



## *The Hebrew University of Jerusalem*

### *Syllabus*

## **NUTRITIONAL EPIDEMIOLOGY - 73982**

*Last update 27-01-2024*

*HU Credits:* 2

*Degree/Cycle:* 2nd degree (Master)

*Responsible Department:* Nutritional Sciences - International Prog.

*Academic year:* 0

*Semester:* 1st Semester

*Teaching Languages:* English

*Campus:* Rehovot

*Course/Module Coordinator:* Amal Khayat

*Coordinator Email:* [amal.khayat@mail.huji.ac.il](mailto:amal.khayat@mail.huji.ac.il)

*Coordinator Office Hours:* By appointment

*Teaching Staff:*

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Ms. Amal Khayat

Course/Module description:

*This course is designed for graduate students in Nutritional Sciences. The purpose is to 1) equip students with the knowledge needed to understand, evaluate and interpret epidemiological studies, and 2) provide students with an understanding of the theoretical and practical considerations in the conduct of epidemiological studies related to nutrition.*

*This course will cover basic concepts of epidemiology and will include definitions, measurements of morbidity and mortality, study designs and related principles, limitations and calculations, with real-world implications.*

Course/Module aims:

*To understand and be aware of the basic concepts in Epidemiology and their applications and implications.*

Learning outcomes - On successful completion of this module, students should be able to:

- 1. Students will acquire knowledge of basic concepts in epidemiology necessary to comprehend and effectively analyse the scientific literature related to nutrition.*
- 2. Students will enhance their understanding of cause and effect, using real-world data, and understand its implications.*
- 3. Students will develop the skills to read and report on epidemiological research effectively.*

Attendance requirements(%):

100

*Teaching arrangement and method of instruction: Active participation in lectures, solving assignments, group presentations and a final exam.*

Course/Module Content:

- Introduction to epidemiology.*
- Exposure and effect.*
- Epidemiological surveillance: Morbidity and mortality.*
- Study designs: Ecological, cross-sectional, cohort, case-control, randomized clinical trials (RCTs).*

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- Measures of association: Risk, hazard, odds.
  - Interactions.
  - Mediation.
  - Effect modification.
  - Confounding.
  - Misclassification, bias, chance.
  - Reliability.
  - Validity: Sensitivity and specificity.
  - Epidemiology and policy implications.

Required Reading:

Satija A, Yu E, Willett WC, Hu FB. Understanding nutritional epidemiology and its role in policy. *Adv Nutr.* 2015 Jan 15;6(1):5-18. doi: 10.3945/an.114.007492. PMID: 25593140; PMCID: PMC4288279.

Additional Reading Material:

Satija A, Yu E, Willett WC, Hu FB. Understanding nutritional epidemiology and its role in policy. *Adv Nutr.* 2015 Jan 15;6(1):5-18. doi: 10.3945/an.114.007492. PMID: 25593140; PMCID: PMC4288279.

Keyes, Katherine M., and Sandro Galea, *Epidemiology Matters: A New Introduction to Methodological Foundations* (New York, 2014; online edn, Oxford Academic, 1 Mar. 2015), <https://doi.org/10.1093/med/9780199331246.001.0001>.

Grading Scheme:

Written / Oral / Practical Exam 40 %  
Essay / Project / Final Assignment / Home Exam / Referat 40 %  
Presentation / Poster Presentation / Lecture/ Seminar / Pro-seminar / Research proposal 10 %  
Active Participation / Team Assignment 10 %

Additional information:

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