



The Hebrew University of Jerusalem

Syllabus

FOOD LOSS AND WASTE - 71123

Last update 02-08-2023

HU Credits: 2

Degree/Cycle: 2nd degree (Master)

Responsible Department: Biochemistry, Food Science and Nutrition

Academic year: 0

Semester: 1st Semester

Teaching Languages: English

Campus: Rehovot

Course/Module Coordinator: Dr. Ron Porat

Coordinator Email: rporat@volcani.agri.gov.il

Coordinator Office Hours: Thursdays at 14:00

Teaching Staff:

Dr. Ron Porat

Course/Module description:

About a third of the total amount of global food production is lost or wasted along the food supply chain and is not consumed by humans. Food losses occur at various stages of the production and distribution process, including during agricultural production, storage, sorting at packinghouses or food manufacturer's, during distribution and marketing, at restaurants and catering services, and at consumers' homes. Food loss and waste provides a major environmental problem as it results in unnecessary waste of precious natural resources, harms the environment, and contributes to increases in food prices and lack of food security.

The current course will discuss the major causes of food losses at each stage of the production and distribution system. The course will further offer possible solutions to reduce food losses, including food rescue, technological solutions, regulation of standard criteria's and labelling of expiration dates, increasing public awareness and changing customers behaviors. The course will also describe relevant policy actions and regulations by governments and international organizations.

Course/Module aims:

1. Learning the problem of food loss and waste and ways to reduce it.
2. Knowledge of the food supply chain from farm to fork.
3. Ecological aspects involved in food production and marketing.

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

- Knowledge of the food supply chain.
- Knowledge of the problem of food loss and waste.
- Knowledge of the subject of food rescue.
- Knowledge of the subject of food waste management.
- Knowledge of policy regulations against food loss.

Attendance requirements(%):

70% participance

Teaching arrangement and method of instruction: Lectures + video clips

Course/Module Content:

- 1) The global food crisis.
- 2) Food loss and waste.

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- 3) Food loss at the production stage.
 - 4) Food loss due to quality standards.
 - 5) Food loss during storage and transport.
 - 6) Food loss at retail marketing.
 - 7) Food waste at the consumers' home.
 - 8) Food waste at restaurants.
 - 9) How to live from food waste? - a movie.
 - 10) Food rescue.
 - 11) Treating food waste.
 - 12) Policy regulations by governments.
 - 13) Technological innovations to reduce food loss.

Required Reading:

None

Additional Reading Material:

1) דו"ח מבקר המדינה בנושא: "אובדן מזון - השלכות חברתיות, סביבתיות וכלכליות", 2015, http://www.mevaker.gov.il/he/Reports/Report_290/857486fd-14cd-46e4-bd1c-75535da078e6/65C-104-ver-3.pdf

2) לקט ישראל, הדו"ח הלאומי בנושא: "אובדן מזון והצלת מזון בישראל", 2015, http://leket.org.il/Files/Editor/Executive%20Summary_Leket_Digital_last.pdf

3) FAO (2011). Global food losses and food waste – extent, causes and prevention, by J. Gustavsson, C. Cederberg, U. Sonesson, R. van Otterdijk & A. Meybeck. Rome (<http://www.fao.org/docrep/014/mb060e/mb060e00.pdf>).

Grading Scheme:

Written / Oral / Practical Exam 100 %

Additional information:

No special requirements