Description Course of Design and analysis of Agriculture experiment

1. Course Name:
Design and analysis of Agriculture experiment
2. Course code :
DAAE302
3.Semester/Year:
First Semester /Third Stage/2024 - 2025
4.The date this description was prepared :
1/9/2024
5. 5-Available forms of attendance
blended learning
6.Number of study hours (total)/number of units (total)
2 hours theoretical/ 3 hours practical (5 hours)/3.5 units
7.Name of the course administrator (if more than one name is mentioned) :
Dr. Omar Mudhafer Omar / theorotical Mr. Munther younus Mohammed / Practical
8 Course Objectives
• Learn about the foundations of agricultural design and implementation • Recognize agricultural experimental designs and the advantages and straightforwardness of each design • He is familiar with the choice of discrimination • Defines the problem of searching and selecting parameters • Field design planning • Conducts the field experiment • Analyzes research data • Extracts results
9 |||UNTRANSLATED_CONTENT_START|||التعليم استراتيجيات والتعلم|||UNTRANSLATED_CONTENT_END|||
- Interactive lecture - Practical exercises - Brainstorming - Assigning specific tasks and preparing reports on them - Dialogue and Discussion - Self-learning - |||UNTRANSLATED_CONTENT_START|||التدريب الميداني

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10 10. Course Structure

Week	Hours	Learning outcomes required for the program*	Unit or Topic Name	Learning method	Valuation Method
1	2 Theoretical	A1: Key terms in the design and analysis of experiments	Trial , Transaction, Demo Unit, Demo Error	Interactive lecture, brainstorming , dialogue and discussion , self-learning	- A midterm? A final test
	3 Practical	A1:Introduction to experimental design and analysis	Key Terms , Statistical Codes	Interactive lecture, brainstorming , dialogue and discussion , self-learning , laboratory training	"Little Things." Little taste. Yeah, let's run "Little Things."
2	2 Theoretical	A2: Basics of experimental design and analysis	Repetition , Randomization , Controlling Demo Units	Interactive lecture, brainstorming , dialogue and discussion , self-learning	- A midterm? A final test
	3 Practical	A2: Full random design	Field trial diagram, variance analysis table	Interactive lecture, brainstorming , dialogue and discussion , self-learning , laboratory training	- A midterm? Laboratory test
3	2 Theoretical	A3: Statistical Method	Identify research problem, select parameters , the choice of the adjective or adjectives studied , experiment design, experiment execution, Analyze data and results	Interactive lecture, brainstorming , dialogue and discussion , self-learning	- A midterm? A final test
	3 Practical	A3: Full random design	Exercises in full random design	Interactive lecture, brainstorming , dialogue and discussion , self-learning , laboratory training	- A midterm? Laboratory test
4	2 Theoretical	A4: Group comparison	Testing the difference between the two medians , comparing the variance of two groups	Interactive lecture, brainstorming , dialogue and discussion , self-learning	- A midterm? A final test
	3 Practical	A4: Full random design in case of uneven redundancy	Variance analysis table, mathematical exercises in full random design in case of uneven repetition	Interactive lecture, brainstorming , dialogue and discussion , self-learning ,	- A midterm? Laboratory test

				laboratory training	
5	2 Theoretical	Variance Analysis:	Single-variance analysis, binary-variance analysis	Interactive lecture, brainstorming , dialogue and discussion , self-learning	- A midterm? A final test
	3 Practical	A5 : Design of complete random sectors	Field trial diagram, variance analysis table	Interactive lecture, brainstorming , dialogue and discussion , self-learning , laboratory training	- A midterm? Laboratory test
6	2 Theoretical	A6: Full random design	Design advantages and disadvantages, full random design in case of equal redundancy	Interactive lecture, brainstorming , dialogue and discussion , self-learning	- A midterm? A final test
	3 Practical	A6:Design of complete random sectors	Sports exercises in the design of random sectors	Interactive lecture, brainstorming , dialogue and discussion , self-learning , laboratory training	- A midterm? Laboratory test
7	2 Theoretical	A7: Full random design	Full random design in case of uneven redundancy	Interactive lecture, brainstorming , dialogue and discussion , self-learning	- A midterm? A final test
	3 Practical	A7: Latin square design	Field trial diagram, variance analysis table	Interactive lecture, brainstorming , dialogue and discussion , self-learning , laboratory training	- A midterm? Laboratory test
8	2 Theoretical	A8 : Design of complete randomized sectors	Design Advantages and Disadvantages, Variance Analysis in the Design of Full Random Sectors	Interactive lecture, brainstorming , dialogue and discussion , self-learning	- A midterm? A final test
	3 Practical	B1 : Latin Square Design	Exercises in Latin Square Design	Interactive lecture, brainstorming , dialogue and discussion , self-learning , laboratory training	- A midterm? Laboratory test
9	2 Theoretical	A9: Relative efficiency of full informal sector design	Relative efficiency, estimating missing data	Interactive lecture, brainstorming , dialogue and discussion , self-learning	- A midterm? A final test
	3 Practical	B2 : Field visit to the nursery	Carrying out field experiment diagrams for	Interactive lecture, brainstorming ,	- A midterm? Laboratory

