

**Ministry of Higher Education and  
Scientific Research  
Scientific Supervision and Evaluation  
Authority  
Department of Quality Assurance and  
Academic Accreditation  
Accreditation Department**



# **Academic Program and Course Description Guide**

**2025-2026**

## **Introduction:**

The educational program is a coordinated and organized package of courses that include procedures and experiences organized in the form of academic vocabulary whose main purpose is to build and refine the skills of graduates, making them qualified to meet the requirements of the labor market, which is reviewed and evaluated annually through internal or external audit procedures and programs such as the external examiner program.

The description of the academic program provides a brief summary of the main features of the program and its courses, indicating the skills that are being worked on to acquire for students based on the objectives of the academic program, and the importance of this description is evident because it represents the cornerstone in obtaining program accreditation and is written jointly by the teaching staff under the supervision of the scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the vocabulary and paragraphs of the previous guide in light of the developments 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 description of the academic program circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna track as the basis for their work.

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

## Concepts and terminology:

**Academic Program Description:** The description of the academic program 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 student to achieve, proving whether he has made the most of the available learning opportunities. It is derived from the description of the program.

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

**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 (semester, yearly, Bologna track) whether it is a requirement (ministry, university, college and scientific department) with the number of study units.

**Learning Outcomes: A** compatible set of knowledge, skills and values acquired by the student 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 member to develop the student's teaching and learning, and they are plans that are followed to reach the learning goals. Describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

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

## Academic Program Description Form for Colleges and Institutes For the Academic Year 2025-2026

University: Al-Muthanna University

College/Institute: College of Agriculture

Scientific Department: Field Crops

Date of Filling Out the File: 9/1/2025

  
Signature:

Head of the Field Crops Department

Assistant Professor Dr. Ali Halil Naima

Date: 10 - 9 - 2025

  
Signature:

the Scientific Assistant

Prof. Dr. Hanoon Nahi Kazim

10 . 9 . 2025

File Verified by:

Quality Assurance and University Performance Division:

Name of Director of t

he Quality Assurance and University Performance Division:

Date 11/12/9/2025

Signature





Approval of the Dean

### 1. Program Vision

in teaching, scientific research and community service in the agricultural fields within the framework of scientific, cultural, ethical and social principles and values, and that the college has the ways and tools of leadership in the development and development of agricultural areas within the geographical reality of the university.

## **2. Program Mission**

Providing an applied academic climate that pushes the student to learn and develop his abilities and culture through the self-learning curriculum, which involves the student's acquisition of educational and research skills within the modern knowledge system in various agricultural disciplines, the ability to innovate, self-education and competition in the labor market, and provide opportunities to enhance the participation of faculty members, researchers and experts with their abilities to provide society with scientific cadres capable of meeting the needs of the labor market and agricultural and environmental development while providing opportunities to provide consultations and implement studies in a way that contributes to Economic and social development of the country.

## **3. Program Objectives**

- Developing students' knowledge by mixing theoretical and applied studies and training to graduate effective specialists to advance the national agricultural sector while qualifying graduate students.
- Developing the scientific programs of the college in the light of contemporary scientific trends, as well as paying attention to self-education and continuing education.
- Preparing qualified graduates who are able to contribute to public projects and their own projects, agricultural project management, extension and agricultural education through the experiences and cognitive and mental skills they acquire in the college and the ability to implement agricultural

research .

- Establishing and implementing research plans to solve current agricultural problems in line with scientific developments, environmental protection and community service.
- Developing current and future courses periodically and taking into account the progress made in the field of research and academia and international quality requirements.
- Developing an education and scientific research strategy to meet the needs of the surrounding environment, labor market and society.
- Strengthening and developing the infrastructure and institutional by providing it with everything new in the fields of specialization to achieve the objectives of the college .
- Emphasizing quality programs to raise and improve performance rates and skills in education, research, community service and environmental development .
- Seeking to reach the college's programs to academic accreditation .

#### 4. Program Accreditation

Does the program have program accreditation? And from which side?

No

#### 5. Other external influences

Is there a sponsor for the program?

Al , Muthanna University

#### 6. Program Structure

| Program Structure | Number of | Credit hours | Percentage | Reviews* |
|-------------------|-----------|--------------|------------|----------|
|-------------------|-----------|--------------|------------|----------|

|                          | Courses |        |        |  |
|--------------------------|---------|--------|--------|--|
| Institution Requirements | 19      | %13.01 | %15-10 |  |
| College Requirements     | 28      | 19.17% | %22-16 |  |
| Department Requirements  | 99      | %67.8  | %74-63 |  |
| Summer Training          |         |        |        |  |
| Other                    | 146     |        |        |  |

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

| Program Description           |                          |                    |                          |                 |                            |             |                                |
|-------------------------------|--------------------------|--------------------|--------------------------|-----------------|----------------------------|-------------|--------------------------------|
| (First stage (Bologna system) |                          |                    |                          |                 |                            |             |                                |
| Spring semester               |                          |                    |                          | Autumn semester |                            |             |                                |
|                               | of the material Name     |                    | Course code              |                 | Name of the material       |             | Course code                    |
|                               | Animal Production Basics |                    | DFC5123                  |                 | Basics Field Crops         |             | FCD3112                        |
|                               | plants anatomy           |                    | DFC5122                  |                 | General plant              |             | FCD4112                        |
|                               | leveling Soil techniques |                    | DFC6123                  |                 | Basics Soil                |             | FCD6113                        |
|                               | Computer                 |                    | UOA007                   |                 | and Mathematics statistics |             | FCD2112                        |
|                               | Arabic language the      |                    | UOA001                   |                 | rights Human               |             | UOA005                         |
|                               | Plant Chemistry          |                    | DFC2123                  |                 | English 1                  |             | UOA003                         |
|                               |                          |                    |                          |                 | Basics Field Crops         |             | FCD3112                        |
|                               |                          |                    |                          |                 | General plant              |             | FCD4112                        |
|                               |                          |                    |                          |                 | Basics Soil                |             | FCD6113                        |
| Second stage                  |                          |                    |                          |                 |                            |             |                                |
| Autumn semester               |                          |                    |                          | Autumn semester |                            |             |                                |
| Practica l                    | Theoretica l             | symbol Rapporteu r | Material Name            | Practica l      | Theoretica l               | Course Code | Material Name                  |
| 3                             | 2                        | 0C24201            | Farms Management         |                 | 2                          | 0C1402 1    | Agricultural extension         |
| 3                             | 2                        | 0024202            | Oil and sugar crops      | 3               | 2                          | 0C1420 2    | Plant ecology                  |
| 3                             | 2                        | 0C24203            | Principles of Statistics | 3               | 2                          | 0C1420 3    | Microbiolog y                  |
| 3                             | 2                        | 0C24204            | Machinery & Equipment    | 3               | 2                          | 0C1420 4    | Soil fertility and fertilizers |
| 3                             | 2                        | 0C24205            | Irrigation and Drainage  | 3               | 2                          | 0C1420 5    | Principles of Food Industries  |
| 3                             | 2                        | 0C24206            | Plant classification     |                 |                            |             |                                |
|                               | 1                        | U024027            | English Language 2       | 3               | 2                          | 0C1420 6    | Gardening principles           |
|                               | 1                        | U024028            | Computer2                |                 | 1                          | U01402 7    | Computer1                      |
|                               | 1                        | U024029            | Baath crimes             |                 | 1                          | U01402 8    | English Language 1             |

| <b>1. Expected learning outcomes of the program</b> |                     |
|-----------------------------------------------------|---------------------|
| <b>Knowledge</b>                                    |                     |
| Learning Outcomes Statement 1                       | Learning Outcomes 1 |
| <b>Skills</b>                                       |                     |
| Learning Outcomes Statement 2                       | Learning Outcomes 2 |
| Learning Outcomes Statement 3                       | Learning Outcomes 3 |
| <b>Values</b>                                       |                     |
| Learning Outcomes Statement 4                       | Learning Outcomes 4 |
| Learning Outcomes Statement 5                       | Learning Outcomes 5 |

| <b>Teaching and Learning Strategies</b>                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Teaching and learning methods</b> <ul style="list-style-type: none"> <li>- Teaching students how to do methods of thinking and objective analysis</li> <li>- Providing students with the basics of the course and additional topics</li> <li>- Asking intellectual questions</li> <li>- Dividing students into groups in practical lessons</li> </ul> |

| <b>3. Evaluation methods</b>                                                                                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>– Practical training for each course</li> <li>– Developing the creative thinking of students and the individual</li> <li>– Knowing the developments that occur and have an impact on the course material</li> </ul> |

## 1. Faculty

### Faculty Members

| Academic Rank                                | Specialization |                             | Special Requirements/<br>Skills (if applicable) |  | Number of the teaching staff |          |
|----------------------------------------------|----------------|-----------------------------|-------------------------------------------------|--|------------------------------|----------|
|                                              | General        | Special                     |                                                 |  | Staff                        | Lecturer |
| Prof. Shaima Ibrahim Mahmoud                 | Field crops    | Physiology of crops         |                                                 |  | Yes                          |          |
| Prof. Faisal Mahbas Madloul                  | Field crops    | Crop production             |                                                 |  | Yes                          |          |
| Prof. Mohamed Radwan Mahmoud                 | Field crops    | Environmental stress        |                                                 |  | Yes                          |          |
| Assoc. Prof. Ali Halil Naima                 | Field crops    | Crop production technology  |                                                 |  | Yes                          |          |
| Assoc. Prof. Ali Rahim Karim                 | Field crops    | Crop production             |                                                 |  | Yes                          |          |
| Assoc. Prof. Haider Razzaq Luaibi            | Field crops    | Crop production             |                                                 |  | Yes                          |          |
| Assoc. Prof. Nasser Habib Muhaibis           | Field crops    | Plant nutrition             |                                                 |  | Yes                          |          |
| Assoc. Prof. Mohamed Hussein Nour            | Field crops    | Heredity and plant breeding |                                                 |  | Yes                          |          |
| Assoc. Prof. Haider Abdul Hussain Mugheer    | Field crops    | Crop production             |                                                 |  | Yes                          |          |
| Assoc. Prof. Ragheb Hadi Ajami               | Field crops    | Crop production             |                                                 |  | Yes                          |          |
| Assoc. Prof. Haidar Abdel Moneim Al-Ibrahimi | Field crops    | Crop production             |                                                 |  | Yes                          |          |
| Dr. Esraa Rahi Sayhoud                       | Field crops    | Crop production             |                                                 |  | Yes                          |          |
| M.M. Hasan Abbas Fazil                       | Field crops    |                             |                                                 |  | Yes                          |          |
| M.M. Hossein Farhoud                         | Field crops    |                             |                                                 |  | Yes                          |          |

### **Acceptance Criterion**

- Central admission – for morning studies
- direct application for evening studies – according to the average and competition

### **The most important sources of information about the program**

**From methodological books, help books, the Internet and scientific research**

#### **2. Program Development Plan**

- 1– Teamwork: Work within the group effectively and actively.
- 2– Time management: Manage time effectively and set priorities with the ability to work organized by appointments.
- 3– Leadership: the ability to guide and motivate others.
- 4– Independence at work.
- 5– Negotiation and persuasion (the student is able to influence and convince others to discuss and reach an agreement).
- 6– Global skills (the student is able to speak and understand other languages and appreciate other cultures).

| Program Skills Outline |             |                            |                   |                                    |    |    |    |        |    |    |    |        |    |    |    |
|------------------------|-------------|----------------------------|-------------------|------------------------------------|----|----|----|--------|----|----|----|--------|----|----|----|
|                        |             |                            |                   | Required program Learning outcomes |    |    |    |        |    |    |    |        |    |    |    |
| Year/Level             | Course Code | Course Name                | Basic or optional | Knowledge                          |    |    |    | Skills |    |    |    | Ethics |    |    |    |
|                        |             |                            |                   | A1                                 | A2 | A3 | A4 | B1     | B2 | B3 | B4 | C1     | C2 | C3 | C4 |
| FIRST STAGE<br>AUTUMN  | FCD3112     | Field Crops Basics         | Basic             | ✓                                  | ✓  | ✓  | ✓  | ✓      | ✓  | ✓  | ✓  | ✓      | ✓  | ✓  | ✓  |
|                        | FCD4112     | General plant              | Basic             | ✓                                  | ✓  | ✓  | ✓  | ✓      | ✓  | ✓  | ✓  | ✓      | ✓  | ✓  | ✓  |
|                        | FCD6113     | Basics Soil                | Basic             | ✓                                  | ✓  | ✓  | ✓  | ✓      | ✓  | ✓  | ✓  | ✓      | ✓  | ✓  | ✓  |
|                        | FCD2112     | Mathematics and statistics | Basic             | ✓                                  | ✓  | ✓  | ✓  | ✓      | ✓  | ✓  | ✓  |        |    |    |    |
|                        | UOA005      | Human rights               | Basic             | ✓                                  | ✓  | ✓  | ✓  |        |    |    |    |        |    |    |    |
|                        | UOA003      | English 1                  | Basic             | ✓                                  | ✓  | ✓  | ✓  |        |    |    |    |        |    |    |    |
| FIRST STAGE<br>SPRING  | DFC5123     | Animal Production Basics   | Basic             | ✓                                  | ✓  | ✓  | ✓  | ✓      | ✓  | ✓  | ✓  | ✓      | ✓  | ✓  | ✓  |
|                        | DFC5122     | anatomy plants             | Basic             | ✓                                  | ✓  | ✓  | ✓  | ✓      | ✓  | ✓  | ✓  | ✓      | ✓  | ✓  | ✓  |
|                        | DFC6123     | leveling Soil techniques   | Basic             | ✓                                  | ✓  | ✓  | ✓  | ✓      | ✓  | ✓  | ✓  | ✓      | ✓  | ✓  | ✓  |
|                        | UOA007      | Computer                   |                   | ✓                                  | ✓  | ✓  | ✓  |        |    |    |    | ✓      | ✓  | ✓  | ✓  |
|                        | UOA001      | language the Arabic        |                   | ✓                                  | ✓  | ✓  | ✓  |        |    |    |    |        |    |    |    |
|                        | DFC2123     | Plant Chemistry            | Basic             | ✓                                  | ✓  | ✓  | ✓  | ✓      | ✓  | ✓  | ✓  | ✓      | ✓  | ✓  | ✓  |

|                                |                |                                |              |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------|----------------|--------------------------------|--------------|---|---|---|---|---|---|---|---|---|---|---|---|
| <b>Second stage<br/>Autumn</b> | <b>0C14021</b> | Agricultural guidance          | <b>Basic</b> | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|                                | <b>0C14202</b> | Plant environment              | <b>Basic</b> | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|                                | <b>0C14203</b> | Microbiology                   | <b>Basic</b> | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|                                | <b>0C14204</b> | Soil fertility and fertilizers | <b>Basic</b> | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|                                | <b>0C14205</b> | Principles of food industries  | <b>Basic</b> | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|                                | <b>0C14206</b> | Gardening principles           | <b>Basic</b> | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|                                | <b>U014027</b> | Computer1                      | <b>Basic</b> | ✓ | ✓ | ✓ | ✓ |   |   |   |   |   | ✓ | ✓ | ✓ |
| <b>Second stage<br/>spring</b> | <b>0C24201</b> | Farm management                | <b>Basic</b> | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|                                | <b>0024202</b> | Oil and sugar crops            | <b>Basic</b> | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|                                | <b>0C24203</b> | Principles of statistics       | <b>Basic</b> | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|                                | <b>0C24204</b> | Machines and equipment         | <b>Basic</b> | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|                                | <b>0C24205</b> | Irrigation and Drainage        | <b>Basic</b> | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|                                | <b>0C24206</b> | Plant classification           | <b>Basic</b> | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|                                | <b>U024027</b> | English language 2             | <b>Basic</b> | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|                                | <b>U024028</b> | Computer2                      | <b>Basic</b> | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

# MODULE DESCRIPTION FORM

| Module Information                 |                    |                               |                                                                                                                                                                                                                                                                |
|------------------------------------|--------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Module Title                       | Botany             |                               | Module Delivery                                                                                                                                                                                                                                                |
| Module Type                        | Core               |                               | <input checked="" type="checkbox"/> Theory<br><input checked="" type="checkbox"/> Lecture<br><input checked="" type="checkbox"/> Lab<br><input type="checkbox"/> Tutorial<br><input checked="" type="checkbox"/> Practical<br><input type="checkbox"/> Seminar |
| Module Code                        | FCD4112            |                               |                                                                                                                                                                                                                                                                |
| ECTS Credits                       | 6                  |                               |                                                                                                                                                                                                                                                                |
| SWL (hr/sem)                       | 150                |                               |                                                                                                                                                                                                                                                                |
| Module Level                       | 1                  | Semester of Delivery          | 1                                                                                                                                                                                                                                                              |
| Administering Department           |                    | College                       | الزراعة                                                                                                                                                                                                                                                        |
| Module Leader                      | Dr. Faisal Taher   | mail-e                        | Faisal.taher@mu.edu.iq                                                                                                                                                                                                                                         |
| Module Leader's Acad. Title s      | Lecturer           | Module Leader's Qualification | .Ph.D                                                                                                                                                                                                                                                          |
| Module Tutor                       | Dr. Faisal Taher   | mail-e                        | Faisal.taher@mu.edu.iq                                                                                                                                                                                                                                         |
| Peer Reviewer Name                 | Dr .Ali Halil Naim | e-mail                        | ali.algayashe@mu.edu.iq                                                                                                                                                                                                                                        |
| Scientific Committee Approval Date | 01/10/2024         | Version Number                | 1.0                                                                                                                                                                                                                                                            |

| Relation with other Modules       |      |          |  |
|-----------------------------------|------|----------|--|
| العلاقة مع المواد الدراسية الأخرى |      |          |  |
| Prerequisite module               | None | Semester |  |
| Co-requisites module              | None | Semester |  |

| Module Aims, Learning Outcomes and Indicative Contents |                                                                       |
|--------------------------------------------------------|-----------------------------------------------------------------------|
| Module Objectives                                      | Here are the module objectives for plant taxonomy based on the search |

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                 | <p>results:</p> <ol style="list-style-type: none"> <li>1. Understand the basic concepts of botany in relation to its allied core courses</li> <li>2. Perceive the significance of microbes and plants for human welfare</li> <li>3. Work closely with a supervisor regarding the subject matter and content of the selected seminar topic</li> <li>4. Conduct a research project on a topic of their choice approved by the academic staff</li> <li>5. Analyze data to determine the general tendency of a character</li> <li>6. Provide a general introduction to the study of plant structures and functions</li> <li>7. Emphasize the aspects of plant structures and functions as they relate to the natural survival and growth of plants</li> </ol>                              |
| <b>Module Learning Outcomes</b> | <p>Here are the module learning outcomes for plant taxonomy based on the search results:</p> <ol style="list-style-type: none"> <li>1- Mapping learning outcomes to corresponding competencies</li> <li>2- Analyzing data to determine the general tendency of a character</li> <li>3- Working closely with a supervisor regarding the subject matter and content of the selected seminar topic</li> <li>4- Applying the scientific method to questions in biology by formulating testable hypotheses and gathering data that address these hypotheses</li> <li>5- Understanding the study of plants in the context of general science.</li> </ol>                                                                                                                                     |
| <b>Indicative Contents</b>      | <p>Indicative content includes the following.<br/>Here are the indicative contents for general botany based on the search results:</p> <ol style="list-style-type: none"> <li>1. Research project approved by the department</li> <li>2. Basic botanical nomenclature needed to describe plant morphology</li> <li>3. Collection and identification of native flowering plants of Georgia</li> <li>4. Study of plants in the context of general science</li> <li>5. Laboratory content incorporated with lecture content during exams</li> <li>6. Working closely with a supervisor regarding the subject matter and content of the selected seminar topic</li> <li>7. Understanding the approach, methods, research goals, evidence, and terminology of plant systematics.</li> </ol> |

| <b>Learning and Teaching Strategies</b> |                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Strategies</b>                       | <p>Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.</p> |

| Student Workload (SWL)   |     |                        |   |
|--------------------------|-----|------------------------|---|
| Structured SWL (h/sem)   | 123 | Structured SWL (h/w)   | 8 |
| Unstructured SWL (h/sem) | 27  | Unstructured SWL (h/w) | 2 |
| Total SWL (h/sem)        | 150 |                        |   |

| Module Evaluation    |                 |             |                  |            |                           |
|----------------------|-----------------|-------------|------------------|------------|---------------------------|
| As                   |                 | Time/Number | Weight (Marks)   | Week Due   | Relevant Learning Outcome |
| Formative assessment | Quizzes         | 2           | 10% (10)         | 5 and 10   | LO #1, #2                 |
|                      | Assignments     | 2           | 10% (10)         | 2 and 12   | LO #3, #4 and #6, #7      |
|                      | Projects / Lab. | 1           | 10% (10)         | Continuous | All                       |
|                      | Report          | 1           | 10% (10)         | 13         | LO #5                     |
| Summative assessment | Midterm Exam    | 2hr         | 10% (10)         | 7          | LO #1 - #7                |
|                      | Final Exam      | 3hr         | 50% (50)         | 16         | All                       |
| Total assessment     |                 |             | 100% (100 Marks) |            |                           |

| Delivery Plan (Weekly Syllabus) |                                                                                                                                                                                                            |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Week                            | Material Covered                                                                                                                                                                                           |
| Week 1                          | <ul style="list-style-type: none"> <li>Plant overview</li> <li>General characteristics of the plant</li> <li>The foundations of distinguishing between the plant kingdom and the animal kingdom</li> </ul> |
| Week 2                          | Introduction for non-flowering plants:                                                                                                                                                                     |
| Week 3                          | Flowering plants: General characteristics of flowering plants, Division of flowering plants                                                                                                                |
| Week 4                          | Seeds and their germination.                                                                                                                                                                               |
| Week 5                          | Plant parts: root, stem, leaves (definition - functions)                                                                                                                                                   |
| Week 6                          | <ul style="list-style-type: none"> <li>Plant parts: Flower, Inflorescences, fruits, Seeds</li> <li>Reproduction in flowering plants: Asexual reproduction in flowering plant</li> </ul>                    |
| Week 7                          | Mid-term Exam                                                                                                                                                                                              |
| Week 8                          | Reproduction in flowering plants: Sexual reproduction in flowering plants, Pollination and fertilization in flowering plants, Life cycle of flowering plants                                               |
| Week 9                          | Definition of plant physiology and its importance in agricultural                                                                                                                                          |

|                |                                                                                                                  |
|----------------|------------------------------------------------------------------------------------------------------------------|
|                | <b>production, Photosynthesis</b>                                                                                |
| <b>Week 10</b> | <b>Respiration, transpiration and gastrulation in plants</b>                                                     |
| <b>Week 11</b> | <b>Water relations in the plant</b>                                                                              |
| <b>Week 12</b> | <b>The role of basic elements in plant nutrition</b>                                                             |
| <b>Week 13</b> | <b>Introduction to plant anatomy; vascular plant organization: Shoot apical meristems; root apical meristems</b> |
| <b>Week 14</b> | <b>Epidermis, Parenchyma; collenchyma; sclerenchyma</b>                                                          |
| <b>Week 15</b> | <b>Xylem, Phloem</b>                                                                                             |
| <b>Week 16</b> | <b>Preparatory week before the final Exam</b>                                                                    |

### Delivery Plan (Weekly Lab. Syllabus)

| <b>Week</b>   | <b>Material Covered</b>                               |
|---------------|-------------------------------------------------------|
| <b>Week 1</b> | <b>Lab 1: Germination for some seeds</b>              |
| <b>Week 2</b> | <b>Lab 2: Electron microscope: parts and function</b> |
| <b>Week 3</b> | <b>Lab 3: Identify the Plant Cell</b>                 |
| <b>Week 4</b> | <b>Lab 4: Identify the leaf tissues</b>               |
| <b>Week 5</b> | <b>Lab 5: Identify the stem tissues</b>               |
| <b>Week 6</b> | <b>Lab 6: Identify the fruits tissue</b>              |
| <b>Week 7</b> | <b>Lab 7: Identify the flower parts</b>               |

