 students 30min.)
<b>Literature/ Working material</b>	Beaglehole R, Bonita R. Global Public Health. A new era. Oxford. 2009. Lee K, Buse K, Fustukian S. Health Policy in a Globalising World. Cambridge 2002. Kawachi I, Wamala S. Globalization and health. Oxford 2007. Merson MH, Black RE, Mills A. International Public Health. Diseases, Programs, Systems, Policies. Sudbury/ Mass 2006.

Degree programme Master of Science in Health Sciences	
6 <sup>th</sup> Module 1 <sup>st</sup> Semester	
Name of module	Ethics
Module responsible	Prof. Dr. Dr. Karl-Heinz Wehkamp
Lecturer	Prof. Dr. Dr. Karl-Heinz Wehkamp
Semester	Winter Semester (September - February)
Status	Obligatory
Frequency/ Period of time	Yearly/ Within one semester
Credit Points (CPs)	3 CP
Workload for Students (h)	Workload 90h: presence 30h, private study 60h
Entry Requirements	-none-
Max. Participants	25
Language	English
<p><b>Objectives</b></p> <p>The aim of the lecture is to focus on the systematic analysis of the moral problems that arise in public health.</p> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>The student can obtain following competencies:</p> <ul style="list-style-type: none"> <li>• Discussing Human Rights and Public Health</li> <li>• Ability to identify ethical values in health care</li> <li>• Recognizing ethical values in the public health community,</li> <li>• Considering the full spectrum of the determinants of health,</li> <li>• Identifying the range of options for interventions that correspond to the full spectrum of determinants of health,</li> <li>• Recognizing community health and rights of individuals.</li> <li>• Identifying various conceptions of human rights, including those of the community.</li> <li>• Articulating the health, legal, social and political implications of each policy for vulnerable populations,</li> <li>• Considering values of diverse stakeholders</li> <li>• Ethical issues related to Public Health Research</li> </ul>	

**Personal and social skills**

The student is able to:

- Discuss and an argument ethical issues regarding Public Health,
- Work in groups and teams,
- Ability to consider ethics in public health research.

**Content of module**

- Theories of Ethics in Public Health
- Goals and structure for Public Health Ethics
- Principles of the Ethical Practice in Public Health
- Ethics for Public Health in Europe
- Human Rights
- Ethics and Infectious Disease Control
- Ethics of Health Promotion and Disease Prevention
- Ethical Issues in Environmental and Occupational Health
- Public Health Genetics

**Related module**

-none-

**Teaching and Learning Strategies/ Methodology/ Media**

Seminar, Group work, oral presentations

**Assessment(s)**

Written assignment or oral presentation

**Literature/ Working material**

Selected recent research articles from scientific journals

Bayer R, Gostin LO, Jennings B. Public Health Ethic: Theory, Policy, and Practice. Oxford Univ Pr; 2006.

Jennings B, Kahn J, Maistroianni A, Parker LS ed. Ethics and Public Health: Model Curriculum 2003.

Public Health Leadership Society. Principles of the Ethical Practice of Public Health

Degree programme Master of Science in Health Sciences	
7 <sup>th</sup> Module 1 <sup>st</sup> Semester	
Name of module	Qualitative Research Methods
Module responsible	Prof. Dr. Christine Faerber
Lecturer	Prof. Dr. Christine Faerber
Semester	Winter Semester (September - February)
Status	Obligatory
Frequency/ Period of time	Yearly/ Within one semester
Credit Points (CP)	3 CP
Workload for Students (h)	Workload 90h: presence 30h, private study 60h
Entry Requirements	-none-
Max. Participants	25
Language	English
<p><b>Objectives</b></p> <p>The aim of the lecture is to:</p> <ul style="list-style-type: none"> <li>• Identify, understand and apply qualitative research methods</li> <li>• Understand qualitative and quantitative methods of data analysis applied to qualitatively collected data</li> </ul> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>The student can obtain following competencies:</p> <ul style="list-style-type: none"> <li>• Understand, identify and conduct qualitative research methods,</li> <li>• Understand, identify and conduct qualitative and quantitative data analysis for openly collected data.</li> </ul> <p><b>Personal and social skills</b></p> <p>The student is able to:</p> <ul style="list-style-type: none"> <li>• Apply in-depth knowledge across disciplinary boundaries,</li> <li>• Apply the studied concepts to practice,</li> <li>• Develop his/ her own research ideas and apply them systematically and analytically,</li> <li>• Work in groups and discuss results</li> </ul>	

<b>Content of module</b>	
<ul style="list-style-type: none"> <li>• Applications of qualitative research: Exploration, Interpretation, Hypotheses testing, generation of hypotheses for quantitative tests, Triangulation</li> <li>• Approaches to qualitative research: narration, phenomenology, grounded theory, case studies, ethnography</li> <li>• Data collection methods: interviews (narrative, semi-structured), observation (structured, unstructured, participatory), document analysis, activist research, traces of activities, case study, design of a semi-standardized questionnaire/ observation guideline</li> <li>• Data analysis: hermeneutic methods of constructing meaning, development of criteria, text- and content analysis, structuring large amounts of data</li> </ul>	
<b>Related module</b>	
-none-	
<b>Teaching and Learning Strategies/ Methodology/Media</b>	<p>Seminar, Case Studies, Excursion, and Design of a qualitative research project, Electronic platform, Applied data Analysis in tutorial.</p> <p>Lecturer sets goals and standards, initiate the work process and guide the students to work autonomously.</p>
<b>Assessment(s)</b>	Written assignment
<b>Literature/ Working material</b>	<p>Cresswell JW. Qualitative Inquiry and Research Design. Choosing among five Approaches. Thousand Oaks: Sage. 2007.</p> <p>Jahoda M, Lazarsfeld P, Zeisel H. Die Arbeitslosen von Marienthal/ The Marienthal Study. Frankfurt: Surhkamp.</p> <p>Hochschild AR</p> <p>1997: The Time Bind. When Work Becomes Home and Home Becomes Work. New York: Metropolitan/ Holt.</p> <p>2006: Keine Zeit. Wenn die Firma zum Zuhause wird und zuhause nur Arbeit wartet. Wiesbaden: VS-Verlag.</p> <p><u>Literature Recommended to students who read German:</u></p> <p>Bogner A. Das Experteninterview, VS-Verlag.</p> <p>Flick U. Qualitative Forschung. Ein Handbuch.</p> <p>Lamnek S. Qualitative Sozialforschung.</p> <p>Mayring P. Einführung in die qualitative Sozialforschung, Beltz.</p> <p>Ders. Die Praxis der qualitativen Inhaltsanalyse, Beltz.</p>

Degree programme Master of Science in Health Sciences	
8th Module 1 <sup>st</sup> Semester	
<b>Name of module</b>	<b>Infectious Disease Epidemiology</b>
<b>Module responsible</b>	<b>Prof. Dr. Ralf Reintjes</b>
<b>Lecturer</b>	<b>Prof. Dr. Ralf Reintjes</b>
<b>Semester</b>	Winter Semester (September - February)
<b>Status</b>	Obligatory
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CP)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	Basic knowledge in Epidemiology.
<b>Max. Participants</b>	25
<b>Language</b>	English
<p><b>Objectives</b></p> <p>The aim of the course is to conduct quality research for the epidemiology, control and management of infections and infectious diseases that are of Public Health importance.</p> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>The student should obtain the following competencies:</p> <ul style="list-style-type: none"> <li>• Identifying key factors for the spread of infectious diseases,</li> <li>• Have an understanding of Surveillance Systems (Infectious Disease Information System, know different types of surveillance, capture-recapture analysis to assess the sensitivity of surveillance systems)</li> <li>• Know how to conduct outbreak investigations</li> <li>• Understand the possible use of mathematical modelling</li> <li>• Writing a critical appraisal, to synthesize the actual state of knowledge regarding a specific field, to keep only the information that will actually be useful.</li> </ul>	

<p><b>Personal and social skills</b></p> <p>The student is able to:</p> <p>Apply the study designs in practice,</p> <p>Ability to work in a team and to discuss results,</p> <p>Flexibility and ability to work under pressure (as during an outbreak investigation).</p>	
<p><b>Content of module</b></p> <ul style="list-style-type: none"> <li>• Surveillance – Infectious Disease Information System</li> <li>• Outbreak Investigations – systematic search for the source and transmission route</li> <li>• Distribution of Epidemics by WHO Regions</li> <li>• Key factors for the spread of infectious diseases</li> <li>• Epidemiologic Studies – answering predefined questions</li> <li>• Data handling and Analysis</li> <li>• Mathematic modelling in infectious disease epidemiology</li> <li>• Principles of Capture-recapture analysis: Assessing the sensitivity of surveillance systems</li> </ul>	
<p><b>Related module</b></p> <p>Epidemiology I, II (BA),</p> <p>Non-communicable Disease Epidemiology</p>	
<p><b>Teaching and Learning Strategies/ Methodology/ Media</b></p>	<ul style="list-style-type: none"> <li>• Seminar character</li> <li>• Case scenarios</li> <li>• Computer practice und students contributions (reports, group work)</li> <li>• Combination of problem oriented project work, case scenarios, seminars and lectures</li> </ul>
<p><b>Assessment(s)</b></p>	<p>Presentation/ Writing an abstract</p>
<p><b>Literature/ Working material</b></p>	<p>Giesecke J. Modern infectious disease epidemiology. 2. ed. London [u.a.]: Arnold, 2002.</p>

	<p>Reintjes R, Thelen M, Reiche R, Csoha R. Infectious Diseases Benchmarking national surveillance systems: a new tool for the comparison of communicable disease surveillance and control in Europe. <i>European Journal of Public Health</i>, 2007, 17(4):375–380.</p> <p>Krumkamp R, Ahmad A, Kassen A, Hjarnoe L, Syed AM, Aro AR, Reintjes R. Evaluation of national pandemic management policies—A hazard analysis of critical control points approach. <i>Health Policy</i> 2009. 92:21–26.</p> <p>Krumkamp R, Duerr HP, Reintjes R, Ahmad A, Kassen A, Eichner M. Impact of Public Healthinterventions in controlling the spread of SARS: Modelling of intervention scenarios. <i>Int. J. Hyg. Environ. Health</i> 2009, 212:67–75.</p> <p>Literature is provided on the e-learning platform and in a reader which will be handed out by the tutor in class for each day with exercises</p> <p><u>Literature Recommended to students who read German:</u></p> <p>Krämer A. &amp; Reintjes R. (eds.) <i>Infektionsepidemiologie</i>. Springer Verlag, Heidelberg 2003</p>
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Degree programme Master of Science in Health Sciences	
9 <sup>th</sup> Module 1 <sup>st</sup> Semester	
<b>Name of module</b>	<b>Non-communicable Disease Epidemiology</b>
<b>Module responsible</b>	<b>Prof. Dr. Joachim Westenhoefer</b>
<b>Lecturer</b>	<b>Prof. Dr. Joachim Westenhoefer</b>
<b>Semester</b>	Winter Semester (September - February)
<b>Status</b>	Obligatory
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CP)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	Basic knowledge in Epidemiology
<b>Max. Participants</b>	25
<b>Language</b>	English
<p><b>Objectives</b></p> <p>The aim of the lecture is to provide an overview and introduction to the methods and findings in the epidemiology of non-communicable diseases.</p> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>The student can obtain following competencies:</p> <ul style="list-style-type: none"> <li>• Describing the major non-communicable diseases and major components of their etiology,</li> <li>• Ability to research and evaluate scientific literature in the field,</li> <li>• Describing and evaluate approaches to screening and prevention of non-communicable diseases.</li> </ul> <p><b>Personal and social skills</b></p> <p>The student is able to:</p> <ul style="list-style-type: none"> <li>• Research and evaluate scientific literature,</li> <li>• Present work results in a scientific manner.</li> </ul>	

