



The Hebrew University of Jerusalem

Syllabus

CENTRAL THEMES IN NUTRITIONAL SCIENCES - 71264

Last update 19-08-2025

HU Credits: 2

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: Nutrition Sciences

Academic year: 0

Semester: 1st Semester

Teaching Languages: Hebrew

Campus: Mt. Scopus

Course/Module Coordinator: Limor Ben-Yacov

Coordinator Email: Limor.Ben-Yacov@mail.huji.ac.il

Coordinator Office Hours: By appointment

Teaching Staff:

Course/Module description:

The course explores the relationship between nutrition, lifestyle, and chronic diseases, focusing on energy balance, major nutrients, and their impact on health. National and international dietary guidelines are introduced alongside practical tools for evaluating and improving dietary patterns.

Course/Module aims:

1. Provide fundamental knowledge of nutrition concepts.
2. Introduce the major dietary components, their functions, and their health implications.
3. Explain core dietary recommendations for health promotion and prevention of chronic diseases.
4. Evaluate and compare food products
5. Identify factors affecting adherence to dietary recommendations and reflect critically on their own dietary habits

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

- Present and explain key dietary recommendations for primary and secondary prevention.
- Analyze the health implications of unbalanced nutrition in relation to common chronic diseases (such as obesity, diabetes, and dyslipidemia).
- Evaluate and compare food products.
- Identify the main factors that facilitate or hinder adherence to dietary recommendations.
- Critically evaluate their own dietary patterns.

Attendance requirements(%):

none

Teaching arrangement and method of instruction: Frontal lectures and student discussions

Course/Module Content:

1. Basic concepts in nutrition; behavioral risk factors for chronic diseases.
2. Energy balance in the body: components of energy expenditure versus intake;

adipose tissue and lean body mass.

3. *Macronutrients: proteins and fats – sources, functions, main metabolic pathways, dyslipidemia.*

4. *Carbohydrates and dietary fiber – sources, functions, main metabolic pathways, type 2 diabetes, the microbiota.*

5. *Summary of dietary recommendations.*

6. *Nutritional tools for health promotion: Israel's food guide, the Mediterranean diet pyramid, front-of-package labeling.*

7. *Obesity and insulin resistance.*

8. *Establishing new dietary habits and barriers to their adoption.*

9. *Factors documented to enhance adherence to dietary recommendations.*

10. *Course summary.*

Required Reading:

reading material would be given during the course

Additional Reading Material:

1. *ההמלצות התזונתיות החדשות, אגף התזונה, משרד הבריאות הישראלי, 2020.*

<https://health.gov.il/PublicationsFiles/dietary-guidelines.pdf>

2. *נייר עמדה: המלצות תזונתיות למניעת מחלות קרדיוואסקולריות. האיגוד הקרדיולוגי בישראל, עמותת הדיאטנים ומשרד הבריאות, 2021.*

3. *זילבר-רוזנברג, א'. מזון ותזונה בבריאות ובחולי. הוצאת האוניברסיטה הפתוחה, 2014.*

4. *קובץ מונחים בסיסיים בתזונה - English. ניתן להורדה. בקישור:*

An Introduction to Nutrition - 2012 Book Archive - lardbucket. Chapter1

Grading Scheme:

Essay / Project / Final Assignment / Home Exam / Referat 100 %

Additional information:

Presentation of a nutrition-related topic to the class (6-8 benefactor points)