Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department

# Academic Program and Course Description Guide

# 2024-2025

# Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

## Concepts and terminology:

**Academic Program Description:** The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

**Course Description:** Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

**Program Vision:** An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

**Program Mission:** Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

**Program Objectives:** They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

**Curriculum Structure:** All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

**Learning Outcomes:** A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

**Teaching and learning strategies:** They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

## Academic Program Description Form

University: .....Basrah University

College/Institute: ..... Agriculture college

Department: .....Horticulture and landscape

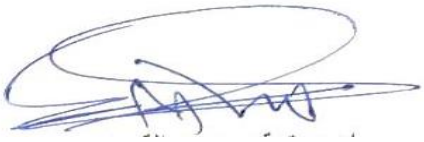
Program Name (academic or professional, Bachelor's, etc.): ... Bachelor's Horticulture and landscape

Degree Awarded: Bachelor in ... Horticulture and landscape

Study System: .....

Date of Program Description Preparation: ..9/1/2025.

Date of File Submission: .. 15/1/2025



Signature: .....  Signature: .

Head of Department's Name: .....  scientific associate name

..... mohammed abdulamer hassan  sadiq jabar muhsin

Date: .... 15/1/2025.  Date: .... 15/1/2025.

This file has been reviewed by the

Quality Assurance and Academic Performance Unit

Head of Quality Assurance and Academic Performance Unit: Riyadh adnan armila

Date: 15/1/2025

Dean's Approval: ..... sarmad ghazi mohammed

## . Program Vision

The College of Agriculture strives to be one of the leading higher education institutions at the University of Basra in modern education and scientific research through its academic, research, and administrative activities. It also works to provide an integrated path for its students and professors to make them active and creative contributors to society in the fields of agricultural sciences, specifically horticulture and landscape engineering.

## 2. Program Mission

To prepare and graduate leading scientific and leadership competencies in agricultural sciences—specifically horticulture and landscape engineering—and to develop the body of knowledge in scientific research to serve the local, regional, and international communities. We also aim to scientifically and intellectually train and

refine students' minds, while emphasizing social and cultural values and responding to the demands of the local market. .

## 3. Program Objectives

• To embody the vision, mission, and objectives of the University of Basrah, and to apply and enhance best educational practices with a focus on quality assurance and performance.
• To prepare specialized staff capable of serving the community and to lay the groundwork for future specializations.
• To spread a culture of human diversity in society and to transfer knowledge, skills, and technologies in horticultural sciences, while promoting creative scientific achievement and research through student- and faculty-focused activities.
• The college seeks to form scientific and cultural cooperation agreements with equivalent colleges and departments in various institutions to achieve best practices in the fields of education, learning, and translation.
• To focus on the educational and ethical aspects of all its members, and to instill a spirit of dedication, tolerance, commitment, and work in service of the nation.
• To focus on intellectual and cultural development by being open to the experiences of other countries in the fields of agricultural sciences—specifically horticulture and landscape engineering.
• To focus on the educational and ethical aspects of the student and to instill a spirit of dedication, tolerance, and commitment.

## 4. Program Accreditation

| |
|---|
| The department seeks to obtain program accreditation. |

| **5. Other External Influences** |
|---|
| Not available |

| **6. Program Structure** | | | | |
|---|---|---|---|---|
| **Program Structure** | **Number of Courses** | **Credit Hours** | **Percentage** | **Reviews*** |
| **Institution Requirements** | 2 | 2 | 8.33 | Essential course |
| **College Requirements** | 3 | 9 | 12.5 | Essential course |
| **Department Requirements** | 19 | 48 | 79.16 | Essential course |
| **Summer Training** | 1 | | 100 | Essential course |
| **Others** | | | | - |

***This can include notes whether the course is basic or optional.**

| **7. Program Description** | | | | |
|---|---|---|---|---|
| **Year/Level** | **Course Code** | **Course Name** | **Credit Hours** | |
| Stage Three/First Semester | DAEX327 | Design and analysis of agricultural experiments | 2 | 3 |
| Stage Three/First Semester | MAPL320 | medicinal and aromatic plants | 2 | 3 |
| Stage Three/First Semester | DEFR312 | Vegetable crops 1 | 2 | 3 |
| Stage Three/First Semester | VGPR336 | Deciduous fruit 1 | 2 | 3 |
| Stage Three/First Semester | ORPL318 | ornamental plants**1** | 2 | 3 |
| Stage Three/First Semester | PLGR316 | plant growth regulators | 2 | 3 |
| Stage Three/Second | PLDS321 | Plant diseases | 2 | 3 |
| Stage Three/Second | PLBR314 | Plant breeding | 2 | 3 |

| | | | | |
|---|---|---|---|---|
| Stage Three/Second | VGPR337 | Vegetable crops 2 | 2 | 3 |
| Stage Three/Second | ORPL319 | ornamental plants**2** | 2 | 3 |
| Stage Three/Second | APCU317 | beekeeping | 2 | 3 |
| Stage Three/Second | ENGL306 | English 3 | **1** | |
| Stage Four/First Semester | TICU413 | Tissue culture | 2 | 3 |
| Stage Four/First Semester | EVFR412 | evergreen fruits | 2 | 3 |
| Stage Four/First Semester | LAEN415 | Landscape design | 2 | 3 |
| Stage Four/First Semester | FAMA444 | Farm management | 2 | 3 |
| Stage Four/First Semester | VSPR416 | Seed production | 2 | 3 |
| Stage Four/First Semester | ENGL406 | English 4 | **1** | |
| Stage Four/Second Semester | GRPR421 | Graduation Research Project 1 | | 3 |
| Stage Four/Second Semester | PAPR419 | Palm production | 2 | 3 |
| Stage Four/Second Semester | GRAP417 | Grape production | 2 | 3 |
| Stage Four/Second Semester | SOFE411 | Fertilizers | 2 | 3 |
| Stage Four/Second Semester | HAST418 | harvest and storage | 2 | 3 |
| Stage Four/Second Semester | BITE442 | Biotechnologies | 2 | 3 |
| Stage Four/Second Semester | GRPR422 | Graduation Research Project 1 | | 3 |

| **8. Expected Learning Outcomes of Program** | |
|---|---|
| **Knowledge** | |
| Provide students with the fundamentals and topics related to the knowledge and systems | The academic staff will explain course materials theoretically and practically |
| **Skills** | |
| Utilize internet skills and projection screens in classrooms. | Enable students to visit libraries and agricultural museums. |
| Display illustrative photos and three-dimensional models of various horticultural crops. | Visit horticultural stations within the geographical area. |
| **Ethics** | |

| | |
|---|---|
| Teaching students professional ethics after graduation | Instilling a spirit of cooperation among students |

**9. Teaching and Learning Strategies**

Explaining the scientific material through lectures, asking questions, using diagrams, explanations, and experiments, and incorporating modern teaching aids.
Assigning questions as homework, which is part of the student's evaluation.
Discussing theories related to the growth, development, and reproduction of horticultural plants.

**10. Evaluation Methods**

Weekly, monthly, and daily exams, end-of-semester exams, and extracurricular activities.

**11. Faculty**

**Faculty Members**

| Academic Rank | Specialization | | Special Requirements/Skills (If Applicable) | | Number of Teaching Staff | |
|---|---|---|---|---|---|---|
| | General | Special | | | Staff | Lecturer |
| Professor | | | | | 10 | 10 |
| Assistant Prof. | | | | | 10 | 10 |
| Lecturer | | | | | 10 | 10 |
| Assistant Lecturer | | | | | 5 | 5 |

**Professional Development**

**Monitoring New Faculty Members**

New faculty members are instructed by the department head to adhere to attendance.

**Professional Development for Faculty Members**

The academic program has developed a plan to develop new faculty members by engaging them in practical lessons and participating in technical workshops and courses.

**12. Acceptance Criterion**

(Developing regulations related central admission)

**13. The Most Important Sources of Information About The Program**

The department's academic program is implemented precisely by the program's administrators and carefully monitored by those in charge of the program.

**14. Program Development Plan**

The academic program administrators review the plan periodically and make proposals that contribute to its development.

| Program Skills outline | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Required Program Learning Outcomes | | | | | | | | | | | | |
| **Year/Level 2024-2025** | **Course Code** | **Course Name** | **Basic or Optional** | **Knowledge** | | | | **Skills** | | | | **Ethics** | | | | |
| Stage Three/First Semester | DAEX327 | Design and analysis of agricultural experiments | Basic | **A1** | **A2** | **A3** | **A4** | **B1** | **B2** | **B3** | **B4** | **C1** | **C2** | **C3** | **C4** |
| Stage Three/First Semester | MAPL320 | medicinal and aromatic plants | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Three/First Semester | DEFR312 | Deciduous fruit 1 | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Three/First Semester | VGPR336 | Vegetable crops 1 | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Three/First Semester | ORPL318 | ornamental plants**1** | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Three/First Semester | PLGR316 | plant growth regulators | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Three/Second Semester | PLDS321 | Plant diseases | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Three/Second Semester | PLBR314 | Plant breeding | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stage Three/Second Semester | VGPR337 | Vegetable crops 2 | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Three/Second Semester | ORPL319 | ornamental plants**2** | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Three/Second Semester | APCU317 | beekeeping | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Four/First Semester | TICU413 | Tissue culture | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Four/First Semester | EVFR412 | evergreen fruits | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Four/First Semester | LAEN415 | Landscape design | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Four/First Semester | FAMA444 | Farm management | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Four/First Semester | VSPR416 | Seed production | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Four/Second Semester | PAPR419 | Palm production | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Four/Second Semester | GRAP417 | Grape production | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stage Four/Second Semester | SOFE411 | Fertilizers | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Four/Second Semester | HAST418 | harvest and storage | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |
| Stage Four/Second Semester | BITE442 | Biotechnologies | Basic | √ | √ | √ | | √ | √ | √ | √ | √ | √ | √ | |