<b>Content of module</b>	
<ul style="list-style-type: none"> <li>• Overview of non-communicable diseases</li> <li>• Epidemiology of cardio-vascular disease</li> <li>• Epidemiology of diabetes</li> <li>• Epidemiology of cancer</li> <li>• Epidemiology of mental disorders</li> <li>• Concept of risk factors and approaches to prevention</li> </ul>	
<b>Related module</b>	
-none-	
<b>Teaching and Learning Strategies/ Methodology/ Media</b>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Group work with presentations</li> </ul>
<b>Assessment(s)</b>	Written assignment
<b>Literature/ Working material</b>	<p>Rothman et al., Modern Epidemiology, Lippincott, 2008.</p> <p>Recent research articles from scientific journals (Material on E-learning platform)</p>

Degree programme Master of Science in Health Sciences	
10 <sup>th</sup> Module 1 <sup>st</sup> Semester	
Name of module	Intercultural competencies
Module responsible	Prof. Dr. Christine Faerber
Lecturer	Prof. Dr. Christine Faerber
Semester	Winter Semester (September - February)
Status	Obligatory
Frequency/ Period of time	Yearly/ Within one semester
Credit Points (CP)	3 CP
Workload for Students (h)	Workload 90h: presence 30h, private study 60h
Entry Requirements	-none-
Max. Participants	25
Language	English
<p><b>Objectives</b></p> <p>The aim of the lecture is to:</p> <ul style="list-style-type: none"> <li>• Provide students with knowledge about intercultural competencies and intercultural communication,</li> <li>• Offer students a possibility to enhance their intercultural competencies.</li> </ul> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>The student can obtain following competencies:</p> <ul style="list-style-type: none"> <li>• Identifying and understanding culture as a concept,</li> <li>• Understanding chances and barriers of intercultural communication and solving problems in practice.</li> </ul> <p><b>Personal and social skills</b></p> <p>The student is able to</p> <ul style="list-style-type: none"> <li>• Apply in-depth knowledge across disciplinary boundaries,</li> <li>• Apply the studied concepts to practice,</li> <li>• Develop his/her own intercultural competencies,</li> <li>• Work in groups and discuss results.</li> </ul>	

<b>Content of module</b>	
<ul style="list-style-type: none"> <li>• Definition of culture, communication and perception</li> <li>• Verbal and nonverbal intercultural communication and their barriers</li> <li>• Dimensions of culture, dominant and comparative cultural patterns</li> <li>• Gender, families and children in cultures</li> <li>• Contact between cultures, migration, acculturation, cultures within cultures, identities and subgroups</li> <li>• Intercultural Training</li> </ul>	
<b>Related module</b>	
-none-	
<b>Teaching and Learning Strategies/ Methodology/ Media</b>	<ul style="list-style-type: none"> <li>• Seminar</li> <li>• Group Work</li> <li>• Student Presentations</li> <li>• E-learning platform for blended learning</li> <li>• Intercultural Training</li> </ul> <p>Lecturer sets goals and standards, initiate the work process and guide the students to work autonomously.</p>
<b>Assessment(s)</b>	Written assignment
<b>Literature/ Working material</b>	<p>Jandt, Fred E 2009: An Introduction to Intercultural Communication: Identities in a Global Community.</p> <p><u>Literature Recommended to students who read German:</u></p> <p>Kumbier, Dagmar, Schulz von Thun, Friedeman 2006: Interkulturelle Kommunikation: Methoden, Modelle, Beispiele, Reinbek.</p>

<b>2<sup>nd</sup> Semester</b>
<b>10 Modules with each 3 CP/ Modules = 30 CP</b> <b>(At least 4 Modules from Part A and at least 4 modules from Part B)</b>

<b>Degree programme Master of Science in Health Sciences</b>	
<b>11<sup>th</sup> Module 2<sup>nd</sup> Semester (Part A)</b>	
<b>Name of module</b>	<b>Health Behaviour and Lifestyles</b>
<b>Module responsible</b>	<b>Prof. Dr. Joachim Westenhofer</b>
<b>Lecturer</b>	<b>Prof. Dr. Joachim Westenhofer</b>
<b>Semester</b>	Summer Semester (March - August)
<b>Status</b>	Optional (Part A), at least 4 Modules from Part A
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CPs)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	-none-
<b>Max. Participants</b>	25
<b>Language</b>	English
<p><b>Objectives</b></p> <p>The aim of the lecture is to provide the students with knowledge of the current state of research in health behaviour and life-style modification.</p> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>The student can obtain following competencies:</p> <ul style="list-style-type: none"> <li>• Describing current state of knowledge and research in health behaviour and life-style modification research,</li> <li>• Identifying areas of open research questions and leading edge research in this fields,</li> <li>• Describing methods and approaches of research in the field and applying appropriate methods and designs to new research questions.</li> </ul>	

**Personal and social skills**

The student is able to:

- Discuss and work in groups and teams,
- Present knowledge, findings and challenges in oral format and to defend new hypotheses.

