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
- 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

|||UNTRANSLATED_CONTENT_END|||

| - Interactive lecture | - Practical exercises |
|---------------------------|--|
| - Brainstorming | Assigning specific tasks and preparing |
| reports on them | |
| - Dialogue and Discussion | - Self-learning |

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|--------------------------|-------------------------|---|---|---|--|
| 10 10. Co | 10 10. Course Structure | | | | |
| Week | Hours | Learning outcomes required for the program* | Unit or Topic Name | Learning method | Valuation Method |
| | 2 Theoretica 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 |
| 1 | 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 Theoretica 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 |
| 2 | 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 Theoretica 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 Theoretica 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 | |
|---|-------------------------------------|---|--|----------------------|----------------|
| | | | | Interactive lecture, | |
| | 2 | T 7 · A 1 · | | brainstorming, | A midtorm? |
| | Theoretica | Variance Analysis: | Single-variance analysis, | dialogue and | - A final tast |
| | 1 | | binary-variance anarysis | discussion, self- | A fillal test |
| | | | | learning | |
| 5 | | | | Interactive lecture, | |
| | | A5 : Design of | Field trial diagram, | brainstorming, | A midtorm? |
| | 2 Dreatical | complete random sectors | variance analysis table | dialogue and | - A muterm |
| | 5 Tractical | | | discussion, self- | Laboratory |
| | | | | learning, | test |
| | | | | laboratory training | |
| | | | | Interactive lecture, | |
| | 2 | A6: Full random | Design advantages and | brainstorming, | - A midterm? |
| | Theoretica | design | random design in case of | dialogue and | A final test |
| | 1 | | equal redundancy | discussion, self- | ri mar test |
| | | | | learning | |
| 6 | | | | Interactive lecture, | |
| | | A6:Design of complete | | brainstorming, | - A midterm? |
| | 3 Practical | random sectors | Sports exercises in the | dialogue and | Laboratory |
| | 5 Theorem | | design of random sectors | discussion, self- | test |
| | | | | learning, | |
| | | | | laboratory training | |
| | 2 Theoretica 1 | A7: Full random design | Full random design in case of uneven redundancy | Interactive lecture, | |
| | | | | brainstorming, | - A midterm? |
| | | | | dialogue and | A final test |
| | | | | discussion, self- | |
| 7 | | | | learning | |
| / | | | | Interactive fecture, | |
| | | A7: Latin square design | Field trial diagram, variance analysis table | dialogue and | - A midterm? |
| | 3 Practical | | | discussion solf | Laboratory |
| | | | | loorning | test |
| | | | | laboratory training | |
| | | | | Interactive lecture | |
| | 2 Theoretica 1 3 Practical | A8 : Design of complete randomized sectors B1 : Latin Square Design | Design Advantages and Disadvantages, Variance Analysis in the Design of Full Random Sectors | brainstorming | |
| | | | | dialogue and | - A midterm? |
| | | | | discussion self- | A final test |
| 8 | | | | learning | |
| | | | | Interactive lecture. | |
| | | | Exercises in Latin Square | brainstorming . | |
| | | | | dialogue and | - A midterm? |
| | | | Design | discussion, self- | Laboratory |
| | | | | learning, | test |
| | | | | laboratory training | |
| 9 | | A9: Relative efficiency of full informal sector design | Relative efficiency, estimating missing data | Interactive lecture, | |
| | 2 Theoretica 1 | | | brainstorming, | |
| | | | | dialogue and | - A midterm? |
| | | | | discussion, self- | A inai test |
| | | | | learning | |
| | 3 Practical | B2 : Field visit to the | Carrying out field | Interactive lecture, | - A midterm? |
| | | 3 Practical nursery | experiment diagrams for | brainstorming, | Laboratory |