- **Please tick the boxes corresponding to the individual program learning outcomes under evaluation**

# Course Description Form

## Course Description Form

| |
|---|
| 1. Course Name: |
| Biotechnology |
| 2. Course Code: |
| BITE442 |
| 3. Semester / Year: |
| Semester :Second / 2024-2025 |
| 4. Description Preparation Date: |
| 2024-2025 |
| 5. Available Attendance Forms: |
| Attendance |
| 6. Number of Credit Hours (Total) / Number of Units (Total) |
| 3 Hours / 1.5 Unite |
| 7. Course Administrator's Name (Mention All, If More Than One Name) |
| Name: ahmedyouseflafta Email: ahmed.lafta@uobasrah.edu.iq |

| 8. Course Objectives | |
|---|---|
| The curriculum included the study of life technologies and their practical applications in agriculture, especially plant production, through learning about the laboratory equipment used in the molecular laboratory, extracting DNA from plant tissues, and learning about methods of electrophoresis and DNA replication in a PCR device. | The student reviews his knowledge of life technologies and their agricultural applications<br>• This information is needed throughout the study period in order to understand the mechanisms and methods used in the biotechnology laboratory. |

| 9. Teaching and Learning Strategies | |
|---|---|
| Strategy | The modern teaching strategy includes achieving general learning objectives, teaching modern concepts and methods in agricultural life technologies, identifying the difficulties that students face in understanding the practical application of some technologies such as DNA extraction and replication, and electrophoresis, solving problems and difficulties in the methods used, and helping students acquire the correct concepts for laboratory work. |

| 10. Course Structure | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| Week | Hours | Required learning | Unit or Subject Name | Learning Method | Evaluation Method |
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15 | 2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2 | | • safety in the laboratory<br>• The most important tools used in the technology laboratory (biology)<br>• Deoxyribonucleic acid<br>• Prove that DNA is the genetic material<br>• DNA Replication<br>• Isolation Of Nucleic Acid<br>• DNA extraction from plant samples<br>• Nucleic acid quantitation<br>• Gel Electrophoresis<br>• PCR Polymerase Chain Reaction<br>• PCR applications<br>• DNA cutting and slicing<br>• Gene transfer and introduction methods<br>• DNA sequencin | My presence | Students participate in the lecture through questions<br>coz exam<br>Monthly exams |
| 11. Course Evaluation | | | | | |
| Distribution of the score out of 20 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc. | | | | | |
| 12. Learning and Teaching Sources | | | | | |
| Required Textbooks (Curricular Books, If Any) | | | biotechnology book | | |
| Main References (Sources) | | | Basics of biotechnology | | |
| Recommended Books and References (Scientific Journals, Reports...) | | | | | |
| Electronic References, Websites | | | | | |

| **Course Description Form** | | | | | | |
|---|---|---|---|---|---|---|
| Course | Horticultural insects | Semester | Theoretical | Practical | Total | Total No.of units |
| | | The second | 2 | 3 | 5 | 3.5 |

| Week | Topics |
|---|---|
| 1 | Insects with general multi-family damage |

| | |
|---|---|
| 2 | Date palm tree insects |
| 3 | Al-Humayra |
| 4 | Sidr tree insects |
| 5 | First exam |
| 6 | Fig tree insects |
| 7 | Pomegranate tree insects |
| 8 | Olive tree insects |
| 9 | Insects of ornamental, medicinal and aromatic plants |
| 10 | Second exam |
| 11 | The floor |
| 12 | Red palm weevil |
| 13 | Red palm weevil |
| -14 | Red palm weevil |
| 15 | exam |

| References |
|---|
| Theoretical and practical horticultural insects |
| Horticultural insects |
| https://kenanaonline.com/users/pestscontrol/topics/143887 |

## Course Description Form

| 1. Course Name: |
|---|
| Store and harvest horticultural crops |
| 2. Course Code: |
| HAST418 |
| 3. Semester / Year: |
| Semester :Second / 2024-2025 |
| 4. Description Preparation Date: |
| 2024-2025 |
| 5. Available Attendance Forms: |
| |
| 6. Number of Credit Hours (Total) / Number of Units (Total) |
| 2 Hours / 3.5 Unite |
| 7. Course Administrator's Name (Mention All, If More Than One Name) |
| Name: Hamzah Abbas Hamzah Email: hamzah. hamzah @uobasrah.edu.iq |
| 8. Course Objectives |

| | |
|---|---|
| It includes teaching students to store horticultural crops after learning about .the types of fruits and growth cauldrons<br>Teaching students how to deal with fresh fruits and how to keep them fresh for the .longest possible period of time<br>Teaching students how to pack and package fruits and display them in the markets to attract the consumer | Student review of his knowledge of care and storage<br>This information is needed throughout the study ..period |

9. Teaching and Learning Strategies

| | |
|---|---|
| Strategy | The modern teaching strategy includes achieving learning objectives in general, teaching the concepts of storing horticultural crops in particular, and the difficulties that the student faces in understanding and acquiring the concepts of storage processes and methods, and treating the difficulties by identifying the main storage methods and helping students to acquire theoretical and practical knowledge of how to deal with fresh fruits in the correct manner. |

10. Course Structure

| Week | Hours | Required learning | Unit or Subject Name | Learning Method | Evaluation Method |
|---|---|---|---|---|---|
| 1 | 2 | | Introduction to the of storage | My presence | Students participate in the lecture through questions coz exam Monthly exams |
| 2 | 2 | | Fruit growth stages | | |
| 3 | 2 | | Protected areas | | |
| 4 | 2 | | Classification of horticulture | | |
| 5 | 2 | | post harvest technology | | |
| 6 | 2 | | Technical processes in crafts | | |
| 7 | 2 | | Packaging and statistics | | |
| 8 | 2 | | Transportation of products | | |
| 9 | 2 | | industrial ripening of fruits | | |
| 10 | 2 | | cold storage | | |
| 11 | 2 | | EquipmentsRefrigerat | | |
| 12 | 2 | | breathing rate | | |
| 13 | 2 | | Cooling load | | |
| 14 | 2 | | | | |
| 15 | 2 | | | | |

11. Course Evaluation

Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc.

| 12. Learning and Teaching Sources | |
|---|---|
| Required Textbooks (Curricular Books, If Any) | topic of care and storage |
| Main References (Sources) | post harvest technology |
| Recommended Books and References (Scientific Journals, Reports...) | 1- Al-Bakir, A. and Whitaker, J. R.(1978). Purification and characterization |
| Electronic References, Websites | |

## Course Description Form

| 1. Course Name: Decidous Fruits 2 | |
|---|---|
| | |
| 2. Course Code: | |
| DEFR313 | |
| 3. Semester / Year: | |
| 2024-2025 /Semester :Second | |
| 4. Description Preparation Date: | |
| 2024-2025 | |
| 5. Available Attendance Forms: | |
| | |
| . Number of Credit Hours (Total) / Number of Units (Total)6 | |
| 3.5 Unite /2 Hours | |
| . Course Administrator’s Name (Mention All, If More Than One Name)7 | |
| Email:.khawla .mohomed @uobasrah.edu.iq | prof. khawla Hamza mohammed Name: |
| 8. Course Objectives | |
| The study included identidication of stone fruitestreefor all types and nut fruites for alltyps | |

| 9. Teaching and Learning Strategies | |
|---|---|
| Strategy | The modern teaching strategy includes achieving learning by electronic dis play means and reserachinrefrences |

10. Course Structure

| Week | Hours | Required learning outcomes | Unit or Subject Name | Learning Method | Evaluation Method |
|---|---|---|---|---|---|
| 1 | 2 | | Introduction to the stone friits 1 | My presence | Students participate in the lecture through questions coz exam Monthly exams |
| 2 | 2 | | Peach. cultivation 2 | | |
| 3 | 2 | | 3 Apricot cultivation | | |
| 4 | 2 | | 4 Pear cultivation | | |
| 5 | 2 | | 5 cherry cultivation | | |
| 6 | 2 | | 6 Introduction of nut friuts .Almond / cultivation 7 | | |
| 7 | 2 | | 8 Walnut cultivation | | |
| 8 | 2 | | 9 Pistachio cultivation | | |
| 9 | 2 | | 10 Hazelnut cultivation | | |
| 10 | 2 | | Peacan . cultivation 11 | | |
| 11 | 2 | | 12 Chestrut cultivation | | |
| 12 | 2 | | The most important problem sfacing the cultivation stone 13 friuts | | |
| 13 | 2 | | Methods of handling and storing some types of decidons fruits | | |
| 14 | 2 | | The economic feasibility of growing some types of decidons 14 fruits | | |
| 15 | 2 | | | | |

11. Course Evaluation

Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc.