**Content of module**

- Theories of Health Behaviour and life-style modification
- Selected new research in different areas of life-style modification (including smoking, eating, exercise, sexual behaviour)

**Related module**

-none-

**Teaching and Learning Strategies/ Methodology/ Media**

Lecture, Group work, oral presentations

**Assessment(s)**

Oral presentations

**Literature/ Working material**

Selected recent research articles from scientific journals

**Degree programme Master of Science in Health Sciences****12<sup>th</sup> Module 2<sup>nd</sup> Semester (Part A)**

<b>Name of module</b>	<b>Family and Community Health</b>
<b>Module responsible</b>	<b>Prof. Dr. Detlef Krueger</b>
<b>Lecturer</b>	<b>Prof. Dr. Detlef Krueger</b>
<b>Semester</b>	Summer Semester (March - August)
<b>Status</b>	Optional (Part A), at least 4 Modules from Part A
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CP)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	Basic knowledge in Social Science
<b>Max. Participants</b>	25
<b>Language</b>	English

**Objectives**

The aim of the lecture is to explain and to demonstrate the interaction processes between the social environment and the individual and family health development throughout the lifespan.

**Development of competencies** (*Professional, Technical, Methodological*)

The student can learn the following competencies:

- Planning, implementation and evaluation of family health programs consistent with current theory and data.

**Personal and social skills**

The student is able to:

- Effectively communicate family health needs to a broad array of students,
- Research personnel,
- Family and community members.

**Content of module**

- Health and development of individuals and families
- Women's health programs
- Child health and family interaction
- Men in families
- Sexual and reproductive health
- Integral models of family care
- Actions to promote healthy behaviors by families
- WHO Family and Community Health Policy

**Related module**

Diversity in Health – Gender, culture, age

**Teaching and Learning  
Strategies/ Methodology/  
Media**

E-Learning/ Blended Learning

**Assessment(s)**

Written assignment

**Literature/ Working  
material**

Sussman, M.B. et al. (Ed.) (1999). Handbook of marriage and the family. New York: Plenum Press.

Booth, A., Crouter, A.C. (Ed.) (1998). Men in Families. Mahwah, NJ: LEA Publishers.

Marmot, M., Wilkinson, R.G. (Ed.) (2006). Social determinants of Health. Oxford: Oxford University Press.



Degree programme Master of Science in Health Sciences 13 <sup>th</sup> Module 2 <sup>nd</sup> Semester (Part A)	
<b>Name of module</b>	<b>Occupational Health Research</b>
<b>Module responsible</b>	<b>Prof. Dr. Detlef Krueger</b>
<b>Lecturer</b>	<b>Prof. Dr. Detlef Krueger</b>
<b>Semester</b>	Summer Semester (March - August)
<b>Status</b>	Optional (Part A), at least 4 Modules from Part A
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CP)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	Basic knowledge in Work and Health
<b>Max. Participants</b>	25
<b>Language</b>	English
<p><b>Objectives</b></p> <p>The aim of the lecture is to formulate students their own research questions within an OHR research topic and area and illustrate how the concepts in the research question guide the research strategy.</p> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>The student can learn the following competencies: Research project planning, Principles of critical appraisal, study design.</p> <p><b>Personal and social skills</b></p> <p>The student is able to outline the general steps and procedures for carrying out a research project.</p>	
<p><b>Content of module</b></p> <ul style="list-style-type: none"> <li>• National research activities</li> <li>• International research institutions in OHR</li> <li>• OHR disciplines: Social Science, Health Science, Psychology, Medicine, Epidemiology</li> <li>• Selected fields of research (stress, burnout, mental health, gender, ageing, etc.)</li> </ul>	

<b>Related module</b>	
Work and Health	
<b>Teaching and Learning Strategies/ Methodology/ Media</b>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Group work</li> <li>• Presentations of students</li> </ul>
<b>Assessment(s)</b>	Oral and written form of presentation of group work results
<b>Literature/ Working material</b>	Creswell, J.W. (2008). Research design – Qualitative, Quantitative, Mixed Methods Approaches. Thousand Oaks: Sage Publications.

Degree programme Master of Science in Health Sciences 14 <sup>th</sup> Module 2 <sup>nd</sup> Semester (Part A)	
<b>Name of module</b>	<b>Health Promotion Research</b>
<b>Module responsible</b>	<b>Prof. Dr. Annette C. Seibt</b>
<b>Lecturers</b>	<b>Prof. Dr. Annette C. Seibt and changing guest lecturers</b>
<b>Semester</b>	Summer Semester (March - August)
<b>Status</b>	Optional (Part A), at least 4 modules from Part A
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CPs)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	Basic knowledge about health concepts and Public Health
<b>Max. Participants</b>	25
<b>Language</b>	English
<p><b>Objectives</b></p> <p>The aim of the module is to:</p> <ul style="list-style-type: none"> <li>• Familiarize students with health promotion concepts (e.g. social determinants of health), their origin and applications,</li> <li>• Use and apply (a selection of) health promoting concepts to an intervention,</li> <li>• Sensitize students to the possibilities and difficulties to evaluate health promotion interventions.</li> </ul> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>The student can obtain following competencies:</p> <ul style="list-style-type: none"> <li>• Operationalize constructs of selected health promotion theories/ models and apply them to an intervention project,</li> <li>• Monitor and evaluate a self-conducted Self-Change-Project for a health-related behavior, and analyze it in light of health-promotion theories,</li> <li>• Interconnect theoretical knowledge and practical health-related problems.</li> </ul> <p><b>Personal and social skills</b></p> <p>The student is able to:</p>	

- Conduct and reflect a change project,
- Participate actively in the process and collaborate with students from other professions, regions and cultures,
- Acknowledge and respect the differences in the participants in respect to culture, gender, and region,
- Work and research autonomously and in teams and use different media for result presentations.

