

### **Faculty of Life Sciences**

Module Handbook
Master of Public Health



## Module Handbook Master of Public Health

Specifying the subject-specific examination and study regulations for the Master of Public Health degree course published on 28.05.2020 last modified on 28.06.2022

## Faculty of Life Sciences Department of Health Sciences

University of Applied Sciences Hamburg Faculty of Life Sciences/ Department of Health Sciences Ulmenliet 20, 21033 Hamburg

Tel.: +49.40.42875-0 www.haw-hamburg.de

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#### **Master of Public Health**

Well-trained health professionals are needed to meet the growing demand within the changing field of public health nationally and internationally. The target group of the postgraduate degree program Master of Public Health are professionals seeking scientific knowledge, evidence-based practice, empirical research and implementation skills to design and improve public health policies and practice at regional, national and global levels.

The regular study period of the Master of Public Health program is three semesters that are organised into two parts. Firstly, 10 modules over two semesters focus on the determinants of health and major health problems in a global and interdisciplinary perspective (60 CP). In the second part, the master thesis provides the opportunity to pursue a relevant public health topic of individual interest over one semester (30 CP).

The Master of Public Health students acquire the ability to deal with the conditions for health and the management of illness rooted in the natural, technical and social environment of human beings. The students know the essential factors that influence the health situation of a population, as well as the decisive role of the health care system, the supply structures, the financing of health care services, political and social conditions and also the health behaviour of the population. The students will be enabled to develop approaches to solutions for improving the overall health situation in society.

#### **Study Overview**

First part of study	Public Health Principles Statistical Methods Epidemiology Qualitative Research Methods and Ethics Evidence Based Public Health	1st semester
First p	Environmental and Occupational Health Health Promotion and Prevention Leadership and Program Planning Health Policy and Management Health Economics	2 <sup>nd</sup> semester
Second part of study	Master Thesis	3 <sup>rd</sup> semester

**Please note**: This table shows an example of the sequence of modules for the start of the study programme in the summer semester. The order is inverse when starting the program in the winter semester.

#### Assessments: types and forms of assessment

#### Written examination

A written examination is completed under supervision. Students must complete the set questions on their own, either without the use of study aids or with the use of specified study aids only. Written examinations last at least 60 and no longer than 240 minutes.

#### Presentation

A presentation is an oral talk lasting between 15 and 45 minutes, given on the basis of a written outline prepared by the student and followed by a facilitated discussion. Presentations should not be read out from a script; students should be able to speak spontaneously. Students must submit digital or hard copies of any presentation slides and diagrams/charts/images used to the examiner. Their written outline, which they must also submit to the examiner, should summarise their key findings and conclusions.

#### Written paper

A written paper is a piece of written work to be produced independently by the student outside class hours, in which the student demonstrates their ability to investigate and analyse a set question or subject independently. A maximum of three months is allowed for completion. Where a written paper constitutes a Prüfungsleistung, the relevant Course-Specific Course and Examination Regulations may specify whether or not a colloquium is to be held once the written project has been submitted. Colloquia should last between 15 and 45 minutes, and are generally to be held within one month of submission of the written paper.

#### **Exercise slip**

An exercise slip is awarded once a student has successfully solved the written theory tasks set by the examiner and has demonstrated his or her knowledge of the subject in a colloquium or paper. Colloquia last at least 15 and no more than 45 minutes. The written work must be submitted by a deadline set by the examiner; the latest deadline is the end of the semester in which the class type in question (exercise) was taken.

#### Portfolio examination

A portfolio examination is a type of assessment consisting of not more than ten distinct components, in at least two different forms of assessment chosen from the forms of assessment listed in Section 14 subsection 3 of these Regulations; practice tasks set during the semester may also be one of the components. At the beginning of the class or course, the member of academic staff in charge of delivering it shall determine and announce which components will comprise the portfolio examination and their weightings. Where the class concludes with a Prüfungsleistung, the overall grade for the portfolio examination shall be calculated from each individual component, weighted in accordance with the weighting announced at the outset of the course. The total workload and the difficulty level of a portfolio examination shall not exceed the workload or difficulty level that would pertain to each form of assessment used were they to be used as the sole component of the examination.

#### **Assessments regulations**

Generally, modules are assessed every semester. The exam can be repeated twice. According to \$23 (5) APSO-INGI students who failed their third written module exam can apply for an oral exam. This is limited to three times per study course and one time for each module.

If a student cannot participate in an exam due to illness or if an exam has been failed, a repetition of the exam is possible at the end of the following semester.

Oral re-examination can be applied for at the professor responsible for the module.

#### **Master of Public Health Modules**

Degree Program Master of Public Health		
Public Health Principles		
Module number	1	
Module coordinator/ person responsible	Prof. Amena Almes Ahmad	
Duration of the module / semester / frequency	One semester/ 1 <sup>st</sup> or 2 <sup>nd</sup> semester/ every semester	
Credits (CP) / semester hours per week (SHW)	6 CP / 4 SHW	
Workload	18 semester weeks (including examination period); 72 h contact hours, 108 h self-study	
Type of module	Obligatory module	
Module prerequisites	None	
Requirements for participation / previous knowledge		
Teaching language	English	
Competencies gained / Learning Outcome	<ul> <li>Specialist competency (knowledge and understanding)</li> <li>The students are able to</li> <li>discuss basic definitions, models and concepts of health and disease and their practical implications;</li> <li>describe the principal population-based approaches to health and distinguish them from individual-based approaches;</li> <li>identify major public health trends and challenges; and</li> <li>understand the influence of the social, economic and political context on shaping public health.</li> <li>Methodological competency (use, application and generation of knowledge)</li> <li>The students are able to</li> <li>view population health issues through a public health lens;</li> <li>appraise public health activities in different social, regional, cultural and systemic contexts applying the public health action cycle; and</li> <li>critically reflect upon health issues at global, national and community level.</li> <li>Social competency (communication and cooperation)</li> <li>The students are able to</li> </ul>	

