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

Academic Program and Course Description Guide

2026-2025

Academic Program Description Form

University Name: Al-Muthanna University

Faculty/ Institute: Agriculture College

Scientific Department: Department of Combating Desertification

Academic or Professional Program Name: Bachelor of Agricultural Sciences

Final Certificate Name: Bachelor of Agricultural Sciences

Academic Preparation Date: 2-11-2025

File Completion Date: 7-12-2025

Signature:

Head of Department Name:

Prof. Dr. Ghanem Bahlol Noni

Date: 25-1-2026

Signature:

Scientific Associate Name:

Prof. Dr. Hanoon Nahi Kadhum

Date: 26-1-2026

This file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and Performance Department:

Ass. Prof. Dr. Saad Kadhum Jabbar

Date: 27-1-2026

Signature:

Approval of the dean

Ass. Prof. Dr. Haider Abdul-Hussain Muhsen

1. Program Vision

The Department of Desertification Combat vision is to be a global leader in education and research dedicated to combating desertification and fostering sustainable environmental practices. The Department of Desertification Combat envisions a world where knowledge, innovation, and community engagement converge to mitigate the impacts of desertification and promote ecological resilience

2. Program Mission

The mission of the Department of Desertification Combat is to advance education, research, and outreach efforts that empower individuals to understand, combat, and adapt to the challenges posed by desertification. Through a multidisciplinary approach, we aim to produce graduates equipped with the knowledge and skills to make significant contributions to environmental conservation and sustainable land management.

3. Program Objectives

1. Provide high-quality academic programs that instill a deep understanding of the causes and consequences of desertification.
2. Foster critical thinking and problem-solving skills to address complex environmental challenges.
3. Conduct innovative research to advance the understanding of desertification processes and develop effective solutions.
4. Collaborate with national and international partners to contribute to the global body of knowledge on desertification.
5. Engage with local communities affected by desertification, providing knowledge and support for sustainable land use practices.
6. Collaborate with governmental and non-governmental organizations to implement community-based initiatives for desertification combat.
7. Integrate modern technologies and remote sensing tools in research and educational practices to enhance monitoring and mitigation efforts.
8. Equip students with the skills to leverage technology for sustainable land management.

4. Program Accreditation

No the program have not program accreditation.

5. Other external influences

Is there a sponsor for the program?

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	8	11	%8	
College Requirements	18	49	%41	
Department Requirements	26	73	51%	
Summer Training				
Other			%100	

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

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
First year / First semester	U015101	Democracy and Human Rights	2	–
	U015102	Computers applications	–	3
	0C15101	Principles of field crops	2	3
	0C15102	Principles of soil	2	3
	0015101	Engineering Drawing	1	3
	0015102	Botany	2	3
Second semester	U025101	English language	2	–
	U025102	Arabic language	2	–
	0C25101	Principles of Chemistry	2	3
	0C25102	Principles of animal production	2	3
	0025101	Land geology	2	3
	0025102	Desert environment	2	3

Second year / first semester	0015201	Horticultural and Landscape Gardening	2	3
	0C15201	Microbiology	2	3
	0015202	General Physics	2	3
	0015203	Agricultural machinery and equipment	2	3
	U015201	English language	2	–
	U015202	Agricultural extension principles	2	–
Second semester	0025201	Pedology of desert soils	2	3
	0025202	Plant Protection Technology	2	3
	U025201	Arabic Language	2	–
	0C25201	Statistical and Mathematics	2	3
	U025202	The Crimes of Baath Regime in Iraq	2	–
	U025202	Computer	–	3
Third year/ first semester	0015301	Hydrology	2	3
	0015302	Plant Physiology	2	3
	0015303	Desertification	2	–
	0C15301	The economics of natural resources	2	–
	0C15302	Design and analysis of experiments	2	3
	0015304	Soil, Water and Plant Analysis	2	3
	0015305	Soil Physics	2	3
	U015301	English language	2	–

Second semester	0025301	Irrigation and drainage technologies	2	3	
	0025302	Soil fertility	2	3	
	0025303	Desert environment	2	–	
	0025304	Remote Sensing	2	3	
	0025305	Soil chemistry	2	3	
	0025306	Soil, Water and Plant Relationships	2	3	
	0025307	Water Harvesting	2	–	
Fourth year/first semester	0015401	Water quality	2	3	
	0015402	Sustainable development in desert	2	–	
	0015403	Groundwater management	2	3	
	0015404	Geographic information systems	2	3	
	0015405	Soil Microbiology	2	3	
	0015406	Graduated research project	2	–	
	U015401	English language	2	–	
	0015407	Environmental stress	2	3	
Second semester	0025401	Salinity and reclamation of desert soils	2	3	
	0025402	Cattle production	2	3	
	0025403	Desert Soil Management	2	3	
	0025404	Wind and water erosion	2	3	
	0025405	Seminars	–	1	
	0025406	Graduated research project	1	–	
	U025401	Professional ethics	1	–	

	0025407	Soil survey and Classification	2	3	

8. Expected learning outcomes of the program

Knowledge	
Learning Outcomes 1	Learning Outcomes Statement 1
Skills	
Learning Outcomes 2	Learning Outcomes Statement 2
Learning Outcomes 3	Learning Outcomes Statement 3
Ethics	
Learning Outcomes 4	Learning Outcomes Statement 4
Learning Outcomes 5	Learning Outcomes Statement 5

9. Teaching and Learning Strategies

Teaching and learning strategies and methods adopted in the implementation of the program in general.

10. Evaluation methods

Implemented at all stages of the program in general.

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer

Professional Development
Mentoring new faculty members
Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level.
Professional development of faculty members
Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12. Acceptance Criterion
(Setting regulations related to enrollment in the college or institute, whether central admission or others)

13. The most important sources of information about the program
State briefly the sources of information about the program.

14. Program Development Plan
1- Conduct a comprehensive needs assessment to identify emerging trends, challenges, and opportunities in the field of desertification combat. 2- Analyze industry demands, technological advancements, and changes in environmental policies that may impact the program. 3- Engage with faculty, students, industry professionals, and community stakeholders to gather input on program strengths, weaknesses, and areas for improvement. 4- Form advisory committees or forums to ensure ongoing collaboration and feedback.

MODULE DESCRIPTION FORM

Module Information					
Module Title	**Democracy and Human Rights**			**Module Delivery**	
Module Type	**Basic learning activities**			☒ **Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**U015101**				
ECTS Credits	**1**				
SWL (hr/sem)	**50**				
Module Level		1	**Semester of Delivery**		1
Administering Department		All	**College**	College of Agriculture	
Module Leader	Leqaa khalid		**e-mail**	leqaa.khalid@aaaa-un.edu.iq	
Module Leader's Acad. Title		Lecturer	**Module Leader's Qualification**		
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date			**Version Number**	1.0	

Relation with other Modules			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	1. During the academic year, students learn the basics of human rights and democracy, including their rights, how to defend them legally, and their domestic and international guarantees. 2. Gain knowledge in the field of democracy, its various systems, and their impact on human rights. 3. Develop students' personalities and enhance their awareness of democratic political systems, their details, and how to apply them in practice. They also learn

	the importance of being active in society by respecting the rights of others, 4.knowing that rights and freedoms end where their own rights and freedoms begin, and fulfilling their duties rather than merely acquiring rights. .Promote a culture of peace based on justice and equality .
Module Learning Outcomes	1. Empowering the student to understand the basics of defending their rights and the rights of others, and their importance to them and to society in general, as well as to understand the limits of each individual's rights and freedoms. 2. Empowering the student to participate politically by understanding the importance of participating in elections and the impact of this participation on the course of elections and the subsequent formation of government. 3. Educating the student about the guarantees of their rights and freedoms and their sources. 4.Understanding the difference between rights and freedoms . 5. Educating the student about the scientific concept of democracy, its roots, types, and forms. 6. Learning how the democratic system affects human rights and the relationship between them. 7. Educating the student about the necessity of being an active citizen in society, as well as understanding the conditions of the voter and the conditions of the candidate for elections. 8. Understanding electoral systems and which is better. 9. Educating the student about international human rights law and a brief knowledge of international organizations and their mechanisms of operation, such as the United Nations, the Red Cross, and others
Indicative Contents	Part One - Definition of Human Rights and Human Rights in Ancient Civilizations (Definition of rights, definition of human beings, and understanding of the importance of human rights for individuals and society, as well as a study of human rights in civilizations such as the Egyptian, Iraqi, Greek, and Roman civilizations) (4 hours) Part Two: Definition of Human Rights in the Divine Religions, the Most Important of which is Islam (2 hours) Sources of Human Rights Include (International sources such as the Universal Declaration of Human Rights and the two International Covenants, and Regional Sources including Regional Agreements such as the European and American Conventions and the Constitution) (2 hours) Human Rights Guarantees (such as Constitutional and Legal Guarantees) (2 hours) International and Regional Human Rights Agreements (2 hours) Public Freedoms and Their Types and Comparisons Between Them (2 hours) The Future of Human Rights, Globalization, and Human Rights (2 hours) Definition, History, and Types of Democracy (Study of the definition, origin, and

	development of democracy, its principles, and types such as direct and indirect democracy, presidential and parliamentary systems) (6 hours) Definition of elections and their conditions, types of electoral systems, and definition of the House of Representatives (6 hours) The Relationship Between Democracy and Human Rights (2 hours)

Learning and Teaching Strategies	
Strategies	1- Increasing students' awareness of the importance of knowing their rights and duties toward society and the relationship between human rights and the democratic system. 2- General education in a range of fields, including legal, political, and social, and enhancing students' self-confidence by linking theoretical .material to practical reality.

Student Workload (SWL)			
Structured SWL (h/sem)	**33**	**Structured SWL (h/w)**	**2.2**
Unstructured SWL (h/sem)	**17**	**Unstructured SWL (h/w)**	**1.1**
Total SWL (h/sem)	**50**		

Module Evaluation					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	**2**	**15% (10)**	**5 and 10**	**LO #1, #2 #,3,and #6 #7#8**
	Assignments	**2**	**10% (10)**	**2 and 12**	**LO #3, #4 and #6, #7**
	Projects / Lab.				
	Report	**1**	**15% (10)**	**13**	**LO #5, #8 and #9**
Summative assessment	**Midterm Exam**	**2hr**	**10% (10)**	**7**	**LO #1 - #7**
	Final Exam	**3hr**	**50% (50)**	**16**	**All**
Total assessment			**100% (100 Marks)**		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	An introductory lecture on the subject and its importance.
Week 2	Definition of right, human being, human rights, and the importance of human rights. Human rights in the Islamic religion and ancient civilizations.
Week 3	International, regional, and local sources of human rights.
Week 4	Constitutional and legal guarantees of human rights and guarantees of human rights at the international level.
Week5	Human rights guarantees in Islam.
Week 6	The role of regional organizations in protecting human rights.
Week 7	Characteristics of human rights, definition of public freedoms, their types, and comparison between them and rights.
Week 8	International human rights law, international humanitarian law, and the International Committee of the Red Cross.
Week 9	The future of human rights and ways to develop them.
Week 10	Globalization and human rights.
Week 11	Definition of democracy, its historical development, and its principles.
Week 12	Democracy between universality and particularity.
Week 13	Forms of democracy / direct democracy.
Week 14	Semi-direct democracy and representative democracy / Pillars of the representative system / Forms of the representative system.
Week 15	The parliament and its types / Election and its conditions / Electoral college.
Week 16	Organizing the election process / Defining electoral districts / Electoral lists / Candidates / Electoral campaign / Voting. Electoral systems. The relationship between democracy and human rights and how they influence and are influenced by each other. Final exam

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	Human Rights, Children, and Democracy / by Maher Saleh Allawi, Riyad Aziz Hadi, Ali Abdul Razzaq Muhammad, and others / Al-Atik / Beirut / 2009	yes
Recommended Texts	Abbas Al-Dulaimi / Human Rights: Theory and Practice Fakhri Rashid, Salah Yassin / International Organizations / Al-Atik Book Industry / Baghdad Issam Al-Attiya / Public International Law / Legal Library / Baghdad / 2012	no
Websites		

Grading Scheme

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

MODULE DESCRIPTION FORM

Module Information					
Module Title	**Computer Application**			**Module Delivery**	
Module Type	**Basic learning activities**			☒ **Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**U025202**				
ECTS Credits	**2**				
SWL (hr/sem)	**50**				
Module Level	1		**Semester (s) offered**	2	
Administering Department	All Departments		**College**	**College of Agriculture**	
Module Leader			**e-mail**		
Module Leader's Acad. Title	Assistant lecturer		**Module Leader's Qualification**	Master english language/ Linguistics	
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date			**Version Number**	1.0	

Relation with Other Modules			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	
Module Aims, Learning Outcomes, Indicative Contents and Brief Description			
Module Aims	1- Understand the concept of computer operating systems.		
Module Learning Outcomes	2- Understand applications and software.		
Indicative Contents	3- How to use a computer and manage applications		
Course Description	1- Understand the concept of computer operating systems.		

Learning and Teaching Strategies	
Strategies	Headway's trusted methodology combines solid grammar and practice, vocabulary development, and integrated skills with communicative role-plays and personalization. Authentic material from a variety of sources enables students to see new language in context, and a range of comprehension tasks, language and vocabulary exercises, and extension activities practice the four skills. 'Everyday English' and 'Spoken grammar' sections practice real-world speaking skills, and a writing section for each unit at the back of the book provides models for students to analyze and imitate.

Student Workload (SWL)			
Structured SWL (h/sem)	**33**	**Structured SWL (h/w)**	**2**
Unstructured SWL (h/sem)ل	**17**	**Unstructured SWL (h/w)**	**1.1**
Total SWL (h/sem)	**50**		

Module Evaluation					
		Time (hr)	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	**2**	**5% (5)**	**5, 10, 12, 15**	**All**
	Assignments	**6**	**20% (20)**	**2, 4, 6, 8, 10, 12**	**LO # 1, 3, 4, 5 and 6**
	Seminars	**2**	**5% (5)**	**Continuous**	**LO # 1-5**
Summative assessment	**Midterm Exam**	**2**	**20% (20)**	**7**	**LO # 1-3**
	Final Exam	**3**	**50% (50)**	**16**	**All**
Total assessment			**100% (100 Marks)**		

Delivery Plan (Weekly Syllabus)	
	Material Covered

Week 1	A general introduction to operating systems, types of operating systems, their functions, operating system versions, Windows 7 operating system
Week 2	Computer hardware components, computer software components
Week 3	Desktop and its components, Start menu, taskbar, customization, notification area
Week 4	Files and folders, deleting, copying and pasting, cutting
Week 5	Exam
Week 6	Programs and applications, windows and operations
Week 7	Shortcut icons, search
Week 8	Desktop wallpapers, Control Panel
Week 9	Office programs, Microsoft Word, its features and operation
Week 10	General settings, saving settings, opening files
Week 11	Exam
Week 12	Office programs, Microsoft Excel, its features and operation
Week 13	General settings, saving settings, opening files
Week 14	Excel program functions, function structure, function insertion method
Week 15	Practical applications

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	New Headway Beginner, by lizand john soars	Yes
Websites	https://www.learnenglish.de/ https://www.englishgrammar.org/ https://www.phrasebank.manchester.ac.uk/	

Grading Scheme

Grade	Evaluation	Marks %	Definition
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
FX	Fail	(45-49)	More work required but credit awarded
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MODULE DESCRIPTION FORM

Module Information

Module Title	Principle of crops			**Module Delivery**	
Module Type	**C**			☒ Theory ☐ Lecture ☒ Lab ☐ Tutorial ☒ Practical ☒ Seminar	
Module Code	**0C15101**				
ECTS Credits	**6**				
SWL (hr/sem)	**150**				
Module Level		**Module Level**		**Semester of Delivery**	1
Administering Department		**Field Crops Department**		**College**	Agriculture
Module Leader	Dr. Haider Abdulmoniem Mohammed			**e-mail**	haider.abdulmoniem70@mu.edu.iq
Module Leader's Acad. Title		**Module Leader's Acad. Title**		**Module Leader's Qualification**	Ph.D.
Module Tutor	Dr. Haider Abdulmoniem Mohammed			mail-e	**haider.abdulmoniem70@mu.edu.iq**
Peer Reviewer Name		**Prof. Dr. Ghanem Bahloul**		**e-mail**	ghanem-bahlol@mu.edu.iq

	Nouni		
Scientific Committee Approval Date	**01/10/2024**	**Version Number**	1.0

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

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	- Study of the most important field crops in the world - Includes knowledge of the distribution of each crop in different regions of the world - Knowledge of the economic importance of field crops - Identify the methods of growing each crop and the factors affecting its productivity - Study the environmental conditions suitable for growing each crop Methods used in storing and marketing important field crops worldwide -

Module Learning Outcomes	A- Cognitive Objectives - The student will identify the most important field crops in Iraq and the world. - The student will classify crops according to their environmental needs. - The student will distinguish between crops and their importance in human and animal nutrition. - The student will know the scientific methods used to increase crop productivity. - The student will evaluate the importance of each field crop and which of them are best for investment in Iraq. B- Program Skill Objectives - Introduce the student to the economic importance of crops. - The student will be able to evaluate the most important field crops in Iraq and the world. - Teach the student the appropriate environmental conditions for each crop.
Indicative Contents	1- Explain and clarify 2- Lecture method 3- Student groups 4- Practical lessons in agricultural fields 5- Scientific trips to learn about grain crops in Iraq

Learning and Teaching Strategies

Strategies	Developing the student's ability to identify the most important field crops and their impact on environmental conditions, and to identify and know their types.

Student Workload (SWL)

Structured SWL (h/sem)	78	**Structured SWL (h/w)**	9
Unstructured SWL (h/sem)	72	**Unstructured SWL (h/w)**	2
Total SWL (h/sem)	**175**		

Module Evaluation

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

Delivery Plan (Weekly+Lab Syllabus)

	Material Covered
Week 1	Introduction to field crops: definition, origin, and development.
Week 2	Classification of field crops according to families, planting season, use, etc. (description of the most important plant families).
Week 3	Environmental factors and their relationship to crop growth (climatic factors).

Week 4	Light and its importance in growth.
Week 5	First month exam: Temperature and its relationship to crop distribution.
Week 6	Wind and its effect on crops.
Week 7	Mid-term exam.
Week 8	Distinguishing between the Poaceae and Legume families.
Week 9	Soil factors (soil structure).
Week 10	Soil texture, soil salinity, soil acidity.
Week 11	Factors in field crop distribution and spread.
Week 12	Classification of crops according to heat requirements.
Week 13	Summer crops.
Week 14	Winter crops.
Week 15	Crops and food security.
Week 16	Final Exam

Learning and Teaching Resources

	Text	**Available in the Library?**
Required Texts		yes
Recommended Texts	Field Crop Management and Production Principles of Field Crops	Recommended Books and References Scientific Journals, Reports
Websites	Electronic references, websites, virtual library, library websites in some international universities	

Grading Scheme

Group	**Grade**	**Evaluation**	**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	**FX**	Fail	(45-49)	More work required but credit awarded
(0 – 49)	**F**	Fail	(0-44)	Considerable amount of work required

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

MODULE DESCRIPTION FORM

Module Information			
Module Title	**Principle of soil science**	**Module Delivery**	
Module Type	**Core**	☒ **Theory**	
Module Code	**AGR-002**	☐ **Lecture**	
ECTS Credits	**6**	☒ **Lab**	
SWL (hr/sem)	**150**	☐ **Tutorial**	
		☐ **Practical**	
		☐ **Seminar**	
Module Level	1	**Semester of Delivery**	1
Administering Department	**Soil and water resources**	**College**	Agriculture
Module Leader	Dr. Ghanem Bahloul Nouni	**e-mail**	ghanem-bahlol@mu.edu.iq

Module Leader's Acad. Title	Professor	**Module Leader's Qualification**	PhD
Module Tutor		**e-mail**	
Peer Reviewer Name	Dr. Ghanem Bahloul Nouni	**e-mail**	ghanem-bahlol@mu.edu.iq
Scientific Committee Approval Date	2024/10/10	**Version Number**	1.0

Relation with other Module			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	-Introducing students to the importance of soil science Introducing students to the basic components and properties of soil Using laboratory equipment to determine soil properties Introducing students to the branches of soil science
Module Learning Outcomes	Enabling students to understand and know how soil is formed Be able to use laboratory equipment Understand soil classes theoretically and experimentally Study soil chemical properties

	Understand modern methods of sample collection Understand and compare soil properties Be able to determine soil fertility Learn how to classify soil Learn how to classify land Understand how to manage land
Indicative Contents	The guidance content includes the following: Theoretical Section What is Soil Principles - Introduction - Definition - Branches of Soil * Principles Soil Formation and Composition * Physical Properties * Soil Water Colloids and Soil Chemical Properties * Soil Salinity and Alkalinity and Reclamation of Salt-Affected Soils * Soil Fertility * Soil Biological Properties Soil Organic Matter Soil Classification and Management in Iraq * Practical Section: Soil Sample Collection Moisture Content Measurement Soil Apparent and True Density Measurement and Porosity Measurement

	Soil Percentage Estimation Soil Texture Determination Soil Salinity and Reactivity Measurement Soil Organic Matter Estimation Soil Organic Matter Estimation Soil Mineral Carbonate Content Estimation

Learning and Teaching Strategies	
Strategies	The strategies are based on the following: -Forming groups that interact with each other to interpret and analyze soil phenomena -Using laboratory experiments -Scientific field trips -Using reverse lectures to deliver scientific information -Building students' leadership skills in presenting information and building scientific confidence

Student Workload (SWL)			
Structured SWL (h/sem	78	**Structured SWL (h/w)**	5
Unstructured SWL (h/sem)	72	**Unstructured SWL (h/w)**	8

Total SWL (h/sem)	150

Module Evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	**Midterm Exam**	2 hr	10% (10)	7	LO # 1-7
	Final Exam	4 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	Introduction - Branches of Soil Science
Week 2	Soil Formation and Composition
Week 3	Physical Properties
Week 4	Soil Texture
Week 5	Soil Water

Week 6	Soil Chemical Properties
Week 7	Midterm Exam
Week 8	Soil Colloids
Week 9	Soil Salinity and Alkalinity
Week 10	Reclamation of Salt-Affected Soils
Week 11	Soil Biological Properties
Week 12	Soil Fertility
Week 13	Soil Organic Matter
Week 14	Soil Classification in Iraq
Week 15	Land Management and Use in Iraq

Delivery Plan (Weekly Lab. Syllabus)	
	Material Covered
Week 1	Explaining soil sample collection methods
Week 2	Identifying laboratory equipment and materials
Week 3	Measuring soil moisture content
Week 4	Measuring soil bulk and true density and porosity
Week 5	Estimating percentages of sand, clay, and silt and determining soil texture
Week 6	Measuring aggregate stability
Week 7	Measuring water conductivity
Week 8	Measuring soil salinity and soil pH
Week 9	Estimating some dissolved positive ions in soil solution

Week 10	Estimating some dissolved negative ions in soil solution
Week 11	Estimating soil lime and gypsum content
Week 12	Estimating soil organic matter
Week 13	Estimating some readily available elements in soil
Week 14	Estimating total numbers of fungi and bacteria in soil
Week 15	Excavating and describing a soil sample

Learning and Teaching Resources

	Text	**Available in the Library?**
Required Texts	Principles of Soil Science - Abdullah Najm Al-Ani	Yes
Recommended Texts	Daniel Hillel. 1990. Introduction to Soil Physics. Translated by Dr. Mahdi Ibrahim Awda Ahmed Al-Zubaidi. 1989. Soil Salinity Walid Al-Aqidi and Shaker Al-Issawi. 1989. Soil Morphology	Yes
Websites		

Grading Scheme

Group	**Grade**	**Evaluation**	**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	**FX**	Fail	(45-49)	More work required but credit awarded
(0 – 49)	**F**	Fail	(0-44)	Considerable amount of work required

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

MODULE DESCRIPTION FORM

Module Information

Module Title	**Engineering drawing**	**Module Delivery**
Module Type	**Core**	☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**

Relationship to Other Subjects

Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	-Introducing students to the importance of engineering drawing -Teaching students the basic principles of engineering drawing -Understanding the importance of engineering drawing for engineers and its applications -Representing objects using multiple projection systems and methods for drawing solids
Module Learning Outcomes	-Enabling the student to understand and know how to use engineering drawing tools. -Be able to distinguish the various lines used in engineering drawing. -Learn how to perform engineering operations. -Learn how to project point-to-point, line-segment projection, and plane surfaces. -Learn how to project vertically (three-dimensional projections). -Learn how to draw a full section and a half-cut projection. -Learn how to draw a sector parallel to the basic planes. -Learn how to draw three-dimensional drawings and their conditions. -Learn how to draw isometric drawings. -Learn how to draw parallelograms.
Indicative Contents	The instructional content includes the following: -Theoretical section -What is engineering drawing -Types of engineering drawing -The benefits of engineering drawing -What are engineering drawing tools?

	-Types of lines and some important engineering operations -Projections (point projection, line segment projection, plane projection, and the three vertical projections) -Sections (full section and half-cut projection) -Structured drawing and its types. Practical Section: -Learn about engineering drawing tools, how to use them, and how to install the board -Learn about line types -Learn about some important engineering operations and special exercises on this topic -Learn how to draw a projection of a point, a straight line, and a plane surface -Exercises on projections and how to correctly derive them -Derive the missing projection when two projections are available Exercises on full-section and half-section projectionsExercises on how to draw solid shapes and isometric drawings
Learning and Teaching Strategies	
Strategies	The strategies are based on the following: -Forming groups that interact with each other to learn engineering drawing -Performing classroom exercises in the studio -Completing homework -Using all available teaching tools, such as the whiteboard, data show, and drawing board -Building a leadership spirit among students in presenting information and building academic confidence

Student Workload (SWL)

Structured SWL (h/sem)	79	**Structured SWL (h/w)**	5
Unstructured SWL (h/sem)	121	**Unstructured SWL (h/w)**	8
Total SWL (h/sem)	200		

Module Evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	**Midterm Exam**	2 hr	10% (10)	7	LO # 1-7
	Final Exam	4 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	Introduction to Engineering Drawing / Engineering Drawing Tools and Their Use
Week 2	Engineering Line / Drawing Board Layout (Table) / Types of Lines and Dimensions
Week 3	Arcs and Tangents
Week 4	Ellipse
Week 5	Full Section

Week 6	Vertical Projection of Points, Straight Lines, and Planes
Week 7	Vertical Projection of Geometric Objects (3D Projections)
Week 8	Full Section
Week 9	Half-Trunked Projection
Week 10	Parallel Sections to Basic Planes and Their Applications
Week 11	Exercises on Full Sections and Half-Trunked Projections
Week 12	Solid Drawing and Its Conditions
Week 13	Solid Drawing for Solid Drawing
Week 14	Isometric Drawing
Week 15	Scale Drawing using the Parallel Plane Method

Delivery Plan (Weekly Lab. Syllabus)	
	Material Covered
Week 1	An explanation of how to use engineering drawing tools.
Week 2	Learn how to mount and plan the board and draw a table.
Week 3	Learn the types of lines used.
Week 4	Learn some engineering operations on straight lines.
Week 5	Geometric shapes: triangle/square/pentagon/hexagon/octagon.
Week 6	Angles, tangents, and methods for drawing parabolas.
Week 7	Projection theory/Multiple projection system.
Week 8	Projections (shapes with flat surfaces).
Week 9	Projections (shapes with flat and inclined surfaces).

Week 10	Projections (shapes with flat and inclined surfaces, arcs, and holes).
Week 11	Full section and half-cut projection.
Week 12	Structured drawing: Introduction/Structured drawing methods.
Week 13	Isometric drawing (flat surfaces).
Week 14	Isometric drawing.
Week 15	Methods for placing dimensions on projections and isometric drawing.

Learning and Teaching Resources

	Text	**Available in the Library?**
Required Texts	Engineering Drawing for Agricultural College Students - Dr. Eng. Natiq Sabri Hassan University of Mosul	Yes
Recommended Texts	Engineering Drawing - Abdul Rasoul Al-Khafaf 1990 University of Technology	Yes As pdf
Websites		

Grading Scheme

Group	**Grade**	**Evaluation**	**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	**FX**	Fail	(45-49)	More work required but credit awarded
(0 – 49)	**F**	Fail	(0-44)	Considerable amount of work required

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

MODULE DESCRIPTION FORM

Module Information					
Module Title	**botany**			**Module Delivery**	
Module Type	**Core**			☒ **Theory**	
Module Code	**DEC-112**			☐ **Lecture**	
ECTS Credits	**7**			☒ **Lab**	
SWL (h/Sem)	**175**			☐ **Tutorial**	
				☐ **Practical**	
				☐ **Seminar**	
Module Level		1	**Semester of Delivery**		1
Administering Department		**Combating desertification**	**College**	**Agriculture**	
Module Leader	**Imad Abdel Karim Muhammad Reda**		**e-mail**	**emad.aldahab@mu.edu.iq**	
Module Leader's Acad. Title		**assistant professor**	**Module Leader's Qualification**		**PhD**
Module Tutor			**e-mail**		

Peer Reviewer Name	Ghanem Bahlol Noni	e-mail	ghanem-bahlol@mu.edu.iq
Scientific Committee Approval Date	**10/**09/2024	Version Number	1.0

Relation with other Modules			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	Learn the basic concepts of botany and its relationship to other sciences Learn the importance of plants in the survival and continuity of life Study the plant cell and its characteristics Learn about seed germination and water relationships in plants Learn about the different plant organs, morphologically and anatomically Learn about vegetative and reproductive characteristics Plant tissues Study monocotyledonous and dicotyledonous plants
Module Learning Outcomes	-Identify plants and their relationship to life -Identify plant cells and how they differ from animal cells -Identify plant parts morphologically and anatomically -Identify seed germination and water relationships in plants
Indicative Contents	-Identify plant organs morphologically

	-Dissect plant organs, understand their structures, and identify tissues -Identify water relationships in plants

Learning and Teaching Strategies	
Strategies	Explanation and clarification Lecture method - Student groups - Practical lessons in agricultural fields - Field trips to learn about the most important plants found in Iraq and their families - Self-study method -

Student Workload (SWL)			
Structured SWL (h/Sem)	79	**Structured SWL (h/w)**	5
Unstructured SWL (h/Sem)	96	**Unstructured SWL (h/w)**	6
Total SWL (h/Sem)	175		

Module Evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	6,12	LO #1, 2, 3,4 and 5
	Assignments	1	10% (10)	9	LO # 2 and 6
	Lab	2	10% (10)	5,15	LO # 1,4, and 5
	Seminar	1	10% (10)	13	All
	Midterm Exam	2hr	10% (10)	7	LO # 1-3
Summative assessment	**Final Exam**	4hr	50% (50)	16	All
			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Botany and Its Development
Week 2	The Plant Cell and Its Basic Concepts
Week 3	Living Components of the Plant Cell
Week 4	Plant Tissues
Week 5	Seed Germination and Water Relationships in Plants
Week 6	Root Morphology and Anatomy
Week 7	Stem Morphology and Anatomy
Week 8	Leaf Morphology and Anatomy
Week 8	Midterm Exam

Week 9	Flower Morphology and Anatomy
Week 10	Pollination, Fertilization, and Fruit Setting
Week 11	Metabolism and Photosynthesis
Week 12	Fruits
Week 13	Plant Organ Functions (Respiration, Transpiration, Absorption)
Week 14	Plant Classification Methods
Week 15	Second Month Exam

Delivery Plan (Weekly Lab. Syllabus)	
	Material Covered
Week 1	Microscope: Parts and Function
Week 2	Preparing Temporary Slides
Week 3	Preparing Permanent Slides
Week 4	Components of Nonliving Cells
Week 5	Types of Roots
Week 6	Types of Stems
Week 7	Types of Leaves
Week 8	Types of Flowers
Week 9	Midterm Exam
Week 10	Types of Fruits

Week 11	Seeds and Germination
Week 12	Root Sections
Week 13	Stem Sections
Week 14	Leaf Sections
Week 15	End-of-Term Exam

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	Botany Illustrated - Introduction to Plants, Major Groups	No
Recommended Texts	General Plant Fundamentals, Mohamed Abdel Wahab El Naghi, Wafaa Mahrous Amer, Adel Ahmed Fathy	No
Websites	Plant taxonomy and Anatomy	No

Grading Scheme

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

English Language MODULE DESCRIPTION FORM

Module Information					
Module Title	**English Language**			**Module Delivery**	
Module Type	**S**			☒ **Theory** ☒ **Lecture** ☐**Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**UNI001**				
ECTS Credits	**2**				
SWL (hr/sem)	**50**				
Module Level	**1**		**Semester of Delivery**	**2**	
Administering Department	**Combating desertification**		**College**	**Agricuture**	
Module Leader	Safaa Abdel Hassan Hamdan		**e-mail**	safaa.hamdan@mu.edu.iq	
Module Leader's Acad. Title	Teacher		**Module Leader's Qualification**	MS.C	
Module Tutor	Safaa Abdel Hassan Hamdan		**e-mail**	safaa.hamdan@mu.edu.iq	
Peer Reviewer Name	**Prof. Dr. Ghanem Bahloul Nouni**		**e-mail**	**ghanem-bahlol@mu.edu.iq**	
Scientific Committee Approval Date	2024/09/01		**Version Number**	1.0	

Relation with other Modules			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	to enable the learner to communicate effectively and appropriately in real life situation: b. to use English effectively for study purpose across the curriculum; c. to develop interest in and appreciation of Literature; d. to develop and integrate the use of the four language skills i.e. Reading, Listening, Speaking and Writing; e. to revise and reinforce structure already learnt.
Module Learning Outcomes	to develop the students' abilities in grammar, oral skills, reading, and study skills 1. Students will increase their awareness of correct usage of English grammar in writing and speaking. 2. Improve their speaking ability in English both in terms of fluency and comprehensibility. 3. Receive feedback on their performance through oral presentations. 4. Increase their reading speed and comprehension of academic articles. 5. Improve their reading fluency skills through extensive reading. 6. Expand their vocabulary by keeping a vocabulary journal. 7. Strengthen their ability to write academic papers, essays and summaries using the process approach.
Indicative Contents	The course aims to develop communicative competence in English for intercultural contexts by teaching language items and communicative strategies essential for such scenarios, while at the same time giving students ample chances to output such items. The aims of this course are reflected in the content, which contains several themes, such as cultural awareness, intercultural awareness and English as a global language. Indicative content includes understanding the uniqueness of your own culture and other cultures, as well as being aware of the role culture plays in communication in English as a global language. In addition, this course allows for discussions about what it means for English to be a global language of communication and how misunderstandings and miscommunications when using English occurs. The course also includes practice in the pronunciation features that help improve intelligibility in intercultural contexts, namely the Lingua Franca Core.

Learning and Teaching Strategies	
Strategies	1. Cultivate relationships Speaking with students to know each student, helps you understand who they are, where they come from and, perhaps, gain some insight into what teaching and learning styles are most effective for them. 2. Teach language skills across all curriculum topics 3. Speak slowly and be patient: Speaking in a slower, measured cadence Being a bit more aware of your pronunciation 4. Prioritize "productive language" 5. Using a variety of methods to engage learning 6. Using visual aids by the use of pictures, diagrams, charts and other visual tools.

	7. Coordinate with the ESL teacher: Such discussions can yield insights into individual students and their learning styles or challenges; they can also be helpful for sharing information about curriculum topics, potentially providing ESL teachers with ideas for highly relevant vocabulary words that can reinforce academic lessons. 8. Pre-teach new vocabulary words that may be unfamiliar to ELLs, or even to give them a copy of the article or link to the material ahead of time. 9. Build in some group work. 10. Respect moments of silence: Many new language learners tend to be a little reticent and quiet, opting for silence over speaking up and saying something "wrong" in a language that is still unfamiliar. Research-based strategies for differentiating instruction to promote student learning

Student Workload (SWL)

Structured SWL (h/sem)	33	**Structured SWL (h/w)**	2.2
Unstructured SWL (h/sem)	17	**Unstructured SWL (h/w)**	1.1
Total SWL (h/sem)	50		

Module Evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	3,6,9	LO #1, #7
	Assignments	2	10% (10)	10	LO #3, #4 and #6
	Projects / Lab.	0	0 %		
	Essays	1	10% (10)	14	LO #5
Summative assessment	**Midterm Exam**	2hr	20% (10)	7	LO #1 - #7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	Unit-1 (Hello)
Week 2	Unit-2 (Your world)
Week 3	Unit-3 (Personal information)

Week 4	Unit-4 (Family and friends)
Week 5	Unit-5 (It's my life)
Week 6	Unit-6 (Every day)
Week 7	**Mid-term Exam**
Week 8	Unit-7 (Places I like)
Week 9	Unit-8 (Where I live)
Week 10	Unit-9 (Happy birthday)
Week 11	Unit-10 (We had a good time)
Week 12	Unit-11 (we can do it)
Week 13	Unit-12 (Thank you very much)
Week 14	Unit-13 (Here and now)
Week 15	Unit-14 (It's time to go)
Week 16	**final-term Exam**

Delivery Plan (Weekly Lab. Syllabus)

	Material Covered
Week 1	Lab 1:
Week 2	Lab 2:
Week 3	Lab 3:
Week 4	Lab 4:
Week 5	Lab 5:
Week 6	Lab 6:
Week 7	Lab 7:

Learning and Teaching Resources

	Text	**Available in the Library?**
Required Texts	Headway. Beginner. Student's Book by Liz and John Soars, 2019.	Yes
Recommended Texts		No
Websites	https://elt.oup.com/student/headway/beg/?cc=global&selLanguage=en	

Grading Scheme

Group	Grade	Evaluation	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

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Course Description Form

Module Information

Module Title	**Arabic Languaage**	**Module Delivery**
Module Type	**Basic**	☒ **Theory** ☐ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**
Module Code	**UNI-102**	
ECTS Credits	**2**	
SWL (hr/sem)	**50**	

Module Level		1	**Semester of Delivery**		1
Administering Department		Combating desertification	**College**	Agriculture	
Module Leader	Dr. Ghanem Bahloul Noni		**e-mail**	ghanem-bahlol@mu.edu.iq	
Module Leader's Acad. Title		Assistant Lecturer	**Module Leader's Qualification**		Master
Module Tutor			**e-mail**		
Peer Reviewer Name		Laith Hussein Hassan	**e-mail**	Laithh.alelyawi@uokufa.edu.iq	
Scientific Committee Approval Date		2024/09/16	**Version Number**	1.0	

Relation with other Modules			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	Reading without intonation Reducing spelling errors Reducing grammatical errors Learning about the history of the Arabic language Introducing students to the features and characteristics of the language of the Holy Quran.
Module Learning Outcomes	Learn to read without intonation Ignore spelling errors Understand the history of the Arabic language Learn Arabic grammar

	Introduce students to the advantages of the Arabic language
Indicative Contents	The origin of the Arabic language, the importance of the Arabic language, the characteristics of Arabic Number and the counted, writing the hamza and its types, the difference between ta' and ha', the extended ta' and the tied ta' in writing The extended and shortened alif, the absolute object, the object in it Punctuation marks and their effect on understanding the text, common errors in the Arabic language Islam's stance on poetry and poets, rhetoric and its types In and its sisters, kana and its sisters

Learning and Teaching Strategies	
Strategies	This is done through giving lectures and problem-solving exercises, in addition to holding discussion groups, conducting debates and poetry competitions, and performing some tasks in the form of articles and speeches in the Arabic language

Student Workload (SWL)			
Structured SWL (h/sem)	33	**Structured SWL (h/w)**	2
Unstructured SWL (h/sem)	17	**Unstructured SWL (h/w)**	1
Total SWL (h/sem)	50		

Module Evaluation

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

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	The Origins of the Arabic Language
Week 2	The Importance of the Arabic Language
Week 3	Characteristics of Arabic
Week 4	Number and the Counted
Week 5	Writing the Hamza and Its Types
Week 6	The Difference Between the Ta', the Ha', the Extended Ta', and the Connected Ta' in Writing
Week 7	Midterm Exam
Week 8	The Extended and Shortened Alif
Week 9	The Absolute Object and the Object in It

Week 10	Punctuation Marks and Their Effect on Text Comprehension
Week 11	Common Mistakes in the Arabic Language
Week 12	Islam's Position on Poetry and Poets
Week 13	Rhetoric and Its Types
Week 14	In and Its Sisters
Week 15	can and Its Sisters

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	Al-Bayan wa al-Tabyeen, Ibn Malik's Alfiyya	Yes
Recommended Texts	Nahj al-Balagha	No
Websites		

Grading Scheme

Grade	Evaluation	Marks %	Definition
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
FX	Fail	(45-49)	More work required but credit awarded

F	Fail	(0-44)	Considerable amount of work required

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

MODULE DESCRIPTION FORM

Module Information					
Module Title	**Principles Of Animal Production**			**Module Delivery**	
Module Type	**Core learning activities**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	APD-1201				
ECTS Credits	**7**				
SWL (hr/sem)	**175**				
Module Level		1	**Semester of Delivery**		**1**
Administering Department		**Animal Production**	**College**	**Agriculture**	
Module Leader	**Dr. Ghanem Bahloul Noni**		**e-mail**	**E-mail:** : ghanem-bahlol@mu.edu.iq	
Module Leader's Acad. Title		**Professor**	**Module Leader's Qualification**		**Ph.D.**
Module Tutor	Dr. Hassan Awad Fazaa		**e-mail**	hassanawied@mu.edu.iq	
Peer Reviewer Name		Name	**e-mail**	E-mail	
Scientific Committee Approval Date			**Version Number**	1.0	

Relation with other Modules			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	Enables the student to gain knowledge: 1. Give an idea of importance of animal prodution, types of farm animals ,animal husbandry. 2. Give an idea of importance of reproduction , nutrition and management 3. Animals Housing and Records
Module Learning Outcomes	1. Familiarity with general information about animal production and its economic and nutritional importance. 2. Discuss the factors affecting production efficiency and how to improve it. 3. Explain and clarify the obstacles facing livestock and ways to improve it. 4. Introducing students to livestock, their types, and how to care for them. 5. Introducing students to dual-purpose cattle and local and international sheep and goat breeds. 6. Defining how to establish and care for a flock of sheep and goats. 7. Defining the specifications of global and local buffalo and their different breeds. 8. We are introducing students to the importance of poultry projects and meat and egg production. 9. Providing an overview of Farm animals feed materials and the process for preparing balanced nutritional rations. 10. Explanation and clarification of health programs for animals, how to prevent diseases and ways to improve the health of animals and increase their productivity. 11. A detailed explanation of the importance of raising calves and heifers and providing the necessary needs for their rearing. 12. A detailed description of the reproductive system of cows and a statement of its importance in the reproductive process, and how to increase the reproductive efficiency of the animal and increase the birth rate. 13. Explain animal breeding and improvement programs and discuss the importance of breeding, selection, and exclusion of weak

	animals. 14. A detailed explanation of the importance of camels and the equine species and how to manage and care for them.
Indicative Contents	Indicative content includes the following. 1. Disseminating the culture of livestock's nutritional and economic importance as a major source of agricultural wealth and having a major role in the Country's economy. 2. Following modern methods and techniques in animal management, milking operations, and large animal slaughterhouses. 3. Teaching students the role of successful management (human factor or the breeder himself) of small and large ruminant fields. 4. Spreading the culture of benefiting from animal by-products such as manure waste and animal waste, and benefiting from animals in work. 5. Identifying the types of farm animals and the most important projects related to their breeding. 6. Solving administrative problems in cattle, sheep, and goat breeding fields.

Learning and Teaching Strategies	
Strategies	1. Enabling students to think and analyze topics related to the intellectual framework of the Principles of Animal Production subject 2. Enabling students to think and analyze topics related to animal species and the most important projects related to their breeding. 3. Enabling students to think and analyze topics related to identifying administrative problems in animal fields and working to address them. 4. Enabling students to think and analyze to identify the role of management (the role of the human factor or the breeder himself) in the success of animal fields of various types.

Student Workload (SWL)			
Structured SWL (h/sem)	**78**	**Structured SWL (h/w)**	**5.2**
Unstructured SWL (h/sem)	**97**	**Unstructured SWL (h/w)**	**6.4**
Total SWL (h/sem)	**175**		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.		15% (15)	Continuous	All
	Report		5% (5)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction of importance of animal production.
Week 2	Interrelated animal production & plant production , Sciences related to animal production
Week 3	Capabilities & constraint of animal production in Iraq
Week 4	Breed of dairy & beef cattle
Week 5	Buffaloes + First Exam.
Week 6	Milk production in the world and its influencing factors.
Week 7	Sheep & goat breeding
Week 8	Nutrition requirements, Compound stomach
Week 9	Barns.
Week 10	Reproductive in farm animals . Second Exam
Week 11	Genetic improvement in poultry.
Week 12	Other agricultural animals - camels - their management and care.
Week 13	Third Exam.
Week 14	Other Farm Animals - Horses - Their Management and Care
Week 15	Fish culture & production

Delivery Plan (Weekly Lab. Syllabus)	
	Material Covered
Week 1	Lab 1: Visit the farm of Agriculture College
Week 2	Lab 2: Observation of field operations

Week 3	Lab 3: Milking cows, learning about the lactation system of cattle and the automatic milking device.
Week 4	Lab 4: Suckling young calves.
Week 5	Lab 5: Scientific Trip.
Week 6	Lab 6: First Exam.
Week 7	Lab 7: Reproductive physiology & Artificial insemination.
Week 8	Lab 8 :Hatching , Selection of hatching eggs.
Week 9	Lab 9: Feedstuffs.
Week 10	Lab 10 Barns.
Week 11	Animal diseases
Week 12	Second Exam
Week 13	Applied in animal management
Week 14	Observation of field operations

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	Principles of Animal Production. Al-Jalili et.al.).	Yes
Recommended Texts	Basics of animal production, written by A. Dr.. Ahmed Suleiman Mahmoud and A. Dr.. Mahmoud Riyad Al Mahdi (2013).	No
Websites	https://nicehatchincubators.com/the-principles-of-poultry-husbandry/	

Grading Scheme

Grade	Evaluation	Marks %	Definition
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
FX	Fail	(45-49)	More work required but credit awarded
F	Fail	(0-44)	Considerable amount of work required

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