



Academic Program Description

University Name: Tikrit University

Faculty/Institute: College of Agriculture

Scientific Department: Horticulture and Landscape

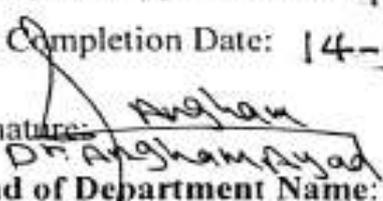
Academic or Professional Program Name: BSC.

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

Program code:	BSc-HL	ECTS	240
Duration:	4 levels, 8 Semesters	Attendance:	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):

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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
Success Group (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 (0 - 49)	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
TUAGRDRH	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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