	<ul> <li>participate in group discussions on international public health topics and share information and experiences from the context of the participants national/regional background;</li> </ul>
	<ul> <li>collaborate equally and effectively with students from other professions, regions and cultures in group activates;</li> </ul>
	<ul> <li>prepare and present information on public health issues to the group; and</li> </ul>
	<ul> <li>apply interactive and engaging presentation techniques.</li> </ul>
	Self-competency (scientific self-image, professionalism)
	The students are able to
	<ul> <li>be sensitive to underlying determinants and drivers of population health;</li> </ul>
	<ul> <li>identify public health problems at an early stage and develop solutions with a preventive focus at group/population level;</li> </ul>
	<ul> <li>acknowledge the differences in population groups with respect to culture, gender, age, religion, occupational, educational or socio-economic background and consequently the need for targeted solutions; and</li> <li>identify the relationship between public health and other professions (inter-professionalism).</li> </ul>
Content of the module	Introduction to Public Health
	<ul> <li>Historic evolution and distinguishing features of public, population and individual health</li> </ul>
	<ul> <li>Determinants of the health of individuals, groups and populations</li> </ul>
	<ul> <li>Major strategies and approaches to public health, including universal health coverage, elements and functions of health system and roles of principal public health stakeholders in global health</li> </ul>
	<ul> <li>Achievements and challenges of public health and trends of population health with reference to student's backgrounds</li> </ul>
	Contemporary Public Health Issues
	Global context of public health, including epidemiological transition, and disease burden
	<ul> <li>Major trends and drivers of population health including demography, social and economic structures, equity, health policy and politics</li> </ul>
	Population groups with elevated health risks
	Case studies on the health workforce
Applicability of the module	This module provides the foundation for further modules of the course of Public Health, e.g. Evidence Based Public Health, Health Promotion and Prevention, Environmental and Occupational Health etc.
Requirements for the award of credit points	Regular examination type for module testing: Presentation (graded); further possible examination type: Portfolio examination
(Study and exam requirements)	

	Where more than one possible examination type is used in the module, the examination type to be used is to be made known by the responsible lecturer at the start of the course.
Corresponding courses	Introduction to Public Health
	Contemporary Health Issues
Learning and teaching types/ methods/ media types	Taught seminar (lecture, presentation, self-study, group work, excursion)
Literature	All references are used in the current edition
	Merson, M. H., Black, R. E., & Mills, A. J. (2011). Global health. Jones & Bartlett Publishers.
	Carrin, G., Buse, K., Heggenhougen, K., & Quah, S. R. (Eds.). (2010). Health systems policy, finance, and organization. Academic Press
	Guest, C., Ricciardi, W., Kawachi, I., & Lang, I. (Eds.). (2013). Oxford handbook of public health practice. OUP Oxford.
	Rosen, G. (2015). A history of public health. JHU Press.
	Baum, F. (2016). The new public health (No. Ed. 4). Oxford University Press.
	Marmot, M., & Wilkinson, R. (Eds.). (2005). Social determinants of health. OUP Oxford.
	Beaglehole, R., & Bonita, R. (Eds.). (2009). Global public health: a new era. Oxford University Press.

Degree Program Master of Public Health	
Statistical Methods	
Module number	2
Module coordinator/ person responsible	Prof. Dr. Ralf Reintjes
Duration of the module / semester / frequency	One semester/ 1 <sup>st</sup> semester/ every summer semester
Credits (CP) / semester hours per week (SHW)	6 CP / 4 SHW
Workload	18 semester weeks (including examination period); 72 h contact hours, 108 h self-study
Type of module	Obligatory module
Module prerequisites	None
Requirements for participation / previous knowledge	
Teaching language	English
Competencies gained / Learning Outcome	Specialist competency (knowledge and understanding)  The students are able to  • understand major definitions of statistics as a science and basic statistical concepts; and  • explain the central role of sampling variability in statistical inference.  Methodological competency (use, application and generation of knowledge)  The students are able to  • run univariate and bivariate analysis;  • create tables and charts;  • use computer-based statistical programs; and  • relate own results and statistical results from the literature to each other.  Social competency (communication and cooperation)  The students are able to  • think and analyse critically;  • find, evaluate and use relevant information; and  • solve problems.  Self-competency (scientific self-image, professionalism)  The students are able to

	<ul> <li>apply statistical reasoning and methods to address, analyse, and solve problems in public health.</li> </ul>
Content of the module	Basic Statistics
	Major definitions of statistics as a science
	<ul> <li>Basic statistical concepts such as frequencies, distributions, uni- and bivariate analysis, confidence interval, significance, statistical test, correlation</li> </ul>
	Parametric vs. non-parametric statistical tests
	Introduction into a Computer based statistical program
	Biostatistics
	Sample size and power calculation
	Introduction into regression analysis
	Survival analysis (e.g. Cox regression, Kaplan Meier)
Applicability of the module	This module provides the foundation for further modules of the course of Public Health, e.g. Epidemiology and Evidence Based Public Health.
Requirements for the award of credit points (Study and exam requirements)	Regular examination type for module testing: Written examination (graded)
Corresponding courses	Basis Statistics
	Biostatistics
Learning and teaching types/ methods/ media types	Taught seminar (lecture, presentation, self-study case scenario, computer practice)
Literature	All references are used in the current edition
	Field, A. (2017). Discovering statistics using IBM SPSS statistics: North American edition. Sage.
	Privitera, G. J. (2018). Research methods for the behavioral sciences. Sage Publications.
	Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). Applied multiple regression/correlation analysis for the behavioral sciences. Routledge.

