Course Description Form Ecology Stress

Course Name
Ecology Stress
Course Code
ECOS411
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. Omar Ali Ahmed M. Ghufran Ali Hussein ghuffranali@uodiyala.edu.iq
Course Objectives

Objectives of the course :	• Environmental stress of biological and abiotic factors and its impact on the germination, growth, development and occurrence of plants • The effect of stress on biological and metabolic activities that take place within
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	Vital and Abiotic Tensioners	Ecology Stress	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
2	2	Thermal Tensile	Ecology Stress	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
3	2	Water Tension C1	Ecology Stress	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
4	2	Water Tension C2	Ecology Stress	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
5	2	Salt	Ecology Stress	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day

6	2	High salinity damages	Ecology Stress	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
		First Quarter Examination			
7	2	Salinity tolerance gauges	Ecology Stress	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
8	2	Light Stress	Ecology Stress	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
9	2	Stress Lack of Lighting	Ecology Stress	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
10	2	Lighting Over Stress	Ecology Stress	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
11	2	SOIL pH	Ecology Stress	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
12	2	Environmental pollution	Ecology Stress	Explanation and model presentation and lecture	Examinations Daily and Monthly

				Brainstorming Debating and discussing Brainstorming	Final and Reports day
13	2	Free radicals and the role of oxidants	Ecology Stress	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
			Second Quarter Examination		
14	2		Ecology Stress	Explanation and model presentation and lecture Brainstorming Debating and discussing Brainstorming	Examinations Daily and Monthly Final and Reports day
15	2		Ecology Stress	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	Environmental stress and its damage to plants	Ecology Stress	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and
2	3	Thermal stress and a scientific experiment showing the effect of thermal stress on plants	Ecology Stress	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and Reports day

3	3	Water stress and a scientific experiment Calculating the rate of germination of different seeds in different water	Ecology Stress	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and Reports day
4	3	Water stress and experience the impact of water stress on seedling growth	Ecology Stress	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and Reports
5	3	Saline stress and a scientific experiment showing its impact on plant growth	Ecology Stress	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and Reports day
6			First Exam		
7	3	A scientific experiment shows estimating the effect of salt stress on seed germination	Ecology Stress	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and Reports day
8	3	Light stress and its impact on plants	Ecology Stress	Case history Brainstorming Debating and	Examinations Daily and Monthly
9	3	Difference Between High Lighting Stress and Low Lighting Stress	Ecology Stress	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and Reports day
10	3	A scientific experiment demonstrates the effect of light stress on the growth of seedlings	Ecology Stress	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and Reports day
11	3	A scientific experiment proves the impact of pollution with co2	Ecology Stress	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and

12			Second Exam		
13	3	A scientific experiment demonstrates the effect of soil acidity on the plant	Ecology Stress	Case history Brainstorming Debating and discussing	Examinations Daily and Monthly Final and Reports
14	3	A scientific experiment demonstrates the impact of	Ecology Stress	Case history 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)	1- Environmental stress and its impact on the plant
Key References (Sources)	Recent articles from the Internet, specialised 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	For journal articles Websites, Articles, FAO reports .