

Studiengang		Biomedical Engineering (Master)	
Modulkennziffer: 05		Management of Medical Technologies	
Modulkoordination/ Modulverantwortliche/r		Prof. Dr. Jürgen Lorenz	
Lehrende		Prof. Dr. Jürgen Lorenz	
Zeitraum / Semester/ Angebotsturnus		1. oder 2. Semester jedes Semester	
Credits		5 CP	
Arbeitsaufwand (Workload)		150 h, 54 h Präsenz, 96 h Selbststudium	
Status		spezifisches Modul in diesem Studiengang	
Teilnahmevoraussetzungen/ Vorkenntnisse		Einschlägige Kenntnisse aus einem fachlich nahestehenden Hochschulstudium mit Bachelor-Abschluss	
max. Teilnehmerzahl		20	
Lehrsprache		Englisch	
Zu erwerbende Kompetenzen/ Lernziele			
Fachlich-inhaltliche und methodische Kompetenzen			
This course enables the student to			
<ul style="list-style-type: none"> describe the basic strategy and procedures of Health Technology Assessment (HTA) based on the general concept of evidence-based medicine identify quality criteria of scientific publications (ethics, study design, statistical methods, outcome measures, publication bias, journal impact etc.) apply HTA both as a prospective and retrospective tool of quality assurance in the development and evaluation of medical technologies. perform all relevant components of the HTA process in a project-oriented manner retrieve and evaluate relevant information using internet-based data bases (PubMed, Medline, Cochrane library etc.) write an HTA-report on technical capacity, scope of application in clinical medicine, treatment efficacy, cost effectiveness, current market status, and socio-psychological concerns of a medical technology defined by the semester project. 			
Sozial- und Selbstkompetenz			
The students will be able			
<ul style="list-style-type: none"> critically read and review original articles present and discuss their critique on a paper in a group ("journal club presentation") write a "peer review"-like evaluation report of a published paper write and revise an own text contribution ("workpackage") to a review paper prepared by the group 			
Lerninhalte			
<ul style="list-style-type: none"> basis and methodologies of evidence based medicine National and international health technology assessment organizations Process of peer-reviewed scientific publication 			

Zugehörige Lehrveranstaltungen	
<ul style="list-style-type: none"> - New Medical Technologies (Market Perspectives) - Health Technology Assessment 	
Lehr- und Lernformen/ Methoden / Medienformen	<ul style="list-style-type: none"> • Powerpoint presentations • Group work (internet retrieval, discussions) • Excursions (“expert interviews”)
Studien- und Prüfungsleistungen	<ul style="list-style-type: none"> • Oral presentation • Written study report
Literatur/ Arbeitsmaterialien	<ul style="list-style-type: none"> • Introduction to health technology assessment. CS Goodmann. HTA 101, 2004. • Sterne JA, Egger M, Smith GD. Systematic reviews in health care: investigating and dealing with publication and other biases in meta-analysis. <i>BMJ</i>. 2001;323:101-5. • Steinberg EP. Cost-effectiveness analyses. <i>N Engl J Med</i>. 1995;332:123. • Oxman AD, Sackett DL, Guyatt GH. Users' guides to the medical literature. I. How to get started. <i>JAMA</i>. 1993;270(17):2093-5. • Guyatt GH, Haynes RB, Jaeschke RZ, et al. Users' guide to the medical literature, XXV: Evidence-based medicine: principles for applying the users' guides to patient care. Evidence-Based Medicine Working Group. <i>JAMA</i>. 2000;284:1290-6.