	Epidemiology	
Module number	3	
Module coordinator/ person responsible	Prof. Dr. Ralf Reintjes	
Duration of the module / semester / frequency	One semester/ 1 <sup>st</sup> semester/ every summer semester	
Credits (CP) / semester hours per week (SHW)	6 CP / 4 SHW	
Workload	18 semester weeks (including examination period); 72 h contact hours, 108 h self-study	
Type of module	Obligatory module	
Module prerequisites	None	
Requirements for participation / previous knowledge		
Teaching language	English	
Competencies gained /	Specialist competency (knowledge and understanding)	
Learning Outcome	The students are able to	
	<ul> <li>understand all relevant quantitative study designs and their explanatory power;</li> </ul>	
	<ul> <li>explain the epidemiological principles of screening, and calculate and interpret measures of validity and performance of screening tests;</li> </ul>	
	<ul> <li>describe the basic principles in infectious disease transmission and surveillance systems used for health protection; and</li> </ul>	
	<ul> <li>describe the major non-communicable diseases and major components of their aetiology.</li> </ul>	
	Methodological competency (use, application and generation of knowledge)	
	The students are able to	
	<ul> <li>calculate and interpret measures of disease frequency, association and impact and interpret commonly used summary measures of population health;</li> </ul>	
	<ul> <li>recognise confounding, selection bias and information bias in epidemiological studies and discuss means to minimise their effects; and</li> </ul>	
	<ul> <li>use routinely collected data to describe the patterns of a disease in the community.</li> </ul>	

	Cocial competency (communication and consertion)
	Social competency (communication and cooperation)
	The students are able to
	organize working groups;
	discuss a public health topic in a saturated way; and
	<ul> <li>present epidemiological results in written form.</li> </ul>
	Self-competency (scientific self-image, professionalism)
	The students are able to
	<ul> <li>perform basic critical appraisals of randomised controlled trials, cohort studies and case-control studies; and</li> </ul>
	<ul> <li>conduct an epidemiological study, including writing a study protocol, conducting data management, reporting and presenting the results and recommending evidence-based interventions to decision makers.</li> </ul>
Content of the module	Basic Epidemiology
	History and major definitions of epidemiology as a science
	<ul> <li>Concepts, terms, theories and methodologies, such as ecologic, cross sectional, case control, cohort, randomized controlled trial or intervention study designs</li> </ul>
	Measures of association and impact
	<ul> <li>Introduction into sources of error in study designs (bias, confounding) and strategies to avoid them</li> </ul>
	Epidemiology for Public Health Practice
	Overview of non-communicable diseases
	The principles, main content, validity and applications of standardised data collection instruments for measuring health outcomes, e.g. KAP, QOL, SF36, GHQ, FINBALT  The principles, main content, validity and applications of standardised data collection instruments for measuring health.
	<ul> <li>Major national and international population survey and surveillance systems and the application of their results</li> </ul>
	<ul> <li>Use of Epidemiology in Public Health emergencies, e.g.</li> <li>Outbreaks and Pandemics</li> </ul>
Applicability of the module	The module provides basic concepts and methods of epidemiology and establishes the background for its application (Health Promotion and Prevention, Occupational and environmental health). Additionally, the module sets the basis for the understanding and evaluation of evidence-based measures in the health field (Evidence Based Public Health).
Requirements for the award of credit points	Regular examination type for module testing: Presentation (graded); further possible examination type: Portfolio examination
(Study and exam requirements)	Where more than one possible examination type is used in the module, the examination type to be used is to be made known by the responsible lecturer at the start of the course.
Corresponding courses	Basic Epidemiology Epidemiology for Public Health Practice
Learning and teaching types/ methods/ media types	Taught seminar (lecture, presentation, self-study , case scenario, computer practice)

# All references are used in the current edition Celentano, David & Szklo Moyses. (2018). Gordis Epidemiology. Amsterdam: Elsevier. Rothmann, Kenneth J., Greenland, Sander & Lash Timothy L. (2014) Modern Epidemiology. Philadelphia: Wolters Kluwer Lippincott. Webb, Penepole, Bain, Chris & Page Andrew. (2019) Essential Epidemiology: An Introduction for Students and Health Professionals. Cambridge: Cambridge University Press. Haveman-Nies, Annemien & Van Oers, J.A.M. (Ed.) (2017) Epidemiology in Public Health practice. Wageningen: Wageningen Academic Publishers. Bouter et al. (2018). Textbook of Epidemiology. Springer Nature.

Handbook. 4th ed. Wiley 2019

Hawker et al. Communicable Disease Control and Health Protection

Selected recent research articles from scientific journals

Degree Program Master of Public Health	
Qualitative Research Meth	ods and Ethics
Module number	4
Module coordinator/ person responsible	Prof. Dr. Zita Schillmöller
Duration of the module / semester / frequency	One semester/ 1st semester/ every summer semester
Credits (CP) / semester hours per week (SHW)	6 CP / 4 SHW
Workload	18 semester weeks (including examination period); 72 h contact hours, 108 h self-study
Type of module	Obligatory module
Module prerequisites  Requirements for participation / previous knowledge	None
Teaching language	English
Competencies gained / Learning Outcome	<ul> <li>Specialist competency (knowledge and understanding)</li> <li>The students are able to</li> <li>identify main approaches to, and concepts of, qualitative methods;</li> <li>explain main methodologies, data collection methods and methods of analysis frequently used in public health practice;</li> <li>recognise significant aspects of the history of ethics, including historical examples of misuse of public health principles for political purpose; and</li> <li>reflect major ethical theories and concepts relevant for public health.</li> <li>Methodological competency (use, application and generation of knowledge)</li> <li>The students are able to</li> <li>develop, plan and implement a qualitative research study;</li> <li>apply methods to assure the validity of qualitative research;</li> <li>implement good ethical practice, including aspects of data handling, confidentiality, informed consent, security, privacy and disclosure; and</li> <li>identify ethical aspects of concrete public health interventions, strategies and policies.</li> </ul>

