

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/2023-2024								
4.The date this description was prepared :								
1/9/2023								
5. 5-Available forms of attendance								
In-Person								
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								
<ul style="list-style-type: none"> • 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								
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">- Interactive lecture</td> <td style="width: 50%; border: none;">- Practical exercises</td> </tr> <tr> <td style="border: none;">- Brainstorming reports on them</td> <td style="border: none;">- Assigning specific tasks and preparing</td> </tr> <tr> <td style="border: none;">- Dialogue and Discussion</td> <td style="border: none;">- Self-learning</td> </tr> <tr> <td style="border: none;">- UNTRANSLATED_CONTENT_START التدريب</td> <td style="border: none; text-align: right;">الميداني</td> </tr> </table>	- Interactive lecture	- Practical exercises	- Brainstorming reports on them	- Assigning specific tasks and preparing	- 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 1	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 1	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 1	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 1	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 1	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 1	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 1	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 1	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 1	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...)	

Theoretical subject teacher
Prof. Dr. Omar Muzaffar Omar

Practical Instructor
Eng. Munther Younis Mohammed

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

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