

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

## First Semester 2020-2021

## **Course Catalog**

3 Credit Hours. This course is designed to explain the student with the honeybee in all aspects. It will include honey bee biology and behavior, hive management for honey production, products of the hive, pests and enemies and the value of bees as pollinators of agricultural crops. Current issues related to bees will be highlighted.

Text Book			
Title	The hive and the honey bee.		
Author(s)	Dadant and Sons		
Edition	4th Edition		
Short Name	Reference 1: Text book		
Other Information	Publisher: Dadant and Sons, Hamilton, IL, USA		

Instructor		
Name	Prof. Abd Al-Majeed Al-Ghzawi	
Office Location	C4L2	
Office Hours		
Email	ghzawi@just.edu.jo	

## Class Schedule & Room

Section 1:

Lecture Time: Mon, Wed: 10:00 - 11:30

منصة الكترونية :Room

Section 2:

Lecture Time: Mon, Wed : 14:30 - 16:00

منصة الكترونية :Room

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 & 24 From Reference 1: Text book		
Weeks 3, 4	The honey bee colony: The queen, the drones, the workers and the colony life. Honey bee races	Chapter 2 & 3 From Reference 1: Text book		
Week 5	Behavior of honeybees and the management practices. Internal factors affecting behavior, External causes of behavior. Activities inside the hive and activities outside the hive	Chapter 8 From Reference 1: Text book		
Week 6	Bee hives management. Management during the period of colony growth, management during the honey flow and management after the honey flow.	Chapter 14 From Reference 1: Text book		
Weeks 7, 8, 9, 10, 11	Honey: definition, classification, chemical composition, physical properties, biological properties, honey adulteration, storage and uses	Chapter 15 & 21 From Reference 1: Text book		
Weeks 12, 13	Pollen grains: definition, classification, chemical composition, physical properties, biological properties, quality control, storage and uses	Chapter 22 From Reference 1: Text book		
Week 14	Royal jelly: definition, classification, chemical composition, physical properties, biological properties, quality control, storage and uses	Chapter 22 From Reference 1: Text book		
Week 15	Propolis: definition, classification, chemical composition, physical properties, biological properties, quality control, storage and uses	Chapter 22 From Reference 1: Text book		

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 role of honey bees in socioeconomic, ecology and health views [1PLO7]	10%	

To develop the basic knowledge of bee races and their management practices. [1PLO7]	20%	
To learn about different bee hive products, their chemical compositions, physical and biological properties. Factors affecting the bee hive products quality, storage and uses. [1PLO7]	20%	
To relate among different bee hive products properties and their uses and adulteration [1PLO7]	50%	

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

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