**Content of module**

- Ottawa Charta and health promotion concepts
- Theories and models in health promotion and prevention
- Research methods for and evaluation approaches to health promotion projects
- Models and examples of systematically planned and evaluated health promotion projects
- Development of own research project

**Related module**

Concepts and Dimensions of Health Sciences and Public Health • Diversity in Health– Gender, Culture, Age • Global Health • Intercultural Competencies • Health Behaviour and Lifestyles • Family and Community Health

**Teaching and Learning Strategies/ Methodology/ Media**

Lectures, group work, discussions; conduct of self-change project; presentations of individual and/ or group work results

**Assessment(s)**

Presentations, exam/ paper, active participation

**Literature/ Working material**

Glanz K, Rimer BK, Viswanath K, eds. Health Behavior and Health Education. Theory, Research, and Practice. 4th ed. San Francisco: Jossey-Bass, 2008 • Nutbeam D, Bauman A. Evaluation in a Nutschell - A practical guide to the evaluation of health promotion programs. NSW North Ryde: McGraw-Hill-Australia. 2006 • Green LW, Kreuter M. Health Program Planning – An Educational and Ecological Approach, 4th ed. New York, NY: McGraw-Hill 2005 • Seibt AC. Guiding materials for the Self-Change Project • Work sheets

Degree programme Master of Science in Health Sciences 15 <sup>th</sup> Module 2 <sup>nd</sup> Semester (Part A)	
<b>Name of module</b>	<b>Health Systems Research</b>
<b>Module responsible</b>	<b>Prof. Dr. York Zoellner</b>
<b>Lecturer</b>	<b>Prof. Dr. York Zoellner</b>
<b>Semester</b>	Summer Semester (March - August)
<b>Status</b>	Optional (Part A), at least 4 Modules from Part A
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CPs)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	Good understanding of health economics, health policy issues and healthcare systems
<b>Max. Participants</b>	25
<b>Language</b>	English
<p><b>Objectives</b></p> <p>The aim of this module is to introduce students to the rationale for, and approach taken in, health systems research, and to stimulate their thinking in terms of further research needed and, eventually, own research projects.</p> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>Upon successful completion of the module, students will be able to:</p> <ul style="list-style-type: none"> <li>• Discuss the strengths and weaknesses of different healthcare systems in depth,</li> <li>• Critically appraise opinions expressed in the press as well as relevant original research articles in the peer-reviewed literature,</li> <li>• Propose a full research plan to address particular health policy issues.</li> </ul> <p><b>Personal and social skills</b></p> <p>Upon successful completion of the module, students will be able to:</p> <ul style="list-style-type: none"> <li>• Understand system stakeholders' incentives and predict their respective effects,</li> <li>• Develop suitable study designs to address particular research questions,</li> <li>• Apply appropriate research tools to the analysis of policy questions,</li> </ul>	

<ul style="list-style-type: none"> <li>• Interpret the results of policy analyses in a thoughtful and critical manner,</li> <li>• Synthesise research results verbally and in writing, at postgraduate level.</li> </ul>	
<p><b>Content of module</b></p> <ul style="list-style-type: none"> <li>• Research into the particular incentives for, and behaviours of consumers/ patients, providers, payers, regulators/ decision-makers, non-profit organizations, corporate manufacturers</li> <li>• Issues of ownership, price and quality competition, regulation</li> <li>• Pricing of healthcare goods and services</li> <li>• Equity</li> </ul>	
<p><b>Related module</b> Health Economics Research</p>	
<p><b>Teaching and Learning Strategies/ Methodology/ Media</b></p>	<p>Lecture/ seminar, group work, break-out sessions, independent research, peer presentations</p>
<p><b>Assessment(s)</b></p>	<p>Presentation and/ or assignment</p>
<p><b>Literature/ Working material</b></p>	<ul style="list-style-type: none"> <li>• Schlette S, Blum K, Moynihan R, Busse R <i>et al.</i> (Eds.). "Health Policy Developments" Series. Gütersloh: Bertelsmann Foundation. <ul style="list-style-type: none"> <li>○ N° 9: Mental Health, New Role for Hospitals, Search for the Right Funding Mix (2008)</li> <li>○ N° 10: Long-term Care, Sickness Funds as Payers and Players, Improving Quality of Care (2009)</li> <li>○ N° 11: Primary Care, Appropriateness and Transparency, National Strategies (2009)</li> <li>○ N° 12: Value for Money, Funding and Governance, Access and Equity</li> <li>○ N° 13: Health Policy in Times of Crisis, Competition and Regulation, Evaluation in Health Care (2009)</li> </ul> </li> <li>• Folland, Goodman, Stano. The Economics of Health and Health Care (5<sup>th</sup> Ed.). New Jersey: Pearson/Prentice Hall, 2007.</li> <li>• Morris S, Devlin N, Parkin D. Economic Analysis in Health Care. Chichester: Wiley, 2007.</li> <li>• Pharmaceutical Pricing Policies in a Global Market. OECD Health policy Studies. Paris: OECD, 2008.</li> </ul>

