

The Hebrew University of Jerusalem

Syllabus

animal @ plant evolution under domestication - 71181

Last update 27-10-2015

HU Credits: 2

Degree/Cycle: 2nd degree (Master)

Responsible Department: genetics & breeding

Academic year: 0

Semester: 2nd Semester

Teaching Languages: Hebrew

Campus: Rehovot

Course/Module Coordinator: Prof Shahal Abbo

Coordinator Email: shahal.abbo@mail.huji.ac.il

Coordinator Office Hours: by appointment

Teaching Staff:

Dr. Gila Kahila
Prof Shahal Abbo

Course/Module description:

The course opens with a series of introductions to several issues required for understanding the evolutionary principles that affect the gene pools of farm animals and crop plants. Discussions of the evolutionary principles involved in domestication and evolution under domestication follow. The course ends with discussion of the possible implications of the studied materials on future food production and breeding.

Course/Module aims:

Understanding the cultural background of the agricultural revolution and domestication of plants and animals in the Middle East. Understand the difference between traditional and modern agriculture . Detailed study of the domestication syndrome of Legume and grains domesticated in the Middle East and of selected animals. Understanding the fundamental difference between the homing properties to changing features in culture conditions.

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

Discuss the agricultural revolution in the Middle East
Compare the developments in this area and other regions of the world.
Build databases that help identify the critical features of domestication of plants and domesticated animals.
Compare the domestication syndrome of different crops and different farm animals.
Explain the difference between domestication and the evolution of culture conditions domesticated organisms.
Examine complexes of growing wild grass in traditional agriculture.
Analyze the importance of the course material for cultivation of plants and animals in modern

Attendance requirements(%):

100

Teaching arrangement and method of instruction: Lectures, complementary reading, exercises, exams, home exam

Course/Module Content:

Archaeological background of the agricultural revolution

Zoo - geography of domesticated animals in the Middle East

Syndrome domestication of animals and plants

Selecting candidates for domestication of the species

Domestication of plants in the Middle East, and the beginning of agriculture

The difference between domestication and evolution culture conditions

The difference between traditional and modern agriculture

Geographical aspect of the domestication of plants and animals in the Middle East and other centers of domestication

Co - Evolution of domesticated organisms and pathogens in Simpetaric (Culture)

The implications of the study of domestication and early agriculture to modern animals and plant breeding

Required Reading:

See the course page in moodle

Additional Reading Material:

See the course page in moodle

Course/Module evaluation:

End of year written/oral examination 0 %

Presentation 0 %

Participation in Tutorials 10 %

Project work 70 %

Assignments 10 %

Reports 0 %

Research project 0 %

Quizzes 10 %

Other 0 %

Additional information:

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