UNIVERSITY of NICOSIA

Course Syllabus

Course Code	Course Title	ECTS Credits
PHAR-625	Health Technology Assessment	10
Prerequisites	**Department**	**Semester**
None	Health Sciences	Fall
Type of Course	**Field**	**Language of Instruction**
Elective	Pharmacy	English
Level of Course	**Lecturer(s)**	**Year of Study**
2nd Cycle	Panayiotis Petrou	2nd
Mode of Delivery	**Work Placement**	**Corequisites**
e-learning	--	none

Course Objectives:

Health Technology Assessment:
Health systems worldwide embrace the same goal: improve health of the population, through efficient finance and delivery of health services.

The transformation of our society has mounted the pressures since higher life expectancy comes at the cost of increased morbidity. Moreover, the advances in technological equipment lead to overdiagnosis, which in many cases are void of clinical significance. This cascades to increased needs, which must be met through constrained financial resources.

In this context, the concept of “health technology assessment” was implemented in order to assist policy makers, by providing high quality multidisciplinary data. A comprehensive decision-making context should encompass all aforementioned needs and attributes of the social stakeholders and extenuate their divergent and inconsonant interests, ultimately amalgamating them into a joint strategic framework. It is imperative that the standards of this framework are laid on high grade of evidence data, which, in return, will maximize the utility generated out of health resources. To this end, the assessment of health technologies (HTA) has been established as a pivotal decision-making tool. HTA was introduced as a tool to harness soaring health expenditures, which trailed the unrestrained introduction and reimbursement of new and expensive technology in the 70s and 80s.

An HTA programme, through the use of high quality evidence, assess the short- and long-term consequences, in terms of health and resource use, that stem out of the introduction of a new medical technology. HTA assess medical, organizational, economic and societal impact generated

by the use of a technologies within the framework of a health system. This implies that HTA is a multidisciplinary activity which systematically evaluates the effects of a technology on health, on the availability and distribution of resources and on other aspects of health system performance such as equity and responsiveness.

Along the years, the notion of HTA evolved and currently is positioned at the confluence of pharmaceuticals, medical and surgical interventions.
Therefore, HTA serves as the mediator between research and the policy-making context.
Accessing the evidence does not fully overlaps with the aims of HTA. The transformation of data, in order to match the norms of a decision-making process, matters. To this direction, HTA should operate in a systematic and reproducible way. The pillars of HTA adjoined with the corresponding with evidence-based medicine (EBM) and clinical practice guidelines (CPG) and they sum up to a body of best practice initiatives. Their difference is that EBM and CPG are primarily oriented towards clinical and patient level. HTA is oriented towards policy making and can addressed at a specific level of the process. The information varies and may be targeted in investment decision, (procurement of equipment) update of reimbursement formularies, restrictions and pre-approvals pertinent to the use of a products, comparison between alternatives and even disinvestment.
HTA collaborate with decision makers and tailor the activities of the HTA to the needs of the health system. In some case, a horizon scanning is performed in order to proactively act, especially in cases that new products that will incur significant budget impact, are anticipated to enter the market.

Learning Outcomes:

After completion of the course students are expected to be able to:

- Describe and critically appraise the conduct of health technology assessment (HTA), in particular the use of systematic literature review and economic modelling, to inform the development of health policy
- Undertake basic systematic searching for evidence on a health technology
- Critically appraise the quality of evidence supporting a health technology
- Interpret a meta-analysis and apply meta-analytic statistical techniques
- Critically discuss the multidisciplinary nature of HTA and the diverse range of skills and knowledge required to conduct the different elements of the process (statistical methods and analysis, outcome measurement, evidence synthesis, health economics, economic evaluation, decision analytic modelling).
- Identify bias in the body of evidence and elaborate research strategies to minimize them

Course Content:

- Introduction to HTA
- Best practices in HTA
- Framing and Scoping in HTA
- Developing protocols for primary evidence collection
- Literature searching: How to identify clinical/economic evidence from secondary sources
- Combining and interpreting clinical evidence
- Costing and economic evaluation
- Budget Impact Analysis
- Combining ethical, legal, social, cultural and other forms of evidence in HTA
- Evidence Appraisal – Methods for integrating societal and stakeholder values

Learning Activities and Teaching Methods:

Teaching material including PowerPoint presentations with extended descriptions and explanations, asynchronous video presentations, additional readings (journal articles and ebooks), access to additional videos related to the course, synchronous meetings (WebEx), forums, chats, quizzes, case studies, wikis, and major assignments.

Assessment Methods:

Continuous Assessment (major assignments and weekly activities), Final Exam

Required Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Pharmacoeconomics	Walley T, Haycox A, Boland A,	Br J Clin Pharmacol 1997; 43: 343–348	2004	
Methods for the Economic Evaluation of Health Care Programmes. 4th edition,	Drummond MF, O'Brien BJ, Stoddart GL, Torrance GW	Oxford Univ Press	2004	9780199665884

Meta-Analysis, Decision Analysis, and Cost-Effectiveness Analysis:	Petitti DB	Oxford Univ Press	2000	9780195133646
Strategies in Pharmacoeconomics and Outcomes Researh	Rychlik R	CRC Press	2002	9780789015853
Introduction to applied pharmacoeconomics.,	Vogenburg, FR	McGraw Hill	2001	9780071348461
Modeling using discrete event simulation: a report of the ISPOR-SMDM Modeling Good Research Practices Task Force–4.	Karnon, J., Stahl, J., Brennan, A., Caro, J.J., Mar, J., Möller, J(	Med Decis Making.; 32(5):701–711	2012	
Assessing Quality in Decision Analytic Cost-Effectiveness Models A Suggested Framework and Example of Application	Sculpher, M.,Fenwick, E., Claxton, K	Pharmacoeconomics May; 17 (5): 461-477	2000	