



## Academic Program Description Form

**University Name:** Tikrit University

**Faculty/Institute:** College of Agriculture

**Scientific Department:** Food Sciences

**Academic or Professional Program Name:** Bachelor of Agricultural Sciences/  
Food Sciences

**Final Certificate Name:** Bachelor of Agricultural Sciences/ Food Sciences

**Academic System:** Bologna

**Description Preparation Date:** 14/9/2025

**File Completion Date:** 14/9/2025

**Signature:**

**Head of Department Name:**

professor Dr. Adal abd alrahman Aljumaily

**Date:**

**Signature:**

**Scientific Associate Name:**

Professor Dr. Mohammed saleh Mohammed

**Date:** 14/9/2025



**The file is checked by:**

**Department of Quality Assurance and University Performance**

**Director of the Quality Assurance and University Performance Department:**

Professor Dr. Maysaloon Wail Ibraheem

**Date:** 14.9.2025

**Signature:**



**Dr. Sami Khader Saeed**  
Approval of the Dean

**Dr. Sami Khader Saeed**

14/9/2025

# Tikrit UNIVERSITY

## College of Agriculture



Bachelor's degree in Food science



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### 1. Mission & Vision Statement

#### *Vision Statement*

To be a leading and distinguished department of food science in education, scientific research and community service in the fields of food science development and advancement, contributing to achieving food security and sustainable development in Iraq

#### *Mission Statement*

The Department of Food Science at the College of Agriculture, Tikrit University, aims to prepare specialized and qualified scientific personnel possessing modern theoretical knowledge and applied skills in the fields of food and dairy processing, biotechnology, quality control, food and dairy regeneration, human nutrition, and therapeutic nutrition. This contributes to the development of the food sector and supports national food security through education, scientific research, and community service.

The department focuses on integrating academic and practical aspects through field training in laboratories and workshops, encouraging applied research that addresses real-world problems in food science, and fostering ethical and professional values, teamwork, and innovation among students and researchers.

## 2. Program Specification

|                 |                       |                       |           |
|-----------------|-----------------------|-----------------------|-----------|
| Programme code: | ECO – EXT             | ECTS                  | 240       |
| Duration:       | 4 levels, 8 Semesters | Method of Attendance: | Full Time |

Summary of Levels

Academic Year

Preparation Level

Type of Acquired Competency

First Year (Foundational - General)

Basic Knowledge in Agricultural Sciences

Second Year (Specialized - Basic)

Principles of Animal Physiology and Nutrition

Third Year (Applied)

Practical and Field Skills

Fourth Year (Professional and Research)

Advanced Scientific Competence and Professional Independence

## 3. Program Goals

1. To enable graduates to master the fundamental concepts of food science and nutrition and apply them practically.
2. To develop students' abilities to learn, design, and implement pioneering agricultural projects using modern technologies.
3. To instill in students the values and ethics of the profession.
4. To prepare graduates with strong communication, teamwork, and problem-solving skills.
5. To motivate students to embrace the principles of lifelong learning and methods for developing their educational and professional skills.

## 4- Student Learning Outcomes

- 1- Comprehensive knowledge of economic concepts and theories related to agriculture, including market analysis, marketing strategies, agricultural policies, financial and monetary policies affecting agricultural finance, economic development in agriculture, and economic feasibility studies.
- 2- Understanding the principles and foundations of agricultural extension and its importance in developing the agricultural sector.
- 3- Understanding how to manage agricultural resources sustainably to improve productivity and efficiency.
- 4- Ability to design and implement effective agricultural extension programs based on the needs of farmers and rural communities.
- 5- Capability to conduct applied scientific studies that contribute to solving agricultural sector problems through data analysis and field research.
- 6- Ability to communicate effectively with farmers and various stakeholders in the agricultural sector, providing guidance and extension services.

## 5- Academic Staff

| N   | The full name                                  | Academic Qualification | Academic title | Mobile number | E.mail                                                                     |
|-----|------------------------------------------------|------------------------|----------------|---------------|----------------------------------------------------------------------------|
| 1.  | karkaz Mohammed Thalji Abdoun Al-Jubouri       | PhD                    | Professor      | 7722414466    | <a href="mailto:kthali@tu.edu.iq">kthali@tu.edu.iq</a>                     |
| 2.  | Feryal Farouq Hussein Ali Al-Azzawi            | PhD                    | Professor      | 7703013663    | <a href="mailto:feryal_alazawi@tu.edu.iq">feryal_alazawi@tu.edu.iq</a>     |
| 3.  | Mohammed Ahmed Jasim Mohammed Al-Jubouri       | PhD                    | Professor      | 7707533250    | <a href="mailto:kkk.aa91@tu.edu.iq">kkk.aa91@tu.edu.iq</a>                 |
| 4.  | Hani Sabbar Aed Hassan Al-Shammari             | PhD                    | Professor      | 7705132696    | <a href="mailto:Dr.hani.ayed@tu.edu.iq">Dr.hani.ayed@tu.edu.iq</a>         |
| 5.  | Shaimaa Abd Mohammed Ali Al-Rubaie             | PhD                    | professor      | 7729283329    | <a href="mailto:sheimaa.abed@tu.edu.iq">sheimaa.abed@tu.edu.iq</a>         |
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| 7.  | Ahmed Mohsen Ali Ahmed Al-Janabi               | PhD                    | Assistant      | 7703019931    | <a href="mailto:ahmedmuhsinal@tu.edu.iq">ahmedmuhsinal@tu.edu.iq</a>       |
| 8.  | Khalaf Nahr Ahmed Hamad Al-Jubouri             | PhD                    | Assistant      | 7706152544    | <a href="mailto:khalafalguburi@tu.edu.iq">khalafalguburi@tu.edu.iq</a>     |
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| 10. | Sabraa Saad Yaseen Ali Al-Samarrai             | PhD                    | Assistant      | 7702626488    | <a href="mailto:aliaaman211@tu.edu.iq">aliaaman211@tu.edu.iq</a>           |
| 11. | Adel Abdulrahman Mustafa Hadi Al-Jumaili       | PhD                    | Assistant      | 7708312028    | <a href="mailto:adelabd083@tu.edu.iq">adelabd083@tu.edu.iq</a>             |
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| 15. | Manal Saleh Mahdi Shaher Al-Shammari           | PhD                    | Assistant      | 7701716728    | <a href="mailto:manal-sali@tu.edu.iq">manal-sali@tu.edu.iq</a>             |
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|     |                                              |          |                   |            |                                                                            |
|-----|----------------------------------------------|----------|-------------------|------------|----------------------------------------------------------------------------|
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| 22. | Tariq Khaled Mahmoud Abd Al-Jubouri          | PhD      | Assistant         | 7723457122 | <a href="mailto:tariqkhaled3@tu.edu.iq">tariqkhaled3@tu.edu.iq</a>         |
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| 33. | Orooba Bahjat Shihab Hamad Al-Jubouri        | PhD      | Lecturer          | 7709520637 | <a href="mailto:orooba325@tu.edu.iq">orooba325@tu.edu.iq</a>               |
| 34. | Ali Hassan Abdulwahab Jameel                 | PhD      | Lecturer          | 7705161617 | <a href="mailto:ali.h.abdalwahab@tu.edu.iq">ali.h.abdalwahab@tu.edu.iq</a> |
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| 36. | Ali Nizar Abdulghaffar Abdulmajeed           | PhD      | Lecturer          | 7736225854 | <a href="mailto:ali.nazar.99879@tu.edu.iq">ali.nazar.99879@tu.edu.iq</a>   |
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| 39. | Mohammed Tahseen Mohammed Omar Al-Hamdani    | PhD      | Lecturer          | 7709393144 | <a href="mailto:t363966@tu.edu.iq">t363966@tu.edu.iq</a>                   |
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| 41. | Naseer Mousa Farhan Mahmoud Al-Douri         | Master's | Assistant teacher | 7709550553 | <a href="mailto:naseeralnajar73@tu.edu.iq">naseeralnajar73@tu.edu.iq</a>   |
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| 44. | Sura Ali Zughair Ali Al-Shammari             | Master's | Assistant teacher | 7733562278 | <a href="mailto:suraaB024@tu.edu.iq">suraaB024@tu.edu.iq</a>               |
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| 46. | Ali Mohammed Saeed Abdulhadi Al-Maamari      | Master's | Assistant teacher | 7702864434 | <a href="mailto:alialmamaree337@tu.edu.iq">alialmamaree337@tu.edu.iq</a>   |
| 47. | Imad Salem Hosi Asmi                         | Master's | Assistant teacher | 7705135849 | <a href="mailto:imad.s.hosee@st.tu.edu.iq">imad.s.hosee@st.tu.edu.iq</a>   |
| 48. | Fatima Shakir Mahmoud Shihab Al-Douri        | Master's | Assistant teacher | 7704717292 | <a href="mailto:fatima.shihab@tu.edu.iq">fatima.shihab@tu.edu.iq</a>       |
| 49. | Fattah Falih Hamdan Ahmed                    | Master's | Assistant teacher | 7806880741 | <a href="mailto:fatah.f.h0140@st.tu.edu.iq">fatah.f.h0140@st.tu.edu.iq</a> |
| 50. | Mohammed Jasim Mohammed Hourri               | Master's | Assistant teacher | 7702021122 | <a href="mailto:mohammed.alhoory@tu.edu.iq">mohammed.alhoory@tu.edu.iq</a> |
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| 52. | Hiba Ahmed Ibrahim Hussein Al-Jubouri        | Master's | Assistant teacher | 7832715619 | <a href="mailto:hiba.a.ibrahim@tu.edu.iq">hiba.a.ibrahim@tu.edu.iq</a>     |
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| 54. | Shahd Rasool Mutlaq Haif Al-Mohammadi        | Master's | Assistant teacher | 7823739164 | <a href="mailto:shahid.r.mutlaq@tu.edu.iq">shahid.r.mutlaq@tu.edu.iq</a>   |
| 55. | Abeer Majeed Saleh Qadoori                   | Master's | Assistant teacher | 7733562278 | <a href="mailto:Aber_maged@tu.edu.iq">Aber_maged@tu.edu.iq</a>             |
| 56. | Dina Kamal Salem Hassan                      | Master's | Assistant teacher | 7703025384 | <a href="mailto:Dena2021@tu.edu.iq">Dena2021@tu.edu.iq</a>                 |
| 57. | Nema Khalaf Hamza Mohammed                   | Master's | Assistant teacher | 7702864434 | <a href="mailto:Nemaa_kalaf@tu.edu.iq">Nemaa_kalaf@tu.edu.iq</a>           |

## 6. Credits, Grading and GPA

### **Credits**

Tikrit University follows Bologna Learning Process with the European Credit Transfer System (ECTS) credit system. The total degree program number of ECTS is 240, 30 ECTS per semester. 1 ECTS is equivalent to 25 hrs student workload, including structured and unstructured workload.

### **Grading**

Before the evaluation, the results are divided into two subgroups: pass and fail. Therefore, the results are independent of the students who failed a course. The grading system is defined as follows:

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

### **Calculation of the Cumulative Grade Point Average (CGPA)**

The CGPA is calculated by the summation of each module score multiplied by its ECTS, all are divided by the program total ECTS.

CGPA of a 4-year B.Sc. degree:

$$\text{CGPA} = [ (1^{\text{st}} \text{ module score} \times \text{ECTS}) + (2^{\text{nd}} \text{ module score} \times \text{ECTS}) + \dots ] / 24$$

## 7. Curriculum/Modules

### | 30 ECTS Semester 1

| Pre-request | نوع المادة<br>Type | الوحدات<br>ECTS | USSWL | SSWL | اسم المادة الدراسية          | اسم المادة باللغة<br>الانكليزية       | الرمز   |
|-------------|--------------------|-----------------|-------|------|------------------------------|---------------------------------------|---------|
|             | B                  | ٦               | 78    | 72   | رسم هندسي                    | Engineering<br>Drawing                | AGRFS01 |
|             | B                  | ٢               | 78    | 72   | الديمقراطية وحقوق<br>الانسان | Basics of plant<br>protection         | UOT004  |
|             | B                  | ٦               | 78    | 72   | رياضيات                      | Mathematics                           | AGRFS03 |
|             | C                  | ٧               | 78    | 47   | كيمياء عامة                  | General<br>Chemistry                  | AGRFS04 |
|             | B                  | ٧               | 63    | 12   | مبادئ انتاج حيواني           | Principles of<br>Animal<br>Production | AGRFS05 |
|             | B                  | ٢               | 33    | 17   | اللغة الإنكليزية ١           | English Language 1                    | UOT002  |

### | 30 ECTS 2Semester

| Pre-request | نوع المادة<br>Type | الوحدات<br>ECTS | USSWL | SSWL | اسم المادة الدراسية   | اسم المادة باللغة<br>الانكليزية            | الرمز   |
|-------------|--------------------|-----------------|-------|------|-----------------------|--------------------------------------------|---------|
|             | C                  | ٧               | 78    | 72   | كيمياء كمية           | Quantitative<br>chemistry                  | AGRFS06 |
|             | B                  | ٢               | 78    | 72   | اللغة العربية         | Arabic Language                            | UOT001  |
|             | B                  | ٣               | 78    | 72   | 1 حاسوب               | Computer 1                                 | UOT003  |
|             | C                  | ٧               | 33    | 17   | مبادئ صناعات          | Principles of food<br>industr              | AGRFS07 |
|             | B                  | ٣               | 78    | 72   | إحصاء                 | Statistics                                 | AGRFS09 |
|             | B                  | ٣               | 33    | 17   | مبادئ بستنة           | Principles of<br>horticulture              | AGRFS10 |
|             | B                  | ٥               | 78    | 72   | مبادئ اقتصاد<br>زراعي | Principles of<br>Agricultural<br>Economics | AGRFS08 |

## | 30 ECTS Semester 3

| Pre-request | نوع المادة<br>Type | الوحدات<br>ECTS | USSWL | SSWL | اسم المادة الدراسية       | اسم المادة باللغة<br>الانكليزية | الرمز   |
|-------------|--------------------|-----------------|-------|------|---------------------------|---------------------------------|---------|
|             | B                  | 2               | 97    | 78   | لغة إنكليزية ٢            | English Language 2              | UOT006  |
|             | B                  | 2               | 72    | 78   | جرائم البعث               | Baath crimes                    | UOT008  |
|             | C                  | 6               | 97    | 78   | تصنيع تمور                | Manufacture of dates            | AGRFS12 |
|             | C                  | 5               | 47    | 78   | كيمياء فيزيائية           | Physical Chemistry              | AGRFS13 |
|             | C                  | 5               | 17    | 33   | اساسيات احياء مجهرية      | Fundamentals of Microbiology    | AGRFS14 |
|             | C                  | 5               | 17    | 33   | منتجات الالبان سائلة      | Liquid dairy products           | AGRFS15 |
|             | C                  | 5               | 17    | 33   | السلامة والامن البايولوجي | Biosafety and security          | AGRFS16 |

## | 30 ECTS Semester 4

| Pre-request | نوع المادة<br>Type | الوحدات<br>ECTS | USSWL | SSWL | اسم المادة الدراسية | اسم المادة باللغة<br>الانكليزية  | الرمز   |
|-------------|--------------------|-----------------|-------|------|---------------------|----------------------------------|---------|
|             | B                  | ٣               | 72    | 78   | تطبيقات الحاسوب ٢   | Computer 2                       | UOT005  |
|             | B                  | ٢               | 72    | 78   | لغة عربية ٢         | Arabic Language 2                | UOT007  |
|             | C                  | ٦               | 72    | 78   | مبادئ إحصاء         | Principles of statistics         | AGRFS17 |
|             | C                  | ٦               | 47    | 78   | إدارة معامل أغذية   | Food processing plant management | AGRFS18 |
|             | C                  | ٧               | 72    | 78   | كيمياء حيوية        | biochemistry                     | AGRFS19 |
|             | C                  | 6               | 17    | 33   | هندسة معامل         | Laboratory engineering           | AGRFS20 |

## **8. Contact**

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**Ministry of Higher Education and Scientific Research  
Tikrit University  
College of Agriculture  
Department of Agricultural Economics and Extension**



# **Academic Program and Course**

**2025-2026**



## Academic Program Description Form

**University Name:** Tikrit University

**Faculty/Institute:** College of Agriculture

**Scientific Department:** Department of Agricultural Economics and Extension

**Academic or Professional Program Name:** Bachelor of Science in Agriculture/Agricultural Economics and Extension

**Final Certificate Name:** Bachelor of Science in Agriculture/Agricultural Economics and Extension

**Academic System:** Bologna

**Description Preparation Date:** 1/9/2025

**File Completion Date:** 1/9/2025

**Signature:**

**Head of Department Name:**

professor Dr. Raad Muhammad Nada

**Date:** 1/9/2025

**The file is checked by:**

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Director of the Quality Assurance and University Performance Department:  
Professor Dr. Maysaloon Wail Ibraheem

**Date:** 14-9-2025

**Signature:**

**Signature:**

**Scientific Associate Name:**

Professor Dr. Mohammed saleh Mohammed

**Date:**



**Signature:**

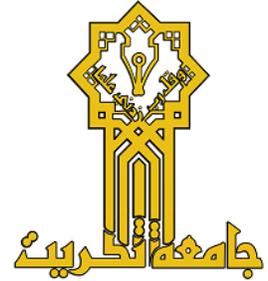
**Approval of the Dean**

**Dr. Sami Khader Saeed**

**14/9/2025**

# Tikrit UNIVERSITY

## College of Agriculture



### Bachelor of Economics and Agricultural Extension

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### 1. Mission & Vision Statement

#### *Vision Statement*

The Department of Agricultural Economics and Extension, with its available human resources, strives to prepare specialized scientific cadres that meet the demands of the labor market. These cadres are expected to excel in their fields by providing educational, research, and advisory services to the local community in the areas of agricultural economics and extension. This aims to achieve self-sufficiency in agricultural products and sustainable agricultural development.

#### *Mission Statement*

The Department of Agricultural Economics and Extension collaborates with other departments in fulfilling the mission of the college. It provides students with knowledge, information, and relevant economic and social skills in the fields of agricultural economics and extension. The program aims to equip students with the ability to analyze agricultural economic issues, propose innovative solutions to agricultural problems, and develop effective strategies to enhance agricultural production and the economic well-being of rural communities. Additionally, the program strengthens students' capabilities to deliver comprehensive extension services based on the latest research and scientific practices, supporting sustainable development and applying knowledge of economic and extension programs within the local community.

## 2. Program Specification

|                        |                       |                              |           |
|------------------------|-----------------------|------------------------------|-----------|
| <b>Programme code:</b> | ECO - EXT             | <b>ECTS</b>                  | 240       |
| <b>Duration:</b>       | 4 levels, 8 Semesters | <b>Method of Attendance:</b> | Full Time |

The program aims to prepare graduates who are well-qualified with the knowledge and skills in agricultural economics and extension, capable of engaging with the demands of the modern era and contributing to the development of Iraqi society on a solid scientific basis. The academic program structure for graduates of the Department of Agricultural Economics and Extension follows a combined system in the first and second levels. In the third level, the program becomes specialized, branching into two tracks: Agricultural Economics and Agricultural Extension. Each track focuses on equipping students with deep knowledge and skills in their respective fields, as detailed below :

**First and Second Levels:** At this stage, students study a combination of core courses in agricultural economics and extension, along with various agricultural courses covering different topics from the agricultural departments. The program aims to provide students with a comprehensive understanding of the agricultural field, preparing them for specialization in later stages.

**Third and Fourth Levels (Agricultural Economics Track):** The Agricultural Economics program in the third and fourth levels aims to equip students with the knowledge and skills necessary to analyze economic issues related to agriculture and efficiently use agricultural resources. The program covers key areas such as agricultural market analysis, agricultural project management, agricultural finance and credit, and international agricultural trade. Additionally, students learn how to guide policies and make economic decisions that enhance agricultural productivity and achieve sustainable development. The program also provides students with the ability to use economic analysis tools to solve complex agricultural problems.

**Third and Fourth Levels (Agricultural Extension Track):** The Agricultural Extension program in the third and fourth levels aims to equip students with the knowledge and skills necessary to provide support and guidance to farmers and rural communities, with the goal of improving agricultural productivity and achieving sustainable development. The program focuses on teaching students how to transfer modern agricultural technologies to farmers through effective communication and the design of field extension programs. Courses include topics such as agricultural extension, rural development, and social change, contributing to the development of the agricultural sector and improving the living standards of farmers .

