

Course Description Form Plant Growth Regulators

Course Name	
Plant Growth Regulators	
Course Code	
PLAG410	
Semester/Year	
Second / 2025	
Date of preparation of this description	
15 January 2025	
Available attendance forms :	
Full-time (theoretical lecture and practical lecture) weekly	
Number of 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 Ali Mubarak , Inas Abdul Rahim Khalaf	
Course Objectives	
Objectives of the course :	It has become established and certain that all the activities and functions of the plant fall under the control and guidance of plant growth hormones, which are naturally produced within the plant. Therefore, it is necessary to know and study these chemical compounds (their types, classification, effects, how they work within the plant). So your goal is to: . Providing students with
Teaching and Learning Strategies	

Strategy	• In-person lectures for 14 weeks, interspersed with two monthly exams, daily exams and scientific reports
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**Theoretical**

Course Structure

Week	Credits	Intended Learning Outcomes	Module / Course Name or	Teaching*method	Evaluation Method
1	2	Types of Plant Growth Hormones	Plant Growth Regulators	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
2	2	Growth Hormones and Leg Elongation	Plant Growth Regulators	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
3	2	Growth Hormones and Apical Sovereignty	Plant Growth Regulators	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
4	2	Growth hormones	Plant Growth Regulators	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
5	2	Growth Hormones and Photosynthesis	Plant Growth Regulators	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day

6	2	Growth hormones and the transfer and distribution of nutrients in the plant	Plant Growth Regulators	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
First Quarter Examination					
7	2	Effects of Growth Regulators in Seeds	Plant Growth Regulators	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
8	2	Effects of Growth Regulators at Roots	Plant Growth Regulators	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
9	2	Effects of Growth Regulators on Grain Crops	Plant Growth Regulators	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
10	2	Effects of Growth Regulators on Seed Pulse Crops	Plant Growth Regulators	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
11	2	Effects of Growth Regulators on Fibre Crops	Plant Growth Regulators	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
12	2	Effects of Growth	Plant Growth Regulators	Explanation and model presentation and lecture	Examinations Daily and Monthly

		Regulators on Oil Crops		Brainstorming Debating and discussing Brainstorming	Final and Reports day
13	2	Effects of Growth Regulators on Sugary Crops	Plant Growth Regulators	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
			Second Quarter Examination		
14	2	The Future and Uses of Growth Organisers	Plant Growth Regulators	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
15	2	Reviewed by	Plant Growth Regulators	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	Plant Growth Regulators	Learning Method	Evaluation Method
1	3	Identify plant growth regulators and hormones.	Plant Growth Regulators	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and
2	3	How to Prepare Different Concentrations of Plant Hormones	Plant Growth Regulators	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and
3	3	The most important commonly used plant growth organizations and the	Plant Growth Regulators	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and

4	3	The effect of different concentrations of	Plant Growth Regulators	Case history Brainstorming Debating and	Examinations Daily and Monthly
5	3	The effect of different concentrations of	Plant Growth Regulators	Case history Brainstorming Debating and	Examinations Daily and Monthly
6		The effect of different concentrations of plant hormones in	Plant Growth Regulators	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and
7	3	The effect of different concentrations of plant hormones on the germination of	Plant Growth Regulators	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and Reports
8	3	The effect of different concentrations of plant hormones in	Plant Growth Regulators	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and
9	3	Presentation of films and slides on the impact of growth	Plant Growth Regulators	Case history Brainstorming Debating and	Examinations Daily and Monthly
10	3	Recording the observations and the percentage of impact that was used in the	Plant Growth Regulators	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and
11	3	Take measurements of germination, its velocity, ratio, and length of root and vegetative	Plant Growth Regulators	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and Reports
12			Second Exam		
13	3	Follow up on planting and addition experiments with plant growth organizations and	Plant Growth Regulators	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and Reports
14	3	Follow up on planting and addition experiments with plant growth	Plant Growth Regulators	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and

Daily and monthly exams, reports and student effectiveness during the lecture.

**Learning and Teaching Resources;**

Required textbooks ( methodology if any )	Plant Growth Regulators: Theory and Practice. Written by: Prof. Dr. Hatem Jabbar Attia and Prof. Dr.Khudair Abbas Jadoua, printed by the Ministry of Higher Education and Scientific Research in 1999.
Key References (Sources)	Recent articles from the Internet, specialised scientific journals, the Iraqi Journal of Science, and the Virtual Library.
Recommended supporting books and references (scientific journals, reports)	Iraqi academic scientific journals
E-References, Websites	Crop Science Society Of America Library Genesis The field crops _ principles and a practice Agronomy journal.