



**Karolinska
Institutet**

Course syllabus for

Advanced Course in Health Economics, 5 credits

Avancerad hälsoekonomi, 5 hp

This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.

Please note that the course syllabus is available in the following versions:

Autumn2018 , Autumn2020 , Autumn2022

Course code	4HM009
Course name	Advanced Course in Health Economics
Credits	5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Medical Management
Level	AV - Second cycle
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Learning, Informatics, Management and Ethics
Decided by	Utbildningsnämnden LIME
Decision date	2018-02-08
Revised by	Education committee LIME
Last revision	2024-03-06
Course syllabus valid from	Autumn 2022

Specific entry requirements

A Bachelor's degree or a professional degree equivalent to a Swedish Bachelor's degree of at least 180 credits in public health science, healthcare or other relevant social sciences subject area. And proficiency in English equivalent to English B/English 6.

To be eligible for the course, the student is expected to have successfully completed courses equivalent to 45 credits on the Master's programme in health economics, policy and management.

Objectives

The goal of the course is to provide students with practical skills and an understanding of basic modelling methodology. Students will learn, through practice, the foundations of how modelling in economic evaluation is used to prioritize those health care interventions and health technologies that should be used in order to maximize health outcomes given limited resources.

After completion of the course, students should be able:

Knowledge and understanding

- describe and compare different decision modelling approaches in economic evaluation

Skills and abilities

- develop a decision model using a computer programme
- analyse the cost-effectiveness of a health care programme based on a decision modelling approach and by using a computer programme
- analyse and present the results of an economic evaluation based on decision tree and Markov modelling

Judgement and approach

- critically appraise and review decision models for economic evaluation
- reflect on the potential and limitations of modelling in economic evaluation and its role for different actors in society

Content

The course covers critical assessment of decision models, decision tree and Markov modelling by using a computer programme, Microsoft Excel including to structure the model, populate the model with data, analyse the cost-effectiveness, present and interpret the results of the uncertainty analysis.

Teaching methods

The course includes interactive lectures, seminars, group work, student presentations and individual assignments.

Examination

Participation and individual contribution in the group assignment (written tasks and oral presentation) as well as giving feedback on other student assignments (opposition group). Participation in the individual assignment.

Requirements for the grade pass (G) are: participation in compulsory parts, pass (G) on the group assignment (written task and oral presentation), pass (G) on the mid-course individual assignment, pass (G) on the feedback to colleagues, and pass (G) on the individual assignment. Requirements for the grade pass with distinction (VG) are: participation in compulsory parts, pass (G) on the group assignment (written task and oral presentation), pass (G) on the mid-course individual assignment, pass (G) on the feedback to colleagues, and pass with distinction (VG) on the individual assignment.

Compulsory participation

Attendance in mandatory parts is required.

The examiner assesses if, and in that case how, absence can be compensated. Before the student has participated in all compulsory parts or compensated absence in accordance with the examiner's instructions, the student's results for respective part will not be registered. Absence from a compulsory activity may result in that the student cannot compensate the absence until the next time the course is given.

Limitation of number of occasions to write the exam

Students who have not passed the regular examination are entitled to participate in five more examinations. If the student has not passed the exam after four participations, he/she is encouraged to visit the study advisor. If the student has failed six examinations/tests, no additional examination or new admission is provided.

The number of times that the student has participated in one and the same examination is regarded as an

examination session.

Submission of blank exam is regarded as an examination session. An examination for which the student registered but not participated in, will not be counted as an examination.

If there are special grounds, or a need for adaptation for a student with a disability, the examiner may decide to deviate from the syllabus's regulations on the examination form, the number of examination opportunities, the possibility of supplementation or exemptions from the compulsory section/s of the course etc. Content and learning outcomes as well as the level of expected skills, knowledge and abilities may not be changed, removed or reduced.

Transitional provisions

The course has been cancelled and was offered for the last time in the fall semester of 2023. The course has been replaced with another, and examination will be provided according to the guidelines in the syllabus for 4HM023.

Other directives

Course evaluation will be carried out in accordance with the guidelines established by the Committee for Higher Education.

The course language is English.

Literature and other teaching aids

Mandatory literature

Cost Effectiveness Modelling for Health Technology Assessment : A Practical Course

Edlin, Richard.; McCabe, Christopher.; Hulme, Claire.; Hall, Peter.; Wright, Judy.

1st ed. 2015. : Cham : Springer International Publishing, 2015. - XIII, 208 p. 86 illus., 3 illus. in color. ISBN:9783319157443 LIBRIS-ID:18458787

URL: [Table of Contents / Abstracts](#)

[Library search](#)

Roberts M1, Russell LB2, Paltiel AD3, Chambers M4,

Conceptualizing a model: a report of the ISPOR-SMDM Modeling Good Research Practices Task Force-2

PubMed, 2012

URL: [Conceptualizing a model: a report of the ISPOR-SMDM Modeling Good Research Practices Task Force-2](#)

Value Health. 2012;15(5):804-811.

Caro JJ1, Briggs AH2, Siebert U3,4, Kuntz KM5; ISP

Modeling Good Research Practices Overview: A Report of the ISPOR-SMDM Modeling Good Research Practices Task Force-1

PubMed, 2012

URL: [Modeling good research practices--overview: a report of the ISPOR-SMDM Modeling Good Research Practices Task Force-1](#)

Value in Health 2012 15(5) 796-803.

Weinstein MC, OBrien B, Hornberger et al. Principles of good practice for decision analytic modelling in health-care evaluation: Report of the ISPOR task force on good research practices-modeling studies. *Value in Health* 2003;6:9-17.

Computer programme for modelling: TreeAge Pro Healthcare + TreeAge manual (in pdf from TreeAge)

Other reading material will be added during the course (e.g. scientific articles, manuals and reports)