	Social competency (communication and cooperation)
	The students are able to
	<ul> <li>apply project management methods to implement a research study; and</li> </ul>
	<ul> <li>critically discuss ethical issues regarding public health (research) considering different points of view.</li> </ul>
	Self-competency (scientific self-image, professionalism)
	The students are able to
	<ul> <li>present and justify a research approach in a transparent form; and</li> </ul>
	<ul> <li>reflect on own ethical and moral foundations and beliefs and that of other people.</li> </ul>
Content of the module	Qualitative Public Health Research
	Principles of qualitative research
	Strength and weaknesses of different qualitative methodology
	Qualitative research methods, e.g. individual interviews, focus groups, participatory methods
	Sampling strategies
	Types of analysis
	Public Health Ethics
	<ul> <li>Ethical principles and theories of public health, e.g. utilitarianism, egalitarism, paternalism, autonomy, non- discrimination, human rights</li> </ul>
	Ethical challenges on micro, meso and macro level
	Case studies in health care, bioethics etc.
	Ethical implications of public health research
Applicability of the module	The module focuses on ethical concepts that are of relevance for research and practice in the field of public health. In addition, the understanding of qualitative research methods is essential for the assessment of evidence-based measures (Evidence Based Public Health).
Requirements for the award of credit points	Regular examination type for module testing: Portfolio examination (graded)
(Study and exam requirements)	
Corresponding courses	Qualitative Public Health Research
	Public Health Ethics
Learning and teaching types/ methods/ media types	Taught seminar (lecture, presentation, self-study, discussion, group work, case study, excursion)
Literature	All references are used in the current edition
	Howitt, Dennis. (2019). Introduction to Qualitative Methods in Psychology. Prentice Hall Harlow.

Creswell, J. W., & Poth, C. N. (2016). Qualitative inquiry and research design: Choosing among five approaches. Sage publications.

Mastroianni, Anna C, Jeffrey P Kahn, and Nancy E Kass. (2019). The Oxford Handbook of Public Health Ethics. Oxford University Press.

Bayer, R, Lawrence, OG & Jennings, B (eds.) (2007). Public Health ethics. Theory, policy, and practice, Oxford University Press, New York.

Bradley, P & Burls A (eds.) (2000). Ethics in public and community health, Routledge, London.

Dawson, A (ed.) (2011). Public Health Ethics. Key Concepts and Issues in Policy and Practice, Cambridge University Press, New York.

Harris, DM (2011). Ethics in Health Services and Policy: A Global Approach, Jossey-Bass, San Francisco.

Degree Program Master of Public Health		
Evidence Based Public Health		
Module number	5	
Module coordinator/ person responsible	Prof. Dr. Zita Schillmöller	
Duration of the module / semester / frequency	One semester/ 1st semester/ every summer semester	
Credits (CP) / semester hours per week (SHW)	6 CP / 4 SHW	
Workload	18 semester weeks (including examination period); 72 h contact hours, 108 h self-study	
Type of module	Obligatory module	
Module prerequisites	None	
Requirements for participation / previous knowledge		
Teaching language	English	
Competencies gained / Learning Outcome	<ul> <li>Specialist competency (knowledge and understanding)</li> <li>The students are able to</li> <li>appreciate the epistemology of research and its influence on the methodological choices in the public health research practice;</li> <li>define evidence-based medicine, evidence-based practice and outline unique characteristics of evidence-based public health (EBPH);</li> <li>describe the EBPH Framework; and</li> <li>outline a literature search strategy involving the most important literature data bases.</li> <li>Methodological competency (use, application and generation of knowledge)</li> <li>The students are able to</li> <li>assess which research question and in which context require the application of a specific research method;</li> <li>appraise available evidence for design flaws and sound conclusion using critical appraisal tools;</li> <li>apply key concepts to searching and evaluating the public health literature;</li> <li>identify resources that support best evidence research and practice; and</li> </ul>	

	Social competency (communication and cooperation)
	The students are able to
	critically discuss EBPH concept and its implication for practice;
	<ul> <li>apply peer review methods to critically reflect on the research process; and</li> </ul>
	<ul> <li>present the literature review results based on main characteristics of design, finding and results appropriate to different stakeholders.</li> </ul>
	Self-competency (scientific self-image, professionalism)
	The students are able to
	<ul> <li>critically evaluate the role and contribution of different research methods in public health; and</li> </ul>
	<ul> <li>adhere to general principles for authorship when writing/ publishing in the scientific literature context.</li> </ul>
Content of the module	Evidence Based Public Health
	Introduction to research for health practice
	Evidence based practice and critical appraisal
	Quantitative/ quantitative research: principles, techniques and critique
	Mixed methods: principles, techniques and critique
	Literature Search
	<ul> <li>Reviewing primary sources, e.g. empirical research reports, theoretical articles, literature review articles, reports on professional standards and practices</li> </ul>
	Concepts of meta-analysis and meta synthesis
	Managing the literature search
	Analysing the relevant literature
	Presenting the results of the literature review
	Intellectual property/ plagiarism
Applicability of the module	The module brings together essential elements from the modules Statistical Methods, Epidemiology, Qualitative Research Methods and Ethics to be discussed in relation to their application in practice.
Requirements for the award of credit points	Regular examination type for module testing: Portfolio examination (graded)
(Study and exam requirements)	
Corresponding courses	Literature Search and Scientific Methods
	Evidence Based Public Health
Learning and teaching types/ methods/ media types	Taught seminar (lecture, presentation, self-study, group work, discussions)
Literature	All references are used in the current edition
	Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.
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Creswell, J. W., & Clark, V. L. P. (2017). Designing and conducting mixed methods research. Sage publications

Bazeley, P. (2017). Integrating analyses in mixed methods research. Sage.

Jacobsen, K. H. (2020). Introduction to health research methods: A practical guide. Jones & Bartlett Publishers.

Brownson, R. C., Baker, E. A., Deshpande, A. D., & Gillespie, K. N. (2017). Evidence-based public health. Oxford university press.

Bettany-Saltikov, J. (2012). How to do a systematic literature review in nursing: a step-by-step guide. McGraw-Hill Education (UK).

