The Hebrew University of Jerusalem

Syllabus

INTRODUCTION TO EPIDEMIOLOGY - 65313

Last update 10-10-2018

<u>HU Credits:</u> 4

<u>Degree/Cycle:</u> *1st degree (Bachelor)*

<u>Responsible Department:</u> *Nutrition Sciences*

<u>Academic year:</u> *0*

<u>Semester:</u> *1st Semester*

<u>Teaching Languages:</u> *Hebrew*

<u>Campus:</u> *Rehovot*

<u>Course/Module Coordinator:</u> *Dr. Aron Troen*

<u>Coordinator Email:</u> aron.troen@mail.huji.ac.il

<u>Coordinator Office Hours:</u> *monday 15:00-13:00 by pointment*

<u>Teaching Staff:</u>

Prof Aron Troen
Ms.
Mr. Asaf Buch

Course/Module description:
Nutritional epidemiology (descriptive , analytical and interventional) differs from the classical epidemiology of infectious diseases in the properties of modest size effect for the most part but a very significant affect on population , long exposure of the general population to the risk instrumental cause " (meaning food) , trying to understand the effect of the absence of a risk factor (nutrient deficiency) versus presence (bacteria , obesity) , Multiple confounders , mainly reference developmental and chronic diseases , and more. These and other challenges require a thorough understanding of the basic concepts of epidemiology in general and its application to diet in particular, to allow the student the ability to independently assess the strength of the evidence arguments linking components or dietary habits health indices .

Course/Module aims:
1. Provide knowledge and tools to assess the health indices of populations
2. Fundamental concepts in research methods practiced in nutritional epidemiology
3. Provide the ability to understand and analyze the nutritional epidemiology studies, to understand statistical results, identify fundamental limitations of bias, obfuscation and limits research method

Learning outcomes - On successful completion of this module, students should be able to:
Recognize research methods in nutritional epidemiology
Analyse studies in nutritional epidemiology
Independently assess the strength of the evidence arguments linking components or dietary habits health indices .

Attendance requirements(%):
80

Teaching arrangement and method of instruction: lectures and exercises

Course/Module Content:
Introduction - Indices of public health epidemiologists
Mortality and morbidity rates
Measures of association

Causation
Research Methods in Epidemiology
Case studies - Control
Clinical Trials
Random bias and confounding
Survey Methods and coverage testing of clinical epidemiology and nutritional
A dietary exposure assessment: questionnaires, validation and biological status
Evidence Based Medicine

<u>*Required Reading:*</u>
 1. Gordis, Leon. Epidemiology (5th Edition) electronic text book

Printed text in library:
1. Gordis, Leon. Epidemiology 4th ed. Saunders Elsevier, Philadelphia PA, 2009.

2. Willet, Walter. Nutritional Epidemiology (2nd Ed.) Oxford University Press, Oxford UK, 1998.

 <u>*Additional Reading Material:*</u>

 <u>*Course/Module evaluation:*</u>
 End of year written/oral examination 70 %
 Presentation 0 %
 Participation in Tutorials 10 %
 Project work 0 %
 Assignments 0 %
 Reports 0 %
 Research project 0 %
 Quizzes 20 %
 Other 0 %

<u>*Additional information:*</u>
  Attendance in Tutorials is Mandatory
1.5 points will be deducted from grade for each absence from tutorials.
Tutorials will be given once every two weeks on Thursday. Every Tutorial will involve required reading before tutorial. A written quiz will be conducted in the first 10 minutes of the tutorial and collected at the end of class.
Please bring a calculator to lectures and tutorials. One quiz will be given midterm and its grade will count as a "magen" (Sheild Grade - it will be counted in the weighted average final grade at 20% if it is higher than the final exam grade,

otherwise the final exam grade will be counted at 90% of the final grade with 10% for participation).