### **3. Program Goals**

The educational objectives of the program are as follows:

1. To prepare men and women to become successful agricultural engineers.
2. To equip graduates with a high level of competence, enabling them to transfer academic knowledge and experience through employment in both the public and private sectors.
3. To conduct economic, financial, and marketing studies, as well as feasibility analyzes for various agricultural projects.
4. The program aims to prepare graduates capable of addressing contemporary agricultural challenges by integrating economics and extending to promote sustainable development in the agricultural sector.
5. To strengthen the connection between the department and various state institutions through graduate student research, which provides solutions to agricultural problems.
6. To contribute to community service by preparing cadres capable of conducting extension activities, such as organizing courses, scientific seminars, and providing consultancy services.
7. To prepare graduates capable of pursuing postgraduate studies, with a commitment to continuous professional development and lifelong learning.
- 8.

### **4- Student Learning Outcomes**

- 1- Comprehensive knowledge of economic concepts and theories related to agriculture, including market analysis, marketing strategies, agricultural policies, financial and monetary policies affecting agricultural finance, economic development in agriculture, and economic feasibility studies.
- 2- Understanding the principles and foundations of agricultural extension and its importance in developing the agricultural sector.
- 3- Understanding how to manage agricultural resources sustainably to improve productivity and efficiency.
- 4- Ability to design and implement effective agricultural extension programs based on the needs of farmers and rural communities.
- 5- Capability to conduct applied scientific studies that contribute to solving agricultural sector problems through data analysis and field research.
- 6- Ability to communicate effectively with farmers and various stakeholders in the agricultural sector, providing guidance and extension services.

## 5- Academic Staff

| Email                     | Specialization        | Scientific title    | Certificate | Instructor's Name                      | T  |
|---------------------------|-----------------------|---------------------|-------------|----------------------------------------|----|
| yasmeenhatem@st.tu.edu.iq | Agricultural guidance | Assistant teacher   | Master's    | Yasmin Hatem Hassan Jumaa Al-Samarrai  | 1  |
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|                             |                       |                     |          |                                                          |    |
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## 6. Credits, Grading and GPA

### *Credits*

Tikrit University follows Bologna Learning Process with the European Credit Transfer System (ECTS) credit system. The total degree program number of ECTS is 240 30 ECTS per semester. 1 ECTS is equivalent to 25 hrs student workload, including structured and unstructured workload.

### *Grading*

Before the evaluation the results are divided into two subgroups: pass and fail. Therefore, the results are Independent of the students who failed a course. The grading system is defined as follows:

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

Number 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.

### **Calculation of the Cumulative Grade Point Average (CGPA)**

The CGPA is calculated by the summation of each module score multiplied by its ECTS, all are divided by the program total ECTS.

CGPA of a 4-year B.Sc. degree:

$$\text{CGPA} = [ (1^{\text{st}} \text{ module score} \times \text{ECTS}) + (2^{\text{nd}} \text{ module score} \times \text{ECTS}) + \dots ] / 24$$

## **7. Curriculum/Modules**

### **Semester 1 | 30 ECTS**

| Code      | Module Name in English               | Name of the subject                  | SSWL | USSWL | ECTS | Type | Pre-request |
|-----------|--------------------------------------|--------------------------------------|------|-------|------|------|-------------|
| AGREE -01 | Principles of Agricultural Economics | Principles of Agricultural Economics | 78   | 97    | 7.00 | C    |             |
| AGREE -02 | Principles of Agricultural Extension | Principles of agricultural extension | 78   | 72    | 6.00 | C    |             |
| AGREE -03 | Principles of Animal Production      | Principles of Animal Production      | 78   | 47    | 5.00 | B    |             |
| AGREE -04 | Principles of Horticulture           | Principles of gardening              | 78   | 47    | 5.00 | B    |             |
| UOT003    | Computer Applications                | computer applications                | 63   | 12    | 3.00 | B    |             |
| UOT002    | English Language                     | English language                     | 33   | 17    | 2.00 | B    |             |
| UOT004    | Democracy and Human Rights           | Democracy and human rights           | 33   | 17    | 2.00 | B    |             |

**Semester 2 | 30 ECTS**

| Code      | Module Name in English               | Name of the subject                  | SSWL | USSWL | ECTS | Type | Pre-request |
|-----------|--------------------------------------|--------------------------------------|------|-------|------|------|-------------|
| AGREE -05 | Rural Sociology                      | rural sociology                      | 78   | 47    | 5.00 | C    |             |
| AGREE -06 | Principles of Field Crops            | Principles of field crops            | 78   | 47    | 5.00 | B    |             |
| AGREE -07 | Agricultural Machinery and Equipment | Agricultural machinery and equipment | 78   | 22    | 4.00 | B    |             |
| AGREE -08 | Engineering Drawing                  | engineering drawing                  | 63   | 37    | 4.00 | B    |             |
| AGREE -09 | Mathematics                          | mathematics                          | 78   | 47    | 5.00 | B    |             |
| UOT001    | Arabic Language                      | Arabic                               | 33   | 17    | 2.00 | B    |             |
| AGREE -10 | Principles of Plant Protection       | Principles of plant protection       | 78   | 47    | 5.00 | B    |             |

**Semester 3| 30 ECTS**

| Code              | Module Name in English           | Name of the subject                   | SSWL | USSWL | ECTS | Type | Pre-request |
|-------------------|----------------------------------|---------------------------------------|------|-------|------|------|-------------|
| <b>AGREE -11</b>  | Principles of Statistics         | Principles of Statistics              | 78   | 72    | 6.00 | C    |             |
| <b>AGREE -12</b>  | Adult Education                  | adult education                       | 78   | 72    | 6.00 | C    |             |
| <b>AGREE -1 3</b> | Principles of Soil and Water     | Principles of soil and water          | 78   | 47    | 5.00 | B    |             |
| <b>AGREE -1 4</b> | Agricultural Technology Transfer | Transfer of agricultural technologies | 78   | 72    | 6.00 | C    |             |
| <b>UOT005</b>     | Crimes of the Ba'ath Party       | Ba'ath Party crimes                   | 33   | 17    | 2.00 | B    |             |
| <b>AGREE -1 5</b> | Computer Applications 2          | Computer Applications 2               | 48   | 27    | 3.00 | B    | UOT004      |
| <b>AGREE -16</b>  | English Language 2               | English Language 2                    | 33   | 17    | 2.00 | B    |             |

**Semester 4| 30 ECTS**

| Code      | Module Name in English     | Name of the subject        | SSWL | USSWL | ECTS | Type | Pre-request |
|-----------|----------------------------|----------------------------|------|-------|------|------|-------------|
| AGREE -17 | Smart Farm Management      | Smart farm management      | 78   | 72    | 6.00 | C    |             |
| AGREE -18 | Agricultural Marketing     | Agricultural marketing     | 78   | 72    | 6.00 | C    |             |
| AGREE -19 | Social Psychology          | Social psychology          | 78   | 72    | 6.00 | C    |             |
| AGREE -20 | Principles of Food Science | Principles of Food Science | 78   | 47    | 5.00 | B    |             |
| AGREE -21 | Plane surveying            | flat area                  | 78   | 47    | 5.00 | B    |             |
|           | Arabic Language 2          | Arabic Language 2          | 33   | 17    | 2.00 | B    |             |

**Semester 5| Economic Agriculture (30 ECTS )**

| Code      | Module Name in English            | Name of the subject               | SSWL | USSWL | ECTS | Type | Pre-request |
|-----------|-----------------------------------|-----------------------------------|------|-------|------|------|-------------|
| AGREC -22 | Microeconomic Theory 1            | Microeconomic Theory/1            | 78   | 47    | 5.00 | C    |             |
| AGREC -23 | Macroeconomics 1                  | Macroeconomics 1 /                | 78   | 47    | 5.00 | C    |             |
| AGREC -24 | Agricultural Accounting           | Agricultural accounting           | 78   | 47    | 5.00 | C    |             |
| AGREC -25 | Mathematical Economics            | Mathematical economics            | 78   | 47    | 5.00 | C    |             |
| AGREC -26 | Agricultural Price Analysis       | Agricultural price analysis       | 78   | 47    | 5.00 | C    |             |
| AGREC -27 | Agricultural Economic Development | Agricultural economic development | 78   | 47    | 5.00 | C    |             |

**Semester 6| Economic Agriculture (30 ECTS)**

| <b>Code</b> | <b>Module Name in English</b>     | <b>Name of the subject</b>        | <b>SSWL</b> | <b>USSWL</b> | <b>ECTS</b> | <b>Type</b> | <b>Pre-request</b> |
|-------------|-----------------------------------|-----------------------------------|-------------|--------------|-------------|-------------|--------------------|
| AGREC -28   | Microeconomic Theory 2            | Microeconomic Theory/2            | 78          | 47           | 5.00        | C           | AGREC -22          |
| AGREC -29   | Macroeconomics 2                  | Macroeconomics 2 /                | 78          | 47           | 5.00        | C           | AGREC -23          |
| AGREC -30   | Cost Accounting                   | Cost accounting                   | 78          | 47           | 5.00        | C           | AGREC -24          |
| AGREC -31   | Agricultural Foreign Trade        | agricultural foreign trade        | 78          | 47           | 5.00        | C           |                    |
| AGREC -32   | Agricultural Production Economics | Agricultural production economics | 78          | 47           | 5.00        | C           |                    |
| AGREC -33   | Risk Management and Food Security | Risk management and food security | 78          | 47           | 5.00        | C           |                    |

**Semester 5| Extension Agriculture (30 ECTS )**

| Code      | Module Name in English                    | Name of the subject                    | SSWL | USSWL | ECTS | Type | Pre-request |
|-----------|-------------------------------------------|----------------------------------------|------|-------|------|------|-------------|
| AGREX -22 | Social Statistics                         | Social statistics                      | 78   | 47    | 5.00 | C    |             |
| AGREX -23 | Rural Community Development               | Rural community development            | 78   | 47    | 5.00 | C    |             |
| AGREX -24 | Rural Leadership                          | rural leadership                       | 78   | 47    | 5.00 | C    |             |
| AGREX -25 | Dissemination and Adoption of Innovations | Disseminating and adopting innovations | 78   | 47    | 5.00 | C    |             |
| AGREX -26 | Agricultural Extension Methods            | Agricultural extension methods         | 78   | 47    | 5.00 | C    |             |
| AGREX -27 | Research Methods                          | Research methods                       | 78   | 47    | 5.00 | C    |             |

**Semester 6| Extension Agriculture (30 ECTS )**

| Code      | Module Name in English               | Name of the subject                  | SSWL | USSWL | ECTS | Type | Pre-request |
|-----------|--------------------------------------|--------------------------------------|------|-------|------|------|-------------|
| AGREX-28  | Extension Communication Methods      | Guidance communication methods       | 78   | 47    | 5.00 | C    |             |
| AGREX -29 | Measurement Methods                  | Measurement methods                  | 78   | 47    | 5.00 | C    |             |
| AGREX -30 | Group Dynamics                       | Group dynamics                       | 78   | 47    | 5.00 | C    |             |
| AGREX -31 | Extension Aids and Media             | Guidance tools and aids              | 78   | 47    | 5.00 | C    |             |
| AGREX -32 | Sustainable Agricultural Development | Sustainable agricultural development | 78   | 47    | 5.00 | C    |             |
| AGREX -33 | Environmental Guidance               | Environmental guidance               | 78   | 47    | 5.00 | C    |             |

**Semester 7 | Economic Agriculture (30 ECTS)**

| Code      | Module Name in English              | Name of the subject                 | SSWL | USSWL | ECTS | Type | Pre-request |
|-----------|-------------------------------------|-------------------------------------|------|-------|------|------|-------------|
| AGREC -34 | Econometrics 1                      | Econometrics / 1                    | 78   | 72    | 6.00 | C    |             |
| AGREC -35 | Agricultural Legislation and Policy | Agricultural legislation and policy | 78   | 47    | 5.00 | C    |             |
| AGREC -36 | Natural Resource Economics          | Natural resource economics          | 78   | 47    | 5.00 | C    |             |
| AGREC -37 | Agricultural Finance and Credit     | Agricultural financing and lending  | 78   | 72    | 6.00 | C    |             |
| AGREC -38 | Research Methods                    | Research methods                    | 78   | 47    | 5.00 | C    |             |
| AGREC -39 | Seminars                            | seminars                            | 33   | 42    | 3.00 | C    |             |

**Semester 8 | Economic Agriculture (30 ECTS)**

| Code      | Module Name in English          | Name of the subject             | SSWL | USSWL | ECTS | Type | Pre-request |
|-----------|---------------------------------|---------------------------------|------|-------|------|------|-------------|
| AGREC -40 | Econometrics 2                  | Econometrics / 2                | 78   | 72    | 6.00 | C    | AGREC -34   |
| AGREC -41 | Agricultural Planning           | Agricultural planning           | 78   | 47    | 5.00 | C    |             |
| AGREC -42 | Agricultural Project Evaluation | Agricultural project evaluation | 78   | 72    | 6.00 | C    |             |
| AGREC -43 | Fiscal and Monetary Policy      | fiscal and monetary policy      | 78   | 47    | 5.00 | C    |             |
| AGREC -44 | Economic Thought and Systems    | Economic thought and systems    | 78   | 47    | 5.00 | C    |             |
| AGREC -45 | Graduation Research Project     | Graduation research project     | 33   | 42    | 3.00 | C    | AGREC -39   |

**Semester 7 | Extension Agriculture (30 ECTS )**

| Code      | Module Name in English     | Name of the subject        | SSWL | USSWL | ECTS | Type | Pre-request |
|-----------|----------------------------|----------------------------|------|-------|------|------|-------------|
| AGREX -34 | Extension Management       | Guidance Management        | 78   | 47    | 5.00 | C    |             |
| AGREX -35 | Extension Program Planning | Planning guidance programs | 78   | 72    | 6.00 | C    | AGREX -25   |
| AGREX -36 | Extension Training         | Guidance training          | 78   | 72    | 6.00 | C    |             |
| AGREX -37 | Extension Environment      | Guidance environment       | 78   | 47    | 5.00 | C    |             |
| AGREX -38 | Theories of Social Change  | Theories of social change  | 78   | 47    | 5.00 | C    |             |
| AGREX -39 | Seminars                   | seminars                   | 33   | 42    | 3.00 | C    |             |

**Semester 8 | Extension Agriculture (30 ECTS )**

| Code      | Module Name in English           | Name of the subject             | SSWL | USSWL | ECTS | Type | Pre-request |
|-----------|----------------------------------|---------------------------------|------|-------|------|------|-------------|
| AGREX -40 | Rural Women's Extension          | Guiding a rural woman           | 78   | 72    | 6.00 | C    |             |
| AGREX -41 | Evaluation of Extension Programs | Evaluation of guidance programs | 78   | 72    | 6.00 | C    |             |
| AGREX -42 | Educational Psychology           | Educational Psychology          | 78   | 47    | 5.00 | C    |             |
| AGREX -43 | Public Relations                 | Public Relations                | 78   | 47    | 5.00 | C    |             |
| AGREX -44 | Agricultural Extension Methods   | Agricultural extension programs | 78   | 47    | 5.00 | C    |             |
| AGREX -45 | Graduation Research Project      | Graduation research project     | 33   | 42    | 3.00 | C    |             |

## 8. Contact

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| 2025-2026 | Curriculum Guide

# TIKRIT UNIVERSITY

## College of Agriculture



## Bachelor of Economics and Agricultural Extension

Bachelor's degree in Economics and Agricultural Extension





|       |          |  Republic of Iraq - Ministry of Higher Education and Scientific Research<br>University of Tikrit<br>Bachelor of Economics and Agricultural Extension (First cycle)<br>Four years (Eight semesters) - 240 ECTS credits - 1 ECTS = 25 hr. Program<br>Curriculum (2025 - 2024) |                                |                                      |                           |          | جمهورية العراق - وزارة التعليم العالي والبحث العلمي<br>جامعة تكريت<br>بكالوريوس في الاقتصاد والإرشاد الزراعي (الدورة الأولى)<br>أربع سنوات (ثمانية فصول دراسية) - 240 وحدة ائتمانية - كل وحدة ائتمانية = 25 ساعة<br>المنهاج الدراسي للعام 2026-2025 |             |                           |            |              |               |               |               |              |      |  |                             |       |  |  |
|-------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------------|---------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------|------------|--------------|---------------|---------------|---------------|--------------|------|-------------------------------------------------------------------------------------|-----------------------------|-------|--|--|
| Level | Semester | No.                                                                                                                                                                                                                                                                                                                                                         | Module code                    | Module Name in English               | اسم المادة الدراسية       | Language | CL (hr/w)                                                                                                                                                                                                                                           | Leat (hr/w) | SSWL (hr/w)<br>Lab (hr/w) | Tut (hr/w) | Semss (hr/w) | Exam (hr/sem) | SSWL (hr/sem) | USSW (hr/sem) | SWL (hr/sem) | ECTS | Module Type                                                                         | Prerequisite Module(s) Code |       |  |  |
| UGI   | one      | 1                                                                                                                                                                                                                                                                                                                                                           | AGHbb-01                       | Principles of Agricultural Economics | مبادئ اقتصاد زراعي        | Arabic   | 2                                                                                                                                                                                                                                                   |             | 3                         |            |              | 3             | 78            | 97            | 175          | 7.00 | C                                                                                   |                             |       |  |  |
|       |          | 2                                                                                                                                                                                                                                                                                                                                                           | AGHbb-02                       | Principles of Agricultural Extension | مبادئ إرشاد زراعي         | Arabic   | 2                                                                                                                                                                                                                                                   |             | 3                         |            |              |               | 3             | 78            | 72           | 150  | 6.00                                                                                | C                           |       |  |  |
|       |          | 3                                                                                                                                                                                                                                                                                                                                                           | AGHbb-03                       | Principles of Animal Production      | مبادئ إنتاج حيواني        | Arabic   | 2                                                                                                                                                                                                                                                   |             | 3                         |            |              |               | 3             | 78            | 47           | 125  | 5.00                                                                                | B                           |       |  |  |
|       |          | 4                                                                                                                                                                                                                                                                                                                                                           | AGHbb-04                       | Principles of Horticulture           | مبادئ بستنة               | Arabic   | 2                                                                                                                                                                                                                                                   |             | 3                         |            |              |               | 3             | 78            | 47           | 125  | 5.00                                                                                | B                           |       |  |  |
|       |          | 5                                                                                                                                                                                                                                                                                                                                                           | UOT005                         | Computer Applications                | تطبيقات حاسوب             | Arabic   | 1                                                                                                                                                                                                                                                   |             | 2                         |            |              |               | 3             | 48            | 27           | 75   | 3.00                                                                                | B                           |       |  |  |
|       |          | 6                                                                                                                                                                                                                                                                                                                                                           | UOT002                         | English Language                     | اللغة الإنكليزية          | English  | 2                                                                                                                                                                                                                                                   |             |                           |            |              |               | 3             | 33            | 17           | 50   | 2.00                                                                                | B                           |       |  |  |
|       |          | 7                                                                                                                                                                                                                                                                                                                                                           | UOT004                         | Democracy and Human Rights           | الديمقراطية وحقوق الإنسان | Arabic   | 2                                                                                                                                                                                                                                                   |             |                           |            |              |               | 3             | 33            | 17           | 50   | 2.00                                                                                | B                           |       |  |  |
|       |          |                                                                                                                                                                                                                                                                                                                                                             |                                |                                      |                           |          |                                                                                                                                                                                                                                                     | Total       | 13                        | 0          | 8            | 8             | 0             | 0             | 21           | 441  | 306                                                                                 | 750                         | 30.00 |  |  |
|       | two      | 1                                                                                                                                                                                                                                                                                                                                                           | AGHbb-05                       | Rural Sociology                      | علم الاجتماع الريفي       | Arabic   | 2                                                                                                                                                                                                                                                   |             | 3                         |            |              |               | 3             | 78            | 47           | 125  | 5.00                                                                                | C                           |       |  |  |
|       |          | 2                                                                                                                                                                                                                                                                                                                                                           | AGHbb-06                       | Principles of Field Crops            | مبادئ محاصيل حقليّة       | Arabic   | 2                                                                                                                                                                                                                                                   |             | 3                         |            |              |               | 3             | 78            | 47           | 125  | 5.00                                                                                | B                           |       |  |  |
|       |          | 3                                                                                                                                                                                                                                                                                                                                                           | AGHbb-07                       | Agricultural Machinery and Equipment | مكائن وآلات زراعية        | Arabic   | 2                                                                                                                                                                                                                                                   |             | 2                         |            |              |               | 3             | 63            | 37           | 100  | 4.00                                                                                | B                           |       |  |  |
|       |          | 4                                                                                                                                                                                                                                                                                                                                                           | AGHbb-08                       | Engineering Drawing                  | رسم هندسي                 | Arabic   | 0                                                                                                                                                                                                                                                   |             | 2                         |            |              |               | 3             | 33            | 67           | 100  | 4.00                                                                                | B                           |       |  |  |
|       |          | 5                                                                                                                                                                                                                                                                                                                                                           | AGHbb-09                       | Mathematics                          | رياضيات                   | Arabic   | 2                                                                                                                                                                                                                                                   |             |                           | 3          |              |               | 3             | 78            | 47           | 125  | 5.00                                                                                | B                           |       |  |  |
|       |          | 6                                                                                                                                                                                                                                                                                                                                                           | UOT001                         | Arabic Language                      | اللغة العربية             | Arabic   | 2                                                                                                                                                                                                                                                   |             |                           |            |              |               | 3             | 33            | 17           | 50   | 2.00                                                                                | B                           |       |  |  |
| 7     |          | AGHbb-10                                                                                                                                                                                                                                                                                                                                                    | Principles of Plant Protection | مبادئ وقاية نبات                     | Arabic                    | 2        |                                                                                                                                                                                                                                                     | 3           |                           |            |              | 3             | 78            | 47            | 125          | 5.00 | B                                                                                   |                             |       |  |  |
|       |          |                                                                                                                                                                                                                                                                                                                                                             |                                |                                      |                           |          | Total                                                                                                                                                                                                                                               | 12          | 0                         | 10         | 8            | 0             | 0             | 21            | 441          | 306  | 750                                                                                 | 30.00                       |       |  |  |