Degree Program Master of	Degree Program Master of Public Health	
Environmental and Occupational Health		
Module number	6	
Module coordinator/ person responsible	Prof. Dr. Andre Klussmann	
Duration of the module / semester / frequency	One semester/ 2 <sup>nd</sup> semester/ every winter semester	
Credits (CP) / semester hours per week (SHW)	6 CP / 4 SHW	
Workload	18 semester weeks (including examination period); 72 h contact hours, 108 h self-study	
Type of module	Obligatory module	
Module prerequisites	None	
Requirements for participation / previous knowledge		
Teaching language	English	
Competencies gained /	Specialist competency (knowledge and understanding)	
Learning Outcome	The students are able to	
	<ul> <li>define the basic concepts, principles and methods of risk estimation;</li> </ul>	
	<ul> <li>identify the level and trends of main environmental and occupational exposures and their relationship to public health; and</li> </ul>	
	discuss the consequences of climate change to public health.	
	Methodological competency (use, application and generation of knowledge)	
	The students are able to	
	<ul> <li>critically analyse the impact of environmental and occupational factors and public health consequences;</li> </ul>	
	<ul> <li>conduct a study addressing environmental and occupational exposures; and</li> </ul>	
	<ul> <li>interpret environmental and occupational impacts on health to develop coherent strategy to prevent and control hazards that pose risks to human health and safety.</li> </ul>	
	Social competency (communication and cooperation)	
	The students are able to	
	cooperate effectively in teams with other students;	
	apply project management methods to implement a research study; and	

	present the results appropriate to the target group.
	Self-competency (scientific self-image, professionalism)
	The students are able to
	<ul> <li>clearly distinguish between scientific knowledge, assumptions and uncertainties; and</li> </ul>
	<ul> <li>effectively communicate health related issues with clients, employees, management and experts.</li> </ul>
Content of the module	Occupational Health
	Occupational health, ergonomics and risk factors at work
	<ul> <li>Anthropometry – measurement, application of data, national and international data sources.</li> </ul>
	<ul> <li>Work related musculoskeletal disorders and risk assessment of physical exposures at work</li> </ul>
	<ul> <li>Environmental conditions at work and risk assessment of selected exposures</li> </ul>
	<ul> <li>Practical application of selected aspects of occupational health (excursion or laboratory event)</li> </ul>
	Environment and Health
	Environmentally related health problems
	<ul> <li>Environmental and health impacts of contaminants, e.g. air, soil, water</li> </ul>
	Fine Particles and their consequences to human and environmental health
	Pesticides, heavy metals and nitrates: water as a health risk
Applicability of the module	This module gives an overview of the links between the environment and health focussing on the assessment and control of environmental factors that can potentially affect health to prevent disease and create health supportive environments.
Requirements for the award of credit points	Regular examination type for module testing: Presentation (graded); further possible examination type: Portfolio examination
(Study and exam requirements)	Where more than one possible examination type is used in the module, the examination type to be used is to be made known by the responsible lecturer at the start of the course.
Corresponding courses	Occupational Health Environment and Health
Learning and teaching types/ methods/ media types	Taught seminar (lecture, presentation, self-study, group work, project-based work, case study)
Literature	All references are used in the current edition
	Gatchel, Robert J., Schultz, Izabela Z. (2012). Handbook of Occupational Health and Wellness (Eds.), Springer.
	Leal Filho, W. Azeiteiro, U. A., Santos, F. (Eds). (2016). Climate Change and Health. Springer, Berlin.

	005). Environmental Health. Harvard University Press, USA. – Available as E-Book at the Emil Platform
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Degree Program Master of Public Health	
Health Promotion and Prevention	
Module number	7
Module coordinator/ person responsible	Wiebke Bendt, M.Sc.
Duration of the module / semester / frequency	One semester/ 2 <sup>nd</sup> semester/ every winter semester
Credits (CP) / semester hours per week (SHW)	6 CP / 4SHW
Workload	18 semester weeks (including examination period); 72 h contact hours, 108 h self-study
Type of module	Obligatory module
Module prerequisites  Requirements for participation / previous knowledge	None
Teaching language	English
Competencies gained / Learning Outcome	<ul> <li>Specialist competency (knowledge and understanding)</li> <li>The students are able to</li> <li>discuss indicators, determinants, trends and interventions in lifestyle and health behaviour;</li> <li>describe health promotion principles and methods applied to address key factors influencing health; and</li> <li>identify and apply principles of strengthening the capacity of communities to enhance health and wellbeing.</li> <li>Methodological competency (use, application and generation of knowledge)</li> <li>The students are able to</li> <li>analyse the health behaviour of populations and population subgroups, e.g. adolescents, the elderly, male/ females, the socially disadvantaged, other socially, culturally and/ or religious distinct groups and the need to invest in their health promotion; and</li> <li>develop, implement and evaluate health promotion strategies based on theory, evidence and principles of social justice and equity.</li> <li>Social competency (communication and cooperation)</li> <li>The students are able to</li> <li>lead and support collaborative relationships;</li> </ul>

	Network and communicate with communities and stakeholders; and
	<ul> <li>apply project management methods to develop a health promotion project.</li> </ul>
	Self-competency (scientific self-image, professionalism)
	The students are able to
	<ul> <li>to design concepts on a theoretical basis;</li> </ul>
	develop an awareness of social justice issues; and
	<ul> <li>promote social justice to address health inequalities.</li> </ul>
Content of the module	Health Behaviour and Lifestyle
	Determinants of health behaviour
	<ul> <li>Trends and interventions in lifestyle and health behaviour, e.g. physical activity, dietary behaviour, drug abuse, sexual behaviour etc.</li> </ul>
	Principles of public health nutrition and diet-related diseases
	Participation in health care in diverse populations
	Health Promotion and Prevention
	<ul> <li>Significant aspects of the history of health promotion theory and practice, incl. main health promotion charters</li> </ul>
	<ul> <li>Concepts and theories applied in health promotion, e.g. behavioural change, participation/ empowerment, capacity building, salutogenesis, social marketing</li> </ul>
	<ul> <li>Planning models, methods and strategies of health promotion and prevention focussing on concepts and theory</li> </ul>
Applicability of the module	This module deals with the concepts, theories and interventions for behavioural change at both the individual and societal level. Thereby, the focus is on the design of health-promoting activities based on the theory and available evidence for further planning and implementation (Leadership and Program Planning).
Requirements for the award of credit points	Regular examination type for module testing: Written paper (graded); further possible examination type: Portfolio examination
(Study and exam requirements)	Where more than one possible examination type is used in the module, the examination type to be used is to be made known by the responsible lecturer at the start of the course.
Corresponding courses	Health Behaviour and Lifestyle
	Health Promotion and Prevention
Learning and teaching types/ methods/ media types	Taught seminar (lecture, presentation, self-study, group work, project-based work, case study)
Literature	All references are used in the current edition
	Glanz, K., Rimer, B. K., & Viswanath, K. (Eds.). (2008). Health behavior and health education: theory, research, and practice. John Wiley & Sons.
	Tones, K., & Green, J. (2004). Health promotion: planning and strategies. Sage.

Naidoo, J., & Wills, J. (2009). Foundations for Health Promotion. Elsevier Health Sciences.

Buttriss, J., Welch, A., Kearney, J. M., Lanham-New, S., & Nutrition Society (Great Britain) (Eds.). (2017). Public health nutrition (Second edition). John Wiley & Sons, Inc.

Marks, D., Murray, M., & Estacio, E. V. (2018). Health psychology: Theory, research & practice (5th edition). Sage.

Ogden, J. (2010). The psychology of eating: From healthy to disordered behavior (2nd ed). Wiley-Blackwell.

Ogden, J. (2012). Health psychology: A textbook (5th edition). Open University Press.

Shepherd, R., & Raats, M. (Eds.). (2006). The Psychology of Food Choice. CAB International.

Degree Program Master of Public Health	
Leadership and Program Planning	
Module number	8
Module coordinator/ person responsible	Wiebke Bendt, M.Sc.
Duration of the module / semester / frequency	One semester/ 2 <sup>nd</sup> semester/ every winter semester
Credits (CP) / semester hours per week (SHW)	6 CP / 4 SHW
Workload	18 semester weeks (including examination period); 72 h contact hours, 108 h self-study
Type of module	Obligatory module
Module prerequisites  Requirements for participation / previous knowledge	None
Teaching language	English
Competencies gained / Learning Outcome	<ul> <li>Specialist competency (knowledge and understanding)</li> <li>The students are able to</li> <li>understand the leadership and management demand of complex health systems;</li> <li>comprehend the phenomenon of change, its internal and external drivers;</li> <li>outline principles and methods of development, planning, implementation and evaluation of public health programs; and</li> <li>reflect the limitations of evaluation in knowledge building and decision-making.</li> <li>Methodological competency (use, application and generation of knowledge)</li> <li>The students are able to</li> <li>practice conflict management, shared responsibility and cultural sensitivity;</li> <li>identify, adapt and use principles, processes and tools for evaluation of health projects/ programmes; and</li> <li>assess the context in which evaluation is used and how this informs about the evaluation approach and the role of the evaluator</li> <li>Social competency (communication and cooperation)</li> <li>The students are able to</li> </ul>

	<ul> <li>critically reflect on own personal values and vision and how this would impact their role as a leader; and</li> </ul>
	<ul> <li>work effectively in complex situations demonstrating negotiation, conflict management, networking, collaboration, cooperation, intercultural and interdisciplinary competencies.</li> </ul>
	Self-competency (scientific self-image, professionalism)
	The students are able to
	<ul> <li>demonstrate leadership and motivate people, communities and organisations to engage in change processes and support learning and development processes;</li> </ul>
	<ul> <li>apply the principles of systems thinking to program planning, implementation, and evaluation in organizational, community, and policy initiatives; and</li> </ul>
	apply principles of effective communication.
Content of the module	Leadership & Communication
	Basis theories underlying communication
	Leadership styles, team roles, conflict management
	<ul> <li>Change management: organisational culture, motivators, customer satisfaction and profit</li> </ul>
	Intercultural intelligence
	Program Planning & Evaluation
	Evaluation theory and its application
	<ul> <li>Planning models, methods and strategies of project development</li> </ul>
	<ul> <li>Planning and negotiating the evaluation design, data collection, analysis, and the provision of findings</li> </ul>
Applicability of the module	The module addresses the implementation of health promotion interventions and builds on the theoretical foundations of the module Health Promotion and Prevention. The critical reflection of one's own thoughts and actions is an essential component of this module.
Requirements for the award of credit points	Regular examination type for module testing: Portfolio examination (graded)
(Study and exam requirements)	
Corresponding courses	Leadership & (Health) Communication Program Planning & Evaluation
Learning and teaching types/ methods/ media types	Taught seminar (lecture, presentation, self-study, group work, project-based work, case study)
Literature	All references are used in the current edition
	De Bono, S., van der Heijden, B., Remme, J., & Jones, S. (2008). Leadership, change and responsibility. Meyer & Meyer Verlag.
	Gosling, J., Sutherland, I., & Jones, S. (2012). Key concepts in leadership. Sage.

Gosling, J., & Mintzberg, H. (2003). The five minds of a manager. Harvard business review, 81(11), 54-63.

Rooke, D. and Torbert, W. (2005) 'The Seven Transformations of Leadership', Harvard Business Review, April, 83(4): 66-76.

Morrison, I. (2000). Health care in the new millennium: Vision, values, and leadership. San Francisco.

Tones, K., & Green, J. (2004). Health promotion: planning and strategies. Sage.

