



**START
OCTOBER 2010***

MASTER OF SCIENCE PROGRAM IN HEALTH TECHNOLOGY ASSESSMENT, EVIDENCE- BASED HEALTHCARE & DECISION SCIENCE

- ▶ Institute of Public Health, Medical Decision Making and Health Technology Assessment
- ▶ Department of Public Health, Information Systems and Health Technology Assessment

THE HEALTH AND LIFE SCIENCES UNIVERSITY
private universität für gesundheitswissenschaften, medizinische informatik und technik
UMIT
HALLTYROL

Institute of Public Health, Medical Decision Making and Health Technology Assessment



The Master Program in “Health Technology Assessment, Evidence-based Healthcare and Decision Science” is part of the new International HTADS Continuing Education Program developed by the Institute of Public Health, Medical Decision Making and Health Technology Assessment Dept. of Public Health, Informations Systems and HTA (Chair: Prof. Dr. Uwe Siebert) at UMIT.

The mission of the Department is to advance the health of individuals and the public through excellence in education, interdisciplinary research and global communication. The goal of the institute’s research program is to develop and apply interdisciplinary methods to guide the comprehensive, systematic and practice-oriented assessment of measures and procedures in public health and medicine. The research supports decision makers and providers in improving the quality and effectiveness of health care and reducing medical risks in order to enhance the health status of both individuals and society as a whole.

UMIT

As one of the most modern Health and Life Sciences Universities in Europe, UMIT has specialized in new occupational fields, new areas of research and in current challenges in the health care sector.

With a focus on the exciting and forward-looking topics of health sciences, public health, epidemiology, nursing science, health policy and management, medical informatics, and bioinformatics, UMIT offers high-quality university education and continuing education programs especially in areas that are of increasing relevance in the modern health care sector. Within these areas, UMIT provides research and teaching provision at the highest academic level. In the area of research, UMIT institutes work with research bodies from all over the world. Students at UMIT graduate with the internationally recognised degrees of Bachelor, Master or Doctorate. Within the scope of national and international research projects, UMIT has already acquired – in spite of its young age, an outstanding reputation as a university research establishment.

ADMISSION REQUIREMENTS

Admission to the master degree program requires

- ▶ the successful completion of a university program (at least at bachelor degree level) in the field of medicine, public health, health sciences, epidemiology, statistics, pharmacy or related fields, provided that it has a significant focus on healthcare or sufficient relevant professional experience
- OR
- ▶ the successful completion of a post-secondary training program of a minimum duration of six semesters and sufficient relevant professional experience, or a diploma in a related field
- AND
- ▶ a good command of written and spoken English language.

DURATION

The Master Program in Health Technology Assessment, Evidence-based Healthcare and Decision Science includes 13 weekly units (modules), an internship and the master thesis (total workload: 120 ECTS). Part-time professional students can complete the program within six consecutive semesters. Another option for completing the program within four semesters as a full-time student is currently being initiated. An overview of the structure and schedule for the Master Program (part-time) is illustrated on the following page.

PROGRAM CONTENT

The Program has a modular curriculum. All modules combine lectures, discussions, case study group work, and hands-on computer lab sessions. Aside from the scientific and methodological focus of the program, students will be encouraged to translate their theoretical knowledge into practice by focused trainings and applied exercises. The faculty consists of leading international experts from universities, industry, and HTA agencies and representatives from other relevant areas who have committed to provide outstanding instruction in state-of-the-art principles.

The following modules are covered in the master program:

HTA Principles, Methods I & Practice; Biostatistics I; Clinical Epidemiology & Public Health; Literature Search, Systematic Review & Meta-Analysis I; Economic Evaluation in Health Care; Decision Science & Modeling I; HTA Methods II & Specific Aspects; Health Outcomes, Quality of Life & Patient-Reported Outcomes; Health Policy Management, Healthcare Systems, Reimbursement & Country-Specific HTA; Biostatistics & Epidemiology II; Meta-Analysis II; Decision Science & Modeling II; Scientific Writing & Skill Training

A specific characteristic of the program is its special focus on quantitative methods and unique training in decision sciences as well as the combination of theoretical and applied case examples presented by professionals in the field.