12. Learning and Teaching Sources

| | |
|---|---|
| Required Textbooks (Curricular Books, If Any) | Deciduous fruitesvol 1,2 |
| Main References (Sources) | Fruit production vol1,2 |
| Recommended Books and References (Scientific Journals, Reports...) | |

| | |
|---|---|
| Electronic References, Websites | |

## Course Description Form

| | |
|---|---|
| 1. Course Name: | |
| Practical ornamental plants | |
| 2. Course Code: | |
| ORPL319 | |
| 3. Semester / Year: | |
| 2024-2025 /Semester :Second | |
| 4. Description Preparation Date: | |
| 2024-2025 | |
| 5. Available Attendance Forms: | |
| Presence | |
| . Number of Credit Hours (Total) / Number of Units (Total)6 | |
| 3.5 Unite /2 Hours | |
| . Course Administrator's Name (Mention All, If More Than One Name)7 | |
| Email: zeinalabiden.handi@uobasrah.edu.iq | Name:dr.aeinalabidenabdulhussainhandl |
| 8. Course Objectives | |
| -Learn about the different types of ornamental plants.<br>- Learn how to plant and reproduce ornamental plants.<br>- Study how to care for ornamental plants<br>- Understanding the benefits of each of these plants.<br>- Learn the scientific concepts related to | |
| 9. Teaching and Learning Strategies | |

| | |
|---|---|
| Strategy | The modern teaching strategy includes achieving general learning objectives, teaching the concepts of ornamental plants, the difficulties that students face in the practical aspect of the scientific subject, and helping students to acquire the correct scientific and practical experience. |

10. Course Structure

| Week | Hours | Required learning outcomes | Unit or Subject Name | Learning Method | Evaluation Method |
|---|---|---|---|---|---|
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15 | 2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2 | | - A general idea about ornamental plants<br>- Division of ornamental science<br>- Learn about the division of ornamental plants<br>- Studying trees, their types and methods of reproduction<br>- Studying shrubs, their types and methods of propagation<br>- Studying climbers, their types and methods of reproduction<br>- Studying hedgerow plants, their types and methods of reproduction | My presence | Students participate in the lecture through questions coz exam Monthly exams |

11. Course Evaluation

Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc.

12. Learning and Teaching Sources

| | |
|---|---|
| Required Textbooks (Curricular Books, If Any) | Ornamental plants book |
| Main References (Sources) | Ornamental plants books - basics of ornamental plant production |
| Recommended Books and References (Scientific Journals, Reports...) | |
| Electronic References, Websites | |

## Course Description Form

| | |
|---|---|
| 1. Course Name: plant tissue culture | |
| | |
| 2. Course Code: | |
| TICU413 | |
| 3. Semester / Year: | |
| 2024-2025 /Semester :first | |
| 4. Description Preparation Date: | |
| 2024-2025 | |
| 5. Available Attendance Forms: | |
| In presence | |
| . Number of Credit Hours (Total) / Number of Units (Total)6 | |
| 3.5 Unite /2 Hours | |
| . Course Administrator’s Name (Mention All, If More Than One Name)7 | |
| Email: aqeel.suhaim@uobasrah.edu.iq aqeelabboodsuahim Name:prof | |
| 8. Course Objectives | |
| Plant tissue culture is a modern technology concerned with the propagation of all plant species, as well as the propagation of sterile and difficult-to-reproduce plants in special laboratories under controlled environmental conditions, in addition to the production of many secondary compounds from different plant parts | Student review of his knowledge of plant tissue culture<br>• Laboratory practice of technology by students |
| 9. Teaching and Learning Strategies | |

| | |
|---|---|
| Strategy | The modern teaching strategy includes the basic concepts of commercial plant propagation, the propagation of difficult or sterile plants, the production of genetically modified plants that are resistant to environmental conditions, and the production of secondary pharmaceutical and industrial compounds. |

10. Course Structure

| Week | Hours | Required learning outcomes | Unit or Subject Name | Learning Method | Evaluation Method |
|---|---|---|---|---|---|
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15 | 2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2 | | The concept of tissue culture and a historical overview of the technology, its types and uses<br>Types of plant tissue cultures<br>Hanging cultures and callus production<br>Extraction and cultivation of protoplasts and modern technologies<br>Methods of obtaining plants from plant tissue cultures<br>Plant growth regulators and their role in tissue culture | In presence | Students participate in the lecture through questions coz exam Monthly exams |

11. Course Evaluation

Distribution of the score out of 50 according to the tasks assigned to the student, such as daily preparation, , or written exams, reports, etc.

12. Learning and Teaching Sources

| | |
|---|---|
| Required Textbooks (Curricular Books, If Any) | Plant tissue culture |
| Main References (Sources) | [1]Bhojwanni .S.S and Razdan M,K(1996). Plant Tissue Culture Theory and Practice, a |
| Recommended Books and References (Scientific Journals, Reports...) | |
| Electronic References, Websites | |

## Course Description Form

| |
|---|
| 1. Course Name: |
| Plant growth regulators |
| 2. Course Code: |
| PLGR316 |
| 3. Semester / Year: |
| 2024-2025 /Semester :first |
| 4. Description Preparation Date: |
| 2024-2025 |
| 5. Available Attendance Forms: |
| |
| . Number of Credit Hours (Total) / Number of Units (Total)6 |
| 3 Unite /2 Hours |
| . Course Administrator's Name (Mention All, If More Than One Name)7 |
| Email: aqeel.hedy@uobasrah.edu.iq Aqeelhadiabdulwahid Name: |
| 8. Course Objectives |

| | |
|---|---|
| The curriculum includes a general and basic study of the term growth regulators and the difference in terminology from hormones and their physiological difference from nutritional growth regulators, as well as their division and groups, the properties of each growth regulator and its role in producing a physiological effect in plants. The | Student review of his knowledge of plant hormones • - Using computers and display screens to explain lectures to students to increase students' mental comprehension of general and qualifying transferable skills (other skills related to employability and personal development) 2. Instilling confidence in students that they are able to apply information in practical life |

| |
|---|
| 9. Teaching and Learning Strategies |

| | |
|---|---|
| Strategy | It includes a modern teaching strategy, with the help of illustrations, and the use of technology to achieve learning objectives in their general form, teaching the basic concepts of plant growth regulators, the difference between a hormone and a growth regulator in particular, and the difficulties that the student faces in understanding and acquiring specific and general concepts in the science of growth regulators and their physiological role in growth and development, and what this specializes in. Science in increasing production, controlling it, and treating difficulties by defining general and specific concepts related to growth regulators, the method of addition and treatment, and helping students to know all the terminology and devices so |

10. Course Structure

| Week | Hours | Required learning | Unit or Subject Name | Learning Method | Evaluation Method |
|---|---|---|---|---|---|
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15 | 2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2 | | 1-Introduction to plant hormones and growth regulators.. General definition.. Plant hormones.. Definition of physiological concentration and biological testing 2 Auxins.. Distribution.. Existence.. Transport.. Construction.. Methods of catabolism 3 Industrial auxins and requirements for their effectiveness 4 Physiological effects of auxins 5 First exam 6 Gibberellins... discovery, distribution and chemical description 7 Physiological effects of gibberellins 8 Anti-gibberellins and the relationship of gibberellins to | My presence | Students participate in the lecture through questions coz exam Monthly exams |

11. Course Evaluation

Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc.

12. Learning and Teaching Sources

| | |
|---|---|
| Required Textbooks (Curricular Books, If Any) | Plant growth regulators |
| Main References (Sources) | Plant growth regulators |
| Recommended Books and References (Scientific Journals, Reports...) | |
| Electronic References, Websites | |

## Course Description Form

| | |
|---|---|
| 1. Course Name: biotechnology | |
| | |
| 2. Course Code: | |
| BITE442 | |
| 3. Semester / Year: | |
| 2024-2025 /Semester :Second | |
| 4. Description Preparation Date: | |
| 2024-2025 | |
| 5. Available Attendance Forms: | |
| In presence | |
| . Number of Credit Hours (Total) / Number of Units (Total)6 | |
| 3 Unite /2 Hours | |
| . Course Administrator's Name (Mention All, If More Than One Name)7 | |
| Email: aqeel.hedy@uobasrah.edu.iq Prof Dr. aqeelhadiabdulwahid Name: | |
| 8. Course Objectives | |
| The curriculum includes a general and basic study of genetic technologies and plant biotecnology. The curriculum sheds light on the difference between molecular genetics and Mendelian genetics after that discuss the differences in the chemical and functional genetic composition of the genetic material in the cell the methods of its | The student reviews his knowledge of molecular genetics<br>This information is needed throughout the study ...period<br>..... |
| 9. Teaching and Learning Strategies | |
| Strategy | The modern teaching strategy, with the help of modern means of illustration, includes the use of technology in achieving learning objectives in its general form, teaching concepts about plant biotechnology and molecular genetics in particular, and the difficulties that the student faces in understanding and acquiring specific and general concepts in the science of biotechnology, what is specific to botany, and treating difficulties by defining general concepts. Specializing in what is related to life technologies and their difference from other departments, and helping students to know all the terms, genetic devices and processes, so that they are familiar with this science when they graduate |

| 10. Course Structure | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| Week | Hours | Required learning outcomes | Unit or Subject Name | Learning Method | Evaluation Method |
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15 | 2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2 | | 1- Introduction in biotechnolog and evolution of life 2 Genetically modified plants 3 Genetic material and what are its characteristics 4 Chemistry of genetic material 5 The beginning of life... foundations and definition 6 DNA replication 7 Genetic code 8 Protein construction... translation 9 First exam | My presence | Students participate in the lecture through questions coz exam Monthly exams |

| 11. Course Evaluation |
|---|
| Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc. |

| 12. Learning and Teaching Sources | |
|---|---|
| Required Textbooks (Curricular Books, If Any) | |
| Main References (Sources) | Principles of molecular genetics and genetic engineering, Dr. Muhammad Taha Al-Amin, principles of molecular genetics, Dr. Muhammad Baqir Al-Shuhaib, and |
| Recommended Books and References (Scientific Journals, Reports...) | |
| Electronic References, Websites | |

## Course Description Form

| 1. Course Name: |
|---|
| Practical grape production |
| 2. Course Code: |

| | |
|---|---|
| GRAP417 | |
| 3. Semester / Year: | |
| Second semester / 2024 - 2025 | |
| 4. Description Preparation Date: | |
| 1/2/2024 | |
| 5. Available Attendance Forms: | |
| Full time (practical lecture) | |
| . Number of Credit Hours (Total) / Number of Units (Total)6 | |
| 2 hours per week for 14 weeks | |
| . Course Administrator's Name (Mention All, If More Than One Name)7 | |
| Lecture. Omar Amer Ibrahim Email:omar.ibrahem@uobasrah.edu.iq Name: | |
| 8. Course Objectives | |
| Course Objectives | Graduating students capable of:<br>What is practical grape production and what are the - plants with economic productivity?<br>Introducing the student to the most important sections of - grapes that can be benefited from .<br>Helping students understand the decisions and vocabulary of the practical grape production lesson and curriculum.<br>- Introducing the modern scientific foundations in managing projects related to grapes. |
| 9. Teaching and Learning Strategies | |
| Strategy | 1-Enabling students to think and analyze topics related to the intellectual framework of the Grape productioncourse.<br>.Enabling students to think and analyze topics related to measuring productivity2-Enabling students to think and analyze how to identify productive plants.3-<br>4- Enabling students to think and analyze to learn about Grape projects. |
| 10. Course Structure | |

| Obtaining the skills required for a post-graduation | | | Providing students with work skills in | | |
|---|---|---|---|---|---|
| Week | Hours | Required learning outcomes | Unit or Subject Name | Learning Method | Evaluation Method |
| 1 | 3 | Introducing students to general information about practical grape production. | Introduction to practical grape production | Teaching method | the exams Daily and monthly And final reports daily |
| 2 | 3 | Introducing students to the botanical description of grape plants | Roots system | Lectures Practical. + Display methods +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 3 | 3 | Introducing students to the botanical description of grape plants | Vegetative system | Lectures Practical. + Display methods +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 4 | 3 | Introducing students to the nature of fruiting in grape plants | Flower clusters. | Lectures Practical. + Display methods +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 5 | 3 | Introducing students to the nature of fruiting in grape plants | Fruit clusters | Lectures Practical. + Display methods +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 6 | 3 | Introducing students to methods of propagating grape plants | propagating grape plants | Lectures Practical. + Display methods +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 7 | 3 | Introducing students to how to Create a .grape farms | Create a grape .farms | Lectures Practical. + Display methods +Dialogue and discussion | the exams Daily and monthly And final reports daily |

| | | | | | |
|---|---|---|---|---|---|
| 8 | 3 | Introducing students to methods of pruning and breeding grape plants. | Breeding pruning methods .for grape plants | Lectures Practical. + Display methods +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 9 | 3 | Introducing students to methods of fruit pruning of grape plants | Fruit pruning | Lectures Practical. + Display methods +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 10 | 3 | Introducing students to grape varieties. | Grape varieties. | Lectures Practical. + Display methods +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 11 | 3 | Introducing students to Fresh grape varieties. | Fresh grape varieties. | Lectures Practical. + Display methods +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 12 | 3 | Introducing students to Drying grape .varieties | Drying grape varieties. | Lectures Practical. + Display methods +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 13 | 3 | Introducing students to the botanical description of strawberry plants. | strawberry plants. | Lectures practical. + Display methods +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 14 | 3 | Introducing students to methods of propagating strawberry plants. | Propagation of strawberry .plants | Lectures practical. + Display methods +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 11. Course Evaluation | | | | | |

| |
|---|
| .Daily exams with multiple-choice questions that require scientific skills<br>.Daily exams with scientific questions<br>.Participation grades for competition questions for academic subjects<br>Marking homework and reports<br>- Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence. |

| 12. Learning and Teaching Sources | |
|---|---|
| Required Textbooks (Curricular Books, If Any) | Book on grape production, part one (a methodical book), Book on the production of small fruits, part two (a methodical book). |
| Main References (Sources) | Grape Production (Part One), Prof. Dr. Ibrahim Hassan Muhammad Al-Saidi, 2000.<br>Production of small fruits (Part Two), Prof. Dr. Ibrahim Hassan Muhammad Al-Saidi, 2000. |
| Recommended Books and References (Scientific Journals, Reports...) | Magazines, periodicals, websites, etc |

## Course Description Form

| 1. Course Name: |
|---|
| palm production |
| 2. Course Code: |
| PAPR419 |
| 3. Semester / Year: |
| 2024-2025 /Semester :Second |
| 4. Description Preparation Date: |
| 2024-2025 |
| 5. Available Attendance Forms: |
| |

| | |
|---|---|
| . Number of Credit Hours (Total) / Number of Units (Total)6 | |
| 1.5 Unite /3 Hours | |
| . Course Administrator's Name (Mention All, If More Than One Name)7 | |
| Email: murtadha.auda@uobasrah.edu.iq MurtadhaShananAuda Name: | |
| 8. Course Objectives | |
| The curriculum includes a general study of palm trees, some of its types, including palm genera belonging to the Palmaceae family, methods of dealing with this blessed tree, and the environmental conditions affecting it. | |
| 9. Teaching and Learning Strategies | |
| Strategy | The modern teaching strategy includes achieving general learning goals, teaching the correct concepts and difficulties that the student faces in understanding and acquiring the concepts of the academic subject, treating difficulties, and helping students acquire the correct abilities and methods for communicating information. |
| 10. Course Structure | |

| Week | Hours | Required learning | Unit or Subject Name | Learning Method | Evaluation Method |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15 | <br><br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3 | | To describe the morphology of the parts of the date palm.<br>Visit the palm grove and learn about the cultivated varieties.<br>General description of the date palm seed.<br>Anatomical structure of the palm head.<br>The nature of root formation.<br>The process of planting cuttings and rooting shoots.<br>Morphological description of floral inflorescences.<br>Pollen composition.<br>Palm service operations. | My presence | Students participate in the lecture through questions coz exam Monthly exams |

| 11. Course Evaluation | |
|---|---|
| Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc. | |
| 12. Learning and Teaching Sources | |
| • Ibrahim, Abdel Basset Odeh (2008). The date palm tree of life. Arab Center for Studies of Dry Zones and Dry Lands: 390 pages | |
| • EL-Wakil, H.E. and Harhash, M.M. (1998). Evaluation of some date palm cultivars grown in Siwa oasis. Faculty of Agriculture, Saba Bacha, Alexandria | |
| | |
| Chesworth, J.M. Stuchbury, T. and Scaife, J.R.; (1998). An Introduction to Agricultural Biochemistry.. Row, London,: 490. | |

## Course Description Form

| 1. Course Name: |
|---|
| Evergreen fruit |
| 2. Course Code: |
| EVFR412 |
| 3. Semester / Year: |
| 2024-2025 /Semester :first |
| 4. Description Preparation Date: |

| |
|---|
| 2024-2025 |
| 5. Available Attendance Forms: |
| My prensence |
| . Number of Credit Hours (Total) / Number of Units (Total)6 |
| 3.5 Unite /2 Hours |
| . Course Administrator’s Name (Mention All, If More Than One Name)7 |
| Email: nada.obeid @uobasrah.edu.iq nada abdulameerobeid Name: |
| 8. Course Objectives |

| | |
|---|---|
| The curriculum includes a general study on the importance of sustainable fruit trees, their cultivation methods, their production areas in the world, and the environmental conditions affecting them. | Student review of his knowledge of viticultue This information is needed throughout the study period... ..... ..... |

| 9. Teaching and Learning Strategies | |
|---|---|
| Strategy | The modern teaching strategy includes presenting the lecture in PowerPoint, displaying illustrative pictures of the lesson, and enabling students to think about how to know sustainable fruit trees and their productivity. |

10. Course Structure

| Week | Hours | Required learning outcomes | Unit or Subject Name | Learning Method | Evaluation Method |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15 | 2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2 | | The importance of growing fruits and their classification according to climate, nature of vegetative growth, plant families, and methods of propagation<br>0live<br>Citrus<br>Banana<br>Mango<br>Annonas<br>Papaya<br>Pineapple<br>Guava and Tamarind<br>Loguat | My presence | Students participate in the lecture through questions coz exam Monthly exams |

| 11. Course Evaluation |
|---|
| Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc. |

| 12. Learning and Teaching Sources | |
|---|---|
| Required Textbooks (Curricular Books, If Any) | evergreen Fruit Book (methodical book) |
| Main References (Sources) | Evergreen fruit Adnan mattlob 1990 |
| Recommended Books and References (Scientific Journals, Reports...) | |
| Electronic References, Websites | Use of some Internet sites |

## Course Description Form

| 1. Course Name: production of grapes and small fruits |
|---|
| |
| 2. Course Code: |
| GRAP417 |
| 3. Semester / Year: |
| 2024-2025 /Semester :Second |

| |
|---|
| 4. Description Preparation Date: |
| 2024-2025 |
| 5. Available Attendance Forms: |
| My presence |
| . Number of Credit Hours (Total) / Number of Units (Total)6 |
| 3.5 Unite /2 Hours |
| . Course Administrator’s Name (Mention All, If More Than One Name)7 |
| Email: nada.obeid @uobasrah.edu.iq nada abdulameerobeid Name: |
| 8. Course Objectives |

| | |
|---|---|
| The curriculum includes a general study of grapes and the environmental conditions that affect them, along with a botanical description of the parts of the vine, the pruning methods used for grape plants, and the study and identification of small fruits and the climate conditions .suitable for them | Student review of his knowledge of viticultue This information is needed throughout the study ...period ..... ..... |

| | |
|---|---|
| 9. Teaching and Learning Strategies | |
| Strategy | It includes modern methods of teaching, students’ knowledge of the content of this course, the extent of benefiting from it, and delivering information to students in the correct manner |

| |
|---|
| 10. Course Structure |

| Week | Hours | Required learning outcomes | Unit or Subject Name | Learning Method | Evaluation Method |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15 | 2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2 | | Grapes and their economic importance<br>The reality of grape cultivation in the world, the Arab world and Iraq<br>Grape classification<br>Suitable environment for growing grapes<br>The phenotypic structure of grapes, including the root system and the shoot<br>Classification of buds in grapes<br>Factors affecting vine length<br>Small fruits, including strawberries, nutritional value and botanical | My presence | Students participate in the lecture through questions coz exam Monthly exams |

| 11. Course Evaluation | |
|---|---|
| Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc. | |
| 12. Learning and Teaching Sources | |
| Required Textbooks (Curricular Books, If Any) | Grape production book(methodical book)<br>Small fruits production book( methodical |
| Main References (Sources) | Grape production and small fruit Ibrahim al saidi 2000 |
| Recommended Books and References (Scientific Journals, Reports...) | |
| Electronic References, Websites | Use of some Internet sites |

## Course Description Form

| |
|---|
| 1. Course Name: |
| 1Vegetable Production/ |
| 2. Course Code: |
| VGPR336 |
| 3. Semester / Year: |
| 2024-2025 /Semester: First |
| 4. Description Preparation Date: |

| |
|---|
| 2024-2025 |
| 5. Available Attendance Forms: |
| By presence |
| . Number of Credit Hours (Total) / Number of Units (Total)6 |
| 3.5 Unite/ 2 Hours |
| . Course Administrator’s Name (Mention All, If More Than One Name)7 |
| Email nawal.hmood@uobasrah.edu.iq NAWAL MAHDI HAMMOOD Name: |
| 8. Course Objectives |

| | |
|---|---|
| 1-The curriculum Provide information about the production of economic winter vegetables in Iraq in terms of production, starting from land preparation to crop production.<br>2-Study the fundamentals of vegetable production, the impact of environmental conditions on it, and its practical applications in the field | 4-Identifying the crop service processes used, such as hoeing, weeding, exporting, fertilizing and irrigation.<br>5-Study the basics of constructing plastic houses and tunnels.<br>6-Identify some of the problems facing growing vegetables in the field, such as salinity of irrigation water, high temperature, diseases and insects that infect plants |

| 9. Teaching and Learning Strategies | |
|---|---|
| Strategy | The teaching strategy include using scientific methods in vegetable crops production, diagnosing production problems associated with cultivation, storage, and marketing, and developing the ability to design field agricultural experiments for the purpose of conducting research and farm management, whether at the level of state farms or the private sector. |

10. Course Structure

| Week | Hours | Required learning outcomes | Unit or Subject Name | Learning Method | Evaluation Method |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15 | 2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2 | | -Vegetable crops definition-vegetable cultivation areas - an overview of vegetable crops in Iraq and addressing the most important problems- Nutritional value of vegetable crops - Transplanting and hardening of vegetables. - Factors affecting the growth of vegetable crops - Irrigation of vegetable crops – vegetable plants classification - Methods of cultivation and production of winter vegetable crops belonging to the following families: the Brassicaceae family - Cabbage – Turnip | By presence | Students participate in the lecture through questions coz exam Monthly exams |

| 11. Course Evaluation | |
|---|---|
| Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc. | |
| 12. Learning and Teaching Sources | |
| Required Textbooks (Curricular Books, If Any) | Vegetable production, part two |
| Main References (Sources) | Scientific and applied basics of vegetable - plant production<br>Physiology of vegetable plants- |
| Recommended Books and References (Scientific Journals, Reports...) | |
| Electronic References, Websites | |

## Course Description Form

| 1. Course Name: |
|---|
| Vegetable Production/ 2 |
| 2. Course Code: |

| | | | | | |
|---|---|---|---|---|---|
| VGPR337 | | | | | |
| 3. Semester / Year: | | | | | |
| 2024-2025 /Semester: Second | | | | | |
| 4. Description Preparation Date: | | | | | |
| 2024-2025 | | | | | |
| 5. Available Attendance Forms: | | | | | |
| By presence | | | | | |
| . Number of Credit Hours (Total) / Number of Units (Total)6 | | | | | |
| 3.5 Unite/ 2 Hours | | | | | |
| . Course Administrator's Name (Mention All, If More Than One Name)7 | | | | | |
| Email nawal.hmood@uobasrah.edu.iq NAWAL MAHDI HAMMOOD Name: | | | | | |
| 8. Course Objectives | | | | | |
| 1-The curriculum Provide information about the production of economic summer vegetables in Iraq in terms of production, starting from land preparation to crop production.<br>2-Study the fundamentals of vegetable production, the impact of environmental conditions on it, and its practical applications in the field | | | 4-Identifying the crop service processes used, such as hoeing, weeding, exporting, fertilizing and irrigation.<br>5-Study the basics of constructing plastic houses and tunnels.<br>6-Identify some of the problems facing growing vegetables in the field, such as salinity of irrigation water, high temperature, diseases and insects that infect plants | | |
| 9. Teaching and Learning Strategies | | | | | |
| Strategy | The teaching strategy include using scientific methods in vegetable crops production, diagnosing production problems associated with cultivation, storage, and marketing, and developing the ability to design field agricultural experiments for the purpose of conducting research and farm management, whether at the level of state farms or the private sector. | | | | |
| 10. Course Structure | | | | | |
| | | | | | |
| Week | Hours | Required learning outcomes | Unit or Subject Name | Learning Method | Evaluation Method |

| | | | | | |
|---|---|---|---|---|---|
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15 | 2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2 | | Solanaceae family: potatoes<br>Solanaceae family: Potato...continuation<br>Solanaceae family: tomato<br>Solanaceae family: capsicum and eggplant<br>Cucurbitaceae family: cucumber and melons<br>Cucurbitaceae family: watermelon and all types of squash<br>Fabaceae family: beans and cowpea<br>Malvaceae family: Okra<br>Gramineae family: sweet corn | By presence | Students participate in the lecture through questions coz exam Monthly exams |
| 11. Course Evaluation | | | | | |
| Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc. | | | | | |
| 12. Learning and Teaching Sources | | | | | |
| Required Textbooks (Curricular Books, If Any) | | | Vegetable production, part two | | |
| Main References (Sources) | | | Scientific and applied basics of vegetable - plant production<br>Physiology of vegetable plants- | | |
| Recommended Books and References (Scientific Journals, Reports...) | | | | | |
| Electronic References, Websites | | | | | |

## Course Description Form

| |
|---|
| 1. Course Name: |
| Production of deciduous fruit 2 |
| 2. Course Code: |
| DEFR313 |
| 3. Semester / Year: |

| | |
|---|---|
| second semester / 2024 – 2025 | |
| 4. Description Preparation Date: | |
| 2025 | |
| 5. Available Attendance Forms: | |
| Full time (lecture practical) | |
| . Number of Credit Hours (Total) / Number of Units (Total)6 | |
| 3 hours per week for 14 weeks | |
| . Course Administrator's Name (Mention All, If More Than One Name)7 | |
| Lecture. Neven Anwer Abdullah Email:neven.abdulla@uobasrah.edu.iq Name: | |
| 8. Course Objectives | |
| Course Objectives | :Definition of students of the College of Agriculture<br>What is horticulture and what are the economically - ?productive horticultural plants<br>Introducing the student to the most important sections of - gardening that can benefit from them<br>Helping students understand the decisions and - vocabulary of the lesson and curriculum of the subject of deciduous fruit production<br>- Introducing modern scientific foundations in horticultural project management |
| 9. Teaching and Learning Strategies | |

| | |
|---|---|
| Strategy | Enabling students to think and analyze topics related to the intellectual framework of deciduous fruit production -1<br>Enabling students to think and analyze topics related to measuring productivity. -2<br>Enabling students to think and analyze how to identify productive horticultural plants -3<br>4- Enabling students to think and analyze to learn about orchard projects |

10. Course Structure

Obtaining the skills required for a post-graduation plan(Studiesupper).

| Providing | Hours | Required learning outcomes | Unit or Subject Name | Learning Method | Evaluation Method |
|---|---|---|---|---|---|
| 1 | 3 | Introduction to fruit science | Division and classification of plants | Lectures Theoretical Field work + +Dialogue and | the exams Daily and monthly And final reports daily |
| 2 | 3 | Create orchids | Private and commercial orchards, orchard planning and construction, | Lectures Theoretical Field work + +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 3 | 3 | Create orchids | Farming systems, planting distances, windbreaks and fences | Lectures Theoretical Field work + +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 4 | 3 | Methods and dates for planting fruit seeds | Planting on lines, lawns, boards, in pots, or in wooden boxes | Lectures Theoretical Field work + +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 5 | 3 | Introducing students to how to treat seeds before planting | By scratching, hot and cold water, mulching, seed drying, etc | Lectures Theoretical Field work + +Dialogue and discussion | the exams Daily and monthly And final reports daily |

| | | | | | |
|---|---|---|---|---|---|
| 6 | 3 | Peaches | Sexual and vegetative propagation of peaches | Lectures Theoretical Field work + +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 7 | 3 | Introducing students to pruning peach trees | Breeding pruning, the open center method, the center leader, fruit pruning, | Lectures Theoretical Field work + +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 8 | 3 | Introducing students to nectarines | It is propagated sexually and vegetatively by cuttings, grafting, layering, | Lectures Theoretical Field work + Dialogue and + discussion | the exams Daily and monthly And final reports daily |
| 9 | 3 | Introducing students to apricots | Propagating apricots sexually by seeds, cuttings, layering, or grafting, | Lectures Theoretical Field work + +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 10 | 3 | Introducing students to almonds | Propagating almonds sexually by seeds, cuttings, layering, grafting | Lectures Theoretical Field work + +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 11 | 3 | Introducing students to figs | Propagating figs sexually by seeds, cuttings, layering, grafting, planting | Lectures Theoretical Field work + +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 12 | 3 | .Introducing students to pomegranates | .Propagating pomegranates sexually by seeds, cuttings, layering, or grafting | Lectures Theoretical Field work + +Dialogue and discussion | the exams Daily and monthly And final reports daily |
| 13 | 3 | Introducing students to pears | Propagating pears sexually by seeds, cuttings, layering, grafting | Lectures Theoretical Field work + Dialogue and + discussion | the exams Daily and monthly And final reports daily |

| | | | | | |
|---|---|---|---|---|---|
| 14 | 3 | Scientific trip | For nurseries and farms | Dialogue and discussion | the exams |

11. Course Evaluation

.Daily exams with multiple-choice questions that require scientific skills
.Daily exams with scientific questions
.Participation grades for competition questions for academic subjects
Marking homework and reports
- Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

12. Learning and Teaching Sources

| | |
|---|---|
| Required Textbooks (Curricular Books, If Any) | Principles of deciduous fruit production 2 (methodical book) |
| Main References (Sources) | .Deciduous fruit production 2, d. Jabbar Hassan Al Nuaimi and Dr. Youssef Hanna, 1980 |
| Recommended Books and References (Scientific Journals, Reports...) | Magazines, periodicals, websites, etc |

SYLLABUS: <Practical medicinal and aromatic plants >

| | |
|---|---|
| InstructoR: WuroodHantooshNeamah | Phone:PHONE NO. |
| Hours: 2 | Office: |
| Home Page: | Email: wurood.neamah@uobasrah.edu.iq |

Course Overview

The practical medicinal and aromatic plants course foucs on the most important medicinal plants with their different divisions, the most important active constituents found in plants and their therapeutic roles.

Goals and Objectives

Learn about medicinal plants

Identify the most important active constituents in these plants

Learn about the methods of effective constituents extraction

Understand their therapeutic roles

Textbook and Readings

1- Medicinal plants and their uses (2016). Dr. Abd al-Ridha Akbar Alwan and Dr. Wedad Mizban Taher

2- Extraction, isolation and identification of flavonoid from Euphorbia neriifolia leaves, Arabian Journal of Chemistry

3- Plant Phenolics: Extraction, Analysis and Their Antioxidant and Anticancer Properties, molecules

4- A review on saponins from medicinal plants: chemistry, isolation, and determination, Journal of Nanomedicine Research

5- Green extraction process of tannins obtained from Moroccan Acacia mollissima barks by Modeling and optimization of the process using theresponse surface methodology :microwave RSM,

Course assessments

The course grade (20 points ) will be based on the following elements:

| | Points |
|---|---|
| Exams | 10 |
| Reading Checks | 2.5 |
| Participation | 2.5 |
| Attendance | 2.5 |
| Assignments | 2.5 |
| Total | 20 |

COURSE DESCRIPTION AND ASSIGNMENT SCHEDULE

This 2. -credit hour course is 15 weeks long. You should invest NO. hours every week in this course.

| WK | DATE | TOPIC | READING | ASSIGNMENT |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 1 | | Introduction on medicinal plants | | |
| 2 | | Medicinal plants classification | | |
| 3 | | Medicinal plants classification | | |
| 4 | | Preparation of crud drug or medicinal plant for marketing | | |
| | | | | Assignment 1 |
| 5 | | Aromatic oils + presentation of group 1 | | |
| 6 | | Glycosides + presentation of group 2 | | |
| 7 | | Alkaloids + presentation of group 3 | | |
| 8 | | Saponins + presentation of group 4 | | |
| 9 | | | | Assignment 2 |
| 10 | | Phenolic compounds + presentation of group 5 | | |
| 11 | | Tannins +presentation of group 6 | | |
| 12 | | Flavonoids + presentation of group 7 | | |
| 13 | | Importance of medicinal plants | | |
| 14 | | | | Assignment 3 |
| 15 | | | | Mid Exam |

| Is it possible to develop the curriculum <within the teaching authority 20%> to include vocabulary that serves sustainability | |
|---|---|
| 1- Yes, it is possible (point an appropriate aspect) the axes (point the axis) | 1- Fighting poverty 2- No hunger 3- Developing life-long learning and education 4- Green chemistry 5- Sustainable development 6- Water purification 7- Water recycling for agriculture 8- Creativity and production -9- Sustainable energy (wind Sun and organic energy) -10- Environmental development- 11- pollution measurement -12- child care program-13- public health development program-14- measuring the efficiency of health institutions-15- gender equality-16- non-extremism-17- drug efficiency 18- Food efficiency for infants, children, adults and the elderly -19- Efficiency of the overall environment -20- Waste recycling-21- Heavy water disposal mechanisms-22- Literacy program-23- Mechanisms for preserving biodiversity-24- Mechanisms for spreading peace and justice in society- 25- Developing life in the seas and oceans-26- Studying the level of university education and the mechanisms for its development-27- Mechanisms for developing the local industry in Iraq-28- |

| | |
|---|---|
| | Mechanisms for developing infrastructure in Iraq-29-Reducing racial discrimination in all its forms-30-The basics of sustainable cities- 31- Mechanisms to reduce consumption and increase production- 32- Mechanisms to provide job opportunities for all-33- Study aspects of developing green areas-34- Study climatic phenomena in the country-35- Mechanisms for obtaining good health and well-being. |
| 2- Suggest aspect that serves sustainability | Use herbs for protective and therapeutic purposes |

## Course Description Form

| |
|---|
| 1. Course Name: |
| Harvest and stoe of horticultural crops is practical |
| 2. Course Code: |
| HAST418 |
| 3. Semester / Year: |
| 2024-2025 /Semester :Second |
| 4. Description Preparation Date: |
| The second course for the academic year 2024-2025 |
| 5. Available Attendance Forms: |
| |
| . Number of Credit Hours (Total) / Number of Units (Total)6 |
| 3 Unite /3 Hours |
| . Course Administrator’s Name (Mention All, If More Than One Name)7 |
| Email: aqeela.hajam@uobasrah.edu.iq assit. lecturer aqeela j. hajam Name: |
| 8. Course Objectives |

| | |
|---|---|
| The student reviewed his information .... • about harvesting and storing horticultural .....crops<br>• .. Need for this information throughout the study period..... | 1- The curriculum included a general study on harvesting and storing horticultural crops<br>2- Explain the importance of harvesting and storing horticultural crops<br>3- Knowing the most important methods for storing horticultural crops<br>4- Knowing the most important time to harvest the crop because of its relationship to storing horticultural crops and knowing the most important methods for measuring natural and chemical characteristics. |

9. Teaching and Learning Strategies

| | |
|---|---|
| Strategy | It includes the modern teaching strategy in achieving learning objectives in general, teaching the concepts of harvesting and storing crops in particular, the difficulties that the student faces in understanding and acquiring the concepts of storage, and treating the difficulties by defining the concepts of harvesting and storing and helping students to acquire the correct concepts. |

10. Course Structure

| Week | Hours | Required learning | Unit or Subject Name | Learning Method | Evaluation Method |
|---|---|---|---|---|---|
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15 | 3<br>3<br>3<br><br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3<br>3 | | A general idea about harvesting and storing horticultural crops<br>Dividing crops according to their storage capacity<br>Dividing fruit and vegetable crops according to their external appearance and internal anatomy<br><br>Exam<br>Measuring the natural characteristics of fruits<br>Measuring the chemical characteristics of fruits<br>Measurement of respiratory rate and ethylene production<br>Measuring the percentage of damage<br>Study of the effects of cold | My presence | Students participate in the lecture through questions coz exam Monthly exams |

11. Course Evaluation

| | |
|---|---|
| Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc. | |
| 12. Learning and Teaching Sources | |
| Required Textbooks (Curricular Books, If Any) | Practical care and storage book |
| Main References (Sources) | Practical care and storage d. MuayadFadel Abbas |
| Recommended Books and References (Scientific Journals, Reports...) | Scientific journals related to storage |
| Electronic References, Websites | Internet sites |

## Course Description Form

| |
|---|
| 1. Course Name: Vegetable seeds production - Practical |
| |
| 2. Course Code: |
| VSPR416 |
| 3. Semester / Year: |
| 2024-2025 /Semester :First |
| 4. Description Preparation Date: |
| 2024-2025 |
| 5. Available Attendance Forms: |
| |
| . Number of Credit Hours (Total) / Number of Units (Total)6 |
| 3.5 Unite /3 Hours |
| . Course Administrator’s Name (Mention All, If More Than One Name)7 |
| Email: abduhussain.madhi@uobasrah.edu.iq AbdullhussaynQasemmadhi Name: |
| 8. Course Objectives |

| | |
|---|---|
| The curriculum includes a general study of the practical production of vegetable seeds of some types, including modern methods of producing them, conducting some tests on flower pollination and seed germination methods, examining seed purity, examining seed moisture, and others. | Student review of his knowledge about horticultural crop seeds in general and vegetable seeds in particular.<br>This information is needed throughout the study period..<br>.....<br>..... |
| Objectives of the study subject | |

9. Teaching and Learning Strategies

| | |
|---|---|
| Strategy | The modern teaching strategy includes achieving learning objectives in general and teaching new concepts in particular and the difficulties that the student faces in understanding and acquiring concepts about the practical test conducted on vegetable seeds and treating the difficulties by defining the concepts and methods of these practical tests and helping students to acquire the correct concepts and skills. |