| Level | Semester | No. | Module code       | Module Name in English           | اسم المادة الدراسية  | Language | CL (hr/w) | Leat (hr/w) | SSWL (hr/w)<br>Lab (hr/w) | Tut (hr/w) | Semss (hr/w) | Exam (hr/sem) | SSWL (hr/sem) | USSW (hr/sem) | SWL (hr/sem) | ECTS | Module Type | Prerequisite Module(s) Code |        |  |  |
|-------|----------|-----|-------------------|----------------------------------|----------------------|----------|-----------|-------------|---------------------------|------------|--------------|---------------|---------------|---------------|--------------|------|-------------|-----------------------------|--------|--|--|
| UGII  | Three    | 1   | AGREE-11          | Principles of Statistics         | مبادئ الإحصاء        | Arabic   | 2         |             | 3                         |            |              | 3             | 78            | 72            | 150          | 6.00 | C           |                             |        |  |  |
|       |          | 2   | AGREE-12          | Adult Education                  | تعليم كبار           | Arabic   | 2         |             | 3                         |            |              |               | 3             | 78            | 72           | 150  | 6.00        | C                           |        |  |  |
|       |          | 3   | AGREE-13          | Principles of Soil and Water     | مبادئ تربة ومياه     | Arabic   | 2         |             | 3                         |            |              |               | 3             | 78            | 47           | 125  | 5.00        | B                           |        |  |  |
|       |          | 4   | AGREE-14          | Agricultural Technology Transfer | نقل تقنيات زراعية    | Arabic   | 2         |             | 3                         |            |              |               | 3             | 78            | 72           | 150  | 6.00        | C                           |        |  |  |
|       |          | 5   | UOT006            | Crimes of the Ba'ath Party       | جرائم حزب البعث      | Arabic   | 2         |             |                           |            |              |               | 3             | 33            | 17           | 50   | 2.00        | B                           |        |  |  |
|       |          | 6   | AGREE-16          | Computer Applications 2          | تطبيقات حاسوب 2      | Arabic   | 1         |             | 2                         |            |              |               | 3             | 48            | 27           | 75   | 3.00        | B                           | UOT003 |  |  |
|       |          | 7   | AGREE-18          | English Language 2               | اللغة الإنكليزية 2   | English  | 2         |             |                           |            |              |               | 3             | 33            | 17           | 50   | 2.00        | B                           | UOT002 |  |  |
|       |          |     |                   |                                  |                      |          |           | Total       | 13                        | 0          | 5            | 9             | 0             | 0             | 21           | 426  | 324         | 750                         | 30.00  |  |  |
|       | Four     | 1   | AGREE-17          | Smart Farm Management            | إدارة المزارع الذكية | Arabic   | 2         |             | 3                         |            |              |               | 3             | 78            | 72           | 150  | 6.00        | C                           |        |  |  |
|       |          | 2   | AGREE-18          | Agricultural Marketing           | تسويق زراعي          | Arabic   | 2         |             | 3                         |            |              |               | 3             | 78            | 72           | 150  | 6.00        | C                           |        |  |  |
|       |          | 3   | AGREE-19          | Social Psychology                | علم نفس اجتماعي      | Arabic   | 2         |             | 3                         |            |              |               | 3             | 78            | 72           | 150  | 6.00        | C                           |        |  |  |
|       |          | 4   | AGREE-20          | Principles of Food Science       | مبادئ علوم الاغذية   | Arabic   | 2         |             | 3                         |            |              |               | 3             | 78            | 47           | 125  | 5.00        | B                           |        |  |  |
|       |          | 5   | AGREE-21          | Plane surveying                  | المساحة المستوية     | Arabic   | 2         |             | 3                         |            |              |               | 3             | 78            | 47           | 125  | 5.00        | B                           |        |  |  |
| 6     |          |     | Arabic Language 2 | اللغة العربية 2                  | Arabic               | 2        |           |             |                           |            |              | 3             | 33            | 17            | 50           | 2.00 | B           | UOT001                      |        |  |  |
|       |          |     |                   |                                  |                      |          | Total     | 12          | 0                         | 6          | 9            | 0             | 0             | 18            | 423          | 327  | 750         | 30.00                       |        |  |  |

| Level | Semester                          | No.   | Module code | Module Name In English            | اسم المادة الدراسية          | Language | SSWL (hr/w)  |                |               |              |               |                 |   | Exam<br>hr/sem | SSWL<br>hr/sem | USSW<br>hr/sem | SWL<br>hr/sem | ECTS  | Module Type | Prerequisite Module(s) Code |
|-------|-----------------------------------|-------|-------------|-----------------------------------|------------------------------|----------|--------------|----------------|---------------|--------------|---------------|-----------------|---|----------------|----------------|----------------|---------------|-------|-------------|-----------------------------|
|       |                                   |       |             |                                   |                              |          | CL<br>(hr/w) | Leat<br>(hr/w) | Lab<br>(hr/w) | Pc<br>(hr/w) | Tut<br>(hr/w) | Sempr<br>(hr/w) |   |                |                |                |               |       |             |                             |
| UGIII | Five /<br>Economic<br>Agriculture | 1     | AGREC -22   | Microeconomic Theory 1            | نظرية اقتصادية جزئية 1       | Arabic   | 2            |                | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                   | 2     | AGREC -23   | Macroeconomics 1                  | اقتصاد كلي / 1               | Arabic   | 2            |                | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                   | 3     | AGREC -24   | Agricultural Accounting           | محاسبة زراعية                | Arabic   | 2            |                | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                   | 4     | AGREC -25   | Mathematical Economics            | الاقتصاد الرياضي             | Arabic   | 2            |                | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                   | 5     | AGREC -26   | Agricultural Price Analysis       | تحليل الأسعار الزراعية       | Arabic   | 2            |                | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                   | 6     | AGREC -27   | Agricultural Economic Development | التنمية الاقتصادية الزراعية  | Arabic   | 2            |                | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                   | Total |             |                                   |                              |          |              | 12             | 0             | 18           | 0             | 0               | 0 | 18             | 468            | 282            | 750           | 30.00 |             |                             |
|       | Six /<br>Economic<br>Agriculture  | 1     | AGREC -28   | Microeconomic Theory 2            | نظرية اقتصادية جزئية 2       | Arabic   | 2            |                | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     | AGREC -22   |                             |
|       |                                   | 2     | AGREC -28   | Macroeconomics 2                  | اقتصاد كلي / 2               | Arabic   | 2            |                | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     | AGREC -23   |                             |
|       |                                   | 3     | AGREC -30   | Cost Accounting                   | محاسبة تكاليف                | Arabic   | 2            |                | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     | AGREC -24   |                             |
|       |                                   | 4     | AGREC -31   | Agricultural Foreign Trade        | التجارة الخارجية الزراعية    | Arabic   | 2            |                | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                   | 5     | AGREC -32   | Agricultural Production Economics | اقتصاديات انتاج زراعي        | Arabic   | 2            |                | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                   | 6     | AGREC -33   | Risk Management and Food Security | إدارة المخاطر والامن الغذائي | Arabic   | 2            |                | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                   | Total |             |                                   |                              |          |              | 12             | 0             | 18           | 0             | 0               | 0 | 18             | 468            | 282            | 750           | 30.00 |             |                             |

| Level | Semester                           | No.   | Module code | Module Name In English                    | اسم المادة الدراسية   | Language | SSWL (hr/w)  |                 |               |              |               |                 |   | Exam<br>hr/sem | SSWL<br>hr/sem | USSW<br>hr/sem | SWL<br>hr/sem | ECTS  | Module Type | Prerequisite Module(s) Code |
|-------|------------------------------------|-------|-------------|-------------------------------------------|-----------------------|----------|--------------|-----------------|---------------|--------------|---------------|-----------------|---|----------------|----------------|----------------|---------------|-------|-------------|-----------------------------|
|       |                                    |       |             |                                           |                       |          | CL<br>(hr/w) | Leach<br>(hr/w) | Lab<br>(hr/w) | Pr<br>(hr/w) | Tut<br>(hr/w) | Sempr<br>(hr/w) |   |                |                |                |               |       |             |                             |
| UGIII | Five /<br>Agriculture<br>Extension | 1     | AGREX -22   | Social Statistics                         | إحصاء اجتماعي         | Arabic   | 2            |                 | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                    | 2     | AGREX -23   | Rural Community Development               | تنمية مجتمع ريفي      | Arabic   | 2            |                 | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     | AGREX -23   |                             |
|       |                                    | 3     | AGREX -24   | Rural Leadership                          | قيادة ريفية           | Arabic   | 2            |                 | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                    | 4     | AGREX -25   | Dissemination and Adoption of Innovations | نشر وتبني مبتكرات     | Arabic   | 2            |                 | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                    | 5     | AGREX -26   | Agricultural Extension Methods            | طرائق ارشاد زراعي     | Arabic   | 2            |                 | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                    | 6     | AGREX -27   | Research Methods                          | طرق بحث               | Arabic   | 2            |                 | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                    | Total |             |                                           |                       |          |              | 12              | 0             | 18           | 0             | 0               | 0 | 18             | 468            | 282            | 750           | 30.00 |             |                             |
|       | Six /<br>Agriculture<br>Extension  | 1     | AGREX -28   | Extension Communication Methods           | أساليب اتصال ارشادي   | Arabic   | 2            |                 | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                    | 2     | AGREX -29   | Measurement Methods                       | أساليب قياس           | Arabic   | 2            |                 | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                    | 3     | AGREX -30   | Group Dynamics                            | ديناميكية الجماعة     | Arabic   | 2            |                 | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     | AGREX -24   |                             |
|       |                                    | 4     | AGREX -31   | Extension Aids and Media                  | وسائل ومعينات ارشادية | Arabic   | 2            |                 | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                    | 5     | AGREX -32   | Sustainable Agricultural Development      | تنمية زراعية مستدامة  | Arabic   | 2            |                 | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                    | 6     | AGREX -33   | Environmental Guidance                    | ارشاد بيئي            | Arabic   | 2            |                 | 3             |              |               |                 | 3 | 78             | 47             | 125            | 5.00          | C     |             |                             |
|       |                                    | Total |             |                                           |                       |          |              | 12              | 0             | 18           | 0             | 0               | 0 | 18             | 468            | 282            | 750           | 30.00 |             |                             |



Course Catalog | 2025-2026 | Study Materials Guide

# TIKRIT UNIVERSITY

## College of Agriculture



Bachelor of Economics and Agricultural Extension



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### 1. Overview

This guide outlines the courses offered by the Department of Agricultural Economics and Extension program for obtaining a bachelor's degree. The program provides 50 courses for the Agricultural Economics track and 50 courses for the Agricultural Extension track, with a total student workload of 6,000 hours and 240 ECTS (European Credit Transfer and Accumulation System) credits for each track. In addition to these courses, the program includes requirements for a final project and summer internship. The course delivery is based on the Bologna Process.

#### Overview

This guide outlines the coursework offered by the Department of Agricultural Economics and Extension program leading to a Bachelor's degree . The program offers 50 courses in Agricultural Economics and 50 courses in Agricultural .Extension, with a total of 6,000 credit hours and 240 ECTS credits for each branch In addition to the requirements for the graduation project and summer internship .the delivery of course materials is based on the Bologna Process ,

## 2. Undergraduate Courses 202 6-202 5

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| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Course/Module Title                                                          | ECTS              | Semester      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------|---------------|
| AGREE -01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Principles of Agricultural Economics<br>Principles of Agricultural Economics | 7                 | 1             |
| Class ( hr /w)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Lect /Lab./ Prac ./ Tutor                                                    | SSWL ( hr / sem ) | USWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3                                                                            | 78                | 97            |
| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                              |                   |               |
| <p>The Principles of Agricultural Economics course focuses on understanding the relationship between agriculture and the economy. It reviews fundamental concepts such as supply and demand, cost and revenue, and the impact of agricultural policies on the market. It also covers the concept of the economic problem, microeconomics and macroeconomics, and economic systems . The course aims to equip students with the necessary tools to analyze agricultural economic issues and contribute to sustainable ,development. A variety of teaching methods are used, including lectures, discussions and practical projects, to enhance understanding and application.</p> |                                                                              |                   |               |

2

| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Course/Module Title                                                          | ECTS              | Semester      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------|---------------|
| AGREE -02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Principles of agricultural extension<br>Principles of Agricultural Extension | 6                 | 1             |
| Class ( hr /w)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lect /Lab./ Prac ./ Tutor                                                    | SSWL ( hr / sem ) | USWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3                                                                            | 78                | 72            |
| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                              |                   |               |
| <p>The Principles of Agricultural Extension course aims to provide students with a comprehensive understanding of the role of extension in improving agricultural production and promoting rural development. The course covers fundamental concepts such as the importance of Goals and philosophy of guidance The course covers agricultural education , emphasizing the importance of communication with farmers and assessing their needs. It also explores extension teaching methods and tools, as well as program planning and evaluation . A variety of teaching methods are employed , including lectures, discussions, and practical activities, to prepare students to meet the challenges of the agricultural sector and contribute to achieving sustainable development.</p> |                                                                              |                   |               |

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| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Course/Module Title                                                | ECTS              | Semester      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------|---------------|
| AGREE -03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Principles of Animal Production<br>Principles of Animal Production | 5                 | 1             |
| Class ( hr /w)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Lect / <u>Lab</u> ./ <u>Prac</u> ./ <u>Tutor</u>                   | SSWL ( hr / sem ) | USWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3                                                                  | 78                | 47            |
| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                    |                   |               |
| <p>The Principles of Animal Production course aims to provide the fundamentals of raising and ,managing animals on farms . It covers the main types of productive animals, such as cattle sheep, buffalo, and goats , and reviews the concepts of nutrition, breeding, and healthcare. The course also discusses the factors affecting productivity and the quality of animal products. It enhances students' understanding of the importance of animal production to food security and ,economic development. A variety of teaching methods are used, including lectures discussions, and practical projects, to promote understanding and application.</p> |                                                                    |                   |               |

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| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Course/Module Title                                   | ECTS              | Semester      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------|---------------|
| AGREE -04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Principles of gardening<br>Principles of Horticulture | 5                 | 1             |
| Class ( hr /w)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lect / <u>Lab</u> ./ <u>Prac</u> ./ <u>Tutor</u>      | SSWL ( hr / sem ) | USWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3                                                     | 78                | 47            |
| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                       |                   |               |
| <p>The Principles of Horticulture course aims to introduce students to the fundamentals of ,horticultural plant cultivation. The course covers various types of crops, such as fruits vegetables , and flowers. The course covers proper farming techniques, care, and nutrition. It also discusses environmental factors affecting plant growth and the importance of pest management. The course focuses on sustainable farming methods and modern horticultural .practices. It includes practical field activities to enhance applied understanding</p> |                                                       |                   |               |

5

| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Course/Module Title                            | ECTS              | Semester      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------|---------------|
| UOT003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | computer applications<br>Computer Applications | 3                 | 1             |
| Class ( hr /w)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Lect /Lab./ <u>Prac .</u> / Tutor              | SSWL ( hr / sem ) | USWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2                                              | 63                | 12            |
| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                |                   |               |
| <p>The "Computer Applications" course covers computer fundamentals , input and output devices, the taskbar, folder creation, printing, and software usage. The various , and getting acquainted with operating ,systems - operating system basics . Through studying the evolution of computer science over time students will gain a broad perspective on this field and its importance in contemporary society. By combining theoretical knowledge and practical applications, this unit provides students with the necessary foundation to pursue further studies or careers in computer science.</p> |                                                |                   |               |

6

| Code                                                                                                                                                                                                                                                                                                                                                                                 | Course/Module Title                  | ECTS              | Semester       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------|----------------|
| UOT002                                                                                                                                                                                                                                                                                                                                                                               | English language<br>English Language | 2                 | 1              |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                                                                                                    | Lab./ <u>Prac./ Tutor .</u>          | SSWL ( hr / sem ) | USSWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                                                                    | 0                                    | 33                | 17             |
| Description                                                                                                                                                                                                                                                                                                                                                                          |                                      |                   |                |
| <p>This course is structured to equip students with essential oral and written communication skills necessary for effective interaction in both academic and professional settings, addressing both experts in their field and non-specialists. Subsequently, students will learn to apply these skills in conducting technical presentations and engaging in group discussions.</p> |                                      |                   |                |

7

| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Course/Module Title                                      | ECTS              | Semester       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------|----------------|
| UOT004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Democracy and human rights<br>Democracy and Human Rights | 2                 | 1              |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Lab./ Prac./ Tutor                                       | SSWL ( hr / sem ) | USSWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0                                                        | 33                | 17             |
| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                          |                   |                |
| <p>This course introduces students to the human rights that all human beings should enjoy simply ,because we are human beings. These rights are inherent in all people regardless of their race gender, nationality , or religion. Granted by any country, this material covers human and children's rights in ancient and Islamic civilizations, international conventions, sources and guarantees of human rights, laws and constitutions, the Human Rights Council, and ,globalization. It also defines democracy, exploring its concept, historical roots, components characteristics, features, guarantees, and its relationship to (the constitution, civil society institutions, human rights, good governance, elections), as well as contemporary democracy.</p> |                                                          |                   |                |

8

| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Course/Module Title                | ECTS              | Semester           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------|--------------------|
| AGREE -05                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | rural sociology<br>Rural Sociology | 5                 | 2                  |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Lab./ Prac./ Tutor ( hr /w )       | SSWL ( hr / sem ) | USSWL ( hr / sem ) |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3                                  | 78                | 47                 |
| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                   |                    |
| <p>.Rural sociology aims to study the social, economic, and cultural relations in rural communities<br/>The course focuses on analyzing the structure of rural society and the changes it undergoes as a result of development, migration , integration , adaptation, and social control. It addresses topics such as social patterns in rural areas, the impact of environmental and economic factors ,on social relations, and examines social problems in rural areas such as poverty .unemployment, and migration</p> |                                    |                   |                    |

9

| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Course/Module Title                                    | ECTS              | Semester       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------|----------------|
| AGREE -06                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Principles of field crops<br>Principles of Field Crops | 5                 | 2              |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Lab. / Prac . / Tutor.                                 | SSWL ( hr / sem ) | USSWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 3                                                      | 78                | 47             |
| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                        |                   |                |
| <p>"Principles of Field Crops" aims to introduce students to the fundamentals of agricultural crop production. The course covers the different types of field crops and their classification, as well as the optimal environmental conditions for their growth. It focuses on factors affecting productivity, such as soil, climate, and irrigation methods, while also examining modern farming techniques to increase yield and improve quality. The course also addresses the principles of pest and disease management, harvesting, and crop storage. It aims to equip students with the knowledge and skills necessary for efficient and sustainable crop production with a focus on achieving food security and improving agricultural output.</p> |                                                        |                   |                |

10

| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Course/Module Title                                                          | ECTS              | Semester           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------|--------------------|
| AGREE -07                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Agricultural machinery and equipment<br>Agricultural Machinery and Equipment | 4                 | 2                  |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Lab./ Prac./ Tutor ( hr /w )                                                 | SSWL ( hr / sem ) | USSWL ( hr / sem ) |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3                                                                            | 78                | 22                 |
| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                              |                   |                    |
| <p>The "Agricultural Machinery and Equipment" course aims to introduce students to modern technologies used in agricultural mechanization. It covers various types of agricultural machinery and equipment, such as tractors, harvesters , planting implements, and irrigation equipment. The course focuses on the operation and maintenance of these machines to ensure their efficiency and their role in improving productivity and reducing human effort. It also examines the fundamental principles of designing and selecting appropriate agricultural equipment for different conditions. Furthermore, the course aims to equip students with the necessary skills to effectively manage and operate agricultural equipment in the field.</p> |                                                                              |                   |                    |

11

| Code                                                                                                                                                                                                                                                                                                                                                                                                                   | Course/Module Title                        | ECTS              | Semester       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------|----------------|
| AGREE -08                                                                                                                                                                                                                                                                                                                                                                                                              | engineering drawing<br>Engineering Drawing | 4                 | 2              |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                                                                                                                                      | Lab./ <u>Prac .</u> / Tutor.               | SSWL ( hr / sem ) | USSWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                      | 2                                          | 63                | 37             |
| Description                                                                                                                                                                                                                                                                                                                                                                                                            |                                            |                   |                |
| <p>An engineering drawing course focuses on use of drawing instruments, lettering, construction of geometric shapes, etc. Students study use of dimensioning, shapes and angles or views of such drawings. Dimensions feature prominently, with focus on interpretation, importance and accurate reflection of dimensions in engineering drawing. Other areas of study in this course may include projected views.</p> |                                            |                   |                |

12

| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Course/Module Title          | ECTS              | Semester       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------|----------------|
| AGREE -09                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | mathematics<br>Mathematics   | 5                 | 2              |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Lab./ <u>Prac .</u> / Tutor. | SSWL ( hr / sem ) | USSWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 3                            | 78                | 47             |
| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                   |                |
| <p>It aims to provide students with mathematical foundations . The course covers topics such as algebra, statistics, and calculus. The student learns about determinants, matrix analysis, simultaneous equations using matrices, simultaneous equations using ,determinants, and the inverse of a matrix. Various teaching methods are used including lectures, discussions, and practical application of equations and examples to enhance understanding and application.</p> |                              |                   |                |

13

| Code                                                                                                                                                                                                                                                                                                                                                                                         | Course/Module Title          | ECTS              | Semester           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------|--------------------|
| UOT001                                                                                                                                                                                                                                                                                                                                                                                       | Arabic<br>Arabic Language    | 2                 | 2                  |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                                                                                                            | Lab./ Prac./ Tutor ( hr /w ) | SSWL ( hr / sem ) | USSWL ( hr / sem ) |
| 2                                                                                                                                                                                                                                                                                                                                                                                            | 0                            | 33                | 17                 |
| Description                                                                                                                                                                                                                                                                                                                                                                                  |                              |                   |                    |
| <p>The "Arabic Language" course aims to develop students' language skills in reading, writing, and effective communication . The course focuses on improving the ability to express oneself orally and in writing in Arabic, with attention to grammar, morphology, and punctuation , and their .application in scientific writings and reports, in addition to their uses in daily life</p> |                              |                   |                    |

14

| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Course/Module Title                                                    | ECTS              | Semester           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------|--------------------|
| AGREE -10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Principles of plant<br>protection<br>Principles of Plant<br>Protection | 5                 | 2                  |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Lab./ Prac./ Tutor ( hr /w )                                           | SSWL ( hr / sem ) | USSWL ( hr / sem ) |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3                                                                      | 78                | 47                 |
| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                        |                   |                    |
| <p>The "Plant Protection" course aims to introduce students to the fundamental principles of ,protecting plants from agricultural pests and diseases. The course covers the study of insects ,fungi, viruses, and weeds that affect plant and crop health. It focuses on biological, chemical and mechanical control strategies to reduce the impact of these pests, with an emphasis on the safe and effective use of pesticides. The course also addresses early disease diagnosis techniques .and integrated pest management methods that contribute to sustainable agricultural productivity</p> |                                                                        |                   |                    |

16

| Code                                                                                                                                                                                                                                                                                                                                                                            | Course/Module Title          | ECTS              | Semester           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------|--------------------|
| <b>AGREE -11</b>                                                                                                                                                                                                                                                                                                                                                                | Principles of Statistics     | 6                 | 1                  |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                                                                                               | Lab./ Prac./ Tutor ( hr /w ) | SSWL ( hr / sem ) | USSWL ( hr / sem ) |
| 2                                                                                                                                                                                                                                                                                                                                                                               | 3                            | 78                | 72                 |
| Description                                                                                                                                                                                                                                                                                                                                                                     |                              |                   |                    |
| <p>This course introduces the fundamental principles of statistics, focusing on data collection, organization, and presentation, and covers basic probability concepts, descriptive statistics, and an introduction to statistical inference, aiming to equip students with essential statistical skills for analyzing agricultural, economic, and extension-related data .</p> |                              |                   |                    |

17

| Code                                                                                                                                                                                                                                                                                                                                                   | Course/Module Title       | ECTS              | Semester      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------|---------------|
| <b>AGREE -12</b>                                                                                                                                                                                                                                                                                                                                       | Adult Education           | 6                 | 1             |
| Class ( hr /w)                                                                                                                                                                                                                                                                                                                                         | Lect /Lab./ Prac ./ Tutor | SSWL ( hr / sem ) | USWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                                      | 3                         | 78                | 72            |
| Description                                                                                                                                                                                                                                                                                                                                            |                           |                   |               |
| <p>This course focuses on the principles and methods of adult education, emphasizing learning characteristics, motivation, and participation of adults in educational programs, and aims to develop students' abilities to plan, implement, and evaluate educational activities relevant to agricultural extension and rural development contexts.</p> |                           |                   |               |

18

| Code                                                                                                                                                                                                                                                                                              | Course/Module Title                              | ECTS              | Semester      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-------------------|---------------|
| <b>AGREE -1 3</b>                                                                                                                                                                                                                                                                                 | Principles of Soil and Water                     | 5                 | 1             |
| Class ( hr /w)                                                                                                                                                                                                                                                                                    | Lect / <u>Lab</u> ./ <u>Prac</u> ./ <u>Tutor</u> | SSWL ( hr / sem ) | USWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                 | 3                                                | 78                | 47            |
| Description                                                                                                                                                                                                                                                                                       |                                                  |                   |               |
| <p>This course introduces the basic principles of soil and water science, focusing on soil formation, physical and chemical properties, and water movement in soils, and aims to provide students with essential knowledge for sustainable soil and water management in agricultural systems.</p> |                                                  |                   |               |

19

| Code                                                                                                                                                                                                                                                                                                                                              | Course/Module Title                              | ECTS              | Semester      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-------------------|---------------|
| <b>AGREE -1 4</b>                                                                                                                                                                                                                                                                                                                                 | Agricultural Technology Transfer                 | 6                 | 1             |
| Class ( hr /w)                                                                                                                                                                                                                                                                                                                                    | Lect / <u>Lab</u> ./ <u>Prac</u> ./ <u>Tutor</u> | SSWL ( hr / sem ) | USWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                                 | 3                                                | 78                | 72            |
| Description                                                                                                                                                                                                                                                                                                                                       |                                                  |                   |               |
| <p>This course addresses the concepts and processes of agricultural technology transfer, focusing on the development, dissemination, and adoption of agricultural innovations, and aims to enhance students' understanding of effective communication and extension strategies for improving agricultural productivity and rural development.</p> |                                                  |                   |               |

20

| Code                                                                                                                                                                                                                                                                                                                                   | Course/Module Title               | ECTS              | Semester      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------|---------------|
| <b>UOT005</b>                                                                                                                                                                                                                                                                                                                          | Crimes of the Ba'ath Party        | 2                 | 1             |
| Class ( hr /w)                                                                                                                                                                                                                                                                                                                         | Lect /Lab./ <u>Prac</u> . / Tutor | SSWL ( hr / sem ) | USWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                      |                                   | 33                | 17            |
| Description                                                                                                                                                                                                                                                                                                                            |                                   |                   |               |
| <p>This course examines the crimes committed by the Ba'ath Party against the Iraqi people, focusing on political repression, human rights violations, and social and economic impacts, and aims to enhance students' awareness of historical injustice, national responsibility, and the importance of justice and accountability.</p> |                                   |                   |               |

21

| Code                                                                                                                                                                                                                                                                                                                                      | Course/Module Title          | ECTS              | Semester       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------|----------------|
| AGREE -15                                                                                                                                                                                                                                                                                                                                 | Computer Applications 2      | 3                 | 1              |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                                                         | Lab./ <u>Prac</u> ./ Tutor . | SSWL ( hr / sem ) | USSWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                         | 0                            | 48                | 27             |
| Description                                                                                                                                                                                                                                                                                                                               |                              |                   |                |
| <p>This course builds on basic computer skills by introducing advanced computer applications, focusing on data processing, spreadsheets, presentations, and specialized software, and aims to enhance students' ability to use digital tools effectively in agricultural economics, extension activities, and professional reporting.</p> |                              |                   |                |

22

| Code                                                                                                                                                                                                                                                                                                    | Course/Module Title       | ECTS              | Semester       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------|----------------|
| AGREE -16                                                                                                                                                                                                                                                                                               | English Language 2        | 2                 | 1              |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                       | Lab./ Prac./ <u>Tutor</u> | SSWL ( hr / sem ) | USSWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                       | 0                         | 33                | 17             |
| Description                                                                                                                                                                                                                                                                                             |                           |                   |                |
| This course develops intermediate English language skills with emphasis on reading, writing, listening, and speaking, focusing on terminology related to agriculture and economics, and aims to improve students' ability to communicate effectively in academic and professional agricultural contexts |                           |                   |                |

23

| Code                                                                                                                                                                                                                                                                                              | Course/Module Title          | ECTS              | Semester           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------|--------------------|
| AGREE -17                                                                                                                                                                                                                                                                                         | Smart Farm Management        | 6                 | 2                  |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                 | Lab./ Prac./ Tutor ( hr /w ) | SSWL ( hr / sem ) | USSWL ( hr / sem ) |
| 2                                                                                                                                                                                                                                                                                                 | 3                            | 78                | 72                 |
| Description                                                                                                                                                                                                                                                                                       |                              |                   |                    |
| This course introduces the concepts of smart farm management, focusing on the use of modern technologies such as precision agriculture, digital monitoring, and data-driven decision making, and aims to enhance students' skills in improving farm efficiency, sustainability, and productivity. |                              |                   |                    |

24

| Code                                                                                                                                                                                                                                                                                                                                         | Course/Module Title                        | ECTS              | Semester       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------|----------------|
| AGREE -18                                                                                                                                                                                                                                                                                                                                    | Agricultural Marketing                     | 6                 | 2              |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                                                            | <u>Lab.</u> / <u>Prac.</u> / <u>Tutor.</u> | SSWL ( hr / sem ) | USSWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                            | 3                                          | 78                | 72             |
| Description                                                                                                                                                                                                                                                                                                                                  |                                            |                   |                |
| <p>This course covers the fundamental concepts of agricultural marketing, focusing on market structures, price determination, distribution channels, and marketing functions, and aims to equip students with the knowledge and skills needed to improve the marketing efficiency of agricultural products and support farmers' incomes.</p> |                                            |                   |                |

25

| Code                                                                                                                                                                                                                                                                                                   | Course/Module Title                 | ECTS              | Semester           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------|--------------------|
| AGREE -19                                                                                                                                                                                                                                                                                              | Social Psychology                   | 6                 | 2                  |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                      | <u>Lab./ Prac./ Tutor</u> ( hr /w ) | SSWL ( hr / sem ) | USSWL ( hr / sem ) |
| 2                                                                                                                                                                                                                                                                                                      | 3                                   | 78                | 72                 |
| Description                                                                                                                                                                                                                                                                                            |                                     |                   |                    |
| <p>This course introduces the basic concepts of social psychology, focusing on individual and group behavior, attitudes, communication, and social interaction, and aims to help students understand social factors influencing farmers, rural communities, and agricultural extension activities.</p> |                                     |                   |                    |

26

| Code                                                                                                                                                                                                                                                                                                                                    | Course/Module Title          | ECTS              | Semester       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------|----------------|
| AGREE -20                                                                                                                                                                                                                                                                                                                               | Principles of Food Science   | 5                 | 2              |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                                                       | Lab./ <u>Prac .</u> / Tutor. | SSWL ( hr / sem ) | USSWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                                                       | 3                            | 78                | 45             |
| Description                                                                                                                                                                                                                                                                                                                             |                              |                   |                |
| This course introduces the fundamental principles of food science, focusing on the physical, chemical, and biological properties of food and their relationship to processing and preservation, and aims to provide students with essential knowledge for ensuring food quality, safety, and nutritional value in agricultural systems. |                              |                   |                |

27

| Code                                                                                                                                                                                                                                                                                             | Course/Module Title          | ECTS              | Semester       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------|----------------|
| AGREE -21                                                                                                                                                                                                                                                                                        | Plane surveying              | 5                 | 2              |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                | Lab./ <u>Prac .</u> / Tutor. | SSWL ( hr / sem ) | USSWL ( hr /w) |
| 2                                                                                                                                                                                                                                                                                                | 3                            | 78                | 47             |
| Description                                                                                                                                                                                                                                                                                      |                              |                   |                |
| This course introduces the principles and methods of plane surveying, focusing on measurement of distances, angles, and elevations, and aims to develop students' skills in land measurement, mapping, and basic surveying applications relevant to agricultural and rural development projects. |                              |                   |                |

28

| Code                                                                                                                                                                                                                                                                                                          | Course/Module Title                  | ECTS              | Semester           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------|--------------------|
| UOT00 2                                                                                                                                                                                                                                                                                                       | Arabic<br>Arabic Language            | 2                 | 2                  |
| Lectures ( hr /w)                                                                                                                                                                                                                                                                                             | Lab./ <u>Prac.</u> / Tutor ( hr /w ) | SSWL ( hr / sem ) | USSWL ( hr / sem ) |
| 2                                                                                                                                                                                                                                                                                                             | 0                                    | 33                | 17                 |
| Description                                                                                                                                                                                                                                                                                                   |                                      |                   |                    |
| This course aims to enhance students' Arabic language skills through the study of grammar, rhetoric, reading, and writing, focusing on accurate expression and effective communication, and seeks to develop students' abilities to use Arabic proficiently in academic, cultural, and professional contexts. |                                      |                   |                    |

### 3. Contact :

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## Academic Program Description

University Name: Tikrit University

Faculty/Institute: College of Agriculture

Scientific Department: Horticulture and Landscape

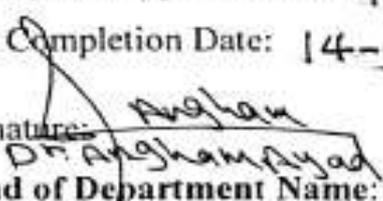
Academic or Professional Program Name: BSC.

Final Certificate Name: Bachelor in Agricultural Sciences\ Horticulture and Landscape

Academic System: Bologna

Description Preparation Date: 14-9-2025

File Completion Date: 14-9-2025

Signature:   
Head of Department Name:

Date: 14-9-2025

Signature:   
Associate Dean for Scientific Affairs:

Date: 14/9/2025

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department: Dr. may saloni

Date: 14.9.2025

Signature: 





Approval of the Dean

sami khudhur saeed  
Dean

Tikrit University

College of Agriculture



*Bachelor of Agriculture- Horticulture and Landscape*



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### **1- Vision & Mission Statement**

#### **(Vision):**

The Department of Horticulture and Landscape Engineering strives for leadership and scientific and professional excellence in the fields of horticultural science, garden design and landscaping, and green space development. It aims to be a distinguished center for education, scientific research, and community service at both the local and regional levels. The department aspires to actively contribute to achieving sustainable agricultural and environmental development by preparing qualified personnel with scientific and practical expertise in the production of fruit, vegetable, and ornamental plants, and in the management of horticultural environments using modern scientific methods. This will contribute to the advancement of the agricultural sector and improve the quality of life in both urban and rural areas.

#### **Mission Statement**

Preparing agricultural engineers who possess knowledge and applied skills in the fields of horticulture and garden design, and promoting scientific research and community service to achieve sustainable agricultural and environmental development that meets the needs of the labor market and society.

## 2- Program Specification

|                      |                       |                    |           |
|----------------------|-----------------------|--------------------|-----------|
| <b>Program code:</b> | BSc-HL                | <b>ECTS</b>        | 240       |
| <b>Duration:</b>     | 4 levels, 8 Semesters | <b>Attendance:</b> | Full Time |

In the first level, students are introduced to the fundamental sciences that are mandatory requirements for the university and college. These include Arabic language to develop language skills and formal communication, English language, human rights and democracy, and computer skills, in addition to preparatory courses that qualify them for higher levels of study. In the second level, students begin studying specialized preparatory courses that enable a smooth transition to the third and fourth levels. Here, they acquire basic skills and knowledge in areas such as the fundamentals of general horticulture, plant ecology, growth physiology, and garden design, as well as the basics of vegetable, fruit, and ornamental plant production. These courses form an important foundation for understanding advanced courses in subsequent levels, such as horticultural environment management, garden design and landscaping, green space maintenance, seedling production, and plant tissue culture. Furthermore, seminars and graduation projects provide students with scientific and practical experience that qualifies them for the job market in the fields of horticulture and landscape architecture.

### Program Structure

- The program typically lasts four years (Bachelor's degree) and includes core, specialized, and applied courses, culminating in a final year project or field training.
- Basic Sciences (Computer Science, English Language, Arabic Language)
- General Agricultural Sciences (Soil Science, Botany, Animal Production, Crops)
- Specialized Horticulture Courses: Ornamental Plants, Vegetable Production, Landscape Architecture, Fruit Production, Ornamental Plants, Protected Agriculture, Nurseries, Seed Production, Tissue Culture
- The Bologna Process or similar modern curriculum plans are used.

### Admission and Specialization Requirements

- Admission to the Faculty of Agriculture/Agricultural Engineering or its equivalent is generally required.

- Availability of horticultural facilities, experimental plots, laboratories, nurseries, and research stations for practical applications.
- Continuation and progression to postgraduate programs (Diploma, Master's, and Doctorate).

### **3- Program Objectives**

1. To prepare agricultural engineers specializing in horticultural sciences (vegetables, fruits, ornamental plants) and landscape design.
2. To equip students with scientific and technical knowledge in the production, service, management, design, maintenance, and marketing of horticultural crops and green spaces.
3. To develop field, laboratory, and practical skills in modern agricultural techniques, protected agriculture, nurseries, landscape design, Geographic Information Systems (GIS), and other related fields.
4. To instill ethical and professional values, environmental awareness, agricultural safety, self-sufficiency, food security, and the sustainability of green spaces.

### **4- Student Learning Outcomes**

#### **First: Knowledge Outcomes**

A graduate of the Horticulture and Landscape Engineering Department is expected to be able to:

1. Understand the fundamental concepts in horticulture and landscape engineering, including plant physiology, fruit and vegetable production, and ornamental plants.
2. Comprehend the principles of landscape design and the aesthetic and environmental principles of green space planning.
3. Recognize the growth requirements and environmental factors (light, temperature, humidity, soil, water, and nutrients) and their impact on horticultural plant production.
4. Be familiar with the basics of soil, fertilization, irrigation, and water management for horticultural crops.
5. Know traditional and modern propagation methods (by seeds, cuttings, and tissue culture).
6. Understand the relationship between plants and the urban environment and the role of plants in improving the local climate and quality of life.

