Semmelweis University, Faculty of Medicinee – single, long-cycle medical training - Osztatlan általános orvos képzés
Name of the host institution (and any contributing institution):
Egészségügyi Technológiaértékelő és Elemzési Központ

Name of subject: Bevezetés a farmakoökonómiába
in English: Introduction to Pharmacoeconomics
in German: Einführung in die Pharmakoökonomie

Credit value: 1
Semester: 1st semester, 2nd semester, 3rd semester, 4th semester, 5th semester, 6th semester, 7th semester, 8th semester, 9th semester, 10th semester, 11th semester, 12th semester
(in which the subject is taught according to the curriculum)

Hours per week	Lecture	Practical lesson	Seminar
1.0	0.5	0.5	0.0

Hours per semester	Lecture	Practical lesson	Seminar
0.0	0.0	0.0	0.0

Type of course:
elective

Academic year:
2026/27

Language of instruction (for optional and elective subjects):
English

Course code:
AOSETE1059_1A
(in the case of a new course, to be completed by the Dean’s Office, following approval)

Course coordinator name: Dr. Inotai András (egyetemi docens)
Course coordinator location of work, telephone availability: 1085 Budapest, Üllői út 25, 415. +36 20 670 1878 (between 8am-4pm on working days)
Course coordinator position: Associate professor
Course coordinator Date and number of habilitation: 27 June 2018, 1090/2018

Objective of instruction and its place in the curriculum:

Health technology assessment (HTA) is the evaluation of health technologies (including pharmaceuticals) from different perspectives (incl. clinical, economic, organizational, ethical etc.) to support health policy decision making at institutional-, and macro (i.e national) level. Practice-oriented teaching of basic health- and pharmacoeconomic knowledge, in line with international

educational practice, for pharmacy and medical students to enable them interpreting and determining the cost-effectiveness of health technologies (including pharmaceuticals), and understanding the principles of pharmaceutical pricing and reimbursement.

Method of instruction (lecture, group work, practical lesson, etc.):

90 mins bi-weekly (contact hours, 1x45 min lecture followed by 1x45 min practice)

Competencies acquired through completion of course:

Command of key health economic terms, including: health technology assessment (HTA), steps of economic evaluations, measurement of health outcomes incl. health related quality of life, measurement of costs, pricing and reimbursement of pharmaceuticals, pharmaceutical policy

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Course outcome (names and codes of related subjects):

Prerequisites for course registration and completion: (CODE):

As an elective course: none

In the case of multi-semester courses, position on the possibility of and conditions for concurrent registration:

not applicable

The number of students required to start the course (minimum, maximum), student selection method:

no minimum headcount is applicable as the course will be launched as compulsory course for pharmacy students at the same time and venue with the same content.

Detailed course syllabus (if the course can be divided into modules, please indicate): (Theoretical and practical instruction must be broken down into hours (weeks), numbered separately; names of instructors and lecturers must be listed, indicating guest lecturers/instructors. It cannot be attached separately! For guest lecturers, attachment of CV is required in all cases!)

90 mins bi-weekly (contact hours, 1x45 min lecture followed by 1x45 min practice)

Theoritical classes (per bi-week):

Introduction to Pharmacoeconomics

1. hét/Week 1 (45 min)

Bevezetés, követelmények/ Introduction, requirements

Dr. András Inotai, PhD, Habil

Egészségügyi piac, piaci kudarcok, egészségügyi rendszer összevetői, egészségügy finanszírozása/Health care market and market failures, Elements of health care system, Financing health care

Balázs Babarczy PhD

3. hét/Week 3 (45 min)

Farmakoökonómia - Egészségügyi Technológia értékelés, Egészség-gazdaságtani elemzések klasszifikációja/Pharmacoeconomics, Health Technology Assessment, Classification of economic evaluations

Prof. Zoltán Kaló, PhD, Habil

5. hét/Week 5 (45 min)

Egészség-gazdaságtani elemzés lépései I - Tudományos bizonyítékok szintézise – módszerek és eszközök a szakdolgozatok irodalmi részéhez, egészségnyereség mérése (életminőség, hasznosság, életminőséggel korrigált életév)/ Steps of health economic evaluation I - Evidence synthesis – methods&tools for review-based thesis, health outcome measurement (quality of life, utility, quality adjusted life years)