| | | | the complete randomized | dialogue and | test |
|----|----------------------|--|--|----------------------|----------------|
| | | | design | discussion, self- | |
| | | | , Sectors , Latin | learning, | |
| | | | | laboratory training | |
| | | | | Interactive lecture, | |
| | 2 | A10 : Latin Square | Design Advantages and | brainstorming, | - A midterm? |
| | Theoretica | Design | Analysis in Latin Square | dialogue and | A final test |
| | 1 | | Design | discussion, self- | |
| | | | | learning | |
| 10 | | | | Interactive lecture, | |
| | | | lowest moral teams with | brainstorming, | - A midterm? |
| | 3 Practical | B3 : Multiple | | dialogue and | Laboratory |
| | 5 Tractical | comparisons | exercises | discussion, self- | test |
| | | | | learning, | 1051 |
| | | | | laboratory training | |
| | | | | Interactive lecture, | |
| | 2 | All : Relative | Relative officiency | brainstorming, | - A midterm? |
| | Theoretica | square design | missing values | dialogue and | A final test |
| | 1 | square design | missing values | discussion, self- | I I IIIdi test |
| | | | | learning | |
| 11 | | | | Interactive lecture, | |
| | | B4 : Multiple comparisons | Duncan Test Method with Exercise Solution | brainstorming, | - A midterm? |
| | 3 Practical | | | dialogue and | Laboratory |
| | JTactical | | | discussion, self- | test |
| | | | | learning, | test |
| | | | | laboratory training | |
| | 2 Theoretica 1 | B1 : Multiple comparisons | Lowest Moral Difference Test, Duncan Test | Interactive lecture, | |
| | | | | brainstorming, | - A midterm? |
| | | | | dialogue and | A final test |
| | | | | discussion, self- | |
| | | | | learning | |
| 12 | | | | Interactive lecture, | |
| | 3 Practical | A8 : Factorial experiments with two factors in full randomized design | Workout Solution | brainstorming, | - A midterm? |
| | | | | dialogue and | Laboratory |
| | | | | discussion, self- | test |
| | | | | learning, | |
| | | | | laboratory training | |
| | 2 Theoretica | A12 : Factorial experiments | Advantages and Disadvantages of Easterial | Interactive lecture. | |
| | | | Trials, a Two-Factor Experience in Complete | brainstorming, | |
| 13 | | | | dialogue and | - A midterm? |
| | 1 | | Randomized Design | discussion, self- | A final test |
| | | | | learning | |
| | | | | - | |
| | | A9: Factor | | Interactive lecture, | |
| | 3 Practical | experiments with two workers in the design of complete | Workout Solution | brainstorming, | - A midterm? |
| | | | | dialogue and | Laboratory |
| | | | | discussion, self- | test |
| | | randomized sectors | | learning, | |
| | | | | laboratory training | |
| | 2 | A13 : Factorial | A two-factor experiment | Interactive lecture, | - A midterm? |
| 14 | Theoretica | experiments | in the design of complete | brainstorming, | A final test |
| | 1 | | randomized sectors | dialogue and | |

| | | | | discussion, self- | | |
|---|------------------------------|--|---------------------------------------|----------------------|---------------|--|
| | | | | learning | | |
| | | | | Interactive lecture, | | |
| | | A10 : Factorial | | brainstorming, | A | |
| | | Experiments with Two | Workout Solution | dialogue and | - A midterm? | |
| | 3 Practical | Factors in the Design | | discussion . self- | Laboratory | |
| | | of the Latin Square | | learning | test | |
| | | of the Luni square | | laboratory training | | |
| | | | | Interactive lecture | | |
| | | | | | | |
| | 2 | A14: Factorial | A Two-Factor Experience | brainstorming, | - A midterm? | |
| | Theoretica | experiments | in Latin Square Design | dialogue and | A final test | |
| | 1 | | | discussion, self- | | |
| | | | | learning | | |
| 15 | | | | Interactive lecture. | | |
| | | | | brainstorming | - A midterm? | |
| | | B5. Field visit to the | Conducting field plans for | dialogue and | Laboratory | |
| | 3 Practical | nursery | laboratory experiments | discussion self- | test | |
| | | nuisery | laboratory experiments | | | |
| | | | | | | |
| | | | | laboratory training | | |
| 11 Course | 11 Course Evaluation | | | | | |
| This | evaluation | nethods | Calendar Appointment (| Degree | Relative | |
| service | evaluation | nethous | Week) | Degree | Weight% | |
| allows | | | | | in engine / 0 | |
| customers | | | | | | |
| to issue a | | | | | | |
| permit | | | | | | |
| 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 Fie | eld 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 Qu | liz (3) Quiz | Week 4 | | | |
| 14 | Direct Drawings and Homework | | Weeks $6, 8, 9, 10, 11, 12$ and 13 | 5.5 | 5.5 | |
| 15 | Final Practical Test | | senior vear | 20 | 20 | |
| 10 | Total | | 100 | 100% | 100% | |
| 12 Learning and Teaching Resources | | | | | | |
| | | | Design and analysis of a | migultung ann anin | onta Dr | |
| Required textbooks (methodology if any) | | Design and analysis of agricultural experiments – Dr. Khasha Mahmoud Al-Rawi - 1080 | | | | |
| | | Nilasila Iviailillouu Al-Kawi - 1980 | | | | |
| rey relefences (Sources) | | Mohammed Al-Taher Al-Imam - 1994 | | | | |
| | | | 1997 | | | |
| Recommended supporting books and | | | | | | |
| | | | | | | |
| references (scientific journals, reports) | | | | | | |

| E-References, Websites | |
|------------------------|--|
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Theoretical subject teacher Prof. Dr. Omar Muzaffar Omar

President of the Scientific Committee Prof. Dr. Mohammed Younis Al-Alaf Practical Instructor Eng. Munther Younis Mohammed

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