7. Be familiar with modern technologies in protected agriculture, precision agriculture, and Geographic Information Systems (GIS). 8. Understanding the fundamentals of horticultural project management, agricultural marketing, and the principles of environmental sustainability.

### **Second: Intellectual Skills Outcomes**

The student should be able to:

1. Analyze agricultural problems and develop scientific and practical solutions.
2. Designing integrated gardens and landscapes using modern software (such as SketchUp, AutoCAD, Lumion, and GIS).
3. Evaluating soil and plant characteristics and climatic conditions to determine suitable plant species for each site.
4. Developing sustainable urban maintenance and landscaping plans that minimize water waste.
5. Interpreting experimental results in horticultural research and applying them practically.
6. Bridging the gap between theoretical knowledge and field application in real-world projects or training exercises.

### **Third: Practical and Professional Skills**

The student is expected to acquire the ability to:

1. Perform agricultural operations: planting, irrigation, pruning, fertilizing, pest control, and harvesting.
2. Produce healthy seedlings in nurseries using modern technologies.
3. Operate, maintain, and distribute modern irrigation systems according to engineering designs.
4. Apply design and landscaping methods in public and private gardens and parks.
5. Conduct field measurements and laboratory analyses of soil, water, and plant growth.
6. Use agricultural equipment and tools accurately and safely.
7. Prepare and implement horticultural projects. Integrated and managed economically and technically.

### **Fourth: Values and Attitudes**

Graduates of this department are expected to:

1. Adhere to the ethics of the agricultural profession and respect the environment and nature.
2. Work as part of a team in agricultural and engineering projects.

3. Appreciate the importance of the sustainability of natural resources and the preservation of plant diversity.
4. Demonstrate artistic and aesthetic sense in the design and landscaping of green spaces.
5. Contribute to community service through afforestation, raising environmental awareness, and beautifying cities.
6. Strive for continuous learning and keep abreast of developments in modern agricultural technologies.

## 5- Academic Staff (teachers):

| No. | Arabic name                      | Title         | Degree | E-mail                                                                       |
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## 6- Credits, Grading, and GPA

### First: The Bologna Process in University Education:

The Department of Horticulture and Landscape Engineering, College of Agriculture, Tikrit University, implements the Bologna Process, which aims to standardize the academic structure of university programs in Europe and the world. It is based on the Credit Hour System (ECTS) and student evaluation based on learning outcomes, rather than relying solely on final examinations.

### Second: Program Structure:

1. Duration of Study: Four years (eight semesters).
2. Total Credits Required for Graduation: 240 ECTS units distributed across four academic levels.
3. Number of Credits per Year: 60 ECTS units, i.e., 30 units per semester.
4. Credit Allocation:
  - A- General College Requirements (Basic Sciences, Computer Skills, English Language): 30 units
  - B- General Major Requirements (General Horticulture, Plant Production, Plant Physiology): 80 units
  - C- Specific Major Courses (Ornamental Plants, Landscape Design, Protected Agriculture, Nurseries, Plant Histology, etc.): 100 units
  - D- Graduation Project and Field Training: 30 units

### Third: Grading and Assessment System:

The Bologna System is based on Continuous Assessment and includes several components for the final grade, as follows:

| Assessment Components: Practical and Applied Activities | Percentage of the final grade |
|---------------------------------------------------------|-------------------------------|
| Short Term Tests and Reports                            | 30%                           |
| Final Theoretical and Practical Examination             | 20%                           |
| Assessment Components: Practical and Applied Activities | 50%                           |

The final grade for each course is calculated from the sum of the continuous and final assessment grades.

#### Fourth: The grading scale in the Bologna system (ECTS Grading Scale):

##### GRADING SCHEME

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

Number 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.

#### Fifth: Calculating the cumulative grade point average (GPA) according to the Bologna system (Grade Point Average).

The cumulative grade point average (GPA) is calculated using the ECTS GPA formula as follows:

Each letter grade is awarded a number of points as shown in the table below:

| Points of 4 | level |
|-------------|-------|
| 4.0         | A     |
| 3.5         | B     |
| 3.0         | C     |
| 2.0         | D     |
| 1.0         | E     |
| 0.0         | F     |

#### Sixth: Practical Training and Graduation Project

The Bologna Process training program includes the following:

1. Mandatory field training after the third year (equivalent to 10 ECTS credits) in nurseries, public gardens, municipalities, or research stations.
2. An applied or research-based graduation project in the fourth year (20 ECTS credits) evaluated by a scientific committee according to academic quality standards.

3. Successful completion of the project and practical training is required to obtain a Bachelor's degree.

### **Seventh: Final Grade and Graduation Certificate:**

Upon successful completion of all program requirements, the student is awarded a Bachelor of Science in Agricultural Sciences in Horticulture and Landscape Engineering – College of Agriculture / Tikrit University.

The graduation certificate includes the following:

- Final Cumulative Grade Point Average (GPA)
- Total number of credits (240 ECTS)
- Overall Grade
- Performance classification according to the European Bologna Process.

## **7- Curriculum/Modules**

**Semester 1 | 30 ECTS | 1 ECTS = 25 hrs**

| Code     | Module                     | SSWL | USSWL | ECTS | Type | Pre-request |
|----------|----------------------------|------|-------|------|------|-------------|
| TUHL02   | Plant Science              | 65   | 97    | 6    | C    | 162         |
| TUHLPS   | Principles of Soil         | 65   | 97    | 6    | S    | 162         |
| TUHLPA   | Plane Area                 | 65   | 97    | 6    | S    | 162         |
| TUAGRED  | Engineering Drawing        | 65   | 97    | 6    | S    | 162         |
| TUAGRAL1 | Arabic Language            | 32   | 49    | 3    | B    | 81          |
| TUAGRDR  | Democracy and human rights | 32   | 49    | 3    | B    | 81          |

**Semester 2 | 30 ECTS | 1 ECTS = 25 hrs**

| Code     | Module                               | SSWL | USSWL | ECTS | Type | TH  |
|----------|--------------------------------------|------|-------|------|------|-----|
| TUHL01   | Principles of Horticulture           | 65   | 97    | 6    | C    | 162 |
| TUAGRPF  | Principles of Field Crops            | 54   | 81    | 5    | S    | 135 |
| TUAGRPF  | Principles of Food Sciences          | 54   | 81    | 5    | S    | 135 |
| TUHLAME  | Agricultural machinery and equipment | 43   | 65    | 4    | S    | 108 |
| TUAGREL1 | English Language                     | 32   | 49    | 3    | B    | 81  |
| TUAGRC1  | Computer Science 1                   | 32   | 49    | 3    | B    | 81  |

**Semester 3 | 30 ECTS | 1 ECTS = 25 hrs**

| Code     | Module                     | SSWL | USSWL | ECTS | Type | TH  |
|----------|----------------------------|------|-------|------|------|-----|
| TUHLMIC  | Principles of microbiology | 54   | 81    | 5    | C    | 135 |
| TUHLPA   | Plant anatomy              | 54   | 81    | 5    | C    | 135 |
| TUHLPP   | Plant physiology           | 54   | 81    | 5    | C    | 135 |
| TUHLLE   | Principles of landscape    | 54   | 81    | 5    | C    | 135 |
| TUHLPG   | Plant genetic              | 54   | 81    | 5    | C    | 135 |
| TUAGRAE  | P. of agricultural economy | 22   | 32    | 3    | S    | 54  |
| TUAGREL2 | English Language 2         | 20   | 30    | 2    | B    | 50  |

**Semester 4 | 30 ECTS | 1 ECTS = 25 hrs**

| Code     | Module                          | SSWL | USSWL | ECTS | Type | TH  |
|----------|---------------------------------|------|-------|------|------|-----|
| TUHLPN   | Plant nutrition                 | 65   | 97    | 6    | C    | 162 |
| TUHLPE   | Plant ecology                   | 65   | 97    | 6    | C    | 162 |
| TUHLOA   | Organic agriculture             | 65   | 97    | 6    | C    | 162 |
| TUHLNPP  | Nurseries and plant propagation | 54   | 81    | 5    | C    | 135 |
| TUAGRAL2 | Arabic language 2               | 22   | 32    | 2    | B    | 54  |
| TUAGRBC  | Ba'ath crimes                   | 22   | 32    | 2    | B    | 54  |
| TUAGRC2  | Computer2                       | 32   | 49    | 3    | B    | 81  |

## **8- Contact Information:**

Tikrit University

College of Agriculture

Department of Horticulture and Landscape

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## Academic Program Description Form

University Name: Tikrit University

Faculty/Institute: College of Agriculture

Scientific Department: Field Crops Department

Academic or Professional Program Name: Bachelor of Agricultural Sciences/Field Crops

Final Certificate Name: Bachelor of Agricultural Sciences/Field Crops

Academic System: Bologna

Description Preparation Date: 10/9/2025

File Completion Date: 10/9/2025

Signature:

Head of Department Name:

Ass. professor Dr. Salah Hameed Jumaa

Date: 14-9-2025

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Professor Dr. Maysaloon Wail Ibraheem

Date: 14.9.2025

Signature:

Signature:

Scientific Associate Name:

Professor Dr. Mohammed Saleh Mohammed

Date:

14.9.2025



Approval of the Dean

Dr. Sami Khader Saeed

14/9/2025

**Tikrit UNIVERSITY**  
**College of Agriculture**



### **Bachelor's degree in Field Crops**



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## 1. Mission & Vision Statement

### *Vision Statement*

The Field Crops Department aspires to be a distinguished and leading academic and research center at both the national and regional levels in the fields of field crop production and improvement. This will be achieved through the adoption of high-quality education, the development of applied scientific research that contributes to food security and sustainable agricultural development, and the application of modern technologies. These technologies include the introduction of smart agriculture programs, genetic engineering techniques, and biotechnology, all of which will be compatible with climate change and the job market for the department's graduates.

### *Mission Statement*

The Field Crops Department is dedicated to preparing and qualifying scientific and professional agricultural personnel with competence and experience in field crop production, genetic improvement, agricultural management, and modern biotechnology. This is achieved through:

- 1- Offering advanced academic programs that keep pace with scientific developments in field crop science, adhering to quality standards and academic accreditation.

- 2- Conducting specialized applied research that contributes to increasing productivity and improving the quality of strategic field crops, thereby addressing contemporary agricultural challenges and supporting sustainable development plans.
- 3- Supporting agricultural development in Iraq by providing farmers and agricultural institutions with consultations and modern agricultural technologies.
- 4- Contributing to raising awareness of environmental agriculture, implementing sustainable farming methods, and reducing waste in natural resources through partnerships with state institutions and the private sector.

## 2. Program Specification

|                 |                       |                       |           |
|-----------------|-----------------------|-----------------------|-----------|
| Programme code: | ECO – EXT             | ECTS                  | 240       |
| Duration:       | 4 levels, 8 Semesters | Method of Attendance: | Full Time |

### Levels of the Animal Production Program

The Field Crops Department program focuses on developing knowledge and skills in crop cultivation and production. This includes studying the biological and physiological characteristics of plants and applying scientific theories in educational and laboratory environments, as well as managing agricultural resources and utilizing modern technologies to improve productivity and meet food needs:

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**Specialization:** The program focuses on studying the biological and physiological characteristics of field crops, including understanding the plant life cycle and how plants grow and adapt.

- **Practical Skills:** The program provides laboratories and practical methods for applying theoretical knowledge, enhancing students' practical skills in improving production and developing agricultural technologies.
- **Curriculum:** The program covers various fields, including:

- o Cultivation and management of different field crops (such as wheat, corn, rice, potatoes, cotton, sunflowers, soybeans, and sugarcane).

- o Improving crop quality and genetic characteristics.

- o Applying modern technologies in agricultural production.

### Professional Qualifications of Graduates

- **Academic Knowledge:** Graduates gain a comprehensive understanding of the importance of agriculture and its role in society and the development of civilizations.

- **Managerial Skills:** Graduates possess the ability to manage and utilize agricultural resources efficiently.

- **Applied Skills:** Graduates are able to use appropriate technologies to solve technical and economic problems in the field of agriculture.

- **Environmental Awareness:** Graduates are committed to preserving natural resources and biodiversity.

### **Program Goals:**

- Graduating agricultural engineers specialized in the field of field crops who possess theoretical knowledge and applied skills suitable for the labor market and the advancement of the agricultural sector.

- Improving the production of field crops in quantity and quality by adopting breeding and genetic improvement programs, and using modern technologies in agricultural production management.

- Employing scientific research plans and improving it to contribute to the development of the agricultural sector and solving its problems in a way that ensures the preservation of the environment, through applied scientific research projects to address agricultural problems related to crop production, especially in light of climate challenges and scarcity of water resources.
- Keeping pace with progress and scientific development in scientific knowledge and transferring and applying modern agricultural techniques such as precision agriculture, supplementary irrigation, and the use of bio fertilizers, to reduce dependence on traditional inputs and achieve sustainable production by introducing them into academic curricula and employing their applications in developing the capabilities of the agricultural community.
- Developing curricula, academic programs and field training in accordance with modern scientific and technical developments and meeting the requirements of the labor market and the needs of society and productive sectors, and in partnership with agricultural research and production institutions.

## **Student Learning Outcomes**

The learning outcomes for students in the Field Crops Department focus on equipping them with theoretical knowledge and practical skills in crop cultivation, management, productivity improvement, pest and disease protection, and economic analysis of the agricultural sector. The department aims to graduate specialists capable of applying modern farm technologies, conducting applied scientific research, and contributing to the development of the agricultural sector.

### **Theoretical Knowledge**

- Understanding the theories related to different field crop production systems.
- Recognizing the principles of field management and appropriate cultivation methods.
- Acquiring knowledge of field crop branches and their various types such as maize, wheat, cotton, and others.
- Identifying the causes of plant pests and diseases, their life cycles, and methods of control.
- Understanding the challenges and risks facing the field crops sector.

### **Practical Skills**

- Applying farm management skills through timely implementation of field operations.

- Improving crop productivity quantitatively and qualitatively using modern technologies and high-yield varieties.
- Utilizing modern agricultural tools and machinery and integrating advanced technologies into farming.
- Conducting applied scientific research and proposing solutions to agricultural problems.
- Implementing safety and biosecurity measures on farms.

### Professional and Personal Competencies

- Ability to think analytically and solve problems in the field crops sector.
- Developing creativity and self-reliance in research and development.
- Effectively contributing to agricultural sector development and achieving sustainable development.
- Readiness to engage positively with local and regional communities to support the agricultural sector.

### Academic Staff:

| No | Full name              | Academic qualification | Academic title | General     | Specialization                | Email                      |
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## 6. Credit, Grading and GPA

### Credits

Tikrit University follows Bologna Learning Process with the European Credit Transfer System (ECTS) credit system. The total degree program number of ECTS is 240, 30 ECTS per semester. 1 ECTS is equivalent to 25 hrs student workload, including structured and unstructured workload.

#### Grading

Before the evaluation, the results are divided into two subgroups: pass and fail. Therefore, the results are independent of the students who failed a course. The grading system is defined as follows:

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

#### Calculation of the Cumulative Grade Point Average (CGPA)

The CGPA is calculated by the summation of each module score multiplied by its ECTS, all are divided by the program total ECTS.

CGPA of a 4-year B.Sc. degree:

$$\text{CGPA} = [(1^{\text{st}} \text{ module score} \times \text{ECTS}) + (2^{\text{nd}} \text{ module score} \times \text{ECTS}) + \dots] / 24$$

## 7. Curriculum\Modules

**Semester 1 | 30 ECTS | 1 ECTS = 25 hrs**

| Code     | اسم المقرر                | Module Name                | SSWL       | USSWL      | ECTS         | Type | Pre-request |
|----------|---------------------------|----------------------------|------------|------------|--------------|------|-------------|
| UOT002   | اللغة الانكليزية          | English Language           | 33         | 17         | 2.00         | B    |             |
| UOT004   | الديمقراطية وحقوق الانسان | Democracy and Human Rights | 33         | 17         | 2.00         | B    |             |
| AGRF-102 | علم النبات                | Botany                     | 78         | 72         | 6.00         | C    |             |
| AGRF-101 | اساسيات المحاصيل الحقلية  | Principles of Field Crops  | 78         | 97         | 7.00         | C    |             |
| AGRF-104 | الرياضيات والاحصاء        | Mathimatics and Statistics | 78         | 72         | 6.00         | S    |             |
| AGRF-103 | اساسيات علم التربة        | Principles of Soil Science | 78         | 97         | 7.00         | S    |             |
|          |                           | Total                      | <b>378</b> | <b>372</b> | <b>30.00</b> |      |             |

**Semester 2 | 30 ECTS | 1 ECTS = 25 hrs**

| Code     | اسم المقرر          | Module                           | SSW L | USS WL | ECTS | Type | Pre-request |
|----------|---------------------|----------------------------------|-------|--------|------|------|-------------|
| AGRF-105 | تشريح وتصنيف النبات | Plant classification and anatomy | 103   | 72     | 7.00 | c    |             |

|          |                          |                                 |     |     |       |   |  |
|----------|--------------------------|---------------------------------|-----|-----|-------|---|--|
| UOT-101  | اللغة العربية            | Arabic language                 | 33  | 17  | 2.00  | B |  |
| UOT003   | الحاسوب                  | Computer                        | 61  | 14  | 3.00  | B |  |
| AGRF-106 | كيمياء النبات            | Plant Chemistry                 | 93  | 82  | 7.00  | C |  |
| AGRF-107 | تقانات تسوية التربة      | Soil Leveling Technology        | 98  | 52  | 6.00  | S |  |
| AGRF-108 | اساسيات الانتاج الحيواني | Principles of Animal Production | 93  | 32  | 5.00  | S |  |
|          |                          | Total                           | 481 | 269 | 30.00 |   |  |

**Semester 3 | 30 ECTS | 1 ECTS = 25 hrs**

| Code     | اسم المقرر                   | Module                                 | SSW<br>L | USSWL | ECTS | Type | Pre-<br>request |
|----------|------------------------------|----------------------------------------|----------|-------|------|------|-----------------|
| AGRF-109 | خصوبة التربة وادارة المغذيات | Soil Fertility and Nutrient Management | 78       | 97    | 7.00 | S    |                 |
| AGRF-110 | حبوب وبقول                   | Cereals and Legumes                    | 78       | 97    | 7.00 | C    |                 |
| AGRF-111 | مكنة المحاصيل                | Crops                                  | 78       | 72    | 6.00 | S    |                 |

|          |                              |                                         |     |     |       |   |  |
|----------|------------------------------|-----------------------------------------|-----|-----|-------|---|--|
|          | وتقنيات الحصاد               | Mechanization and Harvesting Techniques |     |     |       |   |  |
| AGRF-112 | اساسيات بستنة                | Principle of Horticulture               | 78  | 72  | 6.00  | S |  |
| UNI-2306 | جرائم نظام حزب البعث بالعراق | The crimes of the Ba'ath regime         | 33  | 17  | 2.00  | B |  |
| UNI-2407 | اللغة الانكليزية -2          | English language 2                      | 33  | 17  | 2.00  | B |  |
|          |                              |                                         | 378 | 372 | 30.00 |   |  |

**Semester 4 | 30 ECTS | 1 ECTS = 25 hrs**

| Code     | اسم المقرر                   | Module Name                      | SSWL | USSWL | ECTS | Type | Pre-request |
|----------|------------------------------|----------------------------------|------|-------|------|------|-------------|
| AGRF-113 | بيئة نبات                    | Plant Environment                | 78   | 72    | 6.00 | C    |             |
| AGRF-114 | المحاصيل الزيتية والسكرية    | Oil and Sugar Crops              | 78   | 72    | 6.00 | C    |             |
| AGRF-115 | الاحياء المجهرية وصحة التربة | Microorganisms and Soil Health   | 75   | 25    | 4.00 | S    |             |
| AGRF-116 | حشرات المحاصيل وادارة النحل  | Crops Insects and Bee Management | 93   | 32    | 5.00 | S    |             |
| UOT004   | الحاسوب -2                   | Computer – 2                     | 61   | 14    | 3.00 | B    |             |

|          |                     |                                |     |     |       |   |  |
|----------|---------------------|--------------------------------|-----|-----|-------|---|--|
| UOT-102  | اللغة العربية -2    | Arabic language - 2            | 33  | 17  | 2.00  | B |  |
| AGRF-117 | تقانات الري الحديثة | Modern Irrigation Technologies | 75  | 25  | 4.00  | S |  |
|          |                     |                                | 493 | 257 | 30.00 |   |  |

### Contact Information معلومات الاتصال

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## Academic Program Description Form

**University Name:** Tikrit University

**Faculty/Institute:** College of Agriculture

**Scientific Department:** Animal Production Department

**Academic or Professional Program Name:** Bachelor of Agricultural Sciences/Animal Production

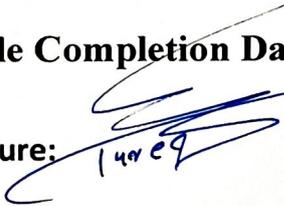
**Final Certificate Name:** Bachelor of Agricultural Sciences/Animal Production

**Academic System:** Bologna

**Description Preparation Date:** 14/9/2025

**File Completion Date:** 14/9/2025

**Signature:**


**Head of Department Name:**

professor Dr.Tareq Khalaf Hasan Khalaf Aljumaily

**Date:** 14/9/2025

**Signature:**


**Scientific Associate Name:**

Professor Dr. Mohammed Saleh Mohammed

**Date:** 14/9/2025

**The file is checked by:**

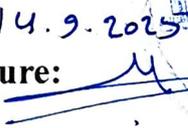
**Department of Quality Assurance and University Performance**

**Director of the Quality Assurance and University Performance Department:**

Professor Dr. Maysaloon Wail Ibraheem

**Date:** 14.9.2025

**Signature:**


  
**Approval of the Dean**

**Dr. Sami Khader Saeed**

**14/9/2025**

# Tikrit UNIVERSITY

## College of Agriculture



Bachelor's degree in Animal Production



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### 1. Mission & Vision Statement

#### *Vision Statement*

The Department of Animal Production aspires to achieve leadership in the animal sector, scientific research, and community service by preparing qualified personnel who possess the knowledge and applied skills necessary to develop the animal production sector and enhance food security by improving and increasing local output in line with the requirements of sustainable development and modern scientific developments.