			the complete randomized design , Sectors , Latin	dialogue and discussion , self-learning , laboratory training	test
10	2 Theoretical	A10 : Latin Square Design	Design Advantages and Disadvantages, Variance Analysis in Latin Square Design	Interactive lecture, brainstorming , dialogue and discussion , self-learning	- A midterm? A final test
	3 Practical	B3 : Multiple comparisons	Method of testing the lowest moral teams with the solution of sports exercises	Interactive lecture, brainstorming , dialogue and discussion , self-learning , laboratory training	- A midterm? Laboratory test
11	2 Theoretical	A11 : Relative efficiency of Latin square design	Relative efficiency, missing values	Interactive lecture, brainstorming , dialogue and discussion , self-learning	- A midterm? A final test
	3 Practical	B4 : Multiple comparisons	Duncan Test Method with Exercise Solution	Interactive lecture, brainstorming , dialogue and discussion , self-learning , laboratory training	- A midterm? Laboratory test
12	2 Theoretical	B1 : Multiple comparisons	Lowest Moral Difference Test, Duncan Test	Interactive lecture, brainstorming , dialogue and discussion , self-learning	- A midterm? A final test
	3 Practical	A8 : Factorial experiments with two factors in full randomized design	Workout Solution	Interactive lecture, brainstorming , dialogue and discussion , self-learning , laboratory training	- A midterm? Laboratory test
13	2 Theoretical	A12 : Factorial experiments	Advantages and Disadvantages of Factorial Trials, a Two-Factor Experience in Complete Randomized Design	Interactive lecture, brainstorming , dialogue and discussion , self-learning	- A midterm? A final test
	3 Practical	A9: Factor experiments with two workers in the design of complete randomized sectors	Workout Solution	Interactive lecture, brainstorming , dialogue and discussion , self-learning , laboratory training	- A midterm? Laboratory test
14	2 Theoretical	A13 : Factorial experiments	A two-factor experiment in the design of complete randomized sectors	Interactive lecture, brainstorming , dialogue and	- A midterm? A final test

				discussion , self-learning	
	3 Practical	A10 : Factorial Experiments with Two Factors in the Design of the Latin Square	Workout Solution	Interactive lecture, brainstorming , dialogue and discussion , self-learning , laboratory training	- A midterm? Laboratory test
15	2 Theoretical	A14: Factorial experiments	A Two-Factor Experience in Latin Square Design	Interactive lecture, brainstorming , dialogue and discussion , self-learning	- A midterm? A final test
	3 Practical	B5: Field visit to the nursery	Conducting field plans for laboratory experiments	Interactive lecture, brainstorming , dialogue and discussion , self-learning , laboratory training	- A midterm? Laboratory test

11 Course Evaluation

This service allows customers to issue a permit	evaluation methods	Calendar Appointment (Week)	Degree	Relative Weight%
1	Report I	Week 4	2.5	2.5
2	Weather Report - %1 - %2	Week 5	2.5	2.5
3	Quiz (1)	Week 6	2	2
4	Quiz 2 (Islamic Translation)	Week 4	2	2
5	Quiz (3)	Week 5	1	1
6	- A midterm?	Week 6	7.5	7.5
7	- A midterm?	Week 11	7.5	7.5
8	Final theoretical test	senior year	40	40
9	Practical Field Drawing	Week 5	5	5
10	Laboratory assessment	Week 3	2	2
11	Practical Quiz (1) Quiz	Week 1	1	1
12	Practical Quiz (2) Quiz	Week 4	0.5	0.5
13	Practical Quiz (3) Quiz	Week 4	1	1
14	Direct Drawings and Homework	Weeks 6, 8,9,10,11,12 and13	5.5	5.5
15	Final Practical Test	senior year	20	20
	Total	100	100%	100%

12 Learning and Teaching Resources

Required textbooks (methodology if any)	**Design and analysis of agricultural experiments – Dr. Khasha Mahmoud Al-Rawi - 1980**
Key References (Sources)	Design and analysis of experiments – Dr. Mohammed Mohammed Al-Taher Al-Imam - 1994

Recommended supporting books and references (scientific journals, reports...)	
E-References , Websites	

Theoretical subject teacher
Prof. Dr. Omar Muzaffar Omar

Practical Instructor
Eng. Munther Younis Mohammed

President of the Scientific Committee
Prof.Dr.Mohammed Younis Salim Al-Allaf

Head of Forest Science Department
Prof. Dr. Muzahim Saeed Younis