Degree programme Master of Science in Health Sciences 16 <sup>th</sup> Module 2 <sup>nd</sup> Semester (Part A)	
<b>Name of module</b>	<b>Health Economics Research</b>
<b>Module responsible</b>	<b>Prof. Dr. York Zoellner</b>
<b>Lecturer</b>	<b>Prof. Dr. York Zoellner</b>
<b>Semester</b>	Summer Semester (March - August)
<b>Status</b>	Optional (Part A), at least 4 Modules from Part A
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CPs)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	Good understanding of health economics
<b>Max. Participants</b>	25
<b>Language</b>	English
<p><b>Objectives</b></p> <p>The aim of this module is to introduce students to the reasoning and tools of health economic research, as well as to familiarise them with practical applications and the use of research results in decision-making.</p> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>Upon successful completion of the module, students will be able to:</p> <ul style="list-style-type: none"> <li>• Formulate original health economic research questions and testable hypotheses,</li> <li>• Develop suitable study designs to address particular research questions,</li> <li>• Apply appropriate economic tools to the analysis of research questions,</li> <li>• Interpret the results of economic analyses in a thoughtful and critical manner,</li> <li>• Synthesise research results verbally and in writing, at postgraduate level.</li> </ul> <p><b>Personal and social skills</b></p> <p>Upon successful completion of the module, students will be able to:</p> <ul style="list-style-type: none"> <li>• Discuss health economic research concepts and applications in reasonable depth,</li> <li>• Critically appraise original research articles in the peer-reviewed literature,</li> <li>• Design a research project suitable to address a particular issue in the health economy.</li> </ul>	

<p><b>Content of module</b></p> <ul style="list-style-type: none"> <li>• Microeconomic tools</li> <li>• Statistical tools</li> <li>• Consumer preferences, decisions under uncertainty and intertemporal choice</li> <li>• Economic efficiency and cost-benefit analysis</li> <li>• Cost-effectiveness analysis</li> <li>• Utility elicitation, QALYs and DALYs, Cost-utility analysis</li> </ul>	
<p><b>Related module</b></p> <p>Health Systems Research, Health Economics</p>	
<p><b>Teaching and Learning Strategies/ Methodology/ Media</b></p>	<p>Lecture/ seminar, group work, break-out sessions, independent research, peer presentations</p>
<p><b>Assessment(s)</b></p>	<p>Presentation and/ or assignment</p>
<p><b>Literature/ Working material</b></p>	<p>Jones AM (Ed.). The Elgar Companion to Health Economics. Cheltenham (UK)/Northampton (MA, USA): Edward Elgar, 2006.</p> <p>Folland S, Goodman AC, Stano M. The Economics of Health and Health Care (5<sup>th</sup> Ed.). New Jersey: Pearson/Prentice Hall, 2007.</p> <p>Morris S, Devlin N, Parkin D. Economic Analysis in Health Care. Chichester: Wiley, 2007.</p> <p>Drummond M, McGuire A. Economic evaluation in health care. Oxford: OUP, 2001.</p> <p>Briggs A, Claxton K, Sculpher M. Decision Modelling for Health Economic Evaluation.</p>



Degree programme Master of Science in Health Sciences 17 <sup>th</sup> Module 2 <sup>nd</sup> Semester (Part B)	
<b>Name of module</b>	<b>Instrument Development and Validation</b>
<b>Module responsible</b>	<b>Prof. Dr. Joachim Westenhofer</b>
<b>Lecturer</b>	<b>Prof. Dr. Joachim Westenhofer</b>
<b>Semester</b>	Summer Semester (March - August)
<b>Status</b>	Optional (Part B), at least 4 Modules from Part B
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CP)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	Basic knowledge in statistics and empirical social research
<b>Max. Participants</b>	25
<b>Language</b>	English
<p><b>Objectives</b></p> <p>The aim of the lecture is to enable students to construct and evaluate research instruments with regard to appropriate quality criteria.</p> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>The student can obtain following competencies:</p> <ul style="list-style-type: none"> <li>• Describing and evaluating the quality criteria assessment instruments used in social and health research,</li> <li>• Constructing assessment instruments for qualitative and quantitative research, and assessing and evaluate their appropriateness,</li> <li>• Assessing the psychometric properties of assessment instruments,</li> <li>• Performing calculation of psychometric parameters using appropriate software.</li> </ul> <p><b>Personal and social skills</b></p> <p>The student is able to:</p> <ul style="list-style-type: none"> <li>• Apply the acquired knowledge and skills in the context of different disciplines,</li> <li>• Work in teams and groups,</li> </ul>	

- Present results of the own work,
- Write a scientific paper.

**Content of module**

- Quality criteria for instruments: objectivity, reliability and validity
- Different types of questions and ratings
- Scales and subscales
- Questionnaire construction
- Interviews: types of interviews (structured, semi-structured) and construction of interview guidelines
- Assessment of reliability and validity; principles of classical testing theory; basics of item response theory
- Planning, conducting and evaluating pilot tests
- Planning, conducting and evaluating validation studies

**Related module**

-none-

**Teaching and Learning Strategies/ Methodology/ Media**

Lecture, group work with presentation of result, practical in the application of PC-Software

**Assessment(s)**

Written assignment

**Literature/ Working material**

Lord & Novick: Statistical theories of mental test scores. Addison-Wesley, 1974.

Materials and articles on the E-learning-Platform

Literature Recommended to students who read German:

Lienert & Raatz: Testaufbau und Testanalyse. Beltz, 1994.

