Course description «Applied economic evaluation in health care»

Heading in English	***Content***
Code	INTH 314 (Master level) / INTH 914 (PhD level)
Name of course	Applied economic evaluation in health care
ECTS	**INTH 314 (Master level): 31.03.2014 – 11.04.2014** The module has a Student Investment Time of 90 hours: Contact time = 30 hours, Directed study (group work) = 30 hours, Self-directed learning (individual) = 30 hours 3.0 ECTS credits **INTH 914 (PhD level): 31.03.2014 – 25.04.2015** The module has a Student Investment Time of 135 hours: Contact time = 30 hours, Directed study (group work) = 30 hours, Self-directed learning (individual) = 93 hours 5.0 ECTS credits
Semester	Spring
Language of Instruction	English
Course Unit Level	Master and PhD
Responsible department	Centre for International Health
Access to the Course Unit	Good working knowledge of English (TOEFL score of at least 550 points paper-based or 213 points computer-based, or an equivalent approved test). Participants must be proficient Excel users. Students admitted to a Master's Degree or a PhD Programme may join this course (e.g. TropEd\Network).
Aim and Content	Economic evaluation is the comparative science in which health interventions are compared in terms of both their costs and their effectiveness. The module is divided into one theoretical part, where the focus in on developing an understanding the basic principles, potential roles and limitations of economic evaluation, and one practical part with focus on developing economic evaluation modelling skills. Theoretical part (days 1-5): 1. The structure of economic evaluation, different types of economic evaluation, their usefulness and limitations 2. Costing in economic evaluation 3. Measuring health benefits in economic evaluation 4. Interpreting cost-effectiveness results 5. Uncertainty in economic evaluation Practical part (days 6-10): 6. The basics of TreeAge, and building a simple decision tree model 7. Building a Markov life cycle model 8. Working with large models and Integrating TreeAge with Excel 9. Incorporating uncertainty through one-way and probabilistic sensitivity analyses 10. Extending the use of the models: Expected Value of Perfect Information analyses and Microsimulation

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	Applied part (for PhD level), days 11-17: • Use the above skills to develop a decision model for an actual research question • Write term paper explaining objectives, methods and results of the decision model
Learning Outcomes	The module has duration of two weeks for master level, and three weeks for doctoral level. The module is designed to equip students with knowledge about the basic theoretical foundations of Economic Evaluation, and to enable them with the practical skills to undertake health economic decision modelling. By the end of the first week of the module, students should be able to: • Know how different types of economic evaluations and modelling techniques can help address policy questions in health care • Be able to describe and discuss issues on measuring and valuing resource use in health and non-health service costs • Be able to describe and discuss issues on measuring and valuing health consequences • Know the basic requirements for presenting output from economic evaluations, be able to correctly interpret results and discuss how results should be applied in priority setting • To be able to appraise the quality and usefulness of economic evaluations in low-income settings. By the end of the second week of the module, students should in addition be able to: • Build and apply a decision analytic model based on a decision-tree • Build and apply a decision analytic model based on a Markov life cycle model • Incorporate and analyse uncertainty through one-way and probabilistic sensitivity analyses • Understand the basic principles of Expected Value of Perfect Information and Microsimulation analyses • Present and interpret cost-effectiveness results By the end of the last 7 days students who enrol as PhD students should be able to plan, undertake and present the results of an economic evaluation of an actual health intervention of their own choice.
Pre-requirements	The maximum number of students is 10, and priority will be given to the following criteria: • Enrolment to complete PhD version of this module • Relevance of economic evaluation for

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	planned research activities • Master- and PhD students enrolled at the University of Bergen • Students in the Erasmus Mundus program MSc in Int Health • Other tropEd students
Recommended previous knowledge	Economists, other social scientists, medical doctors, psychologists, nurses, dentists and others with training at the bachelor level or higher in a relevant subject at a recognized institution can be admitted to the MSc level course. Applicants with similar background and training at the MSc level or higher in at a recognized institution can be admitted to the PhD level course. Candidates with practical experience from policy making at local, national or international level will be given priority
Teaching Methods	The teaching is based on residential teaching at University of Bergen. The first five days are largely theoretical, and consists of a mixture of lectures and group work/discussions on the main topics described above. Students are required to participate in group work on assigned topics. This includes daily student active teaching exercises, with alternating group compositions and presentation of results for the class. The following five days are largely practical, and students will work through exercises on their own laptops on a "learning by doing" principle. Each day will be organised around a number of assignments that must be completed individually. The softwares TreeAge Pro Suite 2013 and Microsoft Excel will be used throughout the module. Finally, students who would like to have credits accepted for PhD level must develop a decision model and complete a one week home essay on a topic of the students' choice.
Compulsory Requirements	Compulsory attendance in lectures and group work. Compulsary use of personal computers with preinstalled software (see below)
Assessment methods	The module in continuously assessed and all the daily mandatory assignments must be accepted in order to pass the module. Students will receive separate grades (A-F) for the theoretical and practical parts of the module, as well as a final grade (A-F) that will appear on the course certificate. The grades of the two weeks are weighted equally in the final grade. Students who register for the doctoral version of the course must in addition produce an essay of 2000-2500 words + references. The essay should serve to explain the objectives, methods and results of a decision analytical model that students will develop, based on their own choice. The topic for the essay/model must be accepted by the course-

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	coordinator before the end of the second week of the module. The essay is graded (A-F), and represent 50% of the total module grade for doctoral candidates, while the first two weeks are each weighted 25%. Students who receive an F on the grading are allowed to re-sit according to standard procedures at the University of Bergen.
Grading Scale	ECTS credits A-E (F=Fail)
Reading list and methods tools (must be obtained before the start of the module)	Reading list: • Alastair M. Gray et al. (2011). Applied Methods of Cost-effectiveness Analysis in Health Care. Oxford University Press. ISBN 978-0-19-922728-0. • Supplementary scientific articles (will be provided during the course) Personal computer (laptop), with adequate specifications Mandatory software (must be obtained and installed before the start of the module): • Microsoft Excel • TreeAge Pro Suite (www.treeage.com) (A "student course licence" costs US$ 45 is sufficient for the module and lasts 6 months. Upgraded licence versions are mandatory for undertaking actual research activities for publication).
Place of Teaching	Centre for International Health
Course Unit Evaluation	Online questionnaire (My Space)
Contact Information	Centre for International Health Tel: 55588560; e-mail: studie.cih@uib.no