Degree Program Master of Public Health	
Health Policy and Manager	nent
Module number	9
Module coordinator/ person responsible	Prof. Dr. York Zoellner
Duration of the module / semester / frequency	One semester/ 2 <sup>nd</sup> semester/ every winter semester
Credits (CP) / semester hours per week (SHW)	6 CP / 4 SHW
Workload	18 semester weeks (including examination period); 72 h contact hours, 108 h self-study
Type of module	Obligatory module
Module prerequisites	None
Requirements for participation / previous knowledge	
Teaching language	English
Competencies gained /	Specialist competency (knowledge and understanding)
Learning Outcome	The students are able to
	<ul> <li>identify the schools of thought of management theory embedded in public health policy elements;</li> </ul>
	<ul> <li>differentiate the interests reflected in the positions of key stakeholder groups in the policy formation; and</li> </ul>
	outline principles of project management.
	Methodological competency (use, application and generation of knowledge)
	The students are able to
	<ul> <li>compare the organization, structure and function of health care, public health and regulatory systems across national and international settings;</li> </ul>
	<ul> <li>apply advanced policy and management concepts to the analysis of health systems;</li> </ul>
	<ul> <li>critically analyse upon contemporary developments affecting the health system; and</li> </ul>
	apply project management principles.
	Self-competency (scientific self-image, professionalism)
	The students are able to

	<ul> <li>debate the role of different understandings of equity alongside other objectives in informing health policy and policy change; and</li> <li>advocate for political, social or economic policies and programs</li> </ul>
	that will improve health in diverse populations.
Content of the module	Health Policy
	Policy definitions and instruments
	<ul> <li>Main health challenges, current political strategies, including strengths and weaknesses</li> </ul>
	Comparative health policies in different countries
	Specific issues in global and European public health
	Decision making methodologies
	Health- and Project Management
	<ul> <li>Philosophical concepts and ethical considerations in healthcare management: The Concept of Justice</li> </ul>
	<ul> <li>Systematic comparative analysis of healthcare systems:</li> <li>Theoretical Approaches</li> </ul>
	Management of healthcare systems in different countries
	Financing healthcare and resource allocation
	<ul> <li>Human resource management and capacity building in public health systems</li> </ul>
	<ul> <li>Performance assessment in healthcare system: Opportunities and limitations</li> </ul>
	Project management
Applicability of the module	The module examines the evolution of different health systems, their relation to social norms and health policy. In addition, the exchange with relevant actors of the health systems will be actively promoted, e.g. through congresses participation (if possible).
Requirements for the award of credit points	Regular examination type for module testing: Portfolio examination (graded); further possible examination type: Written examination,
(Study and exam	presentation
requirements)	Where more than one possible examination type is used in the module, the examination type to be used is to be made known by the
	responsible lecturer at the start of the course.
Corresponding courses	Health Policy
. 5	Health- and Project Management
Learning and teaching types/ methods/ media types	Taught seminar (lecture, presentation, self-study, discussion, group work, case study, excursion)
Literature	All references are used in the current edition
	Walshe, K., & Smith, J. (Eds.). (2011). Healthcare management. McGraw-Hill Education (UK).
	Esping-Andersen, G. (1990). The three worlds of welfare capitalism. Princeton University Press.

John Wiley & Sons.

Beaglehole, R., Beaglehole, R., & Bonita, R. (Eds.). (2009). Global public health: a new era. Oxford University Press.

Birn, A. E., Pillary, Y., & Holtz, T. H. (2010). Textbook of international health: Global health in a dynamic world.

Merson, M. H., Black, R. E., & Mills, A. J. (2011). Global health. Jones & Bartlett Publishers.

Goodwin, N., Gruen, R., & Iles, V. (2005). Managing health services. McGraw-Hill Education (UK).

Degree Program Master of Public Health	
Health Economics	
Module number	10
Module coordinator/ person responsible	Prof. Dr. York Zoellner
Duration of the module / semester / frequency	One semester/ 2 <sup>nd</sup> semester/ every winter semester
Credits (CP) / semester hours per week (SHW)	6 CP / 4 SHW
Workload	18 semester weeks (including examination period); 72 h contact hours, 108 h self-study
Type of module	Obligatory module
Module prerequisites  Requirements for participation / previous knowledge	None
Teaching language	English
Competencies gained / Learning Outcome	<ul> <li>Specialist competency (knowledge and understanding)</li> <li>The students are able to</li> <li>recognise the interdependencies between micro and macroeconomic issues in global health;</li> <li>understand the role of risk and uncertainty in health and health care;</li> <li>differentiate between average and incremental analysis; and</li> <li>interpret key indicators, both at technology and whole-system level.</li> <li>Methodological competency (use, application and generation of knowledge)</li> <li>The students are able to</li> <li>apply policy and economic concepts to the analysis of contemporary issues in public health and health care;</li> <li>assess and improve structures and processes to mitigate market failure effects in health care, and</li> <li>apply the acquired concepts in a quantitative way to case studies, such as the effectiveness and cost-effectiveness of public health interventions.</li> <li>Social competency (communication and cooperation)</li> <li>The students are able to</li> <li>formulate context- and setting-specific policies for the finance</li> </ul>

