

Republic of Iraq

The Ministry Of Higher  
Education

& Scientific Research

بسم الله الرحمن الرحيم



University: Diyala

College: Agriculture

Department: Field crop sciences

Stage: Third

Lecturer name: Hussein Ali

Mutney

Qualification: Ass. Pro. Dr.

Place of work: Collage of

Agriculture

## Flow up of implementation celli pass

Course Instructor	Hussein Ali Mutney				
E-mail	<a href="mailto:huseinmutney@uodiyala.edu.iq">huseinmutney@uodiyala.edu.iq</a>				
Title	<b>Beekeeping</b>				
Course Coordinator	Second semester				
Course Objective	Teaching students and introducing them to the Beekeeping and the bee sect, the importance of raising it, and learning about its external appearance and accessories, its importance in the life of the insect, its internal organs and tissues, its importance in pollinating plants, and its role in increasing plant production.				
Course Description	Teaching students and introducing them to the Beekeeping and the bee sect, the importance of raising it, and learning about its external appearance and accessories, its importance in the life of the insect, its internal organs and tissues, its importance in pollinating plants, and its .role in increasing plant production				
Textbook	1-Naji, Louay Karim. (1980). Beekeeping and silkworms. 2. Al-Ali, Abdel-Baqi Muhammad. (2011). Beekeeping . 3. The hive and the honey bee				
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	20%	15%	5%		60%
General Notes	Type here general notes regarding the course				

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week	Date	Topics Covered	Practical Part
1	2025/1/30	Honey bee strains, genetic characteristics adopted to diagnose bee strains, good	The importance of beekeeping, a historical overview of beekeeping, beekeeping in Iraq
2	2025/2/6	characteristics of honey-producing strains	Lanxtroth hive, its sections, its features, tools used in beekeeping, tools used in examining hives
3	2025/2/13	characteristics of honey-producing strains	Identify morphological differences between caste of colony, body appendages, modifications body of the worker bee (in microscope)
4	2025/2/20	Honey bee strains, genetic characteristics adopted to diagnose bee strains, good characteristics of honey-producing strains	Anatomy of a worker bee, extracting the digestive system and identifying its parts
5	2025/2/27	External anatomy of the bee body (head and appendages, thorax and appendages, abdomen and appendages).	First exam
6	2025/3/6		Anatomy of worker bee and viewing the dorsal blood vessel
7	2025/3/13	The digestive system and its appendages, the mechanics of digestion, the method of converting nectar into honey, the excretory system (its divisions, its work and its role in elimination).	View the spiracles, view the abdominal nerve cord
8	2025/3/20	The circulatory system, its divisions, functions, the respiratory system, the first month's exam	Anatomy of the queen bee and the drone bee and identification of the female reproductive system and the male reproductive system
9	2025/3/27	Its divisions, respiratory stomata and their distribution, nervous system	Identifying and observing the different roles in the life of sect members
10	2025/4/2	The female reproductive system, its divisions, factors affecting the average number of eggs laid by the queen, the male reproductive system, its divisions	Division, methods of division, expulsion, how to hold the parcel
11	2025/4/10	The life of the members of the bee colony (the	Queen rearing, methods of queen

		queen, the worker, the male)	rearing, (practical practice of making wax cups to multiply and raise queens)
<b>12</b>	2025/4/17	Second exam	Second exam
<b>13</b>	2025/4/24	The various phenomena in the lives of members of the sect (expulsion, false mothers, theft), their causes, signs of their appearance, methods of controlling them	Identify the pathological signs of brood diseases and adult diseases and how to diagnose them using special models
<b>14</b>	2025/5/1	The basic rules for establishing an apiary, the foundations of beekeeping, and the factors that help in the success of raising standard bee queens	Identify insect and non-insect pests that attack bees
<b>15</b>	2025/5/8	The importance of bees in cross-pollination of plants. Monthly exam	Signs of pesticide poisoning

**Instructor Signature**  
**Ass.Prof Hussein Ali Mutney**  
**15/1/2025**

**Dean Signature**  
**Prof.Dr. Raaed Ibrahim Khalil**  
**15/1/2025**