

**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

٢٠٢٤

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

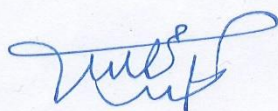
The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T ٣/٢٩٠٦ on ٣/٥/٢٠٢٣ regarding the programs that adopt the Bologna Process as the basis for their work.

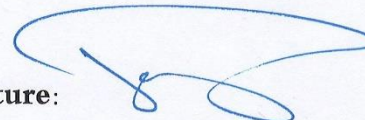
In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Academic Program Description Form

University Name: Wasit
Faculty/Institute: Agriculture
Scientific Department: Soil and water resources sciences
Academic or Professional Program Name: Master of Agriculture Sciences
Final Certificate Name: Master's degree in agricultural Sciences
Academic System: quarterly
Description Preparation Date: 1/9/2024
File Completion Date: 1/9/2024

Signature: 

Head of Department Name:
Assst. Prof. Dr
Mahdi Wasmy
seherb
Date: 3/11/2024

Signature: 

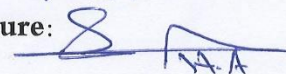
Scientific Associate Name:
Dr. Jawad Talib Abed
Date: 3/11/2024

The file is checked by:

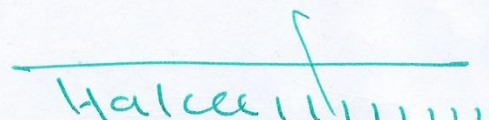
Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date: 3/11/2024

Signature: 

Hibat Allah A. Hussein


Assist. Prof.
Dr. Hakeem S. Abed
Dean
Approval of the Dean

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

١. Program Vision

The Department of Soil Sciences and Water Resources seeks to be one of the departments of advanced agricultural colleges in graduating competent agricultural engineers in the field of soil sciences and water resources to place them in the labor market and contribute to raising plant production by increasing soil fertility and improving its various qualities.

٢. Program Mission

Leadership and excellence as a professional university that works to qualify and graduate national human resources with a high degree of competence for the labor market in the region. And to be a major source of applied scientific research that

supports economic development and effective participation in social welfare.

٣. Program Objectives

The program aims to prepare cadres of agricultural engineers specialized in the five soil sciences: soil chemistry, soil physics, soil biology, soil fertility, soil surveying and classification, and employ them in work in the local market and all state departments.

٤. Program Accreditation

The department is working to obtain program accreditation by applying the standards launched by the Ministry

٥. Other external influences

Field visits to stations and relevant state institutions

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

٦. Program Description

Year/Level	Course Name	Credit Hours
Fall Semester	Mathematics ١	٣ • theoretical
	Computer ١	٣ • practical
	English language	٣ • theoretical
	Soil physics	٣ • theoretical + ٤٥ practical
	Experi Design and analysis	٣ • theoretical + ٤٥ practical
	Soil survey and classification	٣ • theoretical + ٤٥ practical
Spring Semester	Soil chemistry	٣ • theoretical + ٤٥ practical
	Soil fertility	٣ • theoretical + ٤٥ practical
	English language/٢	٣ • theoretically
	Soil microbiology	٣ • theoretical + ٤٥ practical
	Seminar	٣ • theoretically
	Research methodology	٣ • theoretically
	Specialized subject	٣ • theoretical + ٤٥ practical

٧. Expected learning outcomes of the program	
Knowledge	
Cognitive goals	Student learns about the concept of soil and its geological components. The student learns about the types of soil and the external influences that contributed to the formation of soil. The student learns about the nutrients found in the soil.
Skills	
Skills objectives of the program	Thinking skill Scientific research skills Teaching skills
Ethics	
Evaluation	Theoretical tests Practical tests Weekly reports

٨. Teaching and Learning Strategies
١- Explanation and clarification ٢- Lecture method ٣- Practical lessons in the lab. ٤- Scientific trips to relevant departments and research stations and Self-learning method

٩. Evaluation methods
١-Theoretical tests ٢- Practical tests ٣- Reports and studies

١٠. Faculty						
Faculty Members						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Professor	Soil and water resources	Soil microbiology				١
Professor	Soil and water resources	Soil fertility and fertilization			١	

Professor	Soil and water resources	Soil survey and classification			١	
Assistant Professor	Plant production	Plant breeding and improvement			١	
Professor	Soil and water resources	Soil fertility and fertilization			١	
Professor	Soil and water resources	Soil physics			١	
Assistant Professor	Soil and water resources	Soil chemistry			٢	
Professor	Soil and water resources	Soil chemistry			١	

Professional Development

Mentoring new faculty members

Guiding new, visiting, full-time and part-time faculty members by following them up by the Scientific Committee and the Department Head, attending lectures, and giving them the necessary directions.

