



## *The Hebrew University of Jerusalem*

### *Syllabus*

## **CENTRAL THEMES IN NUTRITIONAL SCIENCES - 71264**

*Last update 28-08-2024*

*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](mailto:Limor.Ben-Yacov@mail.huji.ac.il)

*Coordinator Office Hours:* By appointment

*Teaching Staff:*

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Dr. Limor Ben-Yacov

Course/Module description:

The course is aimed to present a broad view of the main topics in human metabolism and nutritional sciences. It explores the basic pathways of metabolism and physiology that are related to dietary requirements and weight regulation.

Course/Module aims:

1. In depth presentation of nutritional factors that impact body metabolism
2. Understanding the primary nutritional recommendations in health and disease
3. Experiencing nutritional aids

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

- Present the benefits of nutritional Recommendations to promote health and reduce the risk of common metabolic chronic diseases
  - Evaluate energy requirements and anthropometric measurements of adults
  - Comprehend the complexity of weight regulation
  - Asses and compare food products
- benefits of nutritional Recommendations to promote health and reduce the risk of common metabolic chronic diseases
- Comprehend the complexity of weight regulation
  - Asses and compare food products

Attendance requirements(%):

none

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

Course/Module Content:

1. Biology and nutrition basic concepts, scientific presentations of selected topics within the discipline
2. Energy-balance; energy intake or expenditure components, body composition,
3. Macronutrients: proteins, lipids- functions, types, requirements, metabolism. Dyslipidemia
4. Carbohydrates, dietary fibers- functions, requirements, metabolism. The microbiom

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5. Summary of nutritional Recommendations for improving health, based on Dietary References Intake, the Israeli Ministry of Health and the current academic literature
  6. Nutritional aids such as food pyramids and nutritional labeling. The mediterranean pyramid
  7. Obesity and the metabolic syndrome.
  8. Negative energy balance achieving by nutritional or medical treatment. Practical aspects of appetite regulation.

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:

Written / Oral / Practical Exam 100 %

Additional information:

Presenting a nutritional issue (8-10 benefactor points)