### Learning and Teaching Resources

|                          | <b>Text</b>                                                      | <b>Available in the Library?</b> |
|--------------------------|------------------------------------------------------------------|----------------------------------|
| <b>Required Texts</b>    | <b>Botany Illustrated - Introduction to Plants, Major Groups</b> | <b>Yes</b>                       |
| <b>Recommended Texts</b> | <b>Anatomy of Flowering Plants - Book</b>                        | <b>No</b>                        |
| <b>Websites</b>          |                                                                  |                                  |

### Grading Scheme

مخطط الدرجات

| <b>Group</b>                        | <b>Grade</b>            | <b>التقدير</b>      | <b>Marks %</b> | <b>Definition</b>                     |
|-------------------------------------|-------------------------|---------------------|----------------|---------------------------------------|
| <b>Success Group<br/>(50 - 100)</b> | <b>A - Excellent</b>    | امتياز              | 90 - 100       | Outstanding Performance               |
|                                     | <b>B - Very Good</b>    | جيد جدا             | 80 - 89        | Above average with some errors        |
|                                     | <b>C - Good</b>         | جيد                 | 70 - 79        | Sound work with notable errors        |
|                                     | <b>D - Satisfactory</b> | متوسط               | 60 - 69        | Fair but with major shortcomings      |
|                                     | <b>E - Sufficient</b>   | مقبول               | 50 - 59        | Work meets minimum criteria           |
| <b>Fail Group<br/>(0 - 49)</b>      | <b>FX – Fail</b>        | راسب (قيد المعالجة) | (45-49)        | More work required but credit awarded |
|                                     | <b>F – Fail</b>         | راسب                | (0-44)         | Considerable amount of work required  |
|                                     |                         |                     |                |                                       |

**Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

## MODULE DESCRIPTION FORM

### Form Course Description

| Module Information                        |                                      |                                         |  |                                                                      |                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------|--------------------------------------|-----------------------------------------|--|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Subject information                       |                                      |                                         |  |                                                                      |                                                                                                                                                                                                                                                                                                             |
| <b>Module Title</b>                       | <u><b>and democracy Freedoms</b></u> |                                         |  |                                                                      | <b>Unit delivery</b>                                                                                                                                                                                                                                                                                        |
| <b>Module Type</b>                        | <u><b>B</b></u>                      |                                         |  |                                                                      | <b>look T</b> <input checked="" type="checkbox"/> •<br><b>Lecture L</b> <input checked="" type="checkbox"/> •<br><b>Laboratory L</b> <input type="checkbox"/> •<br><b>Tutorial T</b> <input type="checkbox"/> •<br><b>Practical</b> <input type="checkbox"/> •<br><b>Seminar</b> <input type="checkbox"/> • |
| <b>Module Code</b>                        | <u><b>UOA005</b></u>                 |                                         |  |                                                                      |                                                                                                                                                                                                                                                                                                             |
| <b>ECTS Credits</b>                       | <u><b>2</b></u>                      |                                         |  |                                                                      |                                                                                                                                                                                                                                                                                                             |
| <b>hr ) SWL ( sem /</b>                   | <u><b>50</b></u>                     |                                         |  |                                                                      |                                                                                                                                                                                                                                                                                                             |
| <b>Module Level</b>                       |                                      | UGx11 1                                 |  | <b>Semester of Delivery</b>                                          |                                                                                                                                                                                                                                                                                                             |
| <b>Administration Department</b>          |                                      | Field Crops Department                  |  | <b>College</b>                                                       |                                                                                                                                                                                                                                                                                                             |
| <b>Module Leader</b>                      |                                      | <b>e-mail</b>                           |  | <b>Module Leader's Qualification</b>                                 |                                                                                                                                                                                                                                                                                                             |
| <b>Module Leader's Acad. Title</b>        |                                      | .Assistant Prof                         |  | .Ph.D                                                                |                                                                                                                                                                                                                                                                                                             |
| <b>Module Tutor</b>                       |                                      | <b>e-mail</b>                           |  | <b>e-mail</b>                                                        |                                                                                                                                                                                                                                                                                                             |
| <b>Peer Reviewer Name</b>                 |                                      | Dr .Abdul Salam Khalaf Aboud Al-Huwaija |  | <a href="mailto:Ali.algayashe@mu.edu.iq">Ali.algayashe@mu.edu.iq</a> |                                                                                                                                                                                                                                                                                                             |
| <b>Scientific Committee Approval Date</b> |                                      | 2024/09/01                              |  | <b>Version Number</b>                                                |                                                                                                                                                                                                                                                                                                             |
|                                           |                                      |                                         |  | 1.0                                                                  |                                                                                                                                                                                                                                                                                                             |

| Relation with other Modules      |        |  |                  |
|----------------------------------|--------|--|------------------|
| Relationship with other subjects |        |  |                  |
| <b>Prerequisites Unit</b>        | no one |  | <b>Half year</b> |
| <b>Common Requirements Unit</b>  | no one |  | <b>Half year</b> |

| <b>Module Aims, Learning Outcomes and Indicative Contents</b><br><b>objectives , learning outcomes and guiding content Course</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Module Objectives</b><br><b>objectives Subject</b>                                                                             | <ul style="list-style-type: none"> <li>• Introducing the student to democracy and its features</li> <li>• Knowing the historical development of democracy and its features</li> <li>• The relationship between the rights and public freedoms of individuals</li> <li>• Review of the democratic system in Iraq (positives and negatives)</li> <li>• Knowing corruption, its causes and ways to address it</li> <li>• Learn some political terms</li> </ul>                                                                                                                                                                                                             |
| <b>Module Learning Outcomes</b><br><b>Learning outcomes for the subject</b>                                                       | <ul style="list-style-type: none"> <li>• Full knowledge of democracy</li> <li>• Knowing the general conditions for the success of the democratic system</li> <li>• What are the components and pillars of democracy?</li> <li>• Roots of Democracy in Iraq</li> <li>• Pros and cons of the democratic system</li> <li>• Accuracy and knowledge of some political terms</li> </ul>                                                                                                                                                                                                                                                                                       |
| <b>Indicative Contents</b><br><b>Guidance Contents</b>                                                                            | <p>Includes instructional content</p> <p>Defining and training students on democracy and freedom and how to express their opinions in a transparent and systematic manner so that their opinions are positive and can be interacted with by the relevant party or parties and the government and public opinion can support these opinions, as the more civilized the expression of opinions is, the more influential its echo will be in all political circles and at various levels. Therefore, the main goal of this subject is to create an aware generation capable of leading the country in a democratic manner that believes in opinion and other opinions.</p> |

| <b>Learning and Teaching Strategies</b><br><b>Learning and teaching strategies</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Strategies</b>                                                                  | <p>Creating a conscious generation that knows well what it has and what it owes to contribute to building a civilized state, with a sense of absolute belonging to this state, regardless of the circumstances and conditions it is going through, and preserving public property as if it were private, in addition to raising the spirit of good citizenship, in addition to strengthening cooperation between the citizens themselves</p> |

| <b>(Student Workload (SWL</b><br><b>.weeks 15The student's academic load is calculated for</b>       |           |                                                                         |   |
|------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------|---|
| <b>( sem /Structured SWL (h</b><br><b>Regular student load during the</b><br><b>semester</b>         | 33        | <b>(Structured SWL (h/w</b><br><b>Regular weekly student load</b>       | 2 |
| <b>( sem /Unstructured SWL (h</b><br><b>Irregular student load during the</b><br><b>semester</b>     | 17        | <b>(Unstructured SWL (h/w</b><br><b>load per week Irregular student</b> | 1 |
| <b>( sem /Total SWL (h</b><br><b>The student's total academic load</b><br><b>during the semester</b> | <b>50</b> |                                                                         |   |

| <b>Module Evaluation</b><br><b>Course material evaluation</b> |                        |             |                  |          |                            |
|---------------------------------------------------------------|------------------------|-------------|------------------|----------|----------------------------|
| As                                                            |                        | time/number | Weight /Signs    | Due week | Education Related<br>pwdgm |
| <b>Formative<br/>assessment</b>                               | <b>Quizzes</b>         | 2           | (10) %10         | 10 :4    | LO 1,7                     |
|                                                               | <b>Assignments</b>     |             |                  |          |                            |
|                                                               | <b>.Lab / Projects</b> |             |                  |          |                            |
| <b>Summative<br/>assessment</b>                               | <b>Report</b>          | 1           | (10) %10         | 13       | LO 1,3,7                   |
|                                                               | <b>Midterm Exam</b>    | 2           | (20) %20         | 7        | LO 2,5                     |
|                                                               | <b>Final Exam</b>      | 3           | (60) %60         | 16       | LO 1-7                     |
| <b>Total assessment</b>                                       |                        |             | (Marks 100) %100 |          |                            |

| <b>(Delivery Plan (Weekly Syllabus</b><br><b>Theoretical weekly curriculum</b> |                                                                                                                 |
|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>Week</b>                                                                    | <b>Material Covered</b>                                                                                         |
| <b>Week 1</b>                                                                  | <b>Definition of democracy, concept of democracy, features of democracy</b>                                     |
| <b>Week 2</b>                                                                  | <b>Historical development of democracy and freedom</b>                                                          |
| <b>Week 3</b>                                                                  | <b>The relationship between rights and freedoms of individuals and democracy The difference between freedom</b> |
| <b>Week 4</b>                                                                  | <b>Evaluation of the democratic system and its implementation stages in Iraq</b>                                |
| <b>Week 5</b>                                                                  | <b>Types of democracy</b>                                                                                       |
| <b>Week 6</b>                                                                  | <b>General conditions for the success of the democratic system and the components and pillars of democracy</b>  |
| <b>Week 7</b>                                                                  | <b>Midterm Exam</b>                                                                                             |
| <b>Week 8</b>                                                                  | <b>The concept of elections and their legal adaptation</b>                                                      |
| <b>Week 9</b>                                                                  | <b>Democracy in Iraq</b>                                                                                        |

|         |                                                                                                              |
|---------|--------------------------------------------------------------------------------------------------------------|
| Week 10 | <b>Advantages of the democratic system, disadvantages of the democratic system</b>                           |
| Week 11 | <b>Stages of the democratic system in Iraq The most important articles of the Iraqi Constitution of 2005</b> |
| Week 12 | <b>Administrative corruption, its concept and definition, types of corruption</b>                            |
| Week 13 | <b>Causes of corruption and treatments of corruption</b>                                                     |
| Week 14 | Some political terms ) constitution federal court, presidential and parliamentary system(....                |
| Week 15 | Terms (secularism, aristocracy, liberalism, bureaucracy, imperialism(                                        |
| Week 16 | <b>Final Exam</b>                                                                                            |

| <b>Learning and Teaching Resources<br/>and teaching resources</b> |                                                                                                                                                                                                      |                                 |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
|                                                                   | <b>Text</b>                                                                                                                                                                                          | <b>in the library Available</b> |
| <b>Required Texts</b>                                             | <b>Human rights, democracy and public freedoms</b><br><b>Sabry Kazem Maher Assistant Professor</b><br><b>History of the emergence of human rights concepts 2006</b><br><b>Suleiman Al-Faqir Raed</b> | Yes                             |
| <b>Recommended Texts</b>                                          |                                                                                                                                                                                                      | No                              |
| <b>Websites</b>                                                   |                                                                                                                                                                                                      |                                 |

| <b>Grading Scheme<br/>Grading chart</b> |                         |                                        |                |                                       |
|-----------------------------------------|-------------------------|----------------------------------------|----------------|---------------------------------------|
| <b>Group</b>                            | <b>Grade</b>            | <b>Appreciation</b>                    | <b>% Marks</b> | <b>Definition</b>                     |
| <b>Success Group<br/>(100 - 50)</b>     | Excellent - <b>A</b>    | <b>privilege</b>                       | 100 - 90       | Outstanding Performance               |
|                                         | Very Good - <b>B</b>    | <b>very good</b>                       | 89 - 80        | Above average with some errors        |
|                                         | Good - <b>C</b>         | <b>good</b>                            | 79 - 70        | Sound works with notable errors       |
|                                         | Satisfactory - <b>D</b> | <b>middle</b>                          | 69 - 60        | Fair but with major shortcomings      |
|                                         | Sufficient - <b>E</b>   | <b>acceptable</b>                      | 59 - 50        | Work meets minimum criteria           |
| <b>Fail Group<br/>(49 – 0)</b>          | Fail – <b>FX</b>        | <b>Under ) Failed<br/>( Processing</b> | (49-45)        | More work required but credit awarded |
|                                         | Fail – <b>F</b>         | <b>Failed</b>                          | (44-0)         | Considerable amount of work required  |
|                                         |                         |                                        |                |                                       |

Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 :**Note** will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone “near-pass .fails” so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above

## MODULE DESCRIPTION FORM

### Form Course Description

| Module Information                 |                            |                             |  |                                                         |                          |
|------------------------------------|----------------------------|-----------------------------|--|---------------------------------------------------------|--------------------------|
| Subject information                |                            |                             |  |                                                         |                          |
| Module Title                       | Field Crops Basics         |                             |  | Module Delivery                                         |                          |
| Module Type                        | C                          |                             |  | Theory <input checked="" type="checkbox"/> •            |                          |
| Module Code                        | FCD3112                    |                             |  | Lecture <input type="checkbox"/> •                      |                          |
| ECTS Credits                       | 7                          |                             |  | Lab <input checked="" type="checkbox"/> •               |                          |
| ( sem / hr ) SWL                   | 175                        |                             |  | Tutorial <input type="checkbox"/> •                     |                          |
|                                    |                            |                             |  | <input checked="" type="checkbox"/> •                   |                          |
|                                    |                            |                             |  | Practical Seminar <input checked="" type="checkbox"/> • |                          |
| Module Level                       |                            | Module Level                |  | Semester of Delivery                                    |                          |
|                                    |                            |                             |  | 1                                                       |                          |
| Administration Department          |                            | Field Crops Department      |  | College                                                 |                          |
|                                    |                            |                             |  | Agriculture                                             |                          |
| Module Leader                      | Dr. Shaima Ibrahim Mahmoud |                             |  | e-mail                                                  | Shaimaaibrahim@mu.edu.iq |
| Module Leader's Acad. Title        |                            | Module Leader's Acad. Title |  | Module Leader's Qualification                           |                          |
|                                    |                            |                             |  | Ph. D                                                   |                          |
| Module Tutor                       |                            | Dr. Shaima Ibrahim Mahmoud  |  | e- mail                                                 |                          |
|                                    |                            |                             |  | Shaimaaibrahim@m u.edu.iq                               |                          |
| Peer Reviewer Name                 |                            | Dr .Ali Halil Naima         |  | e-mail                                                  |                          |
|                                    |                            |                             |  | ali.algayashe@mu.edu.iq                                 |                          |
| Scientific Committee Approval Date |                            | 2024/10/01                  |  | Version Number                                          |                          |
|                                    |                            |                             |  | 1.0                                                     |                          |

### Relation with other Modules

|                             |      |                 |   |
|-----------------------------|------|-----------------|---|
| <b>Prerequisite module</b>  | none | <b>Semester</b> | - |
| <b>Co-requisites module</b> | none | <b>Semester</b> | - |

### Module Aims, Learning Outcomes and Indicative Contents objectives , learning outcomes and guiding content Course

|                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Module Objectives<br/>objectives Subject</b>                                 | <p>-1-Study of the most important field crops in the world.</p> <p>-2- It includes knowledge of the spread of each crop in different regions of the world.</p> <p>-3- Knowing the importance Economic For field crops.</p> <p>-4- Identifying the methods of planting each crop and the factors affecting the productivity of each crop .</p> <p>5- Study the environmental conditions suitable for growing each crop .</p> <p>6 - Methods followed in storing and marketing important field crops in the world.</p>                                                                                                                                                                                                                                                                                                                                           |
| <b>Module Learning Outcomes</b><br><br><b>Learning outcomes for the subject</b> | <p>A -Cognitive objectives</p> <p>-1- The student should learn about the most important field crops in Iraq and the world .</p> <p>-2- The student classifies crops according to their environmental needs .</p> <p>3- The student should differentiate between crops and their importance in human and animal nutrition .</p> <p>-4- To know the scientific methods used to increase crop productivity .</p> <p>-5- The student should evaluate the importance of each field crop and which of them is best for investment in Iraq .</p> <p>B - Objectives Program specific skills</p> <p>-1- Introducing the importance to the student Economics of crops .</p> <p>2 - The student's ability to evaluate the most important field crops in Iraq and the world .</p> <p>-3- Teaching the student the appropriate environmental conditions for each crop .</p> |

|                                                        |                                                                                                                                                                                      |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Indicative Contents</b><br><b>Guidance Contents</b> | -1Explanation and clarification<br>2- Lecture method<br>3 - Student groups<br>4- Practical lessons in agricultural fields<br>5 - Scientific trips to learn about grain crops in Iraq |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| Learning and Teaching Strategies                                             |                                                                                                                                   |                                                           |   |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|---|
| Learning and teaching strategies                                             |                                                                                                                                   |                                                           |   |
| Strategies                                                                   | Identifying the most important field crops and their impact on environmental conditions, and .identifying and knowing their types |                                                           |   |
| (Student Workload (SWL                                                       |                                                                                                                                   |                                                           |   |
| .weeks 15is calculated as semester                                           |                                                                                                                                   |                                                           |   |
| ( sem /Structured SWL (h<br>Regular student load during the semester         | 138                                                                                                                               | (Structured SWL (h/w<br>Regular weekly student load       | 9 |
| ( sem /Unstructured SWL (h<br>Irregular student load during the semester     | 37                                                                                                                                | (Unstructured SWL (h/w<br>load per week Irregular student | 2 |
| ( sem /Total SWL (h<br>The student's total academic load during the semester | 175                                                                                                                               |                                                           |   |

## Module Evaluation

### Course material evaluation

| As                   |                 | Time/Number | (Weight (Marks  | Week Due   | Relevant Learning Outcome |
|----------------------|-----------------|-------------|-----------------|------------|---------------------------|
| Formative assessment | Quizzes         | 2           | (10) %10        | 10and 5    |                           |
|                      | Assignments     | 2           | (10) %10        | 12and 2    |                           |
|                      | .Lab / Projects | 1           | (10) %10        | Continuous |                           |
|                      | Report          | 1           | (10) %10        | 13         |                           |
| Summative assessment | Midterm Exam    | hr1         | (10) %10        | 7          |                           |
|                      | Final Exam      | hr3         | (50) %50        | 16         |                           |
| Total assessment     |                 |             | Marks 100) %100 |            |                           |

## (Syllabus Weekly+Lab ) Delivery Plan

### weekly curriculum and practical

| Week    | Material Covered                                                                                                                        |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Week 1  | introduction in Crops Field ◊ Definition ◊ Its origin ◊ And its development                                                             |
| Week 2  | to divide Crops Field According to Families ◊season Agriculture ◊ Usage ..... etc ) .Description (Most important Families Vegetarianism |
| Week 3  | Factors Environment and its relationship Growing Crops ) Factors climate(                                                               |
| Week 4  | Light And its importance in Growth                                                                                                      |
| Week 5  | exam The month First / Heat And its relationship By distributing Crops                                                                  |
| Week 6  | Wind And its impact on Crops                                                                                                            |
| Week 7  | <b>Mid-term Exam</b>                                                                                                                    |
| Week 8  | Discrimination between Family The lawn And legumes                                                                                      |
| Week 9  | Factors soil ) building soil                                                                                                            |
| Week 10 | Weave it soil ◊ Salinity soil ◊ acidity soil                                                                                            |
| Week 11 | Factors of distribution and spread of field crops                                                                                       |
| Week 12 | Classification of crops according to heat requirements                                                                                  |
| Week 13 | Summer crops                                                                                                                            |
| Week 14 | Winter crops                                                                                                                            |
| Week 15 | Crops and food security                                                                                                                 |
| Week 16 | Final Exam                                                                                                                              |

| Learning and Teaching Resources<br>and teaching resources |                                                                                                 |                                                                       |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
|                                                           | Text                                                                                            | Available in the Library                                              |
| Required Texts                                            |                                                                                                 | yes                                                                   |
| Recommended Texts                                         | Field crop management and production<br>Principles of field crops                               | and references Books<br>scientific recommended by<br>reports journals |
| Websites                                                  | Library Sites in Some International Universities Virtual Library websites Electronic references |                                                                       |

| Grading Scheme<br>Grading chart                                                                                                                                                                                                                                                                                                                                                       |                  |                            |          |                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------|----------|---------------------------------------|
| Group                                                                                                                                                                                                                                                                                                                                                                                 | Grade            | Appreciation               | Marks%   | Definition                            |
| Success Group<br>(100 - 50)                                                                                                                                                                                                                                                                                                                                                           | A - Excellent    | privilege                  | 100 - 90 | Outstanding Performance               |
|                                                                                                                                                                                                                                                                                                                                                                                       | B - Very Good    | very good                  | 89 - 80  | Above average with some errors        |
|                                                                                                                                                                                                                                                                                                                                                                                       | C - Good         | good                       | 79 - 70  | Sound works with notable errors       |
|                                                                                                                                                                                                                                                                                                                                                                                       | D - Satisfactory | middle                     | 69 - 60  | Fair but with major shortcomings      |
|                                                                                                                                                                                                                                                                                                                                                                                       | E - Sufficient   | acceptable                 | 59 - 50  | Work meets minimum criteria           |
| Fail Group<br>(49 - 0)                                                                                                                                                                                                                                                                                                                                                                | FX – Fail        | Failed ) Under Processing( | (49-45)  | More work required but credit awarded |
|                                                                                                                                                                                                                                                                                                                                                                                       | F – Fail         | Failed                     | (44-0)   | Considerable amount of work required  |
| <b>Note :</b> Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone “near-pass fails” so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above. |                  |                            |          |                                       |

# MODULE DESCRIPTION FORM

## Form Course Description

| Module Information          |                                        |                        |                                                 |
|-----------------------------|----------------------------------------|------------------------|-------------------------------------------------|
| Subject information         |                                        |                        |                                                 |
| Module Title                | Plant Chemistry <b>Plant Chemistry</b> |                        | Module Delivery                                 |
| Module Type                 | <b>S</b>                               |                        | Theory <input checked="" type="checkbox"/> •    |
| Module Code                 | <b>DFC2123</b>                         |                        | Lecture <input type="checkbox"/> •              |
| ECTS Credits                | <b>7</b>                               |                        | Lab <input checked="" type="checkbox"/> •       |
| ( sem / hr ) SWL            | <b>5 7 1</b>                           |                        | Tutorial <input type="checkbox"/> •             |
|                             |                                        |                        | Practical <input checked="" type="checkbox"/> • |
|                             |                                        |                        | Seminar <input checked="" type="checkbox"/> •   |
| Module Level                |                                        | Module Level           | Semester of Delivery                            |
| Administration Department   |                                        | Field Crops Department | 1                                               |
| Module Leader               | <b>Qasim Ajil Shanawa .A.M.D</b>       |                        | College                                         |
| Module Leader's Acad. Title | Assistant Professor                    |                        | Agriculture                                     |
|                             |                                        |                        | e-mail                                          |
|                             |                                        |                        | qasim.ajel@mu.edu.iq                            |
|                             |                                        |                        | Module Leader's Qualification                   |
|                             |                                        |                        | .Ph.D                                           |

|                                    |                                         |                |                      |
|------------------------------------|-----------------------------------------|----------------|----------------------|
| Module Tutor                       | <b><i>Qasim Ajil Shanawa .A.M.D</i></b> | e-mail         | qasim.ajel@mu.edu.iq |
| Peer Reviewer Name                 |                                         | e-mail         |                      |
| Scientific Committee Approval Date | 2024/10/01                              | Version Number | 1<br>.<br>0          |

| Relation with other Modules |      |          |   |
|-----------------------------|------|----------|---|
| Prerequisite module         | none | Semester | - |
| Co-requisites module        | none | Semester | - |

| Module Aims, Learning Outcomes and Indicative Contents<br>objectives , learning outcomes and guiding content Course |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Module Objectives<br>objectives Subject                                                                             | <p>Course objectives:</p> <p>The curriculum aims to introduce students to the chemical compositions and biological importance of organic compounds in living cells ‘such as carbohydrates of all types, fats of all types, amino acids and proteins of all types, nucleic acids ) DNA .(And RNA ‘( enzymes, their mechanism of action, and the factors affecting their effectiveness. In addition to introducing students to the most important qualitative and quantitative reagents for sugars, fats, and proteins .</p> |

|                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Module Learning Outcomes</b></p> <p><b>Learning outcomes for the subject</b></p> | <ul style="list-style-type: none"> <li>• <b>Cognitive objectives:</b></li> <li>• identification plant chemistry , review Summary For vocabulary science Plant Chemistry that will be given during the chapter Academic.</li> <li>• Enabling students to gain knowledge, science, and knowledge of plant cells ,cell components, and their functions.</li> <li>• Introducing students to carbohydrates , their importance and their types in plants.</li> <li>• Introducing students to fats - definition - importance - fatty acids - types - structures - reactions.</li> <li>• Introducing students to amino acids – their divisions – their structures – properties of amino acids – their reactions.</li> <li>• Introducing students to proteins – definition – types – levels of protein synthesis – Denture.</li> <li>• Introducing students to nucleic acids - their importance - nucleotides - Its functions - its composition - types of nucleic acids.</li> <li>• Introducing students to enzymes - their definition - the mechanism of enzyme action - their classification - inactive and active enzymes - factors affecting the rate of enzyme reaction.</li> </ul> |
| <p><b>Indicative Contents</b></p> <p><b>Guidance Contents</b></p>                      | <ul style="list-style-type: none"> <li>• Providing students with the basics and lectures related to the subject.</li> <li>• Use Power Point presentation methods to convey information clearly and well to students.</li> <li>• Use the board to illustrate And explain Lecture for students.</li> <li>• Urging students to make use of Google search engines when they are asked to submit scientific reports on the topics given to them within the course material.</li> <li>• Use laboratories to illustrate and conduct practical experiments.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

**Learning and Teaching Strategies**

**Learning and teaching strategies**

|                                                                           |                                                                                                                                                                                            |                                                        |   |
|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|---|
| Strategies                                                                | <ul style="list-style-type: none"><li>• Assigning students to conduct research and reports.</li><li>• Assign students to collect sources on the topic using electronic research.</li></ul> |                                                        |   |
| (Student Workload (SWL) weeks 15 is calculated as semester                |                                                                                                                                                                                            |                                                        |   |
| ( sem /Structured SWL (h Regular student load during the semester         | 123                                                                                                                                                                                        | (Structured SWL (h/w Regular weekly student load       | 9 |
| sem /Unstructured SWL (h ( Irregular student load during the semester     | 52                                                                                                                                                                                         | (Unstructured SWL (h/w load per week Irregular student | 2 |
| ( sem /Total SWL (h The student's total academic load during the semester | 125                                                                                                                                                                                        |                                                        |   |

| <b>Module Evaluation</b><br><b>Course material evaluation</b> |                |                 |          |                           |        |
|---------------------------------------------------------------|----------------|-----------------|----------|---------------------------|--------|
|                                                               | Time/Number    | (Weight (Marks  | Week Due | Relevant Learning Outcome |        |
| Formative assessment                                          | Quizzes        | 2               | (10) %10 | and 10 5                  | 2 ,1LO |
|                                                               | Assignments    | 2               | (10) %10 | and 12 2                  | 4 ,3LO |
|                                                               | Lab / Projects | 1               | (10) %10 | Continuous                | LO 1-7 |
| Summative assessment                                          | Report         | 1               | (10) %10 | 13                        | LO 1-7 |
|                                                               | Midterm Exam   | hr1             | (10) %10 | 7                         | All    |
|                                                               | Final Exam     | hr3             | (50) %50 | 16                        | All    |
| Total assessment                                              |                | Marks 100) %100 |          |                           |        |

| <b>(Syllabus Weekly+Lab ) Delivery Plan</b><br><b>weekly curriculum and practical</b> |                                                                                 |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|                                                                                       | Material Covered                                                                |
| Week 1                                                                                | Introduction to Plant Chemistry - Components of the Living Plant Cell and Their |

|         |                                                                                                                           |
|---------|---------------------------------------------------------------------------------------------------------------------------|
| Week 2  | Functions                                                                                                                 |
|         | Carbohydrates - definition - importance - types - (monosaccharides · low polysaccharides · polysaccharides(               |
| Week 3  | Monosaccharides - Analogues of monosaccharides - Monosaccharide derivatives - Ring structure of sugars.                   |
| Week 4  | Low polysaccharides - reducing and non-reducing types                                                                     |
| Week 5  | Polysaccharides - homogeneous and heterogeneous types                                                                     |
| Week 6  | First month exam                                                                                                          |
| Week 7  | Fats - Definition - Importance - Fatty acids - Divisions - Structures - Reactions - Geometric similarities of fatty acids |
| Week 8  | Fat types - simple fats - their types (oils, fats and waxes) - their compositions - fat constants                         |
| Week 9  | Compound and derived fats - their types - their compositions                                                              |
| Week 10 | Amino acids - their divisions - their structures - properties of amino acids - their reactions                            |
| Week 11 | Peptides - Proteins - Definition - Divisions - Levels of protein synthesis - Denaturation                                 |
| Week 12 | Second month exam                                                                                                         |
| Week 13 | Nucleic acids - their importance - nucleotides - their functions - their composition - types of nucleic acids             |
| Week 14 | Enzymes - Definition - Mechanism of enzyme action - Classification - Inactive and active enzymes                          |
| Week 15 | Factors affecting the rate of enzymatic reaction.                                                                         |
| Week 16 | Final Exam                                                                                                                |

| Learning and Teaching Resources<br>and teaching resources |      |                          |
|-----------------------------------------------------------|------|--------------------------|
|                                                           | Text | Available in the Library |
| Required Texts                                            |      | yes                      |

|                   |                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Recommended Texts | <p>The textbook - Biochemistry - Part One (1) and (2). Written by Dr. Ali Hassan Al-Dawudi</p> <p>: sources</p> <p>Written by - Fundamentals of Biochemistry •<br/>Dr. Basil Kamel Al-Dalali</p> <p>Fourth Biochemistry SPSingh.2007. A Textbook of .2<br/>. Delhi.Banglore -Edition, CBS Publishers Distributors New &amp;</p> <p>Hassan Al- Dr. Ali : Authored by Practical Biochemistry .3<br/>.Dawadi</p> | <p>and references Books<br/>scientific recommended by<br/>reports journals</p> |
| Websites          | Library Sites in Some International Universities • Virtual Library • websites •Electronic references                                                                                                                                                                                                                                                                                                          |                                                                                |

| Grading Scheme<br>Grading chart                                                                                                                                                                                                                                                                                                                                                      |                  |                                |          |                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------|----------|---------------------------------------|
| Group                                                                                                                                                                                                                                                                                                                                                                                | Grade            | Appreciation                   | % Marks  | Definition                            |
| Success Group<br>(100 - 50)                                                                                                                                                                                                                                                                                                                                                          | Excellent - A    | privilege                      | 100 - 90 | Outstanding Performance               |
|                                                                                                                                                                                                                                                                                                                                                                                      | Very Good - B    | very good                      | 89 - 80  | Above average with some errors        |
|                                                                                                                                                                                                                                                                                                                                                                                      | Good - C         | good                           | 79 - 70  | Sound works with notable errors       |
|                                                                                                                                                                                                                                                                                                                                                                                      | Satisfactory - D | middle                         | 69 - 60  | Fair but with major shortcomings      |
|                                                                                                                                                                                                                                                                                                                                                                                      | Sufficient - E   | acceptable                     | 59 - 50  | Work meets minimum criteria           |
| Fail Group<br>(49 – 0)                                                                                                                                                                                                                                                                                                                                                               | Fail – FX        | Under ) Failed<br>( Processing | (49-45)  | More work required but credit awarded |
|                                                                                                                                                                                                                                                                                                                                                                                      | Fail – F         | Failed                         | (44-0)   | Considerable amount of work required  |
| <p>Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 :Note will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone “near-pass .fails” so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above</p> |                  |                                |          |                                       |

## MODULE DESCRIPTION FORM

# Form Course Description

## Module Information

### Subject information

|                                           |                              |                                      |                                                        |  |
|-------------------------------------------|------------------------------|--------------------------------------|--------------------------------------------------------|--|
| <b>Module Title</b>                       | Production Animal principles |                                      | <b>Module Delivery</b>                                 |  |
| <b>Module Type</b>                        | <u>S</u>                     |                                      | <b>Theory</b> <input checked="" type="checkbox"/> •    |  |
| <b>Module Code</b>                        | DFC5123                      |                                      | <b>Lecture</b> <input checked="" type="checkbox"/> •   |  |
| <b>ECTS Credits</b>                       | <u>5</u>                     |                                      | <b>Lab</b> <input type="checkbox"/> •                  |  |
| <b>( sem / hr ) SWL</b>                   | <u>125</u>                   |                                      | <b>Tutorial</b> <input type="checkbox"/> •             |  |
|                                           |                              |                                      | <b>Practical</b> <input checked="" type="checkbox"/> • |  |
|                                           |                              |                                      | <b>Seminar</b> <input type="checkbox"/> •              |  |
| <b>Module Level</b>                       | U                            | <b>Semester of Delivery</b>          | 2                                                      |  |
| <b>Administration Department</b>          | Field crops                  | <b>College</b>                       | Agriculture                                            |  |
| <b>Module Leader</b>                      | Zayer Nakad Mr. Karim        | <b>e-mail</b>                        |                                                        |  |
| <b>Module Leader's Acad. Title</b>        |                              | <b>Module Leader's Qualification</b> |                                                        |  |
| <b>Module Tutor</b>                       | Zayer Nakad Mr. Karim        | <b>e-mail</b>                        |                                                        |  |
| <b>Peer Reviewer Name</b>                 | Dr. Ali Halil Naima          | <b>e-mail</b>                        | ali.algayashe@mu.edu.iq                                |  |
| <b>Scientific Committee Approval Date</b> | 2024/10/01                   | <b>Version Number</b>                | 1.0                                                    |  |

## Relation with other Modules

### Relationship with other subjects

|                             |      |                 |  |
|-----------------------------|------|-----------------|--|
| <b>Prerequisite module</b>  | None | <b>Semester</b> |  |
| <b>Co-requisites module</b> | None | <b>Semester</b> |  |

## Module Aims, Learning Outcomes and Indicative Contents objectives , learning outcomes and guiding content Course

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Module Objectives<br/>objectives Subject</b> | <p>-The student should recognize the importance Economics of animal products</p> <p>-The student should know the types of cows , buffaloes and sheep.</p> <p>-The student gets to know the field operations .For animals The farm</p> <p>-The student should be familiar with the methods used .In animal classification The farm</p> <p>-Introducing the student to methods of caring for cows .And the</p> |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Module Learning Outcomes</b><br><br><b>Learning outcomes for the subject</b> | buffalo And the calves<br>-The student's ability to identify the types Different For records and operations Field<br><br><ul style="list-style-type: none"> <li>• The student should know the importance Economics of animal products</li> <li>• The student learns about the types of cows .Buffalo and sheep</li> <li>• The student learns about calf care.</li> <li>• The student will learn about poultry care.</li> </ul> |
| <b>Indicative Contents</b><br><b>Guidance Contents</b>                          | <ul style="list-style-type: none"> <li>• -Explanation and clarification.</li> <li>• -How to study the lecture.</li> <li>• -Student groups.</li> <li>• -Practical lessons in the fields Animal for college.</li> <li>• -Scientific trips to the fields in Area</li> <li>• -Self -learning method</li> </ul>                                                                                                                     |

| <b>Learning and Teaching Strategies</b><br><b>Learning and teaching strategies</b> |                                                                                                                                                            |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Strategies</b>                                                                  | The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining |

| <b>(Student Workload (SWL</b><br><b>.weeks 15The student's academic load is calculated for</b> |     |                                                                         |   |
|------------------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------|---|
| <b>( sem /Structured SWL (h</b><br><b>Regular student load during the semester</b>             | 108 | <b>(Structured SWL (h/w</b><br><b>Regular weekly student load</b>       | 7 |
| <b>( sem /Unstructured SWL (h</b><br><b>Irregular student load during the semester</b>         | 17  | <b>(Unstructured SWL (h/w</b><br><b>load per week Irregular student</b> | 1 |
| <b>( sem /Total SWL (h</b><br><b>The student's total academic load during the semester</b>     | 125 |                                                                         |   |

### Module Evaluation Course material evaluation

|                      |                 | Time/Number | (Weight (Marks   | Week Due   | Relevant Learning Outcome |
|----------------------|-----------------|-------------|------------------|------------|---------------------------|
| Formative assessment | Quizzes         | 2           | (10) %10         | and 10 5   | 2# ,1#LO                  |
|                      | Assignments     | 2           | (10) %10         | and 12 2   | 7# ,6#LO #3, #4 and       |
|                      | .Lab / Projects | 1           | (10) %10         | Continuous | All                       |
|                      | Report          | 1           | (10) %10         | 13         | LO #5                     |
| Summative assessment | Midterm Exam    | hr2         | (10) %10         | 7          | 7# -LO #1                 |
|                      | Final Exam      | hr3         | (50) %50         | 16         | All                       |
| Total assessment     |                 |             | (Marks 100) %100 |            |                           |

### (Delivery Plan (Weekly Syllabus Theoretical weekly curriculum

|         | Material Covered                            |
|---------|---------------------------------------------|
| Week 1  | Importance Economics of animal products     |
| Week 2  | Types of cows And the buffalo And sheep     |
| Week 3  | Reproduction in Cows And the buffalo        |
| Week 4  | Calf care                                   |
| Week 5  | Milk production In cows and buffaloes       |
| Week 6  | Field operations For animals in The farm    |
| Week 7  | Types of farm records                       |
| Week 7  | Mid-term Exam                               |
| Week 8  | Animal housing The farm                     |
| Week 9  | The Ga Moose                                |
| Week 10 | Importance Economic For sheep And the goats |
| Week 11 | Classification of sheep and goats           |
| Week 12 | Methods of classifying animals Agricultural |
| Week 13 | Reproduction in Sheep And the goats         |
| Week 14 | Field operations For sheep And the goats    |
| Week 15 | farm animal care                            |
| Week 16 | General review before the final exam        |

**(Delivery Plan (Weekly Lab. Syllabus  
Weekly lab schedule**

|        | Material Covered                |
|--------|---------------------------------|
| Week 1 | Lab 1 :Identifying Farm Animals |
| Week 2 | Lab 2 :Sheep Care               |
| Week 3 | Lab 3 :Cow Care                 |
| Week 4 | Lab 4 :Buffalo Care             |
| Week 5 | Lab 5 :Goat Care                |
| Week 6 | Lab 6 :Farm Animal Nutrition    |
| Week 7 | Lab 7 :The most important feeds |

**Learning and Teaching Resources  
and teaching resources**

|                   | Text                                                                                                                                                                                                                                                                                                                                                                                         | Available in the Library |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Required Texts    | <u>Dr Al-Jalili Zahry .Dr Basics Production Animal</u> •<br><u>Talal Yousef lustful and Farid .Adel Dr Muhammad</u>                                                                                                                                                                                                                                                                          | Yes                      |
| Recommended Texts | <b>Natig .Dr Milk cattle</b> production<br><b>The Holy One Mohammed</b>                                                                                                                                                                                                                                                                                                                      | No                       |
| Websites          | <a href="https://www.sciencedirect.com/journal/separation-and-purification-technology/vol/292/suppl/C">https://www.sciencedirect.com/journal/separation-and-purification-technology/vol/292/suppl/C</a><br><a href="https://www.amazon.com/Separation-Purification-Methods-Edmond-Perry/dp/082476319X">https://www.amazon.com/Separation-Purification-Methods-Edmond-Perry/dp/082476319X</a> |                          |

**Grading Scheme  
Grading chart**

| Group                               | Grade            | Appreciation                           | % Marks  | Definition                            |
|-------------------------------------|------------------|----------------------------------------|----------|---------------------------------------|
| <b>Success Group<br/>(100 - 50)</b> | Excellent - A    | <b>privilege</b>                       | 100 - 90 | Outstanding Performance               |
|                                     | Very Good - B    | <b>very good</b>                       | 89 - 80  | Above average with some errors        |
|                                     | Good - C         | <b>good</b>                            | 79 - 70  | Sound works with notable errors       |
|                                     | Satisfactory - D | <b>middle</b>                          | 69 - 60  | Fair but with major shortcomings      |
|                                     | Sufficient - E   | <b>acceptable</b>                      | 59 - 50  | Work meets minimum criteria           |
| <b>Fail Group<br/>(49 – 0)</b>      | Fail – FX        | <b>Under ) Failed<br/>( Processing</b> | (49-45)  | More work required but credit awarded |
|                                     | Fail – F         | <b>Failed</b>                          | (44-0)   | Considerable amount of work required  |
|                                     |                  |                                        |          |                                       |

Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 :Note will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone “near-pass .fails” so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above

## MODULE DESCRIPTION FORM

### Form Course Description

| Module Information                 |                         |                               |                                                                                                                                                                                                                                                                 |
|------------------------------------|-------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Subject information                |                         |                               |                                                                                                                                                                                                                                                                 |
| Module Title                       | <u>Computer science</u> |                               | Module Delivery                                                                                                                                                                                                                                                 |
| Module Type                        | <u>B</u>                |                               | Theory <input checked="" type="checkbox"/> •<br>Lecture <input checked="" type="checkbox"/> •<br>Lab <input checked="" type="checkbox"/> •<br>Tutorial <input type="checkbox"/> •<br>Practical <input type="checkbox"/> •<br>Seminar <input type="checkbox"/> • |
| Module Code                        | <u>UOA007</u>           |                               |                                                                                                                                                                                                                                                                 |
| ECTS Credits                       | <u>3</u>                |                               |                                                                                                                                                                                                                                                                 |
| ( sem / hr ) SWL                   | <u>75</u>               |                               |                                                                                                                                                                                                                                                                 |
| Module Level                       | U                       | Semester of Delivery          | 2                                                                                                                                                                                                                                                               |
| Administration Department          | Field crops             | College                       | Agriculture                                                                                                                                                                                                                                                     |
| Module Leader                      | Sambar Saud .A.M        | e-mail                        |                                                                                                                                                                                                                                                                 |
| Module Leader's Acad. Title        | Assistant Prof          | Module Leader's Qualification | PhD                                                                                                                                                                                                                                                             |
| Module Tutor                       | Sambar Saud .A.M        | e-mail                        |                                                                                                                                                                                                                                                                 |
| Peer Reviewer Name                 | Dr. Ali Halil Naima     | e-mail                        | ali.algayashe@mu.edu.iq                                                                                                                                                                                                                                         |
| Scientific Committee Approval Date | 2024/10/01              | Version Number                | 1.0                                                                                                                                                                                                                                                             |

| Relation with other Modules      |      |          |  |
|----------------------------------|------|----------|--|
| Relationship with other subjects |      |          |  |
| Prerequisite module              | None | Semester |  |
| Co-requisites module             | None | Semester |  |

| Module Aims, Learning Outcomes and Indicative Contents    |                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| objectives , learning outcomes and guiding content Course |                                                                                                                                                                                                                                                                    |
| Module Objectives<br>objectives Subject                   | <ul style="list-style-type: none"> <li>Study the principles of computer science and information technology</li> <li>Study different types of modern computers</li> <li>Introducing the student to the most important components of the computer and its</li> </ul> |

|                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                 | <p>systems</p> <ul style="list-style-type: none"> <li>• Learn about the types of computers used in various scientific fields</li> <li>• Learn about the different types of operating systems used in computers</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Module Learning Outcomes</b><br><br><b>Learning outcomes for the subject</b> | <ul style="list-style-type: none"> <li>• Student knowledge of the basic principles of computer science and information technology</li> <li>• Understand different types of computers used in different fields.</li> <li>• Knowing the most important components of the computer and what its parts are</li> <li>• Knowing how to manage and store data inside the computer</li> <li>• Knowing the most important operating systems used in computers</li> <li>• Knowing the most important computer applications used in various magazines</li> </ul>                                                                                                                                                                                                                                                   |
| <b>Indicative Contents</b><br><b>Guidance Contents</b>                          | <p>The student studies the following important topics:</p> <ul style="list-style-type: none"> <li>• Stages of computer development, in addition to a brief history of the most important old computers 6) hours(</li> <li>• General concepts in computer science in terms of data types and methods of storing them inside the computer 5) hours(</li> <li>• Using computers and their different types 5) hours(</li> <li>• Study the material components in detail and identify their most important components 8) hours(</li> <li>• Programming components and applications used in computers 8) hours(</li> <li>• Studying computer science numbers and identifying the most important ones 7)hours(</li> <li>• Calculate storage space for main memory and secondary memories 7) hours (</li> </ul> |

| <b>Learning and Teaching Strategies</b><br><b>Learning and teaching strategies</b> |                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Strategies</b>                                                                  | <p>Enhancing and refining students' skills in using computers and training them on how to use their systems and how to develop their capabilities in using computers efficiently through interactive lectures in the laboratory in addition to paper manuscripts, textbooks and files PPT lectures</p> |

| <b>(Student Workload (SWL</b><br><b>.weeks 15The student's academic load is calculated for</b> |    |                                                                         |   |
|------------------------------------------------------------------------------------------------|----|-------------------------------------------------------------------------|---|
| <b>( sem /Structured SWL (h</b><br><b>Regular student load during the semester</b>             | 60 | <b>(Structured SWL (h/w</b><br><b>Regular weekly student load</b>       | 4 |
| <b>( sem /Unstructured SWL (h</b><br><b>Irregular student load during the semester</b>         | 15 | <b>(Unstructured SWL (h/w</b><br><b>load per week Irregular student</b> | 1 |
| <b>( sem /Total SWL (h</b><br><b>The student's total academic load during the semester</b>     | 75 |                                                                         |   |

### Module Evaluation Course material evaluation

|                      |                 | Time/Number | (Weight (Marks   | Week Due   | Relevant Learning Outcome |
|----------------------|-----------------|-------------|------------------|------------|---------------------------|
| Formative assessment | Quizzes         | 2           | (10) %10         | and 10 5   | 2# ,1#LO                  |
|                      | Assignments     | 2           | (10) %10         | and 12 2   | 7# ,6#LO #3, #4 and       |
|                      | .Lab / Projects | 1           | (10) %10         | Continuous | All                       |
| Summative assessment | Report          | 1           | (10) %10         | 13         | 7# ,5#LO                  |
|                      | Midterm Exam    | hr2         | (10) %10         | 7          | 7# -LO #1                 |
|                      | Final Exam      | hr3         | (50) %50         | 16         | All                       |
| Total assessment     |                 |             | (Marks 100) %100 |            |                           |

### (Delivery Plan (Weekly Syllabus Theoretical weekly curriculum

| Week    | Material Covered                                              |
|---------|---------------------------------------------------------------|
| Week 1  | Computer and Information Technology Introduction to           |
| Week 2  | Stages of computer development                                |
| Week 3  | Data used in computer                                         |
| Week 4  | Types of computers and their uses                             |
| Week 5  | Hardware components of the computer 1                         |
| Week 6  | Hardware components of the computer 2 and software components |
| Week 7  | Mid-term Exam                                                 |
| Week 8  | Operating systems                                             |
| Week 9  | Application programs                                          |
| Week 10 | Programming languages                                         |
| Week 11 | Computer performance metrics                                  |
| Week 12 | Computer storage units                                        |
| Week 13 | Setting systems                                               |
| Week 14 | Computer protection programs                                  |
| Week 15 | Viruses and hacking                                           |
| Week 16 | Preparatory week before the final exam                        |

### (Delivery Plan (Weekly Lab. Syllabus Weekly lab schedule

|        | Material Covered                                   |
|--------|----------------------------------------------------|
| Week 1 | Lab :1 Learn how to install and operate a computer |

|               |                                                                                |
|---------------|--------------------------------------------------------------------------------|
| <b>Week 2</b> | Lab :2 Identify the most important hardware components that make up a computer |
| <b>Week 3</b> | Lab :3 Applications of data storage methods and their calculations             |
| <b>Week 4</b> | Lab :4 Application on one of the important operating systems for the computer  |
| <b>Week 5</b> | Lab :5 Experimenting with some office applications on the computer             |
| <b>Week 6</b> | Lab :6 Experiment and solve some of the counting systems used in the computer  |
| <b>Week 7</b> | Lab :7 Applying some antivirus software                                        |

| <b>Learning and Teaching Resources<br/>and teaching resources</b> |                                                           |                                 |
|-------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------|
|                                                                   | <b>Text</b>                                               | <b>Available in the Library</b> |
| <b>Required Texts</b>                                             | Part One ( Computer Basics and Office Applications ) Book | Yes                             |
| <b>Recommended Texts</b>                                          |                                                           |                                 |
| <b>Websites</b>                                                   | .Browse the Internet and learn more about this field      |                                 |

| <b>Grading Scheme<br/>Grading chart</b>                                                                                                                                                                                                                                                                                                                                                     |                  |                                        |                |                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------|----------------|---------------------------------------|
| <b>Group</b>                                                                                                                                                                                                                                                                                                                                                                                | <b>Grade</b>     | <b>Appreciation</b>                    | <b>% Marks</b> | <b>Definition</b>                     |
| <b>Success Group<br/>(100 - 50)</b>                                                                                                                                                                                                                                                                                                                                                         | Excellent - A    | <b>privilege</b>                       | 100 - 90       | Outstanding Performance               |
|                                                                                                                                                                                                                                                                                                                                                                                             | Very Good - B    | <b>very good</b>                       | 89 - 80        | Above average with some errors        |
|                                                                                                                                                                                                                                                                                                                                                                                             | Good - C         | <b>good</b>                            | 79 - 70        | Sound works with notable errors       |
|                                                                                                                                                                                                                                                                                                                                                                                             | Satisfactory - D | <b>middle</b>                          | 69 - 60        | Fair but with major shortcomings      |
|                                                                                                                                                                                                                                                                                                                                                                                             | Sufficient - E   | <b>acceptable</b>                      | 59 - 50        | Work meets minimum criteria           |
| <b>Fail Group<br/>(49 - 0)</b>                                                                                                                                                                                                                                                                                                                                                              | Fail – FX        | <b>Under ) Failed<br/>( Processing</b> | (49-45)        | More work required but credit awarded |
|                                                                                                                                                                                                                                                                                                                                                                                             | Fail – F         | <b>Failed</b>                          | (44-0)         | Considerable amount of work required  |
|                                                                                                                                                                                                                                                                                                                                                                                             |                  |                                        |                |                                       |
| <p>Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 :<b>Note</b> will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone “near-pass .fails” so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above</p> |                  |                                        |                |                                       |

# MODULE DESCRIPTION FORM

## Form Course Description

| Module Information                 |                                |                               |                         |                                                                                                                                                                                                                                                      |
|------------------------------------|--------------------------------|-------------------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Subject information                |                                |                               |                         |                                                                                                                                                                                                                                                      |
| Module Title                       | <u>Arabic</u>                  |                               |                         | Module Delivery                                                                                                                                                                                                                                      |
| Module Type                        | <u>B</u>                       |                               |                         | Theory <input checked="" type="checkbox"/> •<br>Lecture <input checked="" type="checkbox"/> •<br>Lab <input type="checkbox"/> •<br>Tutorial <input type="checkbox"/> •<br>Practical <input type="checkbox"/> •<br>Seminar <input type="checkbox"/> • |
| Module Code                        | <u>UOA001</u>                  |                               |                         |                                                                                                                                                                                                                                                      |
| ECTS Credits                       | <u>2</u>                       |                               |                         |                                                                                                                                                                                                                                                      |
| ( sem / hr ) SWL                   | <u>50</u>                      |                               |                         |                                                                                                                                                                                                                                                      |
| Module Level                       | <u>1</u>                       | Semester of Delivery          |                         | <u>2</u>                                                                                                                                                                                                                                             |
| Administration Department          | Field crops                    | College                       | of Agriculture Faculty  |                                                                                                                                                                                                                                                      |
| Module Leader                      | Musa Al Amer millimeter Sheikh | e-mail                        |                         |                                                                                                                                                                                                                                                      |
| Module Leader's Acad. Title        | Instructor                     | Module Leader's Qualification |                         | PhD                                                                                                                                                                                                                                                  |
| Module Tutor                       | Musa Al Amer millimeter Sheikh | e-mail                        |                         |                                                                                                                                                                                                                                                      |
| Peer Reviewer Name                 | Dr. Ali Halil Naima            | e-mail                        | ali.algayashe@mu.edu.iq |                                                                                                                                                                                                                                                      |
| Scientific Committee Approval Date | 2024/09/01                     | Version Number                | 0.1                     |                                                                                                                                                                                                                                                      |

| Relation with other Modules      |  |          |  |
|----------------------------------|--|----------|--|
| Relationship with other subjects |  |          |  |
| Prerequisite module              |  | Semester |  |
| Co-requisites module             |  | Semester |  |

**Module Aims, Learning Outcomes and Indicative Contents  
objectives , learning outcomes and guiding content Course**

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Module Objectives</b></p>                 | <p>Explaining the importance of the Arabic language and its benefits for university students in terms of:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p><b>objectives Subject</b></p>                | <p>Defining the parts of speech in the Arabic language from sound to context</p> <ul style="list-style-type: none"> <li>• Definition of the sections and types of the Qur’anic sentence.</li> <li>• Definition of syntax and its relation to grammatical meaning in the types of Quranic sentences.</li> </ul>                                                                                                                                                                                                                                                         |
| <p><b>Module Learning Outcomes</b></p>          | <ul style="list-style-type: none"> <li>• Defining the structure within the Quranic expression.</li> <li>• Definition of advancement and delay in Quranic expression, its types and causes</li> <li>• Definition of scientific miracles in the Quranic text</li> <li>• Definition of the method of semantic analysis of the Qur’anic text</li> <li>• Definition of the method of semantic analysis of the literary poetic text</li> <li>• Defining some grammatical topics in the language such as indefinite and definite nouns ‘proper nouns, and numbers.</li> </ul> |
| <p><b>Learning outcomes for the subject</b></p> | <p>knowledge and understanding</p> <ul style="list-style-type: none"> <li>• Study of the types of Quranic sentences</li> <li>• Study of syntax and its relation to meaning within the types of Quranic sentences</li> <li>• Study of grammatical topics when analyzing the parsing of the Qur’anic sentence</li> <li>• Study of scientific miracles within the Qur’anic text.</li> <li>• Semantic analysis study of the Quranic context</li> </ul>                                                                                                                     |
| <p><b>Indicative Contents</b></p>               | <p>Subject- specific skills</p> <ul style="list-style-type: none"> <li>• The student should be familiar with the types of Quranic sentences.</li> <li>• will gain the ability to analyze the syntax of the Qur’anic sentence.</li> <li>• The student learns the ability to understand the topics</li> </ul>                                                                                                                                                                                                                                                            |
| <p><b>Guidance Contents</b></p>                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>of the Arabic language through analyzing the parsing of the Qur'anic sentence.</p> <ul style="list-style-type: none"> <li>To acquaint the student with the scientific miracle and its types within the Qur'anic text.</li> <li>The student should be aware of the characteristics of the word structure within the Qur'anic expression in terms of definition, indefiniteness, precedence, delay, mention, deletion, and the reason for choosing the word structure in terms of nominalism, verbalism, and the change or variation in the tenses of verbs within the Qur'anic context.</li> </ul> |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| <b>Learning and Teaching Strategies</b><br><b>Learning and teaching strategies</b> |                                                                   |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| <b>Strategies</b>                                                                  | <b>methods and learning</b><br><b>Blackboard - Display Screen</b> |

| <b>(Student Workload (SWL</b><br><b>.weeks 15The student's academic load is calculated for</b>       |           |                                                                         |   |
|------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------|---|
| <b>( sem /Structured SWL (h</b><br><b>Regular student load during the</b><br><b>semester</b>         | 33        | <b>(Structured SWL (h/w</b><br><b>Regular weekly student load</b>       | 2 |
| <b>( sem /Unstructured SWL (h</b><br><b>Irregular student load during the</b><br><b>semester</b>     | 17        | <b>(Unstructured SWL (h/w</b><br><b>load per week Irregular student</b> | 1 |
| <b>( sem /Total SWL (h</b><br><b>The student's total academic load</b><br><b>during the semester</b> | <b>50</b> |                                                                         |   |

| <b>Module Evaluation</b><br><b>Course material evaluation</b> |                                         |                    |                       |                 |                                  |
|---------------------------------------------------------------|-----------------------------------------|--------------------|-----------------------|-----------------|----------------------------------|
|                                                               |                                         | <b>Time/Number</b> | <b>(Weight (Marks</b> | <b>Week Due</b> | <b>Relevant Learning Outcome</b> |
| <b>Formative assessment</b>                                   | <b>Quizzes</b>                          | 2                  | (10) %10              | 10 :4           | LO 1,7                           |
|                                                               | <b>.Lab / Projects</b><br><b>Report</b> | 1                  | (10) %10              | 13              | LO 1,3,7                         |
| <b>Summative assessment</b>                                   | <b>Midterm Exam</b>                     | 2                  | (20) %20              | 7               | LO 2,5                           |
|                                                               | <b>Final Exam</b>                       | 3                  | (60) %60              | 16              | LO 1-7                           |

|                         |  |  |  |
|-------------------------|--|--|--|
| <b>Total assessment</b> |  |  |  |
|-------------------------|--|--|--|

| <b>(Delivery Plan (Weekly Syllabus<br/>Theoretical weekly curriculum</b> |                                                                                                                                                                                                               |
|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                          | <b>Material Covered</b>                                                                                                                                                                                       |
| <b>Week 1</b>                                                            | Defining the parts of speech in the Arabic language from sound to context                                                                                                                                     |
| <b>Week 2</b>                                                            | Definition of the sentence and its types with practical examples in parsing                                                                                                                                   |
| <b>Week 3</b>                                                            | The verbal sentence and its components with practical examples in parsing, intransitive and transitive verbs, the subject and types of subjects, when the subject is deleted and the reasons for its deletion |
| <b>Week 4</b>                                                            | The nominal sentence and its components with practical examples in parsing, types of subject, types of predicate, deleting the predicate, presenting it, and the reasons for presenting and delaying it       |
| <b>Week 5</b>                                                            | The quasi-sentence and its components, what the preposition and adverb are related to, the reasons for their relation, and the types of what is related to it, with practical examples in parsing .           |
| <b>Week 6</b>                                                            | Memorizing and interpreting the first ten verses of Surat Al-Kahf and their semantic analysis                                                                                                                 |
| <b>Week 7</b>                                                            | Midterm Exam                                                                                                                                                                                                  |
| <b>Week 8</b>                                                            | Memorizing and interpreting the first five verses of Surat Al-Hujurat                                                                                                                                         |
| <b>Week 9</b>                                                            | Semantic analysis of the first five verses of Surat Al-Hujurat                                                                                                                                                |
| <b>Week 10</b>                                                           | Indefinite and definite, types of definite nouns                                                                                                                                                              |
| <b>Week 11</b>                                                           | Explanation of the topic of numbers and the divisions of numbers, with practical examples                                                                                                                     |
| <b>Week 12</b>                                                           | Memorizing and analyzing eight verses in the poem Al-Hamas by the poet Abu Tayeb Al-Mutanabbi, along with the poet's life.                                                                                    |
| <b>Week 13</b>                                                           | Memorize and analyze ten lines from the poem of the Iraqi poet Badr Shakir al-Sayyab, along                                                                                                                   |

|                |                                                                                  |
|----------------|----------------------------------------------------------------------------------|
|                | with the poet's life.                                                            |
| <b>Week 14</b> | The structure of the word in the Holy Quran 'the word between nominal and verbal |
| <b>Week 15</b> | <b>Advancement and delay, its types and causes</b>                               |
| <b>Week 16</b> | <b>Preparatory week before the final exam</b>                                    |

### (Delivery Plan (Weekly Lab. Syllabus Weekly lab schedule

|               | Material Covered |
|---------------|------------------|
| <b>Week 1</b> | :Lab 1           |
| <b>Week 2</b> | :Lab 2           |
| <b>Week 3</b> | :Lab 3           |
| <b>Week 4</b> | :Lab 4           |
| <b>Week 5</b> | :Lab 5           |
| <b>Week 6</b> | :Lab 6           |
| <b>Week 7</b> | :Lab 7           |

### Learning and Teaching Resources and teaching resources

|                       | Text                                                                                                                                                         | Available in the Library |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| <b>Required Texts</b> | The Holy Quran, Ibn Aqil's Explanation Book, Arabic Language<br>'Curriculum for Non-Specialists, Book of Rhetoric and Application<br>Quranic Interpretations | <b>Yes</b>               |

### Grading Scheme Grading chart

| Group                               | Grade                   | Appreciation                           | % Marks  | Definition                            |
|-------------------------------------|-------------------------|----------------------------------------|----------|---------------------------------------|
| <b>Success Group<br/>(100 - 50)</b> | Excellent - <b>A</b>    | <b>privilege</b>                       | 100 - 90 | Outstanding Performance               |
|                                     | Very Good - <b>B</b>    | <b>very good</b>                       | 89 - 80  | Above average with some errors        |
|                                     | Good - <b>C</b>         | <b>good</b>                            | 79 - 70  | Sound works with notable errors       |
|                                     | Satisfactory - <b>D</b> | <b>middle</b>                          | 69 - 60  | Fair but with major shortcomings      |
|                                     | Sufficient - <b>E</b>   | <b>acceptable</b>                      | 59 - 50  | Work meets minimum criteria           |
| <b>Fail Group<br/>(49 - 0)</b>      | Fail – <b>FX</b>        | <b>Under ) Failed<br/>( Processing</b> | (49-45)  | More work required but credit awarded |
|                                     | Fail – <b>F</b>         | <b>Failed</b>                          | (44-0)   | Considerable amount of work required  |
|                                     |                         |                                        |          |                                       |

Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 :**Note** will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone “near-pass .fails” so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above

## MODULE DESCRIPTION FORM

### Form Course Description

| Module Information                 |                                       |                     |                               |                                                                                                                                                                                                                                                                            |
|------------------------------------|---------------------------------------|---------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Subject information                |                                       |                     |                               |                                                                                                                                                                                                                                                                            |
| Module Title                       | <u>and leveling modification Soil</u> |                     |                               | Module Delivery                                                                                                                                                                                                                                                            |
| Module Type                        | <u>S</u>                              |                     |                               | Theory <input checked="" type="checkbox"/> •<br>Lecture <input checked="" type="checkbox"/> •<br>Lab <input checked="" type="checkbox"/> •<br>Tutorial <input type="checkbox"/> •<br>Practical <input checked="" type="checkbox"/> •<br>Seminar <input type="checkbox"/> • |
| Module Code                        | <u>DFC6123</u>                        |                     |                               |                                                                                                                                                                                                                                                                            |
| ECTS Credits                       | <u>6</u>                              |                     |                               |                                                                                                                                                                                                                                                                            |
| ( sem / hr ) SWL                   | <u>150</u>                            |                     |                               |                                                                                                                                                                                                                                                                            |
| Module Level                       |                                       | 1                   | Semester of Delivery          |                                                                                                                                                                                                                                                                            |
| Administration Department          |                                       | Field crops         | College                       | of Agriculture Faculty                                                                                                                                                                                                                                                     |
| Module Leader                      | Hawad Kazem Ziyad .Prof. Dr           |                     | e-mail                        |                                                                                                                                                                                                                                                                            |
| Module Leader's Acad. Title        |                                       |                     | Module Leader's Qualification |                                                                                                                                                                                                                                                                            |
| Module Tutor                       | Hawad Kazem Ziyad .Prof. Dr           |                     | e-mail                        |                                                                                                                                                                                                                                                                            |
| Peer Reviewer Name                 |                                       | Dr. Ali Halil Naima | e-mail                        | ali.algayashe@mu.edu.iq                                                                                                                                                                                                                                                    |
| Scientific Committee Approval Date |                                       | 2024/10/01          | Version Number                | 1.0                                                                                                                                                                                                                                                                        |

| Relation with other Modules      |  |          |  |
|----------------------------------|--|----------|--|
| Relationship with other subjects |  |          |  |
| Prerequisite module              |  | Semester |  |
| Co-requisites module             |  | Semester |  |

| Module Aims, Learning Outcomes and Indicative Contents<br>objectives , learning outcomes and guiding content Course                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Module Objectives</b><br><b>Subject objectives</b>                                                                                     | <p>Understand the basics and introduce the student to the basic concepts of engineering drawing , including:</p> <p>It includes symbols ,dimensions , and measures.</p> <p>Analysis and interpretation and enabling the student to analyze and interpret the drawings</p> <p>Engineering and planning efficiently , and learn how survey teams work and use their tools.</p> <p>The ability to create maps of all types and according to drawing dimensions.</p> <p>Learn about different scanning devices , their function , and measurement methods.</p>    |
| <b>Module Learning Outcomes</b><br><b>Learning outcomes for the subject</b><br><br><b>Indicative Contents</b><br><b>Guidance Contents</b> | <p>Preparing cadres capable of drawing vertical, horizontal, frontal and lateral sections of various geometric shapes, with the possibility of conducting field surveys of various soils, determining land boundaries, and using engineering drawing tools and flat surveying devices and equipment.</p> <p><b>Subject– specific skills</b></p> <ul style="list-style-type: none"> <li>• <b>The student gets to know the different geometric shapes.</b></li> <li>• <b>will gain the ability to draw different maps at various drawing scales.</b></li> </ul> |

- learns the ability to understand the topics of flat space and its various devices.
- The student should review the readings of the leveling device and apply them to reality.
- To acquaint the student with the characteristics of the structure of flat and contour lands and the adoption of surveying methods.

### Learning and Teaching Strategies

#### Learning and teaching strategies

Strategies

methods and learning  
Blackboard – Display Screen

### (Student Workload (SWL

.weeks 15 The student's academic load is calculated for

|                                                                              |     |                                                           |  |
|------------------------------------------------------------------------------|-----|-----------------------------------------------------------|--|
| ( sem /Structured SWL (h<br>Regular student load during the semester         | 108 | (Structured SWL (h/w<br>Regular weekly student load       |  |
| ( sem /Unstructured SWL (h<br>Irregular student load during the semester     | 42  | (Unstructured SWL (h/w<br>load per week Irregular student |  |
| ( sem /Total SWL (h<br>The student's total academic load during the semester | 150 |                                                           |  |

### Module Evaluation

#### Course material evaluation

|                      |                 | Time/Number | (Weight (Marks | Week Due | Relevant Learning Outcome |
|----------------------|-----------------|-------------|----------------|----------|---------------------------|
| Formative assessment | Quizzes         | 2           | (10) %10       | 8 ,4     | 2 ,1LO                    |
|                      | Assignments     | 2           | (10) %10       | 5,13     | 4 ,3LO                    |
|                      | .Lab / Projects | 1           | (10) %10       | 13       | LO 1-7                    |
|                      | Report          | 1           | (10) %10       | 12       | LO 1-7                    |
| Summative            | Midterm Exam    | hr1         | (10) %10       | 7        | All                       |

|                  |            |     |          |                  |                  |
|------------------|------------|-----|----------|------------------|------------------|
| assessment       | Final Exam | hr3 | (50) %50 | 16               | All              |
| Total assessment |            |     |          | Total assessment | (Marks 100) %100 |

**(Delivery Plan (Weekly Syllabus  
Theoretical weekly curriculum**

|                | Material Covered                                                           |
|----------------|----------------------------------------------------------------------------|
| <b>Week 1</b>  | Learn about engineering drawing and its importance                         |
| <b>Week 2</b>  | Learn about the types of lines · drawing scale and their importance .      |
| <b>Week 3</b>  | Engineering operations                                                     |
| <b>Week 4</b>  | The concept of flat area, its importance and role in agriculture           |
| <b>Week 5</b>  | Measurement systems, units of measurement and common errors in measurement |
| <b>Week 6</b>  | Monthly exam                                                               |
| <b>Week 7</b>  | Tape surveying, station selection methods and field notebook requirements. |
| <b>Week 8</b>  | Errors in surveying work and methods of addressing them                    |
| <b>Week 9</b>  | Regular and irregular shapes and coordinate scanning                       |
| <b>Week 10</b> | Leveling using a leveling device                                           |
| <b>Week 11</b> | Methods of measuring level points                                          |
| <b>Week 12</b> | Longitudinal sector work and definition                                    |
| <b>Week 13</b> | Topographic maps and representation methods                                |
| <b>Week 14</b> | Contour lines and ways to find space                                       |
| <b>Week 15</b> | Curvature and refraction phenomena and methods of treating them            |
| <b>Week 16</b> | Preparatory week before the final exam                                     |

**(Delivery Plan (Weekly Lab. Syllabus  
Weekly lab schedule**

|               | Material Covered                                               |
|---------------|----------------------------------------------------------------|
| <b>Week 1</b> | Lab 1 :Engineering drawing tools and how to identify them      |
| <b>Week 2</b> | Lab 2 :Multiple Drawing Scales                                 |
| <b>Week 3</b> | Lab 3 :Understanding Scanning Tools                            |
| <b>Week 4</b> | Lab 4 :Level device and accessories                            |
| <b>Week 5</b> | Lab 5 :Field notebook and how to enter data into it            |
| <b>Week 6</b> | Lab 6 :Planar Mapping                                          |
| <b>Week 7</b> | Lab 7 :Forward readings, backward readings, and dummy readings |

| Learning and Teaching Resources<br>and teaching resources |                                                                                                                                  |                           |
|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------|
|                                                           | Text                                                                                                                             | ‡Available in the Library |
| Required Texts                                            | .Engineering drawing book - a methodical book<br>.Saleh Al-Khaffaf Riyadh .Dr ‘Plane Surveying Book 2000<br>.of Mosul University | Yes                       |
| Recommended Texts                                         |                                                                                                                                  |                           |
| Websites                                                  |                                                                                                                                  |                           |

| Grading Scheme<br>Grading chart     |                  |                                        |          |                                       |
|-------------------------------------|------------------|----------------------------------------|----------|---------------------------------------|
| Group                               | Grade            | Appreciation                           | % Marks  | Definition                            |
| <b>Success Group<br/>(100 - 50)</b> | Excellent - A    | privilege                              | 100 - 90 | Outstanding Performance               |
|                                     | Very Good - B    | very good                              | 89 - 80  | Above average with some errors        |
|                                     | Good - C         | good                                   | 79 - 70  | Sound works with notable errors       |
|                                     | Satisfactory - D | middle                                 | 69 - 60  | Fair but with major shortcomings      |
|                                     | Sufficient - E   | acceptable                             | 59 - 50  | Work meets minimum criteria           |
| <b>Fail Group<br/>(49 – 0)</b>      | Fail – FX        | <b>Under ) Failed<br/>( Processing</b> | (49-45)  | More work required but credit awarded |

|                                                                                                                                                                                                                                                                                                                                                                                             |                 |               |        |                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------|--------|--------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                             | Fail – <b>F</b> | <b>Failed</b> | (44-0) | Considerable amount of work required |
|                                                                                                                                                                                                                                                                                                                                                                                             |                 |               |        |                                      |
| <p>Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 <b>:Note</b> will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone “near-pass .fails” so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above</p> |                 |               |        |                                      |