10. Course Structure

| Week | Hours | Required learning | Unit or Subject Name | Learning Method | Evaluation Method |
|---|---|---|---|---|---|
| 1 | 2 | | Stages of seed formation from pollination to maturity. | My presence | Students participate in the lecture through questions coz exam Monthly exams |
| 2 | 2 | | Germination Test. | | |
| 3 | 2 | | Treatments to encourage seed germination. | | |
| 4 | 2 | | Purity examination + first month exam. | | |
| 5 | 2 | | Humidity Test. | | |
| 6 | 2 | | Analyze the germination sample into its components. | | |
| 7 | 2 | | Seed dormancy and methods of breaking it. | | |
| 8 | 2 | | Rapid tests to determine seed viability. | | |
| 9 | 2 | | Seed extraction methods. + Second month exam. | | |
| 10 | 2 | | Seed safety and health testing. | | |
| 11 | 2 | | | | |
| 12 | 2 | | | | |
| 13 | 2 | | | | |
| 14 | | | | | |
| 15 | | | | | |

11. Course Evaluation

Distributing a grade out of 20 according to the tasks assigned to the student, such as daily preparation, daily, monthly and written exams, reports, and bringing samples for each student about the tests conducted on seeds, in addition to video clips

| 12. Learning and Teaching Sources | |
|---|---|
| Required Textbooks (Curricular Books, If Any) | Vegetable seed production book. |
| Main References (Sources) | |
| Recommended Books and References (Scientific Journals, Reports...) | |
| Electronic References, Websites | |

## Course Description Form

| 1. Course Name: |
|---|
| vegetable seeds production -Theoretical |
| 2. Course Code: |
| VSPR416 |
| 3. Semester / Year: |
| 2024-2025 /Semester :First |
| 4. Description Preparation Date: |
| 2024-2025 |
| 5. Available Attendance Forms: |
| |
| . Number of Credit Hours (Total) / Number of Units (Total)6 |
| 3.5 Unite /2 Hours |
| . Course Administrator’s Name (Mention All, If More Than One Name)7 |
| Email:abduhussain.madhi@uobasrah.edu.iq abdulhussainqasemmadhi Name: |
| 8. Course Objectives |

| | |
|---|---|
| The curriculum included a general study of vegetable seeds, some of their types, the different methods of producing them, and the various factors affecting their production.<br>Objectives of the study material: Identify the importance of vegetable seeds in the economies of countries and methods of producing them | • The student reviews his information about vegetable seeds, their production methods, and the treatments that are carried out on them.<br>This information is needed throughout the study period...<br>.....<br>..... |

9. Teaching and Learning Strategies

| | |
|---|---|
| Strategy | The modern teaching strategy includes achieving learning objectives in general, teaching concepts in particular, and the difficulties that the student faces in understanding and acquiring the concepts of vegetable seed production, and treating the difficulties by defining the concepts of vegetable seed production and helping students to acquire the correct concepts in seed production. |

10. Course Structure

| Week | Hours | Required learning | Unit or Subject Name | Learning Method | Evaluation Method |
|---|---|---|---|---|---|
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15 | 2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2 | | Economic importance of vegetable seed production.<br>Seed germination and environmental factors affecting it.<br>Factors affecting flower pollination and fruit setting.<br>Seed vitality + first month exam.<br>Seed production.<br>Seed dormancy.<br>Hybridization.<br>Methods of producing seeds of some crops of the nightshade and cucurbit families + second month exam.<br>Seed drying, storage and packaging operations. | My presence | Students participate in the lecture through questions coz exam Monthly exams |

11. Course Evaluation

Distribution of the grade out of 30 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.

| 12. Learning and Teaching Sources | |
|---|---|
| Required Textbooks (Curricular Books, If Any) | Vegetable seed production book. |
| Main References (Sources) | |
| Recommended Books and References (Scientific Journals, Reports...) | |
| Electronic References, Websites. | |

## Course Description Form

| 1. Course Name: plant breeding | |
|---|---|
| | |
| 2. Course Code: | |
| PLBR314 | |
| 3. Semester / Year: | |
| 2024-2025 /Semester :Second | |
| 4. Description Preparation Date:11/3/2025 | |
| 2024-2025 | |
| 5. Available Attendance Forms: | |
| | |
| . Number of Credit Hours (Total) / Number of Units (Total)6 | |
| 2 Hours 3 Unite | |
| . Course Administrator’s Name (Mention All, If More Than One Name)7 | |
| Email: rasha.hamza@uobasrah.edu.iq rashakadhimhamza Name: | |
| 8. Course Objectives | |
| the curriculum included learning about plant breeding, the most important sciences related to it, and how to carry out plant breeding through importation, selection, hybridization, and creating genetic mutations. | .. The student’s review of his information about education .....<br>• .. Need this information to build the study period.....<br>• ..... |

| 9. Teaching and Learning Strategies | |
|---|---|
| Strategy | The modern teaching strategy includes achieving learning objectives in general, teaching the concepts of plant breeding in particular, and the difficulties that the student faces in understanding and acquiring this material, and treating the difficulties by defining the concepts of plant breeding, which include sterilization, selection, and hybridization, knowing the genetic relationship between plants, and helping students to acquire The correct concepts of this science. |

10. Course Structure

| Week | Hours | Required learning outcomes | Unit or Subject Name | Learning Method | Evaluation Method |
|---|---|---|---|---|---|
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15 | 2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2 | | Introduction to plant breeding<br>Know the most important sciences related to it<br>Types of flowers in plants and methods of pollination<br>Types of infertility and incompatibility<br>Exam<br>Mendel's genetic laws<br>Inheritance of quantitative and descriptive traits<br>Basic methods for breeding and improving plants<br>Specific hybrids | My presence | Students participate in the lecture through questions<br>coz exam<br>Monthly exams |

11. Course Evaluation

Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily oral, monthly, or written exams, reports, etc.

12. Learning and Teaching Sources

| | |
|---|---|
| Required Textbooks (Curricular Books, If Any) | Plant breeding |
| Main References (Sources) | |
| Recommended Books and References (Scientific Journals, Reports...) | |

| | |
|---|---|
| Electronic References, Websites | https://www.britannica.com/science/plant-breeding |

## Course Description Form

| |
|---|
| 1. Course Name: |
| Practical vegetable production |
| 2. Course Code: |
| VGPR336 |
| 3. Semester / Year: |
| First semester / 2024 – 2025 |
| 4. Description Preparation Date: |
| 1/9/2024 |
| 5. Available Attendance Forms: |
| Full time (theoretical lecture) |
| 6. Number of Credit Hours (Total) / Number of Units (Total) |
| 3 hours per week for 14 weeks |
| 7. Course Administrator's Name (Mention All, If More Than One Name) |
| Lecture. :Zainab AbdulkadhimJabbarEmail: zianab.abed_alkadhum@uobasrah.edu.iq Name: |
| 8. Course Objectives |

| | |
|---|---|
| Course Objectives | Graduating students capable of:<br>Introducing students to vegetable.<br>Introducing students to the environment suitable for growing vegetable plants .<br>Introducing students to the appropriate methods of growing vegetable plants. |

| 9. Teaching and Learning Strategies | |
|---|---|
| Strategy | 1-Enabling students to think and analyze topics related to the intellectual framework of the Principles of vegetable production science course.<br>.Enabling students to think and analyze topics related to measuring productivity2-Enabling students to think and analyze how to identify Productive vegetable 3-plants .<br>4- Enabling students to think and analyze to learn about Orchard production projects |

10. Course Structure

Obtaining the skills required for a post-graduation plan(Studiesupper).

| Providing | Hours | Required learning outcomes | Unit or Subject Name | Learning Method | Evaluation Method |
|---|---|---|---|---|---|
| 1 | 3 | Introducing students to general information about vegetable | Visiting the vegetable field at the college | Present the lecture practically in a station Agricultural research affiliated with the | the exams Daily and monthly And final reports daily |
| 2 | 3 | Introducingstudents to vegetable crops | View some types vegetable crops | Present the lecture practically in a station Agricultural research affiliated with the College of Agriculture | the exams Daily and monthly And final reports daily |

| | | | | | |
|---|---|---|---|---|---|
| 3 | 3 | Introducing students to methods of dividing vegetable crops | sections of vegetable crops | Check out the vegetable plants grown at the station | the exams Daily and monthly And final reports Daily |
| 4 | 3 | Introducing students to the factors affecting the growth of Olericulture crops | Environmental factors (climate elements + terrestrial factors + | Present the lecture practically in a station Agricultural research affiliated with the | the exams Daily and monthly And final reports Daily |
| 5 | 3 | Introducing students types of soil | Preparation of vegetable seedling soil) | Present the lecture practically in a station Agricultural research affiliated with the College of Agriculture | the exams Daily and monthly And final reports Daily |
| 6 | 3 | Introducing students to methods of dividing the land | Sections of vegetable crops | Check out the fruit trees planted at the station | the exams Daily and monthly And final reports Daily |
| 7 | 3 | Introducing students to the factors affecting the growth of vegetable crops | Methods of reproduction of vegetable crops | Present the lecture practically in a station Agricultural research affiliated with the College of Agriculture | the exams Daily and monthly And final reports Daily |
| 8 | 3 | Introducing students to how to test the viability of seeds | Checking vegetable seeds | Present the lecture practically in a station Agricultural research affiliated with the College of Agriculture | the exams Daily and monthly And final reports Daily |
| 9 | 3 | Introducing students to the procedures before performing the transplantation process | Treatments carried out on seeds before preparing them for planting | Conducting practical transactions on some available seeds before planting them | the exams Daily and monthly And final reports Daily |
| 10 | 3 | Introducing students to the method of sexual reproduction and methods of planting seeds | Methods of growingvegetable seeds | Implementing agricultural methods practically on the ground using anvils, boxes, lines, etc | the exams Daily and monthly And final reports Daily |

| | | | | | |
|---|---|---|---|---|---|
| 11 | 3 | Introducing students to methods of non-sexual reproduction in plants | Methods of vegetative asexual reproduction that take place on plants (propagation by cuttings | Conducting non-sexual reproduction methods practically on the ground on some plants at the station | the exams Daily and monthly And final reports Daily |
| 12 | 3 | Complete the students' definition of the method of asexual reproduction in plants | Methods of vegetative asexual reproduction that occur on plants (reproduction by layering, cuttings, cuttings, pods, | Some of them were conducted practically on the ground on some plants in the station | the exams Daily and monthly And final reports Daily |
| 13 | 3 | Introducing students to vegetable crop service operations | Addressing the service operations performed on plants after planting them (fertilizing, patching, thinning, | Conducting agricultural operations practically on the plants that have been grown and followed up | the exams Daily and monthly And final reports Daily |
| 14 | 3 | Introducing students to different irrigation methods | The most important irrigation methods used in irrigating plantsvegetable | Learn about the tiring irrigation methods at the agricultural research station | the exams Daily and monthly And final reports Daily |