#### *Mission Statement*

The Department of Animal Production seeks to be a leader in providing high-quality education in the fields of animal husbandry and improving its production by offering integrated scientific curricula and advanced practical training based on modern technologies and knowledge, and by encouraging applied scientific research, enabling graduates to meet the needs of the labor market and contribute effectively to the development of the animal sector and serve the community in a way that supports food security and achieves sustainable development.

## 2. Program Specification

|                        |                       |                              |           |
|------------------------|-----------------------|------------------------------|-----------|
| <b>Programme code:</b> | ECO – EXT             | <b>ECTS</b>                  | 240       |
| <b>Duration:</b>       | 4 levels, 8 Semesters | <b>Method of Attendance:</b> | Full Time |

### Levels of the Animal Production Program

The Bachelor of Science in Animal Production program aims to prepare graduates with progressively developed professional and academic competencies across four levels, as follows:

---

#### ◆ Level 1 (First Year): Foundation Level

**Objective:** To provide students with the general scientific foundations in agricultural and biological sciences.

**Outcome:**

- Understanding the basic principles of biology, chemistry, statistics, and computer science.
  - Familiarity with the fundamental concepts of animal science and agricultural production.
  - Acquiring basic skills in using scientific terminology and laboratory equipment.
  - Building a general knowledge base to pursue specialization.
- 

#### ◆ Level 2 (Second Year): Core Level

**Objective:** To build specialized knowledge in animal science, nutrition, and genetics.

**Outcome:**

- Familiarity with the principles of animal physiology, general genetics, and animal nutrition.

- The ability to interpret animal phenomena from a scientific perspective.
  - Developing analytical skills in evaluating animal rations and feed ingredients.
  - Familiarity with scientific research methods and critical thinking.
- 

◆ Level Three (Third Year): Applied Level

Objective: To integrate theoretical knowledge with practical skills in the field of animal production.

Outcome:

- Applying scientific concepts in the management of animal farms and production projects.
  - Conducting field scientific experiments in animal breeding, genetic improvement, and poultry production.
  - Acquiring skills in analyzing production performance and proposing ways to improve it.
  - Developing the ability to work collaboratively in research and field environments.
- 

◆ Level Four (Fourth Year): Professional and Research Level

Objective: To qualify the graduate to be a professional researcher and practitioner capable of serving both the academic and practical sectors.

Outcome:

- Conducting a graduation research project that addresses a real-world production problem.
  - Mastering the skills of managing animal production projects and their economic evaluation.
  - Applying animal welfare standards and environmental considerations in production.
  - Possessing skills in scientific thinking, professional communication, and sustainable planning
-

Summary of Levels

Academic Year

Preparation Level

Type of Acquired Competency

First Year (Foundational - General)

Basic Knowledge in Agricultural Sciences

Second Year (Specialized - Basic)

Principles of Animal Physiology and Nutrition

Third Year (Applied)

Practical and Field Skills

Fourth Year (Professional and Research)

Advanced Scientific Competence and Professional Independence

### **3.Program Goals**

The educational objectives of the program are as follows:

1. To provide students with scientific knowledge and skills in the fields of animal breeding, nutrition, management, and production improvement.
2. To prepare qualified personnel capable of handling and practically applying modern technologies in animal production.
3. To conduct applied scientific research that contributes to the development of the animal production sector at the local and regional levels.
4. To prepare graduates capable of entering the job market and encourage them to establish small, medium, and sustainable enterprises.
5. To develop curricula for all levels to align with the latest advancements in modern science and technology.

6. To serve the local community by holding scientific seminars aimed at raising awareness and developing the skills of breeders working in the animal sector.

7. To organize workshops and training courses for investors and farmers on a regular basis.

8. To enhance scientific cooperation between the department and state institutions and the private sector through graduate student research projects that aim to solve real problems facing the livestock sector.

9. To work on disseminating modern technologies that improve the quality and quantity of animal products.

#### 4- Student Learning Outcomes

- 1- Comprehensive knowledge of economic concepts and theories related to agriculture, including market analysis, marketing strategies, agricultural policies, financial and monetary policies affecting agricultural finance, economic development in agriculture, and economic feasibility studies.
- 2- Understanding the principles and foundations of agricultural extension and its importance in developing the agricultural sector.
- 3- Understanding how to manage agricultural resources sustainably to improve productivity and efficiency.
- 4- Ability to design and implement effective agricultural extension programs based on the needs of farmers and rural communities.
- 5- Capability to conduct applied scientific studies that contribute to solving agricultural sector problems through data analysis and field research.
- 6- Ability to communicate effectively with farmers and various stakeholders in the agricultural sector, providing guidance and extension services.

#### 5- Academic Staff

| N | The full name            | Academic Qualification | Academic title | Mobile number | E.mail                                                                   |
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| 37 | Jassim Mohammed Baqer        | Ph.D | Lecturer  | 07706694274 | <a href="mailto:Jasim.baq@tu.edu.iq">Jasim.baq@tu.edu.iq</a>             |
| 38 | Sohaib Mahmood abd           | Ph.D | Lecturer  | 07701875565 | <a href="mailto:sohaibmahmood1983@tu.e">sohaibmahmood1983@tu.e</a>       |
| 39 | Abdul Rahim Hallo Taha       | M.Sc | Assistant | 07719681213 | <a href="mailto:abdulraheem.hallo@tu.edu">abdulraheem.hallo@tu.edu</a>   |
| 40 | Mohammed AbdulMajeed         | M.Sc | Assistant | 07703036150 | <a href="mailto:Mohammed.abd.sh@tu.">Mohammed.abd.sh@tu.</a>             |
| 41 | Alaa Basem Hamid             | M.Sc | Assistant | 07824194699 | <a href="mailto:alaa.abbas@ tu. edu .iq">alaa.abbas@ tu. edu .iq</a>     |
| 42 | Hisham Ziyad Muhi            | M.Sc | Assistant | 07735901279 | <a href="mailto:hesham.daham@tu.edu.iq">hesham.daham@tu.edu.iq</a>       |

|    |                        |      |           |             |                                                                        |
|----|------------------------|------|-----------|-------------|------------------------------------------------------------------------|
| 43 | Yusuf Badr Ibrahim     | M.Sc | Assistant | 07807424688 | <a href="mailto:youssef.b.ibrahim@st.tu">youssef.b.ibrahim@st.tu</a>   |
| 44 | Muzdalifa Mustafa Tuma | M.Sc | Assistant | 07712106118 | <a href="mailto:Muzdalifa.m.t@tu.edu.iq">Muzdalifa.m.t@tu.edu.iq</a>   |
| 45 | Khalil Salem Sarheed   | M.Sc | Assistant | 07737310073 | <a href="mailto:Khalil.s.sar025@tu.edu.i">Khalil.s.sar025@tu.edu.i</a> |
| 46 | Majid Jabbar Shaker    | M.Sc | Assistant | 07735901526 | <a href="mailto:majeed.j.s033@tu.edu.ia">majeed.j.s033@tu.edu.ia</a>   |
| 47 | Othman Fouad Farouk    | M.Sc | Assistant | 07745149531 | <a href="mailto:othmanfoaad94@gmail.c">othmanfoaad94@gmail.c</a>       |

## 6. Credits, Grading and GPA

### Credits

Tikrit University follows Bologna Learning Process with the European Credit Transfer System (ECTS) credit system. The total degree program number of ECTS is 240, 30 ECTS per semester. 1 ECTS is equivalent to 25 hrs student workload, including structured and unstructured workload.

### Grading

Before the evaluation, the results are divided into two subgroups: pass and fail. Therefore, the results are independent of the students who failed a course. The grading system is defined as follows:

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

### Calculation of the Cumulative Grade Point Average (CGPA)

The CGPA is calculated by the summation of each module score multiplied by its ECTS, all are divided by the program total ECTS.

CGPA of a 4-year B.Sc. degree:

$$\text{CGPA} = [ (1^{\text{st}} \text{ module score} \times \text{ECTS}) + (2^{\text{nd}} \text{ module score} \times \text{ECTS}) + \dots ] / 24$$

## 7. Curriculum/Modules

### Semester 1 | 30 ECTS

| Code    | Module Name in English          | اسم المادة الدراسية       | SSWL | USSWL | ECTS | Type | Pre-request |
|---------|---------------------------------|---------------------------|------|-------|------|------|-------------|
| AGRAP01 | Analytical chemistry            | الكيمياء التحليلية        | 78   | 72    | 6.00 | S    |             |
| AGRAP02 | Basics of plant protection      | اساسيات وقاية نبات        | 78   | 72    | 6.00 | S    |             |
| AGRAP03 | Principles of animal production | مبادئ انتاج حيواني        | 78   | 72    | 6.00 | C    |             |
| AGRAP04 | Plane surveying                 | مساحة مستوية              | 78   | 47    | 5.00 | S    |             |
| UOT003  | Computer Applications           | تطبيقات حاسوب             | 63   | 12    | 3.00 | B    |             |
| UOT002  | English Language                | اللغة الإنكليزية          | 33   | 17    | 2.00 | B    |             |
| UOT004  | Democracy and Human Rights      | الديمقراطية وحقوق الانسان | 33   | 17    | 2.00 | B    |             |

### Semester 2 | 30 ECTS

| Code     | Module Name in English               | اسم المادة الدراسية      | SSWL | USSWL | ECTS | Type | Pre-request |
|----------|--------------------------------------|--------------------------|------|-------|------|------|-------------|
| AGRAP024 | Organic Chemistry                    | كيمياء عضوية             | 78   | 72    | 6.00 | S    |             |
| AGRAP05  | Statistics                           | إحصاء                    | 78   | 72    | 6.00 | S    |             |
| AGRAP06  | Principles of poultry                | مبادئ طيور داجنة         | 78   | 72    | 6.00 | C    |             |
| AGRAP07  | Chemical Safety and Security         | السلامة والامن الكيميائي | 33   | 17    | 2.00 | S    |             |
| AGRAP09  | Zoology                              | حيوان عام                | 78   | 72    | 6.00 | C    |             |
| UOT001   | Arabic Language                      | اللغة العربية            | 33   | 17    | 2.00 | B    |             |
| AGRAP17  | Principles of Agricultural Economics | مبادئ اقتصاد زراعي       | 78   | 72    | 2.00 | S    |             |

**Semester 3 | 30 ECTS**

| Code    | Module Name in English          | اسم المادة الدراسية | SSWL | USSWL | ECTS | Type | Pre-request |
|---------|---------------------------------|---------------------|------|-------|------|------|-------------|
| AGRAP11 | Bio chemistry                   | كيمياء حيوية        | 78   | 97    | 7.00 | S    |             |
| AGRAP12 | Animal Production Mechanization | مكننة انتاج حيواني  | 78   | 72    | 6.00 | S    |             |
| AGRAP13 | Principles of Fish              | مبادئ اسماك         | 78   | 97    | 7.00 | C    |             |
| AGRAP14 | Principles of Microbiology      | مبادئ احياء مجهرية  | 78   | 47    | 6.00 | C    |             |
| UOT007  | Arabic Language 2               | اللغة العربية 2     | 33   | 17    | 2.00 | B    |             |
| UOT006  | English Language 2              | اللغة الإنكليزية 2  | 33   | 17    | 2.00 | B    |             |

**Semester 4 | 30 ECTS**

| Code    | Module Name in English       | اسم المادة الدراسية | SSWL | USSWL | ECTS | Type | Pre-request |
|---------|------------------------------|---------------------|------|-------|------|------|-------------|
| AGRAP15 | Genetics                     | وراثة               | 78   | 72    | 6.00 | C    |             |
| AGRAP16 | Forage and pasture crops     | محاصيل علف ومراعي   | 78   | 72    | 6.00 | S    |             |
| AGRAP17 | Animal product health        | صحة منتجات حيوانية  | 78   | 72    | 7.00 | C    |             |
| AGRAP18 | Fish breeding and production | تربية وانتاج اسماك  | 78   | 47    | 6.00 | C    |             |
| UOT005  | Computer 2                   | حاسوب 2             | 78   | 72    | 3.00 | B    |             |
| UOT008  | Crimes of the Ba'ath Party   | جرائم حزب البعث     | 33   | 17    | 2.00 | B    |             |

**8. Contact**

**Head Department:**  
**Prof. Dr. Tariq Khalaf Hassan Khalaf**  
**University of Tikrit- College of Agriculture**

**Department of Animal Production**

**Mobile:** 07706643174

**Email:** [tariq.aljomaily@tu.edu.iq](mailto:tariq.aljomaily@tu.edu.iq)

**Director of the Department:**

**Asst. Prof. Dr. Haitham Rajab Manhi**

**University of Tikrit**

**College of Agriculture**

**Department of Animal Production**

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**Email:** [haithamalkaisi85@tu.edu.iq](mailto:haithamalkaisi85@tu.edu.iq)

**Program Coordinator:**

**Lecturer. Dr. Ahmed Attallah Dawood**

**University of Tikrit**

**College of Agriculture**

**Department of Animal Production**

**Mobile No.** 07705161901

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## Academic Program Description Form

University Name: Tikrit University

Faculty/Institute: College of Agriculture

Scientific Department: Agricultural Machinery and Equipment Department

Academic or Professional Program Name: Bachelor of Agricultural Sciences/  
Agricultural Machinery and Equipment

Final Certificate Name: Bachelor of Agricultural Machinery and Equipment

Academic System: Bologna

Description Preparation Date: 14/9/2025

File Completion Date: 14/9/2025

Signature:

Head of Department Name:

Professor Dr. Momtaz Isaak Hammood

Date: 14/9/2025



Signature:

Scientific Associate Name:

Professor Dr. Mohammed Saleh Mohammed

Date: 14-9-2025



The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Professor Dr. Maysaloon Wail Ibraheem

Date: 14.9.2025

Signature:



Dr. Sami

Approval of the Dean

Dr. Sami Khader Saeed

14/9/2025

## Teaching staff in the Department of Agricultural Machinery and Equipment

| No | Names teaching staff      | Academic title    | Degree   | General Specialization               | Subspecialization                    | Email                                                                        | Notes                              |
|----|---------------------------|-------------------|----------|--------------------------------------|--------------------------------------|------------------------------------------------------------------------------|------------------------------------|
| 1  | Momtaz Isaak Hommood      | Professor         | PhD      | Agricultural Mechanization           | Agricultural Machinery and Equipment | <a href="mailto:momtaz.isaak@tu.edu.iq">momtaz.isaak@tu.edu.iq</a>           | Head of Department                 |
| 2  | Thaer Turki Abdul Karim   | Professor         | PhD      | Agricultural Machinery and Equipment | Agricultural Machinery and Power     | <a href="mailto:thaerturky@tu.edu.iq">thaerturky@tu.edu.iq</a>               | Department Rapporteur              |
| 3  | Ahmed Abdul Ali Abtan     | Lecturer          | PhD      | Agricultural Mechanization           | Agricultural Machinery and Equipment | <a href="mailto:ahmedabtan@tu.edu.iq">ahmedabtan@tu.edu.iq</a>               |                                    |
| 4  | Ahmed Imad Saleh          | Lecturer          | PhD      | Food Science                         | Food Science                         | <a href="mailto:a.emad004@tu.edu.iq">a.emad004@tu.edu.iq</a>                 |                                    |
| 5  | Ahmed Dawood Salman       | Lecturer          | PhD      | Soil Science                         | Soil Physics                         | <a href="mailto:a.dawood006@tu.edu.iq">a.dawood006@tu.edu.iq</a>             |                                    |
| 6  | Abdullah Azawi Issa       | Assist. Professor | Master's | Agricultural Mechanization           | Agricultural Machinery and Equipment | <a href="mailto:abdullah.azawi@tu.edu.iq">abdullah.azawi@tu.edu.iq</a>       | PhD Student, University of Baghdad |
| 7  | Abdul Qader Ghaleb Nasser | Lecturer          | Master's | Agricultural Mechanization           | Agricultural Machinery and Equipment | <a href="mailto:abdalkader.ghalib@tu.edu.iq">abdalkader.ghalib@tu.edu.iq</a> | PhD Student, UPM, Malaysia         |
| 8  | Sara Namas Ahmed          | Assist. Lecturer  | Master's | Soil Science                         | Soil Physics                         | <a href="mailto:sara.namis@tu.edu.iq">sara.namis@tu.edu.iq</a>               | PhD Student, Tikrit University     |

**Tikrit University**  
جامعة تكريت



*First Cycle – Bachelor's degree (B.Sc.) – Agricultural Machinery and Equipment*

بكالوريوس علوم زراعية – مكائن والآلات زراعية



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| 3. Program (Objectives) Goals        | أهداف البرنامج                       |
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| 5. Academic Staff                    | الهيئة التدريسية                     |
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### 1. Mission & Vision Statement

#### *Vision Statement*

#### الرؤيا

Advancement and excellence in agricultural engineering sciences and biosystems engineering, along with their applications, to prepare specialized and qualified professionals capable of keeping pace with labor market needs, so that the department becomes among the leading departments of colleges of agriculture locally and regionally..

#### *Mission Statement*

#### الأهداف

Preparing distinguished cadres capable of meeting labor market needs, conducting scientific research to keep pace with global developments, transferring knowledge, and localizing technology in pursuit of outstanding service for environmental development, community service, and the advancement of agricultural engineering fields, agricultural mechanization, and the use of farm machinery—through graduates holding university degrees at the bachelor's, master's, and doctoral levels..

### 2. Program Specification

|                 |                       |                       |           |
|-----------------|-----------------------|-----------------------|-----------|
| Programme code: | BSc-BIO               | ECTS                  | 240       |
| Duration:       | 4 levels, 8 Semesters | Method of Attendance: | Full Time |

In the first level, the student is introduced to the basic sciences, most of which are considered compulsory requirements of the university and the college. These include the Arabic language to

enhance students' linguistic skills and their ability to conduct formal correspondence, in addition to general physics, the English language, human rights and democracy, computer studies, and preparatory courses that students must complete to progress to the next level. These include mathematics, which serves as a foundation for statistics, and the engineering workshop course, which the student must understand in order to study the curricula in the subsequent stages.

