



The Hebrew University of Jerusalem

Syllabus

FOREST MANAGEMENT IN ISRAEL - 71145

Last update 16-09-2024

HU Credits: 2

Degree/Cycle: 2nd degree (Master)

Responsible Department: Horticulture

Academic year: 0

Semester: 2nd Semester

Teaching Languages: Hebrew

Campus: Rehovot

Course/Module Coordinator: Dr. Yagil Osem

Coordinator Email: yagil@agri.gov.il

Coordinator Office Hours:

Teaching Staff:

Dr. Yagil Osem

Course/Module description:

Course/Module description: In the first part the course will establish the major principles and concepts of classical forestry. In the second part the course will discuss advanced approaches of forest management. In the third part the course will focus on issues related to forest management in Israel.

Course/Module aims:

Course/Module aims: The course is aimed at providing advanced knowledge and understandings required for management of forests in Israel, in particular, and natural resources in open landscapes in General

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

- On successful completion of this module, students should be able to:*
- Explain basic principles underlying classical forestry*
 - Describe advanced approaches of forest management and explain their underlying concepts*
 - Explain the major issues and conflicts related to forest management in Israel*
 - Develop specific forest management plans*

Attendance requirements(%):

80%

Teaching arrangement and method of instruction: Frontal lecture and field tour

Course/Module Content:

- Course/Module Content:*
- Basic terms: Forest, forest types, forestry, forest management, management tools, trends in forest management, silvicultural systems, stand dynamics, ecology-management relationships.*
 - Approaches of forest management (FM): "classical forestry", "sustainable FM", "ecological FM", "emulating natural disturbances in FM", "ecosystem based FM", "multiaged silviculture", "close to nature silviculture", "objective oriented FM", "ecosystem services based FM", "better than nature silviculture".*
 - Forest management in Israel: History, Objectives, sustainable FM, adaptive management, natural and cultural assets, conflicts.*
 - Field tour: Implementing principles of forest management in the Judean Mountain*

region of Israel.

Required Reading:

Osem, Y., Ginsberg, P., Tauber, I. Atzmon, N. and Perevolotsky, A. (2008) Sustainable management of Mediterranean planted coniferous forests: an Israeli definition. *Journal of Forestry* 106: 38-46.

Osem, Y. (2013). *Principal issues in the investigation of coniferous forests in Israel – summarizing 40 years of forest research (1972-2012). Part 1: the history of the afforestation enterprise and its belonging to the natural landscape of Israel.* *Ecology and Environment* 3: 248-254.

Osem, Y. (2014). *Principal issues in the investigation of coniferous forests in Israel – summarizing 40 years of forest research (1972-2012). Part 2: understanding the natural processes occurring within the planted forests and the development of an ecosystem-based, multifunctional forest management policy.* *Ecology and Environment* 4: 321-330.

O'Hara KL 2016. What is close to nature silviculture in a changing world. *Forestry* 89:1-6

Additional Reading Material:

אסם, י., ברנד, ד., טאובר, י., פרבולוצקי, א. וצורף, ח. (2014) תורת ניהול היער בישראל: מדיניות והנחיות לתכנון ולממשק יער. קרן קיימת לישראל.

Smith, D.M., Larson, B.C., Kelty, M.J. and Ashton, P.M.S. (1997) *The practice of silviculture: Applied forest ecology, ninth edition.* John Wiley and Sons, Inc., New York.

Puettmann, K.J., Coates, K.D. and Messier, C.C. (2008) *A Critique of Silviculture: Managing for Complexity.* Washington DC: Island Press.

O'Hara, K.L. (2014) *Multiaged silviculture, managing for complex forest stand structures.* Oxford University Press.

Grading Scheme:

Written Exam % 100

Additional information: