



Academic Program Description Form for the Department of Horticulture and Landscape Design

University Name: University of Mosul

College: College of Agriculture and Forestry

Scientific Department: Department of Horticulture and Landscape Design

Name of the Academic or Professional Program: Master's Degree in Horticulture and Landscape Design

Name of the Final Degree: Master of Science in Horticulture and Landscape Design

Study System: Semester / Courses

Date of Preparing the Description: 10/9/2025

Date of Completing the File: 10/9/2025

Signature:

Name of the Scientific Assistant:
Prof. Dr. Hameed Hammood Ali

Date:

Signature:

Name of the Head of the Department:
Prof. Dr. Asmaa Mohammed Adil

Verified by:

Quality Assurance and University Performance Division

Name of the Head of the Quality Assurance and Performance Evaluation Division:

Assistant Lecturer Oday Abdulhadi Adday

Head of the Quality Assurance Unit: Lecturer Dr. Ramia Amer Khalil

Date: 11/9/2025

Signature:

Dean's Approval: Prof. Dr. Ali Farouq Al-Ma'athedi

1. Program Vision

Leadership and excellence in education and scientific research in the field of Horticulture and Landscape Design, through preparing specialized academic and professional cadres capable of developing scientific knowledge and applying modern technologies to serve the agricultural sector and achieve sustainable development.

1. Program Mission

Preparing specialized academic and professional cadres in Horticulture and Landscape Design who possess scientific competence, research and applied skills, are committed to professional ethics, and are capable of meeting the needs of society and the agricultural sector, and contributing to sustainable development through scientific research and continuous learning.

2. Program Objectives

- 1. Preparing specialized cadres with scientific and practical competence in Horticulture and Landscape Design, capable of meeting the requirements of the labor market.**
- 2. Providing a modern educational and research environment that enhances creativity, continuous learning, and the use of advanced technologies.**
- 3. Promoting professional ethics and adherence to legislation, professional standards, and academic quality.**
- 4. Supporting the principles of sustainable development and efficient management of natural resources and environmental conservation.**
- 5. Developing scientific research, planning, and analytical skills in horticultural fields and modern technologies.**
- 6. Equipping students with skills in management, production, marketing, and dealing with contemporary agricultural challenges.**

3. Program Accreditation

Not available.

4. Other External Influences

- ✓ Students' family and social conditions directly affect their academic**

performance and continuity in the program.

- ✓ Extracurricular and co-curricular activities contribute to enhancing students' skills and supporting their achievements within the academic program.
- ✓ The students' economic situation, and the fact that some of them are engaged in additional work, negatively affects their academic achievement and participation.
- ✓ The educational competence achieved in secondary education is considered a key indicator of students' excellence and their ability to succeed in the academic program.

5. Program Structure

Program Structure	Number of Courses	Academic Units	Percentage	Notes *
University Requirements	2	Fulfilled	%0	Core
College Requirements	2	3	%11.76	Core
Department Requirements	12	39	%70.58	Core
Others				

The Notes may include whether the course is Core or Elective.

6. Program Description / Master's Degree

	First Semester (Fall)				
Course Title (in English)	Course Code	Theoretical Hours	Practical Hours	Credit Units	Course Type
Physiology of Horticultural Crops	Ag.H.603	2	3	3	Core
Postharvest Physiology	Ag.H.613	2	3	3	Elective
Ornamental Trees and Shrubs	Ag.H.615	2	3	3	Elective
Plant Cell Inheritance	Ag.H.612	2	3	3	Elective
Advanced Experiments	Ag.Cr.601	2	3	3	Core

Design and,Analysis					
Advanced Plant Growth Regulators	Ag.H.604	2	3	3	Elective
Computer 2	Ag.Co.601	2	0	Fulfilled	Core
Seminars 1	Ag.Co.604	1	0	1	Core

	Second Semester (Spring)				
Course Title (in English)	Course Code	Theoretical Hours	Practical Hours	Credit Units	Course Type
Plant Propagation	Ag.H.601	2	3	3	Core
Ornanrental Plants Production	Ag.H.619	2	3	3	Elective
Fruit Production	Ag.H.606	2	3	3	Elective
Advanced Plant Breeding	Ag.H.608	2	3	3	Elective
Plant Growth and Developrnt	Ag.H.602	2	3	3	Core
Plant Tissue Culture	Ag.H.618	2	3	3	Elective
Flowering and Fruiting Physiology	Ag.H.610	2	3	3	Elective
Advanced Vegetable Production	Ag.H.605	2	3	3	Elective
Methodology 1	Ag.Co.603	2	0	2	Core
English Language 2	Ag.Co.602	2	0	Fulfilled	Core

7. Expected Program Learning Outcomes

المعرفة

A1	Demonstrating advanced knowledge of the basic and applied sciences related to
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	Horticulture and Landscape Design, and employing them in analyzing agricultural problems and finding appropriate solutions.
A2	Analyzing the concepts of biodiversity and strategies for conserving natural resources within sustainable horticultural systems and green space management.
A3	Assessing the risks associated with horticultural activities and applying sustainable management approaches and occupational safety practices in accordance with modern standards.
A4	Interpreting and developing methods for recycling plant waste and processing it within environmentally friendly horticultural production systems.
A5	Analyzing the social, cultural, and economic dimensions of agricultural communities and their relationship to the development of horticultural projects and green space expansion.
A6	Demonstrating advanced understanding of agricultural legislation, professional ethics, and quality management systems and their applications in the field of Horticulture and Landscape Design.
A7	Employing advanced scientific terminology and concepts in the fields of horticulture and rural environments in scientific research and academic communication.
A8	Possessing advanced knowledge of computer skills, languages, and human rights, in a way that supports scientific research and specialized professional practices.
Skills	
B1	Applying advanced agricultural practices to increase production and achieve agricultural sustainability while preserving the environment and natural resources.
B2	Developing safe and healthy food production systems for humans and animals, with optimal management of agricultural resources.
B3	Preparing economic budgets for agricultural projects and planning agricultural businesses based on market analyses and various economic conditions.
B4	Planning and conducting agricultural research and extension programs with high efficiency, with the ability to work independently and make decisions.
B5	Designing, managing, and evaluating agricultural projects using modern financial and technical assessment methods.
B6	Employing modern technology and information technology in agricultural applications while adopting sustainable and advanced technologies.
B7	Managing natural and water resources in a sustainable manner and adapting to environmental and economic changes as well as contemporary agricultural policies.
B8	Improving the quality and safety of agricultural products across value chains, with the efficient diagnosis and management of pests and diseases.
C1	Analyzing agricultural problems by collecting and interpreting data and employing scientific knowledge to develop effective solutions.
C2	Designing and conducting agricultural experiments, analyzing their results, and

	drawing accurate scientific conclusions that support decision-making.
C3	Evaluating different alternatives and making evidence-based decisions to achieve the best outcomes in managing agricultural activities and projects.
General and Transferable Skills	
D4	Effective communication in Arabic and English, both orally and in writing, and the use of modern tools for presenting data and scientific results.
D5	Using computers, statistical applications, and information technology in data analysis, knowledge management, and professional communication.
Values	
E1	Adherence to professionalism, research ethics, and relevant regulations and legislation in the agricultural field and its specialized practices.
E2	Demonstrating environmental and economic awareness in professional practice and decision-making to achieve agricultural sustainability and protect natural resources.

8. Teaching and Learning Strategies

Interactive lectures, brainstorming, dialogue and discussion, assignments and reports, model presentations, and the blackboard.

9. Assessment Methods

Assessment of dialogue and discussion, quick questions, assignment evaluation, quizzes, written examinations, homework assignments, and report evaluation.

10. Teaching Staff

Academic Rank	Specialization		Special Requirements		Number of Faculty Members	
	General	Specific			Empl oyee	Adjunct Lecturer
Professor	Horticulture and Landscape Design			Not available	11	

Assistant Professor	Horticulture and Landscape Design			Not available	6	
Lecturer	Horticulture and Landscape Design			Not available	12	
Assistant Lecturer	Horticulture and Landscape Design			Not available	6	

Professional Development

Orientation of new faculty members

- ✓ Developing advanced scientific research skills, analytical and critical thinking, and enhancing self-confidence and a positive orientation toward a culture of quality and academic accreditation, contributing to professional responsibility, teamwork, and commitment to ethical values in scientific and practical practice.
- ✓ Evaluating and developing study courses and academic plans in coordination with scientific departments, ensuring alignment with scientific advances and meeting labor market requirements and sustainable development needs.
- ✓ Possessing academic advising and student guidance skills, and the ability to support students in educational and research aspects and develop their cognitive and skill-based capacities.
- ✓ The ability to prepare and produce advanced educational and research materials according to quality standards, including curricula, educational media, lectures, and modern technologies supporting teaching and learning.

Professional Development of Faculty Members

- ✓ Developing teaching and academic skills through the use of modern and diverse teaching strategies, positive interaction with feedback and its analysis, and the use of advanced educational technologies, contributing to the development of students' intellectual, research, and competitive abilities.
- ✓ Developing skills in diagnosing and addressing problems and phenomena affecting the teaching and research process, and proposing

appropriate scientific solutions that contribute to improving the quality of academic and institutional performance.

✓ Developing the ability to evaluate and update curricula and academic plans in coordination with scientific departments, ensuring alignment with scientific developments and meeting labor market requirements and quality and accreditation standards.

✓ Enhancing the ability to measure and analyze the level of stakeholder satisfaction (faculty members, students, and the community) with the educational and research process, and utilizing the results to support continuous improvement and institutional performance development.

✓ Developing skills in designing and evaluating examinations and student assessment tools according to scientific principles and approved quality standards, with the preparation of analytical reports necessary to monitor results and improve learning outcomes.

✓

11. Admission Criteria

- ✓ Students are admitted to postgraduate programs at the college in accordance with the instructions and regulations of the Ministry of Higher Education and Scientific Research, and through officially approved application and admission channels.
- ✓ Students are assigned to academic specializations and programs based on their graduation average, competition results, students' preferences, and the capacity of the scientific departments.
- ✓ The applicant must be medically and physically fit according to an approved medical examination report, in line with the requirements of study and scientific research.
- ✓ Admission is based on the undergraduate graduation average, in accordance with the minimum requirements and admission criteria specified annually by the Ministry of Higher Education and Scientific Research.

12. Main Information Sources of the Program

- ✓ The academic program is based in developing its scientific content on the reports and recommendations of expert committees from counterpart departments of Horticulture and

Landscape Design, which are approved by the Deans' Committee of Agricultural Colleges as an accredited academic and scientific reference.

- ✓ **The program relies on studies and recommendations prepared by the Scientific Committee and the Department Council, and approved by the College Council, which include updating agricultural specializations and keeping pace with scientific developments through benefiting from the experiences of internationally recognized counterpart academic departments.**
- ✓ **The academic program takes into account the needs of the local and regional labor market, contributing to the preparation of scientific and professional cadres capable of meeting the requirements of sustainable agricultural development and keeping pace with modern developments in the agricultural sector.**

13. Program Development Plan

A development plan for the academic program has been established after studying and analyzing the internal review feedback provided by faculty members, quality assurance committees, the department's scientific committee, and the Department Council, in addition to the external review results of the program, students' opinions derived from course evaluation questionnaires, academic advisors' observations, and the analysis of questionnaire data from the college survey committee, as well as reports evaluating examination questions for all program courses. The plan includes the following axes:

- ✓ **Enhancing the practical and applied aspect by increasing laboratory and field training hours, developing teaching laboratories and experimental fields, and activating field training programs to improve students' applied competencies.**
- ✓ **Establishing clear mechanisms to support academically struggling students through academic advising and follow-up programs, alongside adopting motivational and incentive programs for academically outstanding students.**
- ✓ **Raising students' awareness of university regulations and instructions governing the educational process through orientation seminars, academic advising programs, and the**

student handbook.

- ✓ **Reviewing course results and analyzing pass rates to ensure alignment with academic evaluation standards and normal distribution plans, and improving assessment and examination methods to ensure fairness and academic rigor.**

/ Year Level	Course Code	Course Title	Core or Elective	Knowledge																											
				A1	A2	A3	A4	A5	A6	A7	A8	B1	B2	B3	B4	B5	B6	B7	B8	C1	C2	C3	D1	D2	D3	D4	D5	E1	E2		
Fall Semester 2025-2026	Ag.H.603	Horticultural Crops Physiology	Core	A1	A2				*	*		*	*		*		*	*	*	*	*	*				*	*	*	*		
	Ag.H.613	Post-harvest Physiology	Elective	*	*	*						*	*		*		*	*	*	*	*						*	*	*		
	Ag.H.615	Ornamental Trees and Shrubs	Elective	*	*	*	*	*				*				*	*	*	*	*	*		*			*			*		
	Ag.H.612	Plant Cell Inheritance	Elective		*																							*			
	Ag.Cr.601	Advanced Experiments Design	Core																										*		
	Ag.H.604	Advanced Plant Growth Regulators	Elective	*	*	*	*						*	*	*	*					*	*	*	*	*	*	*				
	Ag.Co.601	Computer 2	Core					*	*	*						*		*			*		*			*	*	*	*		
	Ag.Co.604	Seminars 1	Core										*	*				*			*	*	*						*		
Spring Semester 2025-2026	Ag.H.601	Plant Propagation	Core	*	*	*	*	*		*		*	*			*	*	*	*	*	*	*				*			*		
	Ag.H.619	Ornamental Plants Production	Elective	*								*									*					*					
	Ag.H.606	Fruit Production	Elective	*		*			*																						
	Ag.H.608	Advanced Plant Breeding	Elective	*	*					*		*						*		*	*							*			
	Ag.H.602	Plant Growth and Development	Core	*		*	*					*	*	*	*					*	*	*	*	*	*	*	*				
	Ag.H.618	Plant Tissue Culture	Elective	*	*		*				*		*	*						*	*	*	*	*	*	*	*				
	Ag.H.610	Flowering and Fruiting Physiology	Elective	*	*		*			*		*	*				*		*	*	*	*				*	*	*	*		
	Ag.H.605	Advanced Vegetable Production	Elective	*	*				*	*	*					*		*			*	*	*				*	*	*	*	
	Ag.Co.603	Methodology/1	Core							*	*				*					*		*				*	*	*			
	Ag.Co.602	English Language 2	Core							*	*					*				*		*				*	*	*			