At the second level, the courses are preparatory for progression to the third and fourth levels, where the student acquires extensive knowledge and skills in subjects such as statics and dynamics, which are important foundational courses for other subjects such as tractor performance mechanics, fluid mechanics, seeding and planting equipment, irrigation and drainage equipment, agricultural mechanization for animal production, and the English language. In addition, thermodynamics serves as a prerequisite for internal combustion engines, which constitute a fundamental basis for understanding the department's courses. This subject is considered a prerequisite for most courses in the third and fourth levels, including soil preparation equipment, orchard equipment, as well as harvesting and post-harvest equipment, in addition to seminars and graduation projects.

### 3. Program Objectives

### اهداف البرنامج

1. Qualifying students both theoretically and practically through specialized curricula and courses.
2. The department grants a Bachelor's degree in Agricultural Sciences with a specialization in agricultural machinery and equipment, aiming to supply the labor market with specialists in agricultural machinery and power engineering, irrigation and drainage engineering, water management, food processing engineering, agricultural structures and environmental control engineering, and energy engineering.
3. The department aims to qualify and train students, both theoretically and practically, in the proper scientific and technical operation of agricultural machinery and equipment in plant and animal production, as well as food processing technologies; maintaining and repairing all agricultural machinery; managing and utilizing agricultural equipment optimally; and training in service operations such as welding, filing, and turning, while promoting respect for manual work in the field, workshop, and laboratory.
4. Contributing, in cooperation with other scientific departments in the college, its administration, and the university, to preparing agricultural professionals, researchers, and planners across various fields and specializations by providing them with knowledge development related to agricultural engineering technology (machinery and equipment) connected to their areas of expertise.
5. Developing the study plan of the Agricultural Machinery and Equipment Department to keep pace with modern technological advancements, applying quality assurance and accreditation standards to enhance student performance in comprehension, learning, interpersonal interaction, and in planning and solving community development problems.
6. Promoting technologies for rationalizing water consumption and expanding agricultural land areas that previously lacked sufficient water allocations through the adoption of mechanized irrigation techniques.

7. Encouraging students to engage in research and innovation by introducing courses that develop intellectual skills, fostering economic and societal planning, constructive dialogue, and decision-making, as well as supporting educational development programs and enhancing the skills of educators and trainers through continuous education and graduate follow-up units.
8. Conducting numerous studies and research projects to address and solve agricultural problems using technological methods.
9. Carrying out scientific research in environmental engineering and protection, and in the use of alternative biosystems and renewable energy sources.
10. Organizing specialized training courses aimed at developing the technical knowledge of professionals in the field of agricultural mechanization.
11. Promoting intellectual development by creating a creative environment through organizing field days for various agricultural activities in which agricultural mechanization plays an active role in improving and developing different agricultural practices.

#### 4. Student Learning Outcomes مخرجات التعلم للطالب

##### Knowledge and skills expected to be acquired by graduates of the Agricultural Machinery and Equipment Department:

1. Designing, operating, maintaining, and managing agricultural machinery, tractors, and equipment used in agricultural production processes.
2. Automated control of farm operation systems.
3. Planning, designing, and maintaining both traditional and modern irrigation systems.
4. Planning, designing, and managing agricultural land drainage networks.
5. Understanding the physical and thermal properties of food materials and the applications of heat and mass transfer.
6. Designing structures for animal and plant production, as well as grain storage facilities.
7. Designing and selecting environmental control systems, including ventilation, cooling, and heating.

#### 5. Academic Staff الهيئة التدريسية

| No | Names teaching staff      | Academic title    | Degree   | General Specialization               | Subspecialization                    | Email                                                                        |
|----|---------------------------|-------------------|----------|--------------------------------------|--------------------------------------|------------------------------------------------------------------------------|
| 1  | Momtaz Isaak Hommoood     | Professor         | PhD      | Agricultural Mechanization           | Agricultural Machinery and Equipment | <a href="mailto:momtaz.isaak@tu.edu.iq">momtaz.isaak@tu.edu.iq</a>           |
| 2  | Thaer Turki Abdul Karim   | Professor         | PhD      | Agricultural Machinery and Equipment | Agricultural Machinery and Power     | <a href="mailto:thaerturky@tu.edu.iq">thaerturky@tu.edu.iq</a>               |
| 3  | Ahmed Abdul Ali Abtan     | Lecturer          | PhD      | Agricultural Mechanization           | Agricultural Machinery and Equipment | <a href="mailto:ahmedabtan@tu.edu.iq">ahmedabtan@tu.edu.iq</a>               |
| 4  | Ahmed Imad Saleh          | Lecturer          | PhD      | Food Science                         | Food Science                         | <a href="mailto:a.emad004@tu.edu.iq">a.emad004@tu.edu.iq</a>                 |
| 5  | Ahmed Dawood Salman       | Lecturer          | PhD      | Soil Science                         | Soil Physics                         | <a href="mailto:a.dawood006@tu.edu.iq">a.dawood006@tu.edu.iq</a>             |
| 6  | Abdullah Azawi Issa       | Assist. Professor | Master's | Agricultural Mechanization           | Agricultural Machinery and Equipment | <a href="mailto:abdullah.azawi@tu.edu.iq">abdullah.azawi@tu.edu.iq</a>       |
| 7  | Abdul Qader Ghaleb Nasser | Lecturer          | Master's | Agricultural Mechanization           | Agricultural Machinery and Equipment | <a href="mailto:abdalkader.ghalib@tu.edu.iq">abdalkader.ghalib@tu.edu.iq</a> |
| 8  | Sara Namas Ahmed          | Assist. Lecturer  | Master's | Soil Science                         | Soil Physics                         | <a href="mailto:sara.namis@tu.edu.iq">sara.namis@tu.edu.iq</a>               |

## 6. Credits, Grading and GPA

## الاعتمادات والدرجات والمعدل التراكمي

The College of Agriculture at Tikrit University follows the Bologna Process through the European Credit Transfer and Accumulation System (ECTS). The total number of ECTS credits required for the degree program is 240 credits, with 30 ECTS credits allocated per semester. Each ECTS credit corresponds to 25 hours of student workload, including both structured and unstructured learning activities, for the first and second stages of the 2025–2026 academic year.

In addition, the general semester system is applied for stages beyond the first year.

### Grading

Before evaluation, results are divided into two subgroups: pass and fail. Therefore, the results of successful students are independent and separate from those of failed the course. The grading system is defined as follows: students who

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

### Calculation of the Cumulative Grade Point Average (CGPA)

1. The CGPA is calculated by the summation of each module score multiplied by its ECTS, all are divided by the program total ECTS.

CGPA of a 4-year B.Sc. degree:

$$\text{CGPA} = [ (1^{\text{st}} \text{ module score} \times \text{ECTS}) + (2^{\text{nd}} \text{ module score} \times \text{ECTS}) + \dots ] / 240$$

## 7. Curriculum/Modules

## المواد الدراسية

### Semester 1 | 30 ECTS | 1 ECTS = 25 hrs

| Code    | Module                           | SSWL | USSWL | ECTS | Type | Pre-request |
|---------|----------------------------------|------|-------|------|------|-------------|
| UOT002  | English language                 | 33   | 17    | 2.00 | B    |             |
| UOT004  | Democracy and Human rights       | 32   | 18    | 2.00 | B    |             |
| MATH105 | Mathematics1                     | 48   | 77    | 5.00 | B    |             |
| AGRSS01 | Soil Science                     | 78   | 47    | 5.00 | S    |             |
| AGRFC01 | Field crop production technology | 78   | 47    | 5.00 | S    |             |
| AGRAM01 | Engineering Drawing              | 48   | 77    | 5.00 | C    |             |
| AGRAM04 | Physics                          | 78   | 72    | 6.00 | C    |             |

### Semester 2 | 30 ECTS | 1 ECTS = 25 hrs

| Code    | Module                                 | SSWL | USSWL | ECTS | Type | Pre-request |
|---------|----------------------------------------|------|-------|------|------|-------------|
| UOT001  | Arabic language                        | 32   | 18    | 2.00 | B    |             |
| UOT003  | Computer Application1                  | 48   | 27    | 3.00 | B    |             |
| AGRAM02 | Engineering Workshop                   | 48   | 77    | 5.00 | C    |             |
| AGRAM03 | Agricultural Tractors                  | 78   | 72    | 6.00 | C    |             |
| AGRAM05 | Surveying and Land leveling            | 78   | 72    | 6.00 | C    |             |
| AGREG01 | Transfer of agricultural technologies  | 32   | 43    | 3.00 | S    |             |
| AGRHL01 | Horticulture & Landscaping Engineering | 78   | 47    | 5.00 | S    |             |

### Semester 3 | 30 ECTS | 1 ECTS = 25 hrs

| Code    | Module                            | SSWL | USSWL | ECTS | Type | Pre-request |
|---------|-----------------------------------|------|-------|------|------|-------------|
| UOT011  | Arabic language 2                 | 32   | 18    | 2    | B    |             |
| UOT014  | Crimes of the Bath Regime in Iraq | 32   | 18    | 2    | B    |             |
| AGRPP01 | Plant protection principles       | 63   | 87    | 6    | S    |             |
| AGRFT01 | Fundamentals of Food Technology   | 63   | 87    | 6    | S    |             |
| AGRMT02 | Metallurgy                        | 63   | 112   | 7    | C    |             |
| AGREM02 | Engineering Mechanics             | 63   | 112   | 7    | C    |             |

**Semester 4 | 30 ECTS | 1 ECTS = 25 hrs**

| Code    | Module                           | SSWL | USSWL | ECTS | Type | Pre-request |
|---------|----------------------------------|------|-------|------|------|-------------|
| UOT012  | English language 2               | 32   | 18    | 2    | B    |             |
| UOT013  | Computer Application 2           | 48   | 27    | 3    | B    |             |
| AGREDE1 | Experimental Design and Analysis | 63   | 87    | 6    | S    |             |
| AGRACE1 | Agriculture Career Ethics        | 62   | 63    | 5    | S    |             |
| AGRMD1  | Mechanical Drawing               | 33   | 142   | 7    | C    |             |
| AGRSM1  | Soil Mechanics                   | 63   | 112   | 7    | C    |             |

**Semester 5 | 30 ECTS | 1 ECTS = 25 hrs**

| Code     | Module                              | SSWL | USSWL | ECTS | Type | Pre-request |
|----------|-------------------------------------|------|-------|------|------|-------------|
| AGRSPE01 | Soil preparation equipment          | 63   | 62    | 5    | C    |             |
| AGRSFE02 | Seeding and fertilization equipment | 63   | 62    | 5    | C    |             |
| AGRTHRO3 | Thermodynamics                      | 63   | 62    | 5    | C    |             |
| AGRFM04  | Fluid mechanics                     | 63   | 62    | 5    | C    |             |
| AGRIDE05 | Irrigation and drainage engineering | 63   | 62    | 5    | S    |             |
| AGRAPM06 | Animal production mechanization     | 63   | 62    | 5    | C    |             |

**Semester 6 | 30 ECTS | 1 ECTS = 25 hrs**

| Code     | Module                                 | SSWL | USSWL | ECTS | Type | Pre-request |
|----------|----------------------------------------|------|-------|------|------|-------------|
| AGRTPM01 | Tractor Performance Mechanics          | 63   | 87    | 6    | C    |             |
| AGRICE02 | Internal Combustion Engines            | 63   | 87    | 6    | C    |             |
| AGRAMD03 | Agricultural Machinery Design Theories | 63   | 87    | 6    | C    |             |
| AGRIDE06 | Irrigation and Drainage Equipment      | 63   | 87    | 6    | C    |             |
| AGROE07  | Orchard Equipment                      | 63   | 62    | 5    | C    |             |
| AGRSEM08 | Seminars                               | 17   | 8     | 1    | C    |             |

**Semester 7 | 30 ECTS | 1 ECTS = 25 hrs**

| Code     | Module                                      | SSWL | USSWL | ECTS | Type | Pre-request |
|----------|---------------------------------------------|------|-------|------|------|-------------|
| AGRHME01 | Heavy Machinery and Equipment               | 63   | 87    | 6    | C    |             |
| AGRAMA02 | Agricultural Mechanization Automation       | 63   | 62    | 5    | C    |             |
| AGRTMR03 | Agricultural Tractor Maintenance and Repair | 63   | 87    | 6    | C    |             |
| AGRREN04 | Renewable Energy                            | 63   | 87    | 6    | C    |             |
| AGRFPE05 | Food Processing Equipment                   | 63   | 62    | 5    | C    |             |
| AGRPRJ06 | Graduation Project                          | 47   | 3     | 2    | C    |             |

**Semester 8 | 30 ECTS | 1 ECTS = 25 hrs**

| Code     | Module                           | SSWL | USSWL | ECTS | Type | Pre-request |
|----------|----------------------------------|------|-------|------|------|-------------|
| AGRPCA01 | Precision Agriculture            | 63   | 87    | 6    | C    |             |
| AGRHRE02 | Harvesting Equipment             | 63   | 87    | 6    | C    |             |
| AGRPHE03 | Post-Harvest Equipment           | 63   | 87    | 6    | C    |             |
| AGRAME04 | Agricultural Machinery Economics | 63   | 62    | 5    | C    |             |
| AGRPPE05 | Plant Protection Equipment       | 63   | 62    | 5    | C    |             |
| AGRPRJ06 | Graduation Project               | 47   | 3     | 2    | C    |             |

**1. Contact Information****معلومات الاتصال**

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Program Coordinator:

Thaer Turkey| Ph.D. | Prof.

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Mobile no.:07774194333



## Academic Program Description Form

**University Name:** Tikrit University

**Faculty/Institute:** College of Agriculture

**Scientific Department:** Soil and Water Resources Sciences

**Academic or Professional Program Name:** Bachelor of Agricultural Sciences/  
Soil and Water Resources Sciences

**Final Certificate Name:** Bachelor of Agricultural Sciences/ Soil and Water  
Resources Sciences

**Academic System:** Bologna

**Description Preparation Date:** 14/9/2025

**File Completion Date:** 14/9/2025

**Signature:**

**Head of Department Name:**

professor Dr. Mohammed J. Farhan

**Date:** 14.9.2025

**The file is checked by:**

**Department of Quality Assurance and University Performance**

**Director of the Quality Assurance and University Performance Department:**

Professor Dr. Maysaloon Wail Ibraheem

**Date:** 14.9.2025

**Signature:**

**Signature:**

**Scientific Associate Name:**

Professor Dr. Mohammed saleh Mohammed

**Date:** 14.9.2025

**Dr. Sami**

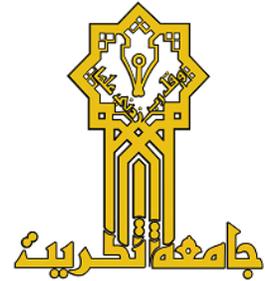
**Approval of the Dean**

**Dr. Sami Khader Saeed**

**Date:** 14/9/2025

# Tikrit UNIVERSITY

## College of Agriculture



First Cycle – Bachelor’s Degree (B.Sc.)  
– Soil and Water Resources Sciences



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### 1. Mission & Vision Statement

#### *Vision Statement*

To be a leading department among its counterparts in the country through its scientific staff and graduates, and to provide consultations, research, and community service in the fields of Soil Science and Water Resources.

#### *Mission Statement*

To supply society with qualified scientific talents and competent graduates, well-prepared in both theoretical and practical aspects in the fields of Soil Science and Water Resources, and to deliver rigorous research and professional consultations to those working in the agricultural sector.

### 2. Program Specification

|                        |                       |                              |           |
|------------------------|-----------------------|------------------------------|-----------|
| <b>Programme code:</b> | ECO – EXT             | <b>ECTS</b>                  | 240       |
| <b>Duration:</b>       | 4 levels, 8 Semesters | <b>Method of Attendance:</b> | Full Time |

## Levels of the Soil Science and Water Resources Program

The Bachelor's Program in Soil Science and Water Resources aims to prepare graduates with progressively developed professional and academic competencies across four levels, as follows:

---

### ◆ Level One (First Year): Foundational Level

Objective:

To provide students with general scientific foundations in agricultural and biological sciences.

Outcomes:

- Understanding the basic principles of biology, chemistry, statistics, and computer science.
  - Familiarity with the fundamental concepts of soil science and agricultural production.
  - Acquiring basic skills in the use of scientific terminology and laboratory equipment.
  - Building a general knowledge base for specialization.
- 

### ◆ Level Two (Second Year): Specialized Level

Objective:

To build specialized knowledge in the principles and fundamentals of Soil Science and Water Resources.

Outcomes:

- Understanding the principles and fundamentals of Soil Science and Water Resources.
  - Ability to interpret phenomena from a scientific perspective.
  - Developing skills in soil, water, and plant analysis.
  - Familiarity with scientific research methods and critical thinking.
-

◆ Level Three (Third Year): Applied Level

Objective:

To integrate theoretical knowledge with practical skills in the field of Soil Science and Water Resources.

Outcomes:

- Applying scientific concepts in soil management and modern irrigation methods.
  - Conducting field scientific experiments in soil physics, soil chemistry, soil fertility, soil survey and classification, and soil microbiology.
  - Developing the ability to work collaboratively in research and field environments.
- 

◆ Level Four (Fourth Year): Professional and Research Level

Objective:

To qualify graduates as professional practitioners and researchers capable of serving both academic and practical sectors.

Outcomes:

- Designing, implementing, and managing various agricultural projects.
  - Managing fertilization programs and utilizing modern technologies in agricultural projects.
  - Planning, designing, and maintaining traditional and modern irrigation systems.
  - Optimal management and rational utilization of water resources.
  - Developing biofertilization methods within the concepts of clean and sustainable agriculture.
  - Possessing skills in scientific thinking, professional communication, and sustainable planning.
-

## Summary of Levels

Academic Year

Preparation Level

Type of Competency Acquired

- First Year (Basic – General):

Fundamental knowledge in agricultural sciences.

- Second Year (Specialized – Fundamental):

Principles and fundamentals of Soil Science and Water Resources.

- Third Year (Applied):

Practical and field-based skills.

- Fourth Year (Professional & Research):

Advanced scientific competency and professional independence.

## 3. Program Goals

The educational objectives of the program are as follows:

1. Qualifying students both theoretically and practically through specialized curricula and courses.
2. The department awards a Bachelor's degree in Soil Science and Water Resources, with specializations in soil fertility and fertilizers, soil chemistry, soil physics, soil survey and classification, and soil microbiology, to supply the labor market with graduates who possess the knowledge and skills necessary for sustainable and efficient soil and water resource management.
3. Training and qualifying students scientifically and practically in all fields of Soil Science and Water Resources to contribute to improving, developing, and increasing agricultural production and ensuring the efficient investment of natural resources.

4. Establishing water-use rationalization technologies and expanding agricultural land into areas previously lacking secured water allocations through the adoption of modern irrigation technologies.
5. Encouraging students toward research and innovation by adding courses that develop intellectual skills, economic and societal planning capabilities, constructive dialogue and discussion, decision-making support, and engagement with educational development programs, as well as enhancing teaching and training skills to benefit graduates through continuing education and development programs and the Graduate Follow-up Unit.
6. Conducting various research studies to address and solve agricultural problems using technical methods.

## Student Learning Outcomes

1. Designing, implementing, and managing various agricultural projects.
2. Managing fertilization programs and utilizing modern technologies in agricultural projects.
3. Planning, designing, and maintaining traditional and modern irrigation systems.
4. Planning, designing, and managing agricultural land drainage networks.
5. Optimal management and rational use of water resources.
6. Developing biofertilization methods within the concepts of clean and sustainable agriculture.

## 4- Academic Staff

| No. | Full Name                   | Academic Title | Degree | Email                   |
|-----|-----------------------------|----------------|--------|-------------------------|
| 1   | Abdul Kareem Aribi Saba     | Professor      | PhD    | alkurtany@tu.edu.iq     |
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|    |                       |                     |          |                                |
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| 28 | Raghad Qasim Kadhim   | Assistant Lecturer  | Master's | raghadraghad@tu.edu.iq         |

## 6. Credits, Grading and GPA

### *Credits*

Tikrit University follows Bologna Learning Process with the European Credit Transfer System (ECTS) credit system. The total degree program number of ECTS is 240, 30 ECTS per semester. 1 ECTS is equivalent to 25 hrs. student workload, including structured and unstructured workload.

