

The University of Jordan

Faculty: Pharmacy

Department: Biopharmaceutic and Clinical Pharmacy

Program: PharmD

Academic Year/ Semester: 2013-2014/2nd sem

Evidence Based Medicine Pharmaceutical Literature Evaluation (1203518)

Credit hours	2	Level	5 th year	Pre-requisite	1203364
Coordinator/ Lecturer	Dr. AL- Motassem Yousef	Office number	122	Office phone	23357
Course website		E-mail	ayousef@ju.edu.jo	Place	

Office hours					
Day/Time	Sunday	Monday	Tuesday	Wednesday	Thursday

Course Description

Will enable students to identify, obtain and utilize published medical literature to be used in patient care, research projects and lifelong learning. Emphasis on data data searching and retrieval using computer database and written material

Learning Objectives

Intended Learning Outcomes (ILOs):

Successful completion of the course should lead to the following outcomes:

A. Knowledge and Understanding: Student is expected to

- A1-Basic principles in evidence based medicine
- A2-Basic principles in statistics
- A3-Different types of clinical trials
- A4-

B. Intellectual Analytical and Cognitive Skills: Student is expected to

- B1-construction of a forest plot
- B2-Calculation of treatment effect and its confidence interval
- B3-Assessment of heterogeneity
- B4-Assessment of publication bias
- B5-Assessment of sensitivity of meta-analysis

C. Subject-Specific Skills: Student is expected to

- C1-formulate a clinical question on PICOt format
- C2-Look for the best evidence
- C3-critically appraise the evidence

D. Transferable Key Skills: Students is expected to

- D1-Access and utilization of online-resources on EBM
- D2-Access and utilization of primary sources of evidence

ILOs: Learning and Evaluation Methods

ILO/s	Learning Methods	Evaluation Methods
	Lectures and Discussions, Homework and Assignments, Projects, Presentation, ...	Exam, Quiz, presentation, project, assignments, ...

Course Contents

- Introduction
 - What is EBm?
 - History
 - Steps of EBM
 - Formulating clinical question
- The medical literature
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- Study design and strength of evidence
 - Case study/series
 - Cross sectional
 - Case control
 - Cohort
 - RCT
 - Systemic reviews and and MA
- Searching the medical literature
 - Meta, federated and
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- Critical appraisal
 - Sources of bias
 - Establishment of causality
 - Hierarchy of evidence
 - Internal and external beliefs
 - Review of basic statistics
 - Hypothesis testing
 - Type 1 error and NNT
 - Outcomes
 - Types
 - Measurement and expression
 - Meta-analysis
 - RCT
 - Observational studies
 - Sensitivity
- Applicability and strength of evidence.
- Communicating evidence to patients
- Level of evidence

Learning Methodology

Lectures, workshops, presentations, assignments and homeworks

Projects and Assignments

Evaluation

Evaluation	Point %	Date
Midterm Exam	30	
Project		
Assignments	10	
Homework	10	
Final Exam	50	

Main Reference/s:

Essential evidence-based medicine, by Dan Mayer, 2nd edition

Key topics in evidence-based medicine, by Dermot P.B. McGovern 2001

References:

ISBN	Title	Author
978-0-07-159034-1	Users' Guides to the Medical Literature: A Manual for Evidence-Based Clinical Practice, Second Edition	Gordon Guyatt, M.D.; Drummond Rennie, M.D.; Maureen O. Meade, M.D.; Deborah J. Cook, M.D.
978-0-07-159038-9	Users' Guides to the Medical Literature: Essentials of Evidence-Based Clinical Practice, Second Edition	Gordon Guyatt, M.D.; Drummond Rennie, M.D.; Maureen O. Meade, M.D.; Deborah J. Cook, M.D.
978-1-2840-3879-8	Principles of Research Design and Drug Literature Evaluation	Rajender R. Aparasu, MPharm, Ph.D., FAPhA; and John P. Bentley, R.Ph., Ph.D., FAPhA
978-1-932658-78-1	Clinical Pharmacist's Guide to Biostatistics and Literature Evaluation	Robert DiCenzo

978-1-4511-4447-5	Clinical Epidemiology: The Essentials, Fifth Edition	Robert Fletcher, M.D., MSc; and Suzanne W. Fletcher, M.D., MSc
978-0-7879-7560-9	Designing and Conducting Health Surveys, Third Edition	Lu Ann Aday, Ph.D.; and Llewellyn J. Cornelius, Ph.D.
978-1-4522-0387-4	How to Conduct Surveys: A Step-by-Step Guide, Fifth Edition	Arlene Fink, Ph.D.
978-0-07-143789-9	Interpreting the Medical Literature, Fifth Edition	Stephen H. Gehlbach, M.D., MPH
978-0-07-178150-3	Primer of Biostatistics, Seventh Edition	Stanton A. Glantz, Ph.D
9780521712415	Essential evidence-based medicine 2nd ed	Dan Mayer
1859962777	Key topics in evidence-based medicine	Dermot P.B. McGovern
1859962823	Evidence-Based Medicine in General Practice (Key Topics)	Dermot P.B. McGovern, Roland M. Valori (Editor), Marcel Levi (Editor),
9780727916013	Evidence-based Medicine Toolkit	Carl Heneghan and Douglas Badenoch
3540222391	Evidence-Based Practice in Medicine and Health Care: A Discussion of the Ethical Issues	Ruud ter Meulen, Nikola Biller-Andorno, Christian Lenk and Reidar K. Lie
9780727915788	How to Read a Paper : The Basics of Evidence Based Medicine	Trisha Greenhalgh
9780071624947	The Patient History	Mark Henderson; Lawrence Tierney; Gerald Smetana
9780415486699	Practice-based Evidence for Healthcare	John Gabbay
9780071590303	Rational Clinical Examination : Evidence-based Clinical Diagnosis	David L. Simel, Drummond Rennie, Sheri A. Keitz