Dr. Kristóf Gyöngyösi, Dr. András Inotai, PhD, Habil

7. hét/Week 7 (45 min)

Egészség-gazdaságtani elemzés lépései II – Költségek mérése, döntési szabály (küszöbérték, többkritériumú döntéshozatal)/Steps of health economic evaluation II – Measuring costs, decision rule (threshold, multicriteria decision analysis)

Dr. Balázs Nagy, PhD, Habil

9. hét/Week 9 (45 min)

Egészség-gazdaságtani modellezés (klasszifikáció, felhasználhatóság)/Health economic modelling

(classification, applicability) Blended learning class

Dr. Balázs Nagy, PhD, Habil

11. hét/Week 11 (45 min)

Originális és generikus gyógyszerek árképzése/Pricing of original and generic medicines

Dr. András Inotai, PhD, Habil

13. hét/Week 13 (45 min)

Gyógyszer ártámogatási rendszer, kiadáskontroll technikák

Pharmaceutical reimbursement system, cost control techniques

Dr. András Inotai, PhD, Habil, Dr. Kristóf Gyöngyösi

Számonkérés/ Evaluation:

14. hét/Week 14

Zárthelyi tesztvizsga gyakorlati jegyhez

Test type exam

Practical classes (per bi-week):

Introduction to Pharmacoeconomics

1. hét/Week 1 (45 min)

Bevezetés, követelmények/ Introduction, requirements

Dr. András Inotai, PhD, Habil

Egészségügyi piac, piaci kudarcok, egészségügyi rendszer összevetői, egészségügy finanszírozása/Health care market and market failures, Elements of health care system, Financing health care

Balázs Babarczy PhD

3. hét/Week 3 (45 min)

Farmakoökonómia - Egészségügyi Technológia értékelés, Egészség-gazdaságtani elemzések klasszifikációja/Pharmacoeconomics, Health Technology Assessment, Classification of economic evaluations

Prof. Zoltán Kaló, PhD, Habil

5. hét/Week 5 (45 min)

Egészség-gazdaságtani elemzés lépései I - Tudományos bizonyítékok szintézise – módszerek és eszközök a szakdolgozatok irodalmi részéhez, egészségnyereség mérése (életminőség, hasznosság, életminőséggel korrigált életév)/ Steps of health economic evaluation I - Evidence synthesis – methods&tools for review-based thesis, health outcome measurement (quality of life, utility, quality adjusted life years)

Dr. Kristóf Gyöngyösi, Dr. András Inotai, PhD, Habil

7. hét/Week 7 (45 min)

Egészség-gazdaságtani elemzés lépései II – Költségek mérése, döntési szabály (küszöbérték, többkritériumú döntéshozatal)/Steps of health economic evaluation II – Measuring costs, decision rule (threshold, multicriteria decision analysis)

Dr. Balázs Nagy, PhD, Habil

9. hét/Week 9 (45 min)

Egészség-gazdaságtani modellezés (klasszifikáció, felhasználhatóság)/Health economic modelling (classification, applicability) Blended learning class

Dr. Balázs Nagy, PhD, Habil

11. hét/Week 11 (45 min)

Originális és generikus gyógyszerek árképzése/Pricing of original and generic medicines

Dr. András Inotai, PhD, Habil

13. hét/Week 13 (45 min)

Gyógyszer ártámogatási rendszer, kiadáskontroll technikák

Pharmaceutical reimbursement system, cost control techniques

Dr. András Inotai, PhD, Habil, Dr. Kristóf Gyöngyösi

Számonkérés/ Evaluation:

14. hét/Week 14

Zárthelyi tesztvizsga gyakorlati jegyhez

Test type exam

Other courses with overlapping topics (obligatory, optional, or elective courses) in interdisciplinary areas. To minimalize overlaps, topics should be coordinated. Code(s) of courses (to be provided):

Requirements for attendance, options for making up missed sessions, and method of absence justification:

regular attendance is strongly recommended to pass the classroom exam; however, it is not mandatory. No attendance sheet will be used. Audio recordings of the classes will be available throughout the semester and will be shared on Moodle. No need to justify absence. However, students are incentivised for face-to-face participation at classes. At the end of each class, students are challenged with 2-3 quiz questions (6 in case of blended learning class - #5. Economic modeling), to be answered based on the knowledge of that class. Filling these questions is facultative, however students with a 70% or better good reponse rate receive automatic +30% points in addition to their classroom exam performance at the end of the semester. Incetive is only applicable for face-to-face participants.