	<ul> <li>trade off health equity issues in a thoughtful and balanced way; and</li> </ul>
	<ul> <li>differentiate clearly between evidence-based and interest- driven arguments in discussions around healthcare resources.</li> </ul>
	Self-competency (scientific self-image, professionalism)
	The students are able to
	<ul> <li>shape a country's health system by providing input on</li> </ul>
	governance issues;
	<ul> <li>identify gaps in existing health systems and propose appropriate reform elements;</li> </ul>
	<ul> <li>set up suitable monitoring and regulatory frameworks for population health improvement: and</li> </ul>
	<ul> <li>be a well-trained analyst, decision-maker and leader in the field of public health and health care.</li> </ul>
Content of the module	Health Economics
	Basic micro- and macro-economic concepts and tools
	Interdependencies between economics and health
	<ul> <li>Economic analysis applied to different health care goods and 'bads'</li> </ul>
	Production and cost of health care
	Economic evaluation, health technology assessment (HTA): case
	studies
	Health Care Organisation
	Governance in health care; stakeholders, structures, processes
	<ul> <li>Comparative analysis of different health care systems with respect to various indicators</li> </ul>
	<ul> <li>Demand for, and supply of, health insurance</li> </ul>
	Allocation of scarce healthcare resources: case study
Applicability of the module	The module deals with the application of economic theory to the challenges of healthcare finance, provider remuneration, distribution of healthcare goods and services, and cost-effectiveness assessment of the latter.
Requirements for the award of credit points	Regular examination type for module testing: Written examination (graded)
(Study and exam	
requirements)	
Corresponding courses	Health Economics
	Health Care Organisations
Learning and teaching types/ methods/ media types	Taught seminar (lecture, presentation, self-study, discussion, group work, case study)
Literature	All references are used in the current edition
	Morris, S, Devlin, N & Parkin, D 2012, Economic analysis in health care, 2nd edn, John Wiley & Sons, Wiley.

Folland S, Goodman AC & Stano M 2012, The Economics of Health and Health Care, 7th edn, Pearson Higher Education.

Degree Program Master of Public Health				
Master Thesis				
Module number	11			
Module coordinator/ person responsible	Prof. Dr. Ralf Reintjes			
Duration of the module / semester / frequency	One semester/ 3 <sup>rd</sup> semester/ every semester			
Credits (CP) / semester hours per week (SHW)	30 CP			
Workload	900 h (6 months)			
Type of module	Obligatory module			
Module prerequisites Requirements for participation / previous knowledge	The master thesis may only be started once all examination credits from the first part of the program have been successfully completed. Exceptions require approval by the examination board.			
Teaching language	English (languages other than English require approval by the examination board)			
Competencies gained / Learning Outcome	Methodological competency (use, application and generation of knowledge)			
	The students are able to			
	<ul> <li>systematically approach and process an academic theme, incl. identification of relevant public health themes;</li> </ul>			
	<ul> <li>research relevant and current literature and to be able to establish the research gap and formulate an appropriate research question;</li> </ul>			
	<ul> <li>develop and implement a suitable research design to answer the research question; and</li> </ul>			
	<ul> <li>document the research process and critically interpret the results in the context of public health research.</li> </ul>			
	Social competency (communication and cooperation)			
	The students are able to			
	<ul> <li>work independently and conduct professional and target group-specific communication, e.g. with cooperation partners and respondents;</li> </ul>			
	<ul> <li>proactively seek advice in the event of questions, problems and conflicts; and</li> </ul>			
	communicate with the academic audience.			
	Self-competency (scientific self-image, professionalism)			
	The students are able to			

Content of the module	<ul> <li>integrate acquired theoretical scientific knowledge and methodology in public health research;</li> <li>present own research in the field in line with the academic standard; and</li> <li>carry out a scientific task within the given time.</li> <li>The Master Thesis is a comprehensive theoretical, empirical and/ or experimental examination of a subject. The topic has to be approved by the head of the examination board.</li> </ul>	
Applicability of the module	The aim of the thesis is to prove students' capability to apply scientific methods and findings. Students independently handle an issue taken from the field of work associated with their degree course, addressing the issue in interdisciplinary contexts and independently expanding and further developing their scientific knowledge.	
Requirements for the award of credit points (Study and exam requirements)	Examination type for module testing: Exercise slip (assessed) and Master Thesis (graded)	
Corresponding courses	Thesis Colloquium Master-Thesis	
Learning and teaching types/ methods/ media types	Thesis Colloquium Supervision	
Literature	All references are used in the current edition  Lindsay, D. (2011). Scientific writing: Thinking in words (No. 651.7 LINs). CSIRO Pub.  Glasman-Deal, H. (2010). Science research writing for non-native speakers of English. World Scientific.  Potochnik, A., Colombo, M., & Wright, C. (2018). Recipes for science: an introduction to scientific methods and reasoning. Routledge.  Galvan, J. L., & Galvan, M. C. (2017). Writing literature reviews: A guide for students of the social and behavioral sciences. Taylor & Francis.	

#### Overview of modules and obligatory subjects

No	Module	Subjects
1 Public Health Principle	Public Health Principles	Introduction to Public Health
	rubiic Health Filliciples	Contemporary Health Issues
2 Statistical Method	Ctatistical Mathods	Basic Statistics
	Statistical Metrious	Biostatistics
3 Epidemio	Enidomiology	Basic Epidemiology
	еріdeі піоїоду	Epidemiology for Public Health Practice
Qualitative Research	Qualitative Research Methods and	Qualitative Public Health Research
4	Ethics	Public Health Ethics
5 Evidence Base	Evidence Based Public Health	Literature Search and Scientific Methods
	Evidence based Fublic Health	Evidence Based Public Health
6	Environmental and Occupational	Occupational Health
0	Health	Environment and Health
7 Health Promotio	Health Promotion and Prevention	Health Behaviour and Lifestyle
	riealth Fromotion and Frevention	Health Promotion and Prevention
8 Leadership and	Leadership and Program Planning	Leadership & (Health) Communication
	Leadership and Frogram Flamming	Program Planning & Evaluation
9 Health Policy and Ma	Health Policy and Management	Health Policy
	nealth Folicy and Management	Health- and Project Management
10 Health Econom	Health Economics	Health Economics
	Health Economics	Health Care Organisation

#### Lecturers

#### **Professors**

Prof. Amena Ahmad

Prof. Dr. Dr. Walter Leal

Prof. Dr. Andre Klussmann

Prof. Dr. Ralf Reintjes

Prof. Dr. Joachim Westenhöfer

Prof. Dr. York Zoellner

#### Lecturers

Wiebke Bendt, M.Sc.

#### **External Lecturers**

Dr. Adedeji Adekunle, MPH Kenneth Asang, MPH Jorge Asprino, MPH Dr. Alison Hann Dr. Maria Noftz, MPH Ricardo Strauss, MPH

