Academic Program Description Form for Field Crops Department

University Name: University of Mosul
Faculty/Institute: College of Agriculture and Forestry
Scientific Department: Department of Field Crops
Academic or Professional Program Name: B.Sc.
Final Certificate Name: Field Crop Science B.Sc.
Academic System: Semester
Description Preparation Date: 1/9/2024
File Completion Date:1/9/2024

Signature:
Signature : Assoc. Prof. Dr.
Maysar Mohamed Aziz
Date : 19 / 5 / 2025

Signature:
Scientific Associate Name:
Prof. Dr. Ali Farouq Al-Ma'athedi
Date:

The file is checked by:
Department of Quality Assurance and University Performance:
Oday Abdulhadi Adday
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Dr. Ramia Amer Khalil AL-alaf
Date:
Signature:

Approval of the Dean
Prof. Dr. Ali Farouq Al-Ma'athedi

1. Program Vision

Striving for leadership, innovation, and academic and research excellence in the field of field crop sciences by actively contributing to the development of sustainable agriculture and achieving food security in service of society, in alignment with local and global directions.

2. Program Mission

To contribute to sustainable development by preparing qualified and specialized agricultural engineers capable of working in various fields of field crops, committed to professional ethics, and equipped with high scientific and practical competence—fulfilling labor market requirements and serving the community through scientific research and continuous self-learning.

3. Program Objectives

1. Prepare graduates with advanced knowledge and practical skills in the production and management of field crops.
2. Develop an educational system that integrates theory with practice and relies on modern agricultural technologies.
3. Support scientific research in field crops through field projects and applied studies that address agricultural production problems.
4. Prepare personnel capable of working in multidisciplinary teams with a sense of social responsibility.
5. Instill the concepts of agricultural sustainability in students and train them to manage natural resources efficiently to protect the environment.
6. Encourage initiative and innovation in improving agricultural production using modern technologies.
7. Support agricultural leadership and innovation through collaboration with research and production institutions.
8. Develop students' skills in resource management and problem-solving in agricultural projects, with a focus on sustainability, environment, modern technologies, and the scientific method.
9. Promote the use of artificial intelligence, geographic information systems (GIS), and digital transformation in crop management.

10. Instill principles of professional ethics and adherence to national and international agricultural regulations.
11. Create a stimulating educational and research environment that contributes to graduating leaders in the field of field crops.

4 - Programmatic Accreditation

Will

5 - Other external influences

1- Family problems facing students negatively affect students 'performance in the academic program.
2- Extra -curricular activities help students achieve greater in the implementation of the academic program .
3- The economic situation of students and their association with money-saving work negatively affects their academic performance.
4- The learning efficiency of the student from his preparatory studies is one of the most important indicators of excellence in the performance of the academic program.

4. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	11	20	11.79 %	
College Requirements	12	37.5	22.12 %	
Department Requirements	33	112	66.06 %	
Summer Training	1	1.5	There isn't any	
Other				

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

7 - Program Description

2024 – 2025 First	Course in English	Article Code	Theoretical hours	Practical Hours	Units	Course Type
	Organic Chemistry	ORCH105	2	3	3.5	University Requirement

Stage Chapter First	Botany	BOTA119	2	3	3.5	Department Requirement
	Surveying	SURV120	1	3	2.5	Department Requirement
	English Language 1	ENGL101	2	-	2	University Requirement
	Democracy and Human Rights	DEHR100	2	-	2	University Requirement
	Engineering Drawing	ENGD118	-	3	1.5	Department Requirement
	Arabic Language 1	ARAL102	2	-	2	University Requirement
		Total units of the first semester			17	

	Course in English	Article Code	Theoretical hours	Practical Hours	Units	Course Type
2024 – 2025 Second Stage Chapter Second	Principles of Field Crops	PRFC112	2	3	3.5	University Requirement
	Principles of Soil Science	PRSS113	2	3	3.5	University Requirement
	Principles of Animal Production	PRAP114	2	3	3.5	University Requirement
	Biochemistry	BICH204	2	3	3.5	University Requirement
	Principles of Agricultural Economy	PAEC115	2	-	2	University Requirement
	Computer Application 1	COMA103	2	-	2	University Requirement
	Mathmatics	MATH104	2	-	2	University Requirement
	Total units of the second semester				20	

	Course in English	Article Code	Theoretical hours	Practical Hours	Units	Course Type
2024 – 2025 Second Stage Chapter First	Principles of Horticultural Science	PRHS116	2	3	3.5	University Requirement
	Agricultural machines and Equipments	AGME207	2	3	3.5	Department Requirement
	Principles of agricultural extension	PAEX206	2	-	2	University Requirement
	Principles of Food Industry	PRFI111	2	3	3.5	University Requirement
	Soil Fertility and Fertilizers	SOFF415	2	3	3.5	Department Requirement
	Plant Taxonomy	PLTA218	2	3	3.5	Department Requirement
	Computer Application 2	COMA203	2	-	2	University Requirement
	English Language 2	ENGL201	2	-	2	University Requirement
	Crimes of the defunct Baath Party	CBAP200	2	-	2	University Requirement
	Total units of the first semester				25.5	

	Course in English	Article Code	Theoretical hours	Practical Hours	Units	Course Type
2024 – 2025 Second Stage Chapter Second	Farms Management	FAMA410	2	3	3.5	Department Requirement
	Oil and Sugar Crops	OISC237	2	3	3.5	Department Requirement
	Statistical	STAT109	2	3	3.5	University Requirement
	Plant Environment	PLEN209	2	3	3.5	Department Requirement
	Principles of Microbiology	PRMB205	2	3	3.5	University Requirement
	Irrigation and Drainage	IRDR308	2	3	3.5	Department Requirement
	Arabic Language 2	ARAL102	2	-	2	University Requirement
		Total units of the second semester			23	

	Course in English	Article Code	Theoretical hours	Practical Hours	Units	Course Type
2024 – 2025 Third Stage Chapter First	Genetics	GENT212	2	3	3.5	Department Requirement
	Design and analysis of agricultural experiments	DAAE302	2	3	3.5	Department Requirement
	Mechanization of Field Crops	MEFC358	2	3	3.5	Department Requirement
	Field Crops Insects	FICI424	2	3	3.5	Department Requirement
	Lands Reclamation	LARE457	2	3	3.5	Department Requirement
	Forage Crops	FOCR359	2	3	3.5	Department Requirement
	English language 3	ENGL301	2	-	2	University Requirement
		Total units of the First semester			23	

	Course in English	Article Code	Theoretical hours	Practical Hours	Units	Course Type
2024 – 2025 Third Stage Chapter Second	Fiber Crops	FICR360	2	3	3.5	Department Requirement
	Cereal Crops	CECR361	2	3	3.5	Department Requirement
	Pulses Crops	LECR362	2	3	3.5	Department Requirement
	Field Crops Diseases	FICD363	2	3	3.5	Department Requirement
	Apiculture	APIC312	2	3	3.5	Department Requirement
	Seed technology	SETE364	-	3	1.5	University Requirement
	Fiber Crops	FICR360	2	3	3.5	Department Requirement
		Total units of the second semester			22.5	

2024 – 2025	Course in English	Article Code	Theoretical hours	Practical Hours	Units	Course Type

Fourth Stage Chapter First	Drug Plants	DRPL458	**2**	**3**	**3.5**	**Department Requirement**
	Plant Physiology	PLPH210	**2**	**3**	**3.5**	**Department Requirement**
	Biological of Weeds	BIWE459	**2**	**3**	**3.5**	**Department Requirement**
	Field Crops Management	FICM460	**2**	**3**	**3.5**	**Department Requirement**
	Land Cultivation	LACU461	**2**	**3**	**3.5**	**Department Requirement**
	Molecular Genetics	MOGE462	**3**	**-**	**3**	**University Requirement**
	Research Project 1	DRPL458	**-**	**3**	**1.5**	**University Requirement**
	Computer Application 2	**COMA303**	**-**	**3**	**1.5**	**University Requirement**
		Total units of the first semester			**23.5**	

	Course in English	**Article Code**	**Theoretical hours**	**Practical Hours**	**Units**	**Course Type**
2024 – 2025 Fourth Stage Chapter Second	Plant Breeding	PLBR314	**2**	**3**	**3.5**	**Department Requirement**
	Plant Growth Regulators	PLGR307	**2**	**3**	**3.5**	**Department Requirement**
	Weed Control	WECO463	**2**	**3**	**3.5**	**Department Requirement**
	Pasture Management	PAMA433	**2**	**3**	**3.5**	**Department Requirement**
	Environmental Stress	ECST464	**2**	**3**	**3.5**	**Department Requirement**
	Seminar	SEMN404	**1**	**-**	**1**	**University Requirement**
	Research Project 2	REPR403	**-**	**3**	**1.5**	**University Requirement**
	English language 4	**ENGL401**	**2**	**-**	**2**	**University Requirement**
		Total units of the second semester			**22**	

8 – Expected learning outcomes of the program	
Knowledge and Understanding	
A1	Identify the fundamental principles of field crop sciences, in line with modern agricultural technologies, scientific research basics, and relevant professional ethics and regulations.
A2	Understand the economic and managerial foundations of crop production, as well as principles of sustainable agriculture and natural resource management.
Intellectual Skills	
B1	Analyze complex agricultural problems and evaluate various practices to propose innovative and sustainable scientific solutions.
B2	Utilize field and laboratory data and experimental results to draw logical conclusions for informed decision-making.

B3	Develop integrated production and management plans for crops, while applying critical and creative thinking to improve agricultural systems.
Professional Skills	
C1	Skillfully apply various agricultural techniques in the field and diagnose issues related to pests, diseases, and plant nutrition.
C2	Employ modern agricultural and laboratory equipment and technologies in the operation and management of agricultural projects.
C3	Promote sustainable agricultural practices and resource management, conduct applied research, and use modern digital technologies in crop management.
Communication and Information Skills	
D1	Communicate effectively and clearly (orally and in writing) with various stakeholders in the agricultural sector.
D2	Utilize, assess, and efficiently apply scientific and technical information sources to manage agricultural data and support decision-making.
Values and Beliefs	
E1	Adhere to professional ethics, standards, and agricultural regulations, while recognizing the importance of environmental sustainability, conservation of natural resources, and assuming both individual and collective responsibility.
E2	Value initiative and innovation, pursue continuous learning, and apply leadership and management skills responsibly.

9 - Teaching and learning strategies
1- Explain the scientific material to students in detail. 2- Participation of students in conducting laboratory and agricultural experiments. 3- Discussion and dialogue on related vocabulary. 4- Audio methods (teaching explanation of the subject) 5 - Blackboard and Smart board writing style 6 - The method of direct dialogue between the teacher and the student with the evaluation of the student in the classroom participations 7. Field practices - Use websites and programs for interactive learning, Power Point, Google Class Room

10. Evaluation methods
Quiz, monthly exams and end-of-semester exams. The student's submission of the scientific reports of the experiments (laboratory and field), the attendance of the students, the participation and efforts of the student in the lecture.

- Faculty						
Faculty Members						
Academic Rank	**Specialization**		**Special Requirements/Skills (if applicable)**		**Preparation of the teaching staff**	
	year	**special**			**angel**	**lecturer**
Professor	**Field crops**	**Plant breeding**			**1**	**-**
Professor	**Field crops**	**Production of field crops**			**1**	**-**
Assistant Professor	**Field crops**	**Production of field crops**			**5**	**-**
Assistant Professor	**Field crops**	**Physiology of field crops**			**1**	**-**
Assistant Professor	**Field crops**	**Seed technology**			**1**	**-**
Assistant Professor	**Field crops**	**Plant breeding**			**1**	**-**
Assistant Professor	**Field crops**	**Weed Control**			**1**	**-**
teacher	**Field crops**	**Weed Control**			**2**	**-**
Lecturer	**Seed technology**	**Seed technology**			**1**	**-**
Lecturer	**Field crops**	**Field crops**			**4**	
Assistant Lecturer	**Field crops**	**Field crops**			**3**	**-**

Professional Development
Mentoring new faculty members
✓Develop skills to enhance self-confidence, positive orientation towards a culture of quality and requirements, enhancing a sense of responsibility, believing in the spirit of teamwork and its role in achievement, developing a sense of functionality and moral scruples. ✓Evaluate courses and plans in coordination with scientific departments to ensure that they meet the requirements of the labor market. ✓Possess student mentoring skills. ✓ The ability to produce educational materials according to quality specifications, including courses, media, lectures and educational supplies
Professional development of faculty members

✓Develop educational skills by diversifying teaching methods, positively dealing with and practicing feedback, using educational technologies, and focusing on developing intellectual skills and competitiveness among students.

✓Developing the skills of addressing problems and phenomena affecting the educational process in the college

✓Develop the ability to evaluate courses and plans in coordination with scientific departments to ensure that they meet the requirements of the labor market.

✓Develop the ability to measure the satisfaction of beneficiaries (faculty members, students, community) with the educational and research process in the college

✓Evaluate tests and methods of evaluating students, and prepare reports to follow up on their results

11 - Acceptance criterion

✓Students are accepted to college programs centrally through the Central Admission Department at the Ministry of Higher Education and Scientific Research and according to the application channels approved by the Ministry .

✓ Students are distributed to the department's program according to the average and the desire of the students.

✓ To be physically and healthily fit based on the medical examination report

✓ Advanced student average according to the minimum rates approved by the Ministry

13- **The most important sources of information about the program**

✓ The main source of program information is the minutes of the committee of experts of the departments corresponding to the Department of Ministerial Field Crops and approved as a scientific body by the Committee of Deans of Faculties of Agriculture.

✓ The study prepared by the Scientific Committee and the Department Council and approved by the College Council, which includes proposals for updating agricultural disciplines and simulation

✓The most important three corresponding scientific departments accredited globally.

✓ Local and regional market needs

14 - Program Development Plan
✓ A plan was developed to develop the program after studying the internal audit notes by the teachers, the quality assurance committees, the scientific committee in the department, the department council, the external review of the program, and the students' observations by analyzing the results of student questionnaires for courses, the observations of academic advisors, analyzing the data of the questionnaires committee questionnaires in the college, and the evaluation reports of the exam questions for all courses of the program, which are as follows: ✓ Insufficient practical training ✓ The lack of a clear mechanism to help struggling students and motivate outstanding students ✓ Lack of familiarity with students about the university regulations that govern the educational process ✓ The success rates of some courses do not match the normal distribution scheme

		Knowledge and Understanding		Intellectual Skills			Professional Skills			nmunication and Information S		Values and Beliefs	
	اسم المادة بالانكليزي	A1	A2	B1	B2	B3	C1	C2	C3	D1	D2	E1	E2
First Stage	Organic chemistry	*			*			*			*		
	General Botany	*				*	*					*	
	Plane Surveying	*		*				*			*		
	Mathematics	*			*				*		*		
	English language 1	*			*				*	*			
	Human rights and public liberties	*								*		*	*
	Engineering Drawing	*				*		*			*		
	Principles of field crops	*	*	*			*						
	Principles of soil science	*				*			*			*	
	principles of animal production	*							*		*	*	
	Biochemistry	*			*		*				*		
	principles of agricultural economics		*		*				*		*		
	Computer applications 1	*			*				*		*		
Second Stage	Horticulture science		*		*				*		*		
	Agricultural machinery and equipment		*	*				*			*		
	Principles of agricultural extension	*					*			*		*	
	Principles of the food industry	*			*			*				*	
	Soil fertility and fertilizers	*				*			*		*		
	plant taxonomy	*		*			*				*		
	Computer applications 2	*			*			*			*		
	English language 2	*			*				*	*			
	Farm management	*				*			*				*
	Oil and sugar crops	*		*					*			*	
	statistics Science	*			*				*		*		
	plant ecology		*	*					*		*		
	Principles of Microbiology		*		*		*					*	
	irrigation and drainage	*		*			*				*		
	freedom and democracy	*	*									*	*
	Arabic Language	*			*					*		*	
Third Stage	Genetics	*		*					*			*	
	Experimental Design and Analysis	*		*							*	*	
	Field crop mechanization	*		*			*				*		
	Field crop insects	*		*			*					*	
	land reclamation	*		*				*			*		
	Forage crops	*				*		*				*	
	English language 3	*			*				*	*			
	Fiber crops	*				*		*				*	
	Cereal crops	*				*		*				*	
	Legume crops	*				*		*				*	
	Field crop diseases	*		*			*					*	
	Beekeeping		*	*			*					*	
	Computer applications 3	*			*				*		*		
	Seed technology	*				*		*				*	
Fourth Stage	Medicinal plants	*		*			*					*	
	Plant physiology		*			*	*				*		
	weed biology		*				*				*	*	
	Field crops management		*		*				*		*		
	Field cultivation	*		*					*		*		
	Molecular genetics	*		*					*			*	
	Graduation research project	*			*				*		*		
	Computer applications 4	*			*				*		*		
	Plant breeding	*		*					*			*	
	Growth regulators		*			*	*				*		
	Weed Control		*				*				*	*	
	Pasture management	*				*		*				*	
	Environmental stress		*	*					*		*		
	Seminars	*		*					*			*	
	Graduation research project	*			*				*		*		
	English language 4	*			*				*	*			
		47	14	20	20	13	16	13	26	7	30	1	1

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