### *Grading*

Before the evaluation, the results are divided into two subgroups: pass and fail. Therefore, the results are independent of the students who failed a course. The grading system is defined as follows:

| GRADING SCHEME                                                                                                                                                                                                                                                                                                                                                                  |                  |  |           |                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--|-----------|---------------------------------------|
| Group                                                                                                                                                                                                                                                                                                                                                                           | Grade            |  | Marks (%) | Definition                            |
| Success Group<br>(50 - 100)                                                                                                                                                                                                                                                                                                                                                     | A - Excellent    |  | 90 - 100  | Outstanding Performance               |
|                                                                                                                                                                                                                                                                                                                                                                                 | B - Very Good    |  | 80 - 89   | Above average with some errors        |
|                                                                                                                                                                                                                                                                                                                                                                                 | C - Good         |  | 70 - 79   | Sound work with notable errors        |
|                                                                                                                                                                                                                                                                                                                                                                                 | D - Satisfactory |  | 60 - 69   | Fair but with major shortcomings      |
|                                                                                                                                                                                                                                                                                                                                                                                 | E - Sufficient   |  | 50 - 59   | Work meets minimum criteria           |
| Fail Group<br>(0 - 49)                                                                                                                                                                                                                                                                                                                                                          | FX - Fail        |  | (45-49)   | More work required but credit awarded |
|                                                                                                                                                                                                                                                                                                                                                                                 | F - Fail         |  | (0-44)    | Considerable amount of work required  |
|                                                                                                                                                                                                                                                                                                                                                                                 |                  |  |           |                                       |
| <b>Note:</b>                                                                                                                                                                                                                                                                                                                                                                    |                  |  |           |                                       |
| <p>Number 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.</p> |                  |  |           |                                       |

### ***Calculation of the Cumulative Grade Point Average (CGPA)***

The CGPA is calculated by the summation of each module score multiplied by its ECTS, all are divided by the program total ECTS.

CGPA of a 4-year B.Sc. degree:

$$\text{CGPA} = [(1\text{st module score} \times \text{ECTS}) + (2\text{nd module score} \times \text{ECTS}) + \dots] / 24$$

## 7. Curriculum/Modules

**Semester 1 | 30 ECTS | 1 ECTS = 25 hr.**

| Module Code | Module Name in            | SSWL    | USSWL   | ECTS | Module Type | Prerequisite |
|-------------|---------------------------|---------|---------|------|-------------|--------------|
|             |                           | hr./Sem | hr./Sem |      |             |              |
| UOT002      | English language          | 33      | 17      | 2.00 | B           |              |
| AGRSS04     | Engineering drawing       | 48      | 77      | 5.00 | S           |              |
| AGRSS02     | mathematics               | 33      | 67      | 4.00 | S           |              |
| AGRSS03     | Fundamentals of Chemistry | 78      | 122     | 8.00 | S           |              |
| AGRSS01     | Fundamentals of Geology   | 78      | 122     | 8.00 | C           |              |
| UOT003      | computerI                 | 48      | 27      | 3.00 | B           |              |

**Semester2 | 30 ECTS | 1 ECTS = 25 hr.**

| Module Code | Module Name in                         | SSWL    | USSWL   | ECTS | Module Type | Prerequisite |
|-------------|----------------------------------------|---------|---------|------|-------------|--------------|
|             |                                        | hr./Sem | hr./Sem |      |             |              |
| UOT001      | Arabic                                 | 33      | 17      | 2.00 | B           |              |
| UOT004      | Democracy and human rights             | 33      | 17      | 2.00 | B           |              |
| AGRSS05     | General Physics                        | 78      | 22      | 4.00 | S           |              |
| AGRSS07     | Fundamentals of field crops            | 78      | 47      | 5.00 | S           |              |
| AGRSS08     | Vegetable production                   | 63      | 87      | 6.00 | S           |              |
| AGRSS06     | Land surveying and leveling            | 63      | 87      | 6.00 | C           |              |
| AGRSS09     | Fundamentals of Agricultural Economics | 33      | 92      | 5.00 | S           |              |

**Semester3 | 30 ECTS | 1 ECTS = 25 hr.**

| Module Code | Module Name in                                | SSWL    | USSWL   | ECTS | Module Type | Prerequisite |
|-------------|-----------------------------------------------|---------|---------|------|-------------|--------------|
|             |                                               | hr./Sem | hr./Sem |      |             |              |
| AGRSS10     | Fundamentals of Soil Science                  | 78      | 97      | 7.00 | C           |              |
| AGRSS11     | Agricultural statistics                       | 78      | 22      | 4.00 | S           |              |
| AGRSS12     | Soil environment and weather                  | 78      | 47      | 5.00 | C           |              |
| AGRSS13     | Sustainable development and smart agriculture | 33      | 92      | 5.00 | C           |              |
| AGRSS14     | Fundamentals of Microbiology                  | 78      | 47      | 5.00 | S           |              |
| UOT021      | English languageII                            | 33      | 17      | 2.00 | B           |              |
| UOT005      | Crimes of the Ba'ath regime in Iraq           | 33      | 17      | 2.00 | B           |              |

**Semester4 | 30 ECTS | 1 ECTS = 25 hr.**

| Module Code | Module Name in                         | SSWL    | USSWL   | ECTS | Module Type | Prerequisite |
|-------------|----------------------------------------|---------|---------|------|-------------|--------------|
|             |                                        | hr./Sem | hr./Sem |      |             |              |
| AGRSS15     | Plant protection basics                | 78      | 47      | 5.00 | S           |              |
| AGRSS16     | Soil, water, and plant analysis        | 78      | 72      | 6.00 | C           |              |
| AGRSS17     | Fundamentals of Agricultural Extension | 33      | 67      | 4.00 | S           |              |
| AGRSS18     | Agricultural machinery and equipment   | 78      | 47      | 5.00 | S           |              |
| UOT011      | ArabicII                               | 33      | 17      | 2.00 | B           |              |
| AGRSS19     | Fundamentals of Animal Production      | 78      | 47      | 5.00 | S           |              |
| UOT031      | computerII                             | 48      | 27      | 3.00 | B           |              |

## **8. Contact**

**Head Department:**

**Prof. Dr. Mohammed J. Farhan**

**University of Tikrit- College of Agriculture**

**Department of Soil and Water Resources Sciences**

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**Email: [mojafd79@tu.edu.iq](mailto:mojafd79@tu.edu.iq)**

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**University of Tikrit**

**College of Agriculture**

**Department of Soil and Water Resources Sciences**

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**Program**

**Coordinator:**

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### Academic Program Description Form

**University Name:** Tikrit University

**Faculty/Institute:** College of Agriculture

**Scientific Department:** Plant Protection

**Academic or Professional Program Name:** Bachelor of Agricultural Sciences/  
Plant Protection

**Final Certificate Name:** Bachelor of Agricultural Sciences/ Plant Protection

**Academic System:** Bologna

**Description Preparation Date:** 14/9/2025

**File Completion Date:** 14/9/2025

**Signature:**

**Head of Department Name:**

assistant professor: Awad J.Mohammed

**Date:** 14-9-2025

**Signature:**

**Scientific Associate Name:**

Professor Dr. Mohammed saleh Mohammed

**Date:** 14-9-2025

**The file is checked by:**

Department of Quality Assurance and University Performance

**Director of the Quality Assurance and University Performance Department:**

Professor Dr. Maysaloon Wail Ibraheem

**Date:** 14-9-2025

**Signature:**



**Approval of the Dean**

**Dr. Sami Khudhur Saeed**

**sami khudhur saeed**

**Dean**

## Tikrit university

## جامعة تكريت



*First Cycle – Bachelor's degree (B.Sc.) – plant protection*

بكالوريوس وقاية نبات

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|                                      |                                      |
|--------------------------------------|--------------------------------------|
| 1. Mission & Vision Statement        | بيان المهمة والرؤية                  |
| 2. Program Specification             | مواصفات البرنامج                     |
| 3. Program (Objectives) Goals        | أهداف البرنامج                       |
| 4. Program Student learning outcomes | مخرجات تعلم الطالب                   |
| 5. Academic Staff                    | الهيئة التدريسية                     |
| 6. Credits, Grading and GPA          | الاعتمادات والدرجات والمعدل التراكمي |
| 7. Modules                           | المواد الدراسية                      |
| 8. Contact                           | اتصال                                |

## 1. Mission & Vision Statement

### *Vision Statement*

That the Department of Plant Protection be the leading one among the corresponding departments in Iraqi universities.

### *Mission Statement*

The plant protection academic staff of the agriculture college at Tikrit University believe that students come to understand the discipline of most of pests through a combination of course work, laboratory experiences, Worker , and fieldwork. The combination of methods leads students to a balanced between controlling the pests and keeping the ecosystem .

## 2. Program Specification

|                 |                       |                       |           |
|-----------------|-----------------------|-----------------------|-----------|
| Programme code: | BSc-PPD               | ECTS                  | 240       |
| Duration:       | 4 levels, 8 Semesters | Method of Attendance: | Full Time |

Plant protection is a wonderfully wide-ranging subject and is well equipped to deliver. The emphasis of the programme is the whole plant to which everything is related, be it the soil or water that form as well as micro organisms , Insect ,mite and all pests in an ecosystem.

well be infected the plants in field ,as well as all methods can using to controlling its.

### **3. Program Objectives**

1. Preparing and providing distinguished university education in the sectors of plant and insect diseases and resistance methods
2. Spreading science and knowledge among members of society through constant communication with agricultural extension departments and private beverage companies.
3. Keeping pace with developments in conducting scientific research with its clinical and laboratory courtesy, keeping up with the latest findings of the results of this research, and approving programs for integrated pest management and virus control.
4. Continuous development of curricula by amending the academic description of each course and adopting the standards described by the Ministry in evaluating the performance of teaching staff.

### **4. Student Learning Outcomes**

Student learning outcomes

In the Department of Plant Protection, the study of various agricultural pests and their damage to agricultural crops is studied. Graduates obtain sufficient information about the damage and symptoms of each lesion and use basic knowledge to achieve a diagnosis and prescribe appropriate treatment. . The department offers a Bachelor of Agricultural Sciences in Plant Protection. The department plays an important role as a consulting center in diagnosing pests that are requested to be diagnosed and prescribing appropriate treatment by Warara Agriculture institutions and private sector companies, which makes the graduate qualified to work in state institutions and the private sector and supports preparatory programs for master's and doctoral studies in the department and other departments in Universities of the country or foreign universities.

outcomes 1

Graduates will be able to diagnose pests by appearance and laboratory, classify them, and be able to control them

outcomes 2

Oral and written communication

Graduates will be able to formally communicate diagnostic findings of lesions using oral and written communication skills

outcomes 3

Laboratory and field studies

Graduates will be able to conduct laboratory experiments and field studies, using scientific and laboratory equipment and computer technology while observing appropriate safety protocols when using different control methods.

outcomes 4

Scientific knowledge

Graduates will be able to demonstrate the concept of environmental balance through their acquired scientific knowledge, environmental conservation and the agricultural ecosystem

outcomes 5

Data analytics

Graduates will be able to demonstrate scientific quantitative skills, such as the ability to perform simple data analyses.

outcomes 6

Critical thinking

Graduates will be able to use critical thinking and problem-solving skills to develop a research project and/or paper

## 5. Academic Staff

| Special Requirements/Skills (if applicable) |       | Number of the teaching staff<br>27 |                  |                        |                                                                              |  |
|---------------------------------------------|-------|------------------------------------|------------------|------------------------|------------------------------------------------------------------------------|--|
| name                                        | dgree | Scintefec name                     | Specialization   |                        | Email                                                                        |  |
|                                             |       |                                    | general          | Special                |                                                                              |  |
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## 6. Credits, Grading and GPA

### **Credits**

Tikrit University is following the Bologna Process with the European Credit Transfer System (ECTS) credit system. The total degree program number of ECTS is 240, 30 ECTS per semester. 1 ECTS is equivalent to 25 hrs student workload, including structured and unstructured workload.

### **Grading**

Before the evaluation, the results are divided into two subgroups: pass and fail. Therefore, the results are independent of the students who failed a course. The grading system is defined as follows:

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

### Calculation of the Cumulative Grade Point Average (CGPA)

- The CGPA is calculated by the summation of each module score multiplied by its ECTS, all are divided by the program total ECTS.

CGPA of a 4-year B.Sc. degree:

$$CGPA = [ (1st^{module} \text{ score} \times ECTS) + (2nd^{module} \text{ score} \times ECTS) + \dots ] / 240$$

## 7. Curriculum/Modules

Semester 1 | 30 ECTS | 1 ECTS = 25 hrs

| Module Code | Module Name in English  | SSWL   | USSWL  | ECTS | Module Type | Prerequisite Module(s) Code |
|-------------|-------------------------|--------|--------|------|-------------|-----------------------------|
|             |                         | hr/sem | hr/sem |      |             |                             |
| PPD-1101    | Entomology              | 79     | 71     | 6.00 | C           |                             |
| AGR-1102    | Horticulture principles | 79     | 71     | 6.00 | S           |                             |
| PPD-1103    | General Zoology         | 79     | 71     | 6.00 | C           |                             |
| AGR-1104    | Agricultural economy    | 33     | 67     | 4.00 | S           |                             |

|                 |                            |    |    |      |   |  |
|-----------------|----------------------------|----|----|------|---|--|
| <b>UNI-1105</b> | Human Rights and Democracy | 33 | 42 | 3.00 | B |  |
| <b>UNI-1106</b> | English Language 1         | 33 | 17 | 2.00 | B |  |
| <b>UNI-1107</b> | Computer Science 1         | 33 | 42 | 3.00 | B |  |

**Semester 2 | 30 ECTS | 1 ECTS = 25 hrs**

| Module Code      | Module Name in English             | SSWL   | USSWL  | ECTS | Module Type | Prerequisite Module(s) Code |
|------------------|------------------------------------|--------|--------|------|-------------|-----------------------------|
|                  |                                    | hr/sem | hr/sem |      |             |                             |
| <b>AGR-1201</b>  | General Botany                     | 79     | 46     | 5.00 | S           |                             |
| <b>AGR-1202</b>  | Non-Organic Chemistry              | 79     | 46     | 5.00 | S           |                             |
| <b>PPD-1203</b>  | Basics of plant protection         | 79     | 41     | 5.00 | C           |                             |
| <b>AGR-1204</b>  | Basics of soil and water resources | 79     | 46     | 5.00 | S           |                             |
| <b>AGR-1205</b>  | General Mathematics                | 33     | 67     | 4.00 | S           |                             |
| <b>AGR -1206</b> | Animal production principles       | 63     | 37     | 4.00 | B           |                             |
| <b>UNI-1207</b>  | Arabic Language 1                  | 33     | 17     | 2.00 | B           |                             |

**Semester 3 | 30 ECTS | 1 ECTS = 25 hrs**

| Module Code       | Module Name in English                        | SSWL   | USSWL  | ECTS | Module Type | Prerequisite Module(s) Code |
|-------------------|-----------------------------------------------|--------|--------|------|-------------|-----------------------------|
|                   |                                               | hr/sem | hr/sem |      |             |                             |
| <b>PPDP-2301</b>  | Microbiology techniques                       | 79     | 71     | 6.00 | C           |                             |
| <b>PPDP-2302</b>  | Biosafety and security                        | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-2303</b>  | Plant physiology                              | 79     | 46     | 5.00 | C           |                             |
| <b>AGRP -2304</b> | Agricultural guidance and techniques transfer | 79     | 46     | 5.00 | S           |                             |
| <b>AGRP-2305</b>  | Machines and protective equipment             | 33     | 67     | 4.00 | S           |                             |
| <b>UNIP-2306</b>  | Baath Party crimes                            | 53     | 22     | 3.00 | B           |                             |
| <b>UNIP-2307</b>  | Arabic Language 2                             | 33     | 17     | 2.00 | B           |                             |

**Semester 4 | 30 ECTS | 1 ECTS = 25 hrs**

| Module Code       | Module Name in English    | SSWL   | USSWL  | ECTS | Module Type | Prerequisite Module(s) Code |
|-------------------|---------------------------|--------|--------|------|-------------|-----------------------------|
|                   |                           | hr/sem | hr/sem |      |             |                             |
| <b>AGRP -2401</b> | Principles of field crops | 79     | 46     | 5.00 | S           |                             |
| <b>PPDP-2402</b>  | Plant nutrition           | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-2403</b>  | Classification of insects | 79     | 46     | 5.00 | C           |                             |

|                  |                                              |    |    |      |   |  |
|------------------|----------------------------------------------|----|----|------|---|--|
| <b>UNIP-2404</b> | Computer Science and Artificial Intelligence | 33 | 42 | 3.00 | B |  |
| <b>PPDP-2405</b> | General chemistry techniques                 | 79 | 46 | 5.00 | C |  |
| <b>PPDP-2406</b> | Medical and veterinary insects               | 79 | 46 | 5.00 | C |  |
| <b>UNIP-2407</b> | English Language 2                           | 33 | 17 | 2.00 | B |  |

**Semester 5 | 30 ECTS | 1 ECTS = 25 hrs**

| Module Code      | Module Name in English                            | SSWL   | USSWL  | ECTS | Module Type | Prerequisite Module(s) Code |
|------------------|---------------------------------------------------|--------|--------|------|-------------|-----------------------------|
|                  |                                                   | hr/sem | hr/sem |      |             |                             |
| <b>PPDP-3501</b> | Genetics and plant Breeding                       | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-3502</b> | Statistics and Design and Analysis of Experiments | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-3503</b> | Insects physiology                                | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-3504</b> | Nematode                                          | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-3505</b> | Mycology 1                                        | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-3506</b> | Ecology and Sustainable Agriculture               | 79     | 46     | 5.00 | C           |                             |

**Semester 6 | 30 ECTS | 1 ECTS = 25 hrs**

| Module Code      | Module Name in English            | SSWL   | USSWL  | ECTS | Module Type | Prerequisite Module(s) Code |
|------------------|-----------------------------------|--------|--------|------|-------------|-----------------------------|
|                  |                                   | hr/sem | hr/sem |      |             |                             |
| <b>PPDP-3601</b> | Plant diseases                    | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-3602</b> | Weeds and methods of control them | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-3603</b> | Biochemistry                      | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-3604</b> | Mycology 2                        | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-3605</b> | Apiculture                        | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-3606</b> | Bio Techniques                    | 79     | 46     | 5.00 | C           |                             |

**Semester 7 | 30 ECTS | 1 ECTS = 25 hrs**

| Module Code      | Module Name in English                 | SSWL   | USSWL  | ECTS | Module Type | Prerequisite Module(s) Code |
|------------------|----------------------------------------|--------|--------|------|-------------|-----------------------------|
|                  |                                        | hr/sem | hr/sem |      |             |                             |
| <b>PPDP-4701</b> | Pesticides and environmental pollution | 79     | 46     | 5.00 | C           |                             |

|                  |                                              |    |    |      |   |  |
|------------------|----------------------------------------------|----|----|------|---|--|
| <b>PPDP-4702</b> | Insects ecology Techniques                   | 64 | 36 | 4.00 | C |  |
| <b>PPDP-4703</b> | Field crop diseases                          | 79 | 46 | 5.00 | C |  |
| <b>PPDP-4704</b> | Vegetable diseases and protected cultivation | 79 | 46 | 5.00 | C |  |
| <b>PPDP-4705</b> | Storages pests                               | 79 | 46 | 5.00 | C |  |
| <b>PPDP-4706</b> | Field crop insects                           | 79 | 46 | 5.00 | C |  |
| <b>PPDP-4707</b> | seminars                                     | 25 |    | 1.00 | C |  |

**Semester 8 | 30 ECTS | 1 ECTS = 25 hrs**

| Module Code      | Module Name in English           | SSWL   | USSWL  | ECTS | Module Type | Prerequisite Module(s) Code |
|------------------|----------------------------------|--------|--------|------|-------------|-----------------------------|
|                  |                                  | hr/sem | hr/sem |      |             |                             |
| <b>PPDP-4801</b> | Fruit diseases                   | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-4802</b> | Agriculture Mite                 | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-4803</b> | Horticulture Insects             | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-4804</b> | Biological control               | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-4805</b> | Integrated pest management       | 33     | 42     | 3.00 | C           |                             |
| <b>PPDP-4806</b> | Viruses                          | 79     | 46     | 5.00 | C           |                             |
| <b>PPDP-4807</b> | Agricultural engineering project | 25     | 25     | 2.00 | C           |                             |

## 8. Contact

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