Professional development of faculty members

- ١- Follow teaching and learning strategies
- ٢- Evaluation of learning outcomes by the scientific committee
- ٣- Professional development through holding development courses

١١. Acceptance Criterion

Central admission

١٢. The most important sources of information about the program

- ١- The website of the college and university
- ٢- University guide
- ٣- Central Library
- ٤- The most important books and sources for the department
- ٥- The Internet

١٣. Program Development Plan

- ١- Teamwork: Working within the group effectively and actively.
- ٢- Time management: Managing time effectively and setting priorities with the ability to work organized by appointments.
- ٣- Leadership: The ability to direct and motivate others.
- ٤- Independence at work.
- ٥- Negotiation and persuasion (the student is able to influence and persuade others to discuss and reach an agreement).

٦- Global skills (the student is able to speak and understand other languages and appreciate other cultures.

Course Description Form

١. Course Name:					
Mathematic					
٢. Course Code:					
٣. Semester / Year:					
Fall Semester					
٤. Description Preparation Date:					
١/٩/٢٠٢٤					
٥. Available Attendance Forms:					
Actual attendance					
٦. Number of Credit Hours (Total) / Number of Units (Total)					
٢ Theoretical ٢ Units					
٧. Course administrator's name (mention all, if more than one name)					
Name: Lecturer Prof. Dr. Ali Hussein Shuaa Email: alishuaa@uowasit.edu.iq					
٨. Course Objectives					
Course Objectives		١- Possessing the skill of thinking and having the ability to find solutions using the correct laws and mathematical operations. ٢- Learn about methods of calculating matrices and functions and their types. ٣- Identify applications related to matrices and types of functions. ٤- Learn how to draw a function ٥- Using new mathematical methods to perform solutions.			
٩. Teaching and Learning Strategies					
Strategy	١. Explaining and clarifying the mathematical concept and stating the laws related to it. ٢. Give some examples related to the topic. ٣. Involve students during the lecture in solving examples and problems using mathematical laws. ٤. Giving them homework and exercises related to the topic that was discussed in the lecture. ٥. Conduct daily tests for students in addition to monthly tests.				
١٠. Course Structure					
Week	Hour s	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
١ st	٢	Matrix	Mathematic	Explanation and presentation	Examination

				Model and lecture	
2 nd	2	Types of Matrix	Mathematic	Explanation and presentation Model and lecture	Examination
3 rd	2	Computational methods use In solving matrices	Mathematic	Explanation and presentation Model and lecture	Examination
4 th	2	Applications in solving functions and finding matrix inverses	Mathematic	Explanation and presentation Model and lecture	Examination
5 th	2	Mathematical functions	Mathematic	Explanation and presentation Model and lecture	Examination
6 th	2	Function components	Mathematic	Explanation and presentation Model and lecture	Examination
7 th	2	Types of Mathematical function	Mathematic	Explanation and presentation Model and lecture	Examination
8 th	2	Differential relations used In the function	Mathematic	Explanation and presentation Model and lecture	Examination
9 th	2	Higher ranks of Function	Mathematic	Explanation and presentation Model and lecture	Examination
10 th	2	Partial derivatives	Mathematic	Explanation and presentation Model and lecture	Examination
11 th	2	Function applications	Mathematic	Explanation and presentation Model and lecture	Examination

12 th	2	Increasing, decreasing, and endings Great and small	Mathematic	Explanation and presentation Model and lecture	Examination
13 th	2	Concavity and convexity curves in the function	Mathematic	Explanation and presentation Model and	Examination

				lecture	
١٤th	٢	Drawing functions	Mathematic	Explanation and presentation Model and lecture	Examination
١٥th	٢	Solved problems and examples of graphing the function	Mathematic	Explanation and presentation Model and lecture	Examination
١١. Course Evaluation					
١-Theoretical tests ٢٥ ٢- Daily tests ١٥ ٤- Final exam ٦٠					
١٢. Learning and Teaching Resources					
Required textbooks (curricular books, if any)			١- George B. Thomas, ٢٠٠٣. Calculus and Analytic Geometry.		
Main references (sources)			١- Theories and problems in advanced calculus. ٢٠٠٨. Murray R. SPIEGEL. Eighth Arabic edition. International House for Cultural Investments. Egypt. ٢- ٣٠٠٠ solved problems in calculus. Elliot Mendelsohn. International Academy. Beirut, Lebanon.		
Recommended books and references (scientific journals, reports...)			Iraqi academic scientific journals		
Electronic References, Websites					