Degree programme Master of Science in Health Sciences 18 <sup>th</sup> Module 2 <sup>nd</sup> Semester (Part B)	
<b>Name of module</b>	<b>Research and Project Management</b>
<b>Module responsible</b>	<b>Prof. Dr. Ralf Reintjes</b>
<b>Lecturers</b>	<b>Prof. Dr. Ralf Reintjes</b>
<b>Semester</b>	Summer Semester (March - August)
<b>Status</b>	Optional (Part B), at least 4 Modules from Part B
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CP)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	Basic knowledge in conducting research, e.g. Epidemiology and Biostatistics 1
<b>Max. Participants</b>	25
<b>Language</b>	English
<p><b>Objectives</b></p> <p>The aim of the course is intended for those interested in implementing and / or managing research projects.</p> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>The student can obtain following competencies:</p> <ul style="list-style-type: none"> <li>• Translating a research issue into a research proposal,</li> <li>• Writing effective research proposals,</li> <li>• Identifying some strengths and weaknesses in research proposals,</li> <li>• Understanding potential criteria used to select proposals for funding,</li> <li>• Effectively disseminating research results.</li> </ul> <p><b>Personal and social skills</b></p> <p>The student is able to:</p>	

- Identify research and project aims for differing funding organizations,
- Critically to reflect results of their work,
- Discuss critically in groups their own work results,
- Write project proposals and reports.

### Content of module

During the course of this module students will work in research groups of up to 6 participants. Each research group will design a research proposal which will be presented at the end of the module and assessed. The aim of this exercise is for research groups to apply the skills, knowledge and experience gained from the teaching and reading of the module in order to develop a thorough, appropriate, realistic and well-planned research proposal.

### Related module

-none-

### Teaching and Learning Strategies/ Methodology/ Media

Seminar character, case scenarios, and students contributions (reports, group work), combination of problem oriented project work with seminars and lectures

### Assessment(s)

Written proposal and presentation

### Literature/ Working material

*The Foundation Center's Guide to Proposal Writing*, Jane C. Geever and Patricia McNeill. Revised Edition. New York, 1997. Excerpted as Proposal Writing Short Course at: <http://fdncenter.org/learn/shortcourse/prop1.html>.

*Proposals that Work, Third Edition*. Lawrence F. Locke, Waneen Wyrick Spirduso, Stephen J. Silverman. Sage Publications, 1993. (*Oriented to dissertations and research grants*)

*How to Prepare a Research Proposal*, Third Edition. David R. Krathwohl, Syracuse University Press, Syracuse, NY, 1988. (*Oriented to dissertations in the social & behavioural sciences*)

Degree programme Master of Science in Health Sciences 19 <sup>th</sup> Module 2 <sup>nd</sup> Semester (Part B)	
<b>Name of module</b>	<b>Advanced Study Design and Data Analysis</b>
<b>Module responsible</b>	<b>Prof. Dr. Ralf Reintjes</b>
<b>Lecturers</b>	<b>Prof. Dr. Joachim Westenhoefer</b> <b>Prof. Dr. Ralf Reintjes</b>
<b>Semester</b>	Summer Semester (March - August)
<b>Status</b>	Optional (Part B), at least 4 Modules from Part B
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CP)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	Basic knowledge in Epidemiology and Biostatistics
<b>Max. Participants</b>	25
<b>Language</b>	English
<p><b>Objectives</b></p> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>The student can obtain following competencies:</p> <ul style="list-style-type: none"> <li>• Understanding more advanced study designs, evaluate the appropriateness of different study designs depending on the research question and apply the appropriate statistical analyses of these design,</li> <li>• Planning and analyzing different study designs appropriately,</li> <li>• Using statistical software for planning and analyzing a variety of study designs.</li> </ul> <p><b>Personal and social skills</b></p> <p>The student is able to:</p> <ul style="list-style-type: none"> <li>• Apply the acquired skills and knowledge in different scientific contexts,</li> <li>• Develop study design to assess own research questions,</li> </ul>	

- Work in groups,
- Present results in oral and written format.

**Content of module**

- Within-subjects Designs (Repeated Measurement-Designs and ANOVA, including Cross-over Designs)
- Multivariate Analysis (Multiple Regression Analysis, General Linear Model) including Dummy Coding and Interaction terms
- Cluster Randomized Trials
- Birth Cohort Design
- Sample Size Calculation

**Related module**

Epidemiology I, II (BA),  
 Infectious Epidemiology,  
 Non-communicable Disease Epidemiology

**Teaching and Learning Strategies/ Methodology/ Media**

Lecture, Practical in Application of Statistical Software, Case Studies, group work with oral presentations

**Assessment(s)**

Written examination or written assignment

**Literature/ Working material**

Campbell MK, Elbourne DR, Altman DG. CONSORT statement: extension to cluster randomised trials. *BMJ* 2004; 328(7441):702-708.

Cohen et al. (2002) *Applied Multiple Regression/ Correlation Analysis for the Behavioral Sciences* (Third Edition). Lawrence Erlbaum.

Fitzmaurice, Garrett, Davidian, Marie, Verbeke, Geert and Molenberghs, Geert, ed (2008). *Longitudinal Data Analysis*. Boca Raton, FL: Chapman and Hall/CRC.

Degree programme Master of Science in Health Sciences 20 <sup>th</sup> Module 2 <sup>nd</sup> Semester (Part B)	
<b>Name of module</b>	<b>Advanced Biostatistics</b>
<b>Module responsible</b>	<b>Prof. Dr. Joachim Westenhofer</b>
<b>Lecturers</b>	<b>Prof. Dr. Joachim Westenhofer</b> <b>Dr. Zita Schillmoeller</b>
<b>Semester</b>	Summer Semester (March - August)
<b>Status</b>	Optional (Part B), at least 4 Modules from Part B
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CP)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	Basic knowledge in conducting research (e.g. Basic Epidemiology)
<b>Max. Participants</b>	20
<b>Language</b>	English
<p><b>Objectives</b></p> <p>The aim of the lecture is to understand the background and application of special advanced biostatistics, furthermore to use PASW for advanced statistical methods. At the same time pre-conditions have to be proved and und results have to be interpreted. The results should be discussed in groups and taken into the study context.</p> <p><b>Development of competencies</b> (<i>Professional, Technical, Methodological</i>)</p> <p>The student can obtain following competencies:</p> <ul style="list-style-type: none"> <li>• Using PASW,</li> <li>• Estimation and interpretation of advanced statistical results in an ambitious content.</li> </ul> <p><b>Personal and social skills</b></p> <p>The student is able to:</p> <ul style="list-style-type: none"> <li>• Work in groups,</li> <li>• Estimate the results,</li> <li>• Interpret the most important results.</li> </ul>	

<b>Content of module</b>	
<ul style="list-style-type: none"> <li>• Survival analysis (Cox regression, Kaplan Meier, Log Rank Test, Life Table)</li> <li>• Mathematical Modeling (SIR, Uncertainty (included the concept of burden of disease))</li> </ul>	
<b>Related module</b>	
Advanced study design	
<b>Teaching and Learning Strategies/ Methodology/ Media</b>	<ul style="list-style-type: none"> <li>• Presentation of the theoretical framework of the advanced statistical methods (Survival Analysis and mathematical modeling)</li> <li>• Practical use of PASW with special datasets</li> <li>• Group Working</li> </ul>
<b>Assessment(s)</b>	Group work
<b>Literature/ Working material</b>	<p>Rosner,B. Fundamentals of Biostatistics. Thomson Learning, 2005.</p> <p>D.M. Parkin and T. Hakulinen. Chapter 12. Analysis of survival. In O.M. Jensen, D.M. Parkin, R. MacLennan, C.S. Muir and R.G. Skeet. Cancer Registration: Principles and Methods. IARC Scientific Publication No. 95.  <a href="http://www.iarc.fr/en/publications/pdfs-online/epi/index.php">www.iarc.fr/en/publications/pdfs-online/epi/index.php</a>.</p> <p>WHO. Harmonization Project Document No. 6. PART 1: GUIDANCE DOCUMENT ON CHARACTERIZING AND COMMUNICATING UNCERTAINTY IN EXPOSURE ASSESSMENT.2008.  <a href="http://www.who.int/ipcs/methods/harmonization/areas/uncertainty20.pdf">www.who.int/ipcs/methods/harmonization/areas/uncertainty20.pdf</a>.</p> <p>Michael P. McLaughlin. The very game- A Tutorial on Mathematical Modeling, 1999  <a href="http://www.causascientia.org/math_stat/Tutorial.pdf">http://www.causascientia.org/math_stat/Tutorial.pdf</a>.</p>



**Degree programme Master of Science in Health Sciences****21<sup>st</sup> Module 2<sup>nd</sup> Semester (Part B)**

<b>Name of module</b>	<b>Epistemology</b>
<b>Module responsible</b>	<b>Prof. Dr. Christine Faerber</b>
<b>Lecturer</b>	<b>Prof. Dr. Christine Faerber</b>
<b>Semester</b>	Summer Semester (March - August)
<b>Status</b>	Optional (Part B), at least 4 Modules from Part B
<b>Frequency/ Period of time</b>	Yearly/ Within one semester
<b>Credit Points (CP)</b>	3 CP
<b>Workload for Students (h)</b>	Workload 90h: presence 30h, private study 60h
<b>Entry Requirements</b>	-none-
<b>Max. Participants</b>	25
<b>Language</b>	English

**Objectives**

The aim of the lecture is to:

- Inform students about theories and history of science,
- Raise students' awareness to the fact that scientific knowledge is not the same as truth, but that science is work in progress,
- Offer students the possibility to reflect scientific processes and to select on the basis of thorough information their own theoretical and methodological approaches.

**Development of competencies** (*Professional, Technical, Methodological*)

The student can obtain following competencies:

- Profounding philosophic reflection off he history and theory of science,
- Giving oral and written presentation of complex theoretic models.

**Personal and social skills**

The student is able to:

- Apply in-depth knowledge across disciplinary boundaries,

- Apply the studied concepts to practice
- Articulate her or his own theoretical approach to science and place his or her work in the context of the development of science,
- Work in groups and discuss results.

**Content of module**

- Introduction to the philosophy of science, classic debates, standard problems, future prospects
- Structures of scientific theories, epistemological casics (reduction, emergence, explanation; models, metaphors and analogies)
- Approaches: Experiments and Observations, Induction and Probability
- Applications to physics, life sciences and social sciences
- Feminist Epistemology

**Related module**

-none-

**Teaching and Learning Strategies/ Methodology/ Media**

Seminar, group work, E-learning platform, student presentations  
Lecturer sets goals and standards, initiate the work process and guide the students to work autonomously.

**Assessment(s)**

Written assignment

**Literature/ Working material**

Cardinal; Daniel; Jones, Gerald; Hayward, Jeremy 2004, Epistemology: The Theorie of Knowledge.  
Machamer, Peter; Silberstein, Michael: The Blackwell Guide to the Philosophy of Science, Oxford/Malden/Mass.

## **Lecturers**

### **Professors**

Prof. Dr. Christine Faerber

Prof. Dr. Detlef Krueger

Prof. Dr. Ralf Reintjes

Prof. Dr. Annette C. Seibt

Prof. Dr. Dr. Karl-Heinz Wehkamp

Prof. Dr. Joachim Westenhofer

Prof. Dr. York Zoellner

### **Scientific Employees**

Dr. Zita Schillmoeller

### **External Lecturers**

-none-