GRADING SCHEME / QUALIFICATION

After successful completion of the program including 13 modules, the internship, and the master thesis and colloquium, students will receive the degree Master of Science (MSc).

TUITION

Tuition fees per semester are € 2.400. This covers the cost of tuition, examination and graduation. Fees are payable at the start of the program.

CURRICULUM

1. SEMESTER

ECTS

Moduls	18
HTA Principles, Methods I & Practice	6
Biostatistics I	6
Clinical Epidemiology & Public Health	6

2. SEMESTER

Moduls	18
Literature Search, Systematic Review & Meta-Analysis I	6
Economic Evaluation in Health Care	6
Decision Science & Modeling I	6

3. SEMESTER

Moduls	18
HTA Methods II & Specific Aspects	6
Health Outcomes, Quality of Life & Patient-Reported Outcomes (PRO)	6
Health Policy Management, Healthcare Systems, Reimbursement & Country-Specific HTA	6

4. SEMESTER

Moduls	24
Biostatistics & Epidemiology II	6
Meta-Analysis II	6
INTERNSHIP	12

5. SEMESTER

Moduls	12
Decision Science & Modeling II	6
Scientific Writing & Skill Training	6

6. SEMESTER

Master Thesis including Colloquium	30
Total	120

THE MASTER PROGRAM

The Master Program in "Health Technology Assessment, Evidence-based Healthcare and Decision Science" is the first international Master Program of this kind and part of the Continuing Education Program in Health Technology Assessment & Decision Sciences (HTADS) at the Institute of Public Health, Medical Decision Making and HTA at UMIT. This program was designed to provide high quality education and comprehensive training on key issues within three important disciplines for those pursuing careers in the health sector. It covers three primary areas that inform medical and policy decisions in healthcare:

- ▶ Health Technology Assessment,
- ▶ Evidence-based Healthcare, and
- ▶ Decision Science

HEALTH TECHNOLOGY ASSESSMENT (HTA)

has been defined by the International Network of Agencies for HTA (INAHTA) as „a multidisciplinary field of policy analysis, studying the medical, economic, social, and ethical implications of development, diffusion and use of health technologies (e.g., drugs, devices, surgical procedures, prevention techniques)“. The comprehensive assessment of any action in medicine, public health, or health care management falls into the realm of HTA. The primary focus of HTA is on evaluating the intended benefits versus the unintended risks of health technologies. In addition, cost-effectiveness analysis plays an increasing role in reimbursement decisions. Because of its direct policy implications, HTA is increasingly in demand worldwide.

EVIDENCE-BASED HEALTHCARE (EBHC)

was described by Appleby in 1995 as "a shift in the culture of health care provision, away from basing decisions on opinions, past practice and precedent, and towards making more use of science, research and evidence to guide decisions" and represents the second important part of the program.

DECISION SCIENCE (DS)

Decision Science (DS), the third fundamental part of the program, is the application of explicit and quantitative methods to analyze decisions under conditions of uncertainty (e.g., utility theory, medical and public health decision making, meta-analysis, decision-analytic modeling, benefit-risk analysis, cost-effectiveness analysis). DS has become increasingly relevant to health care policymakers because it is increasingly used to synthesize good evidence to assess long-term benefit-harm balance and cost-effectiveness of new interventions in health and medicine in a transparent and explicit manner.

In order to keep pace with developments in the health sector and the increasing demand for professionals skilled in these three relevant disciplines, the UMIT – HTADS Program will provide a comprehensive training in the key issues of HTA, EBHC and DS.

CAREER PROSPECTS

Professional opportunities for the graduates of the Master Program are available in different organizations within the health care sector including HTA institutions, federal ministries, health insurance programs, hospitals, pharmaceutical and medical device companies, public health services, universities, continuing education institutions, and contract research and consultancy organisations.