Course Description Form

١. Course Name:			
	Soil physics		
٢. Course Code:			
٣. Semester / Year:			
	Fall Semester		
٤. Description Preparation Date:			
	١١/٩/٢٠٢٤		
٥. Available Attendance Forms:			
	Actual presence		
٦. Number of Credit Hours (Total) / Number of Units (Total)			
	٢ theoretical	٢ practical	units ٣
٧. Course administrator's name (mention all, if more than one name)			
	Name: Prof. Dr. Jamal Nasser abdalrhman		

Email: jnaser@uowasit.edu.iq

٨. Course Objectives

Course Objectives	١- Researches the study of soil physics and the physical properties of soil ٢- Study how to measure the physical properties of soil ٣- Applying measurements of physical properties to solve scientific problems related agriculture and the environment ٤- Understanding the relationship between physical soil properties ٥- Knowing the movement of water in the soil and the flow of water in saturated and unsaturated soils.
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٩. Teaching and Learning Strategies

Strategy	١-Explanation and clarification ٢- Lecture method ٣- Student groups ٤- Practical lessons ٥- Scientific trips ٦ - Self-learning method
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١٠. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	٤	Introduction and definition of soil science, soil physics and some related relationships	Soil physics	Explanation, presentation of model and lecture	the exam
the second	٤	Physical soil properties, soil texture, particle size distribution, and Stock's law	Soil physics	Explanation, presentation of model and lecture	the exam
the third	٤	The specific area of soil and methods for determining soil properties physically and chemically	Soil physics	Explanation, presentation of model and lecture	the exam
the fourth	٤	Soil Structure: its definition, importance, and how to study it	Soil physics	Explanation, presentation of model and lecture	the exam
Fifth	٤	Methods of studying soil structure and evidence of soil structure	Soil physics	Explanation, presentation of model and lecture	the exam
Sixth	٤	Stability of soil aggregates, methods of studying them, and factors affecting the formation of aggregates	Soil physics	Explanation, presentation of model and lecture	the exam
Seventh	٤	Soil water and general water properties, soil air, air capacity and gas exchange in the soil	Soil physics	Explanation, presentation of model and lecture	the exam
Eighth	٤	Water properties related to porous media (soil), soil water energy and methods of expressing and measuring it	Soil physics	Explanation, presentation of model and lecture	the exam
Ninth	٤	Soil temperature, soil moisture, temperature, and heat flow	Soil physics	Explanation, presentation of	the exam

		the soil		model and lecture	
The tenth	ξ	Water flow in saturated soils and water flow in unsaturated soils	Soil physics	Explanation, presentation of model and lecture	the exam
Eleventh	ξ	Water infiltration in soils and methods for measuring it and equations	Soil physics	Explanation, presentation of model and lecture	the exam
Twelfth	ξ	Irrigation and drainage characteristics and the physical properties of surface soil	Soil physics	Explanation, presentation of model and lecture	the exam
Thirteenth	ξ	Water balance and energy balance in the field	Soil physics	Explanation, presentation of model and lecture	the exam
fourteenth	ξ	Evaluation of the water balance equation, water consumption and evapotranspiration	Soil physics	Explanation, presentation of model and lecture	the exam
Fifteenth	ξ	Exam	Soil physics	Explanation, presentation of model and lecture	the exam

١١. Course Evaluation

١-Theoretical tests	٢٥
٢- Practical tests	١٥
٣- Final exam	٦٠

١٢. Learning and Teaching Resources

Required textbooks (curriculum books, if any)	١- Soil Physics, written by Dr. Hisham Mahmoud Hassan ٢٠٠٠ ٢- Basics of soil physics, translation. Mahdi Ibrahim Odeh ١٩٩٩
Main references (sources)	Basics of soil physics, translation. Mahdi Ibrahim Odeh ١٩٩٠
Recommended books and references (scientific journals, reports...)	Iraqi academic scientific journals
Electronic Websites	Soil physics

Course Description Form

١٣.	Course Title:
	Design and analysis of agricultural experiments
١٤.	Course Code
١٥.	Semester / Year
	Fall Semester
١٦.	The history of preparation of this description
	١/٩/٢٠٢٤

١٧. Available Attendance Forms					
Actual attendant					
١٨. Number of Credit Hours (Total) / Number of Units (Total)					
٢ theoretical		٢ practical		units ٣	
١٩. Course administrator's name (if more than one name)					
Name: Prof. Dr. Riyad jabbar mansour Email: : ralmaliki@uowasit.edu.iq					
٢٠. Course Objectives					
* Introducing the student that there are areas that depend on conducting experiments and these experiments must be designed on scientific bases * When analyzing experiments, it is according to scientific methods and logical steps * When obtaining accurate results of the experiment leads us to make the appropriate decision * Introducing the student to many types of designs, as each experience has a specific design * Introduce the student to how to test the morale of each mathematical model * Introducing the student that there are tests conducted before the experiment and tests proposed after the experiment * Introducing the student that there are values that can lost during the experiment and can be estimated				Course Objectives:	
٢١. Teaching and Learning Strategies					
Audio methods (teaching explanation of the subject) Blackboard writing style The method of direct dialogue between the teacher and the student w the evaluation of the student in the classroom participations					Strategy
٢٢. Course Structure					
Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	The week
Rapid exam	Lecture	A brief history of statistics, definition of statistics,	Theoretical lecture	٢	١

		division of statistics			
Rapid exam	Lecture	Measures of central tendency, measures of concentration	Theoretical lecture	۲	۲
Rapid exam	Lecture	Dispersion meters	Theoretical lecture	۲	۳
Rapid exam	Lecture	Hypothesis testing, statistical errors, hypothesis testing-t	Theoretical lecture	۲	۴
First month exam	Theoretical exam	examination	examination	۲	۵
Rapid exam	Lecture	Chi-Square Test	Theoretical lecture	۲	۶
Rapid exam	Lecture	general concepts and definitions in the design and analysis of experiments,	Theoretical lecture	۲	۷
Rapid exam	Lecture	Types of agricultural experiments, complete random design	Theoretical lecture	۲	۸
Rapid exam	Lecture	LSD Test	Theoretical lecture	۲	۹
Second month exam	Theoretical exam	examination	examination	۲	۱۰
Rapid exam	Lecture	Design of complete random sectors	Theoretical lecture	۲	۱۱
Rapid exam	Lecture	Duncan Test	Theoretical lecture	۲	۱۲
Rapid exam	Lecture	Latin Square Design	Theoretical lecture	۲	۱۳
Rapid exam	Lecture	Factor experiments	Theoretical lecture	۲	۱۴

Rapid exam	Lecture	Factor experiments with two factors	Theoretical lecture	٢	١٥
٢٣. Course Evaluation					
Distributing the score out of ١٠٠ according to the tasks assigned to the student such as daily preparation, daily, oral, monthly, written exams, reports etc					
٢٤. Learning and Teaching Resources					
١- Design and analysis of experiments - Khasha Rawi and Khalaf Allah ٢٠٠٠			Required textbooks (methodology, any)		
			Main references (sources)		
- Foreign books specialized in the design agricultural experiments .			Recommended books and references (scientific journals, reports...)		
Arabic articles issued by academic and professional bodies			Electronic References, Websites		

Course Description Form

١. Course Name:	
English Language	
٢. Course Code:	
٣. Semester / Year:	
Fall season	
٤. Description Preparation Date:	
١١/٩/٢٠٢٤	
٥. Available Attendance Forms:	
Actual presence	
٦. Number of Credit Hours (Total) / Number of Units (Total)	
١ theoretical	units ١
٧. Course administrator's name (mention all, if more than one name)	
Name: prof. Dr. hakim sultan abdul	Emai: hsultan@uowasit.edu.iq
٨. Course Objectives	
Course Objectives	* Teaching students, the basic concepts related to access to the simple basics of an introduction to the English language for students of the College of Agriculture. * The student gets to know the concept of the English language. * Enabling students to know how to deal with the English language
٩. Teaching and Learning Strategies	
Strategy	١- Explanation and clarification ٢- Lecture method

		٣- Student groups ٤- Practical lessons ٥- Scientific trips ٦ - Self-learning method			
١٠. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	١	<i>International student</i> READING Going abroad to study WRITING A host family VOCABULARY DEVELOPMENT Dictionary work	١	Explanation, presentation of model and lecture	the exam, Quizzes, Reports, and activities in class
Second	١	<i>Where in the world...?</i> READING Three countries WRITING My country VOCABULARY DEVELOPMENT Organizing vocabulary (١)	٢	Explanation, presentation of model and lecture	The exam, Quizzes, Reports, and activities in class
Third	١	<i>Newspaper articles</i> READING An unexpected journey WRITING Mistaken identity VOCABULARY DEVELOPMENT Word-building	٣	Explanation, presentation of model and lecture	the exam, Quizzes, Reports, and activities in class
Fourth	١	<i>Modern technology</i> READING Innovations WRITING Technology - good or bad? VOCABULARY DEVELOPMENT Varying vocabulary	٤	Explanation, presentation of model and lecture	The exam, Quizzes, Reports, and activities in class
Fifth	١	<i>Conferences and visits</i> READING A conference in Istanbul WRITING Invitations VOCABULARY DEVELOPMENT Word-building	٥	Explanation, presentation of model and lecture	the exam, Quizzes, Reports, and activities in class

Sixth	١	<i>Science and our world</i> READING Air pollution WRITING Trends VOCABULARY DEVELOPMENT Words that go together	٦	Explanation, presentation of model and lecture	The exam, Quizzes, Reports, and activities in class
Seventh	١	READING Computers WRITING IT — benefits and drawbacks VOCABULARY DEVELOPMENT e.g. etc. RESEARCH Crediting sources	٧	Explanation, presentation of model and lecture	the exam, Quizzes, Reports, and activities in class
Eighth	١	<i>Inventions, discoveries, and processes</i> READING How things work WRITING How things are made RESEARCH Reference books REVIEW Word-building	٨	Explanation, presentation of model and lecture	The exam, Quizzes, Reports, and activities in class
Ninth	١	<i>Travel and tourism</i> READING International tourism VOCABULARY DEVELOPMENT Varying vocabulary (٧) WRITING Graphs and bar charts	٩	Explanation, presentation of model and lecture	the exam, Quizzes, Reports, and activities in class

fourteenth	١	Pairwork activities: - Practice - Vocabulary - Reading and speaking - Problems	١٠	Explanation, presentation of model and lecture	the exam, Quizzes, Reports, and activities in class
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Fifteenth	١	tests	١١	-----	-----
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١١. Course Evaluation

١- Theoretical tests	٢٥
٢- Quizzes, Reports, and Class's Activities	١٥
٣- Final exam	٦٠

١٢. Learning and Teaching Resources

Required textbooks (curriculum books, if any)	Intermediate Student's Book: New Headway Plus (John and Sue Soars) Oxford University Press
Main references (sources)	
Recommended books and references (scientific)	

journals, reports...)	
Electronic References, Websi	Internet network

Course Description Form

١. Course Name:					
Computer applications					
٢. Course Code:					
٣. Semester / Year:					
Fall Semester					
٤. Description Preparation Date:					
١١/٩/٢٠٢٤					
٥. Available Attendance Forms:					
Actual presence					
٦. Number of Credit Hours (Total) / Number of Units (Total)					
١ practical units ١					
٧. Course administrator's name (mention all, if more than one name)					
Name: Dr. Hoda lafta					
Email: hulafta@uowasit.edu.iq					
٨. Course Objectives					
Course Objecti	- The student gets to know Microsoft access in details. - The student should know advantages of using Microsoft access in real life. - The student should apply many commends and processes on Microsoft access.				
٩. Teaching and Learning Strategies					
Strategy	١-Explanation and clarification. ٢- Practical lessons. ٣- Self-learning method.				
١٠. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluati on method
First	٢	Introduction to Microsoft access	Word	Explanation, presentation of model and lecture	Exam
second	٢	Access main interface	Word	Explanation, presentation of model and lecture	Exam
third	٢	Tabs and groups	Word	Explanation, presentation of model and lecture	Exam
fourth	٢	Tabs and groups	Excol	Explanation, presentation of model and lecture	Exam

Fifth	٢	Tabs and groups	Excol	Explanation, presentation of model and lecture	Exam
Sixth	٢	Practical Example	Power point	Practical session	Exam
Seventh	٢	Practical Example	Power point	Practical session	Exam
Eighth	٢	Tables	Genestat	Explanation, presentation of model and lecture	Exam
Ninth	٢	Practical Example	Genestat	Practical Example	Exam
Tenth	٢	Queries	Genestat	Explanation, presentation of model and lecture	Exam
Eleventh	