11. Course Evaluation

.Daily exams with multiple-choice questions that require scientific skills
.Daily exams with scientific questions
.Participation grades for competition questions for academic subjects
Marking homework and reports
- Grades for the student's activity during the lecture and the extent of his commitment to regular attendance and absence.

| 12. Learning and Teaching Sources | |
|---|---|
| Required Textbooks (Curricular Books, If Any) | Methodical books: Principles of horticulture science. |
| Main References (Sources) | Matlob, A.N. (1979). Partical vegetables for third class / Horticulture / Agricultural colleges , Mosul agriculture college, Iraq page number : 242. |
| | |
| Recommended Books and References (Scientific Journals, Reports...) | Magazines, periodicals, websites, etc |

## Course Description Form

| 1. Course Name: |
|---|
| Farm management |
| 2. Course Code: |
| FAMA444 |
| 3. Semester / Year: |
| Second semester / Second stage |
| 4. Description Preparation Date: |
| 1-2-2025 |
| 5. Available Attendance Forms: |
| Attending |
| 6. Number of Credit Hours (Total) / Number of Units (Total) |
| 5 hours ( 2 Theoretical and 3 Practical) 3 units |
| 7. Course Administrator's Name (Mention All, If More Than One Name) |
| Name: Prof. Dr. Majid Abdulhameed Ibrahim Email: majid.abdulhameedl@uobasrah.edu.iq |
| 8. Course Objectives |

| | |
|---|---|
| Course Objectives | • Farm management science: It is the science that is concerned with and specializes in applying skill and technical experience in the management of agricultural projects using economic sciences by using the elements of production, including capital, labor, land, and others, in optimal ways, with the aim of reducing the cost of production and obtaining the highest amount of net profits. |

| 9. Teaching and Learning Strategies | |
|---|---|
| Strategy | In-person lectures for 15 weeks, including two monthly exams and daily exams. |

10. Course Structure

Thetheoreticalpart

| Week | Hours | Required learning outcomes | Unit or Subject Name | Learning Method | Evaluation |
|---|---|---|---|---|---|
| 1 | 2 | | Introduction to the science of farm management and its definition | Lecture with explanation presentation | daily exam |
| 2 | 2 | | Characteristics of a successful manager | Lecture with explanation presentation | daily exam |
| 3 | 2 | | Production costs and types | Lecture with explanation presentation | daily exam |
| 4 | 2 | | The principle of determining the optimal level of production | Lecture with explanation presentation | daily exam |
| 5 | 2 | | The principle of substitution or replacement | Lecture with explanation presentation | daily exam |
| 6 | 2 | | Comparative costs theory | Lecture with explanation presentation | daily exam |
| 7 | 2 | | The principle of opportunity costs | Lecture with explanation presentation | daily exam |

| | | | | | |
|---|---|---|---|---|---|
| 8 | 2 | | First monthly exam | Exam1 | Monthly exam |
| 9 | 2 | | Measures of economic efficiency | Lecture with explanation presentation | daily exam |
| 10 | 2 | | Full and partial budget | Lecture with explanation presentation | daily exam |
| 11 | 2 | | Principle of equal marginal returns | Lecture with explanation presentation | daily exam |
| 12 | 2 | | Extinction and methods of calculating it | Lecture with explanation presentation | daily exam |
| 13 | 2 | | Farm management methods | Lecture with explanation presentation | daily exam |
| 14 | 2 | | Estimating the farm's need for agricultural machinery and instruments | Lecture with explanation presentation | daily exam |
| 15 | 2 | | Second monthly exam | Lecture with explanation presentation | Monthly exam |
| practicalpart | | | | | |
| 1 | 3 | | Introduction to the science of farm management and its definition | Lecture with explanation presentation | daily exam |
| 2 | 3 | | Characteristics of a successful manager | Lecture with explanation presentation | daily exam |
| 3 | 3 | | Production costs and types | Lecture with explanation presentation | daily exam |

| | | | | | |
|---|---|---|---|---|---|
| 4 | 3 | | The principle of determining the optimal level of production | Lecture with explanation presentation | daily exam |
| 5 | 3 | | The principle of substitution or replacement | Lecture with explanation presentation | daily exam |
| 6 | 3 | | Comparative costs theory | Lecture with explanation presentation | daily exam |
| 7 | 3 | | The principle of opportunity costs | Lecture with explanation presentation | daily exam |
| 8 | 3 | | First monthly exam | Lecture with explanation presentation | daily exam |
| 9 | 3 | | Measures of economic efficiency | Lecture with explanation presentation | daily exam |
| 10 | 3 | | Full and partial budget | Lecture with explanation presentation | daily exam |
| 11 | 3 | | Principle of equal marginal returns | Lecture with explanation presentation | daily exam |
| 12 | 3 | | Extinction and methods of calculating it | Lecture with explanation presentation | daily exam |
| 13 | 3 | | Farm management methods | Lecture with explanation presentation | daily exa |
| 14 | 3 | | Estimating the farm's need for agricultural machinery and instruments | Lecture with explanation presentation | daily exam |

| | | | | | |
|---|---|---|---|---|---|
| 15 | 3 | | Second monthly exam | Lecture with explanation presentation | daily exam |
| 11. Course Evaluation | | | | | |
| The final exam consists of 50 monthly exams, 10 for each monthly exam, 5 daily exams, and 5 reports | | | | | |
| 12. Learning and Teaching Sources | | | | | |
| Required Textbooks (Curricular Books, If Any) | | | Nix, J. (2009). Farm management pocketbook (No. Ed. 40). The Andersons Centre.<br>Collinson, M. (2019). Farm management in peasant agriculture. CRC Press.<br>Olson, K. D. (2004). Farm management: Principles and strategies. Ames, IA: Iowa State Press. | | |
| Main References (Sources) | | | *Nuthall, P. L. (2018). Farm business management: the human factor. CABI.<br>•Olson, K. D. (2004). Farm management: Principles and strategies. Ames, IA: Iowa State Press. | | |
| Recommended Books and References (Scientific Journals, Reports...) | | | *Nuthall, P. L. (2018). Farm business management: the human factor. CABI.<br>*Olson, K. D. (2004). Farm management: Principles and strategies. Ames, IA: Iowa State Press. | | |
| Electronic References, Websites | | | | | |

Course description from

| |
|---|
| 1. Coures name |
| Landscape design |
| 2. Course code |
| LAEN415 |
| 3. Semester/year |
| First semester/2024-2025 |
| 4. The date this description was prepared |
| The first course for the academic year 2024-2025 |
| 5. Available froms of attendance |
| in person |

| 6. Number of study hours (total) Number of units (total) | |
|---|---|
| Six hours / number of units 1.5 | |
| 7. Name of the course administrator (if more than one name is mentioned) | |
| Email: Asmahan.abdulkareem@uobasrah.edu.iq Name: M.M. AsmahanShayal Abdel Karim | |
| 8. Course objectives | |
| | The curriculum includes a study on what garden architecture is, an explanation of the systems used in garden design, and identification of the plant species used in each systems or design. |
| 9. teaching and learning strategies | |
| The modern teaching strategy includes achieving general learning objectives, teaching garden engineering concepts, how to design gardens according to the systems followed in designs, and treating difficulties by defining scientific concepts and helping students gain experience through the practical aspect of the lesson. | The strategy |
| 10. Course structure | |

| Evaluation method | Learning method | Name of the unit topic | Required learnin outcomes | hours | the week |
|---|---|---|---|---|---|
| Students participate in the through questions ,Koz exam and exams monthly | in person | | -The main systems used in garden planning and engineering.<br>-Roads and walks in parks.<br>-Ornamental trees and shrubs used in garden decoration.<br>-Green spaces and their role in garden | 6<br>6<br>6<br>6<br>6<br>6<br>6<br>6 | first<br>second<br>third<br>fourth<br>fifth<br>sixth<br>seventh<br>eighth |
| 11. Course evaluation | | | | | |

| | |
|---|---|
| Distribution of the grade out of 100 according to the tasks assigned to the student , such as daily preparation and daily exams oral, monthly, written, reports...etc. | |
| 12. Learning and teaching resources | |
| Garden engineering | Required textbooks (methodology, if any). |
| Ornamental plants book | Main references (sources) |
| | Recommended books and supporting references, scientific, reports... |
| https://kenanaonline.com | Electronic references, websites |