



Jordan University of Science and Technology
Faculty of Agriculture
Plant Production Department

PP346 Apiculture & Bee Hives Management

Second Semester 2018-2019

Course Catalog

3 Credit Hours. This course is designed to teach the student all aspects of beekeeping. It includes significance of honeybees and their value in crop pollinators, honeybee biology and behavior, honeybee races, hive management for honey production, diseases and pests of honeybees and their control.

Text Book

Title	The hive and the honey bee.
Author(s)	Dadant and Sons,
Edition	10th Edition
Short Name	Ref 1
Other Information	Publisher: Dadant and Sons, Hamilton, IL, USA

Instructor

Name	Prof. Abd Al-Majeed Al-Ghzawi
Office Location	C4L2
Office Hours	Sun : 11:30 - 12:30 Mon : 10:00 - 11:00 Mon : 11:15 - 12:15 Tue : 09:30 - 10:30 Tue : 11:30 - 12:30 Thu : 09:30 - 10:30
Email	ghzawi@just.edu.jo

Class Schedule & Room

Section 1:

Lecture Time: Sun, Tue : 12:30 - 13:30

Room: C5023

Tentative List of Topics Covered

Weeks	Topic	References
Weeks 1, 2	The importance of beekeeping. History of beekeeping in the world & History of beekeeping in Jordan.	Chapter 1 From Ref 1
Weeks 3, 4	The honeybee colony: The casts (queen, the drones, the workers) and the colony life and life requirements. Honeybee races	Chapter 2 & 3 From Ref 1
Week 5	General anatomy of honeybees: Head, Thorax Abdomen, Alimentary canal Circular system, Respiratory system and Reproduction system	Chapter 4 From Ref 1
Week 6	Behavior of honeybees: Factors affecting bees? behavior, Activities inside the hive and Activities outside the hive	Chapter 8 From Ref 1
Week 8	Behavior of honeybees: Factors affecting bees? behavior, Activities inside the hive and Activities outside the hive	Chapter 10 From Ref 1
Weeks 9, 10, 11, 12, 13	Beehives management. Management during the period of colony growth, management during the honey flow and management after the honey flow.	Chapter 14 From Ref 1
Week 14	Honeybee pests and diseases. Bacterial diseases, Viral diseases, Nosema diseases, Fungal diseases, Parasitic mites, Pests and predators.	Chapter 18 From Ref 1
Week 15	Beehive products: definition, classification, chemical composition, physical properties, biological properties, adulteration, storage and uses	Chapter 21 & 22 From Ref 1
Week 16	Revision and Final Exam	

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
To understand the basic knowledge of beekeeping and the significance of honeybees and their value in crop pollinators [1PLO6]	10%	
To develop the basic knowledge of honeybee biology, behavior and honeybee races. [1PLO6]	20%	
To learn about different beehive management practices throughout the different seasons to keep healthy colonies and to maximize honey production [1PLO6]	40%	
To learn how to diagnose diseases and pests of honeybees and their control measures. [1PLO6]	30%	

Relationship to Program Student Outcomes (Out of 100%)						
PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7
					100	

Evaluation	
Assessment Tool	Weight
Quizes	20%
Med-term exam	30%
Final exam	50%

Policy	
Exams	All exams are closed book and notes. The final exam is comprehensive (covers all the material). Incomplete exams need approval from the department chair
Cheating	Prohibited; and in case of cheating the student will be subject to punishment according to the university regulations
Attendance	Up to 20% in accordance with university policy
Participation	Participation is highly encouraged

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