Assessment methods during semester (number, topics, and dates of midterms and reports, method of inclusion in the course grade, opportunities for make-up and improvement of marks):
(number, topics, and dates of midterms and reports, method of inclusion in the course grade, opportunities for make-up and improvement of marks)

No assessment during study period is applicable. Test-type written (Moodle based) classroom exam of the entire semester curricula will be performed at week 14 (according to semester schedule), opportunity for correction: week 1 of exam period. Min. 50% is required to pass.

Number and type of individual assignments to be completed, submission deadlines:

Watching a 90-min video material is required before the blended learning class (#5. Economic

modeling)

Requirements for the successful completion of the course:

Term-grade on a three-grade rating scale based on test type classroom exam. Min. 50% is required to pass. Test-type written (Moodle based) classroom exam of the entire semester curricula will be performed at week 14 (according to semester schedule), opportunity for correction: week 1 of exam period. Exam schedule to be disclosed during the first contact class.

Type of assessment:
háromfokozatú gyakorlati jegy_en

Exam requirements (list of topics, topics of the test exam, and the optional project topics accepted as an exam)

Duration 45 mins/40 test type questions incl. true/false, simple choice, multiple correct answer quiz question. Min. 50% is required to pass. Detailed technical information and test tutorial will be shared on Moodle during the semester.

Clear, specific minimum requirements for assessment. (The list of mandatory concepts, parameters, diagrams, calculations, and practical skills required to obtain a passing grade, as well as the criteria for the completion and evaluation of project assignments accepted as an exam.) A link published on the department's website referring to the minimum requirements of the course.

List of mandatory concepts and areas: Health care market and market failures, Elements of health care system, Financing health care, Pharmacoeconomics, Health Technology Assessment, Classification of economic evaluations, Steps of health economic evaluation, Evidence synthesis, Health outcome measurement (quality of life, utility, quality adjusted life years), Measuring costs, decision rule (threshold, multicriteria decision analysis), Health economic modelling (classification, applicability), Pricing of original and generic medicines, Pharmaceutical reimbursement system, cost control techniques

Criteria for completion: see point 29

Evaluation of project assingment accepted as an exam: not applicable

https://semmelweis.hu/hta/en/education/undergraduate-training_-2/

Method and type of grading (Share of theoretical and practical examinations in the overall evaluation. Inclusion of the results in the end-of-term assessment. Possibilities of and conditions for offered grades.): (Share of theoretical and practical examinations in the overall evaluation, Inclusion of the results in the end-of-term assessment, Possibilities of and conditions for offered grades)

Term grade based on semester-end test type Moodle based classroom exam will be issued (term-grade on a three-grade rating scale). Min. 50% is required to pass.

Test result (%)

Pharmacy students (compulsory)

Medical students (elective)

87.5-100

5 (excellent)

Distinction

75-87.49

4 (good)

Distinction

62.50-74.99

3 (average)

Merit

50-62.49

2 (satisfactory)

Merit

0-49.99

1 (unsatisfactory)

Fail

N/A

N/A. At the end of each class, students are challenged with 2-3 quiz questions (6 in case of blended learning class, #5. Economic modelling), to be answered based on the knowledge of that class. Filling these questions is facultative, however students with a 70% or better good reponse rate receive automatic +30% points in addition to their classroom exam performance at the end of the semester. Incetive is only applicable for face-to-face participants.

Term-grade on a three-grade rating scale based on test type classroom exam performed at week 14.

Artificial intelligence systems used in the teaching of the subject and the manner of their application

AI used in teaching: for illustration purposes

Manner of their application by students:

During exam: not allowed.

For preparation: possible, under students' responsibility

Signature of habilitated instructor (course coordinator) announcing the course:

Signature of the director of the host institution:

Date of submission:
