



Syllabus

NEW HORIZONS IN FOOD AND NUTRITION RESEARCH - 71479

Last update 21-01-2024

HU Credits: 2

Responsible Department: Biochemistry & Food Sciences

Academic year: 0

Semester: 1st Semester

Teaching Languages: English

Campus: Rehovot

Course/Module Coordinator: Prof. Zvi Hayouka

Coordinator Email: anna.aronis@gmail.com

Coordinator Office Hours: Sundays 15:00-16:00

Teaching Staff:

Prof Zvi Hayouka

Course/Module description:

*The goal of the course is to present to the students some of the current advances and challenges in Food Science and Nutrition. Each lecturer will present contemporary research methods and results from his/her lab. The topics include: 1. How to get the most of this course 2. Taste in health and disease
Novel chemical tools to improve food safety
Using fermentation to Improve the Sensorial Profile of Meat Replacements
Cannabinoids for the treatment of obesity and associated comorbidities
Autophagy as a link between nutrition and disease
The Regulation of Hepatic Glucose Production and Its Relevance to Type 2 Diabetes
"Nutrient sensing by mTOR pathway in beta cell physiology
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Cholesterol and bile acids in fatty liver disease
Ice and the ways organisms cope with freezing conditions
Gene regulation during fasting
How to study diet's effects in animal models?
How can microbes evolve in the lab to cure disease
Elevation of virulence in foodborne pathogenic bacteria
Having our cake and eating it: will future food be sustainable, affordable, and nutritious?*

Course/Module aims:

To familiarize the student with the research topics of the scientists in the field of nutrition, food science and biochemistry, present current scientific questions and challenges.

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

*Familiarize with various Professors and their research subjects.
Help the students decide whether they want to join a research lab or join the industry*

Attendance requirements(%):

100

Teaching arrangement and method of instruction: Lectures

Course/Module Content:

- Changing what people eat: from local to global.*
- Eating patterns and perceptions in young adults with ADHD.*
- Novelty and technology in bariatric surgeries.*
- Patent law: when, how, why?*

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- Food enrichment - a perspective for food system.
 - If you don't eat, you don't grow up - the effect of nutrition on skeletal development.
 - Starvation responses in microorganisms, animals, and humans
- And other issues of research and development according to the syllabus in moodle

Required Reading:

The students are expected to look at the PI website and publications list before the lecture.

Additional Reading Material:

As advised by course lecturers

Grading Scheme:

Attendance / Participation in Field Excursion 100 %

Additional information:

The course is given in English