Course Description Form Crops Management

Course Name
Crops Management
Course Code
CROM404
Semester/ Year
Second / 2025
Date of preparation of this description
15 January 2025
Available attendance forms
Full-time (theoretical lecture and practical lecture) weekly
Credit Hours (total) / Number of Units (Total)
2 theoretical hours and 3 working hours per week for 14 weeks, the number of units is 3.5 units
Name of the course administrator (if more than one name is mentioned)
Dr. Nader Fleih Ali Al-Mubarak Email: nadiralmubarak@uodiyala.edu.iq Inas Abdul Rahim Khalaf

Course Objectives	
Objectives of the course :	Teaching the crop student to be familiar with the applied scientific dimensions of crop and field management

Teaching and Learning Strategies	
Strategy	• In-person lectures for 14 weeks, interspersed with two monthly exams, daily exams and scientific reports

Theoretical

Course Structure					
Week	**Credits**	**Intended Learning Outcomes**	**Module / Course Name or**	**Teaching*method**	**Evaluation Method**
1	2	Human and food: food production, population increase, food gap, productivity factors.	Crops Management	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
2	2	Land service: Tilling is important, its depth, its relationship to the growth of different crops, its role in combating the bush, the equipment of elements and increasing water conservation in the soil . Smoothing: The depth of smoothing andthemachinery used for this in the growth of the crop.	Crops Management	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
3	2	Division of the field: levelling the land and its relationship to the division of the field and the area of the cultivation plates.	Crops Management	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
4	2	Irrigation canals: Irrigation systems and the nature of irrigation water pipes and water loss during irrigation	Crops Management	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day

		according to the method used and the method appropriate to the nature of the land and the crop.			
5	2	Crop service: The dates of cultivation and its impact on the calculation of the thermal units necessary for the growth of the crop and the energy of light and its relationship to the date of cultivation, and temperature. The difference in the impact of planting dates for winter and summer crops on the change in the date of harvest and the amount of harvest.	Crops Management	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
6	2	Plant density and quantities of seeds according to the crop, the role of plant density in intercepting light and increasing the yield, the optimal densities of the main crops, the optimal cultivation distances of crops grown in lines, and how to calculate plant densities and their relationship to the paper area index.	Crops Management	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
		First Quarter Examination			

8	2	Fertilization - The role of primary, secondary and rare fertilizers in the growth and increase of the yield and the symptoms of the lack of elements on the plant, the relationship of the types of elements to the metabolic processes in the plant and the synthesis of various plant compounds, some elements are named for the plant, and the optimal quantities for the use of the elements.	Crops Management	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
9	2	Seeds - seed quality, seed quantities and plant densities and their calculations.	Crops Management	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
10	2	Soil improvers - the use of animal fat and green manure, the addition of gypsum and agricultural sulfur to repair saline and alkali saline soils and their relationship to the electrical conductivity, the pH of the soil solution, the	Crops Management	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day

		readiness of the elements for the plant, and the equations for estimating the quantities of gypsum and sulfur according to the specifications of the soil analysis.			
11	2	Weed control - The most common bush plant pesticides in major crops. Thin Weed plant pesticides. Broadleaf Weed Pesticides. Pesticides recommended in Iraq to control the bush of major crop plants. Election of the Weed.	Crops Management	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
12	2	Crop irrigation - The role of water in dissolving elements, absorption and plant growth. The number of irrigation for the crop and determine the depth of irrigation and how to calculate it. Water rationing for major crops. Calculate the amount of water needed for the field on the farm.	Crops Management	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
Second Quarter Examination					
14	2	Disease and insect control - the main insecticides that	Crops Management	Explanation and model presentation and lecture	Examinations Daily and Monthly

		affect field crops and how to prevent them before they appear and control them when they appear and the recommended pesticides in Iraq		Brainstorming Debating and discussing Brainstorming	Final and Reports day
15	2	Plant organs and their functions - the plant cell and its organelles, root, stem, leaves and leaf space. Maturity and harvesting - how and when to harvest the crop, and estimate the losses from the crop. Store the product - types of warehouses and storage, seed and grain stores and their specifications and storage conditions in them of heat, moisture and preventive pesticides, methods of drying the product in the field and in the warehouse and calibrating the moisture in the seeds before and at storage.	Crops Management	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day

Practical Part					
Week	**Credits**	**Intended Learning Outcomes**	**Unit or Topic Name**	**Learning Method**	**Evaluation Method**

1	3	Conducting plowing, watching its specifications and judging it after	Crops Management	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and
2	3	Split the field and settle for planting in the following week. Students can be	Crops Management	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and
3	3	Planting one or more crops on the same date and with the same plant	Crops Management	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and
4	3	Cultivating a crop with several appointments and	Crops Management	Case history Brainstorming Debating and	Examinations Daily and Monthly
5	3	Planting a crop with several plant densities and	Crops Management	Case history Brainstorming Debating and	Examinations Daily and Monthly
6	3	Cultivate a crop with several doses of nitrogen and record the data to	Crops Management	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and
First Exam					
8	3	Plant a crop with several doses of (NPK) to compare it with nitrogen	Crops Management	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and
9	3	Planting an irrigation crop with several different	Crops Management	Case history Brainstorming Debating and	Examinations Daily and Monthly
10	3	Planting two crops with two factors, one of which is	Crops Management	Case history Brainstorming Debating and	Examinations Daily and Monthly
11	3	Extract leguminous plants to study bacterial symbiosis	Crops Management	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and
12	3	Each group of students records the incidence of insects and diseases and	Crops Management	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and
Second Exam					

14	3	Choose a research topic on managing a specific crop for each student and	Crops Management	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and
15	3	Each student presents his report to the students, discusses it and	Crops Management	watching. Brainstorming Debating and discussing	Examinations Daily and Monthly Final and

Course Evaluation	
Daily and monthly exams, reports and student effectiveness during the lecture .	
Learning and Teaching Resources;	
Required textbooks (methodology if any)	Scientific lectures and articles
Key References (Sources)	Recent articles from the Internet, specialized scientific journals, the Journal of Agricultural Sciences - Iraq and the Virtual Library.
Recommended supporting books and references (scientific journals,	Iraqi academic scientific journals
E-References, Websites	Crop Science Society Of America Library Genesis The field crops _ principles and a practice Agronomy journal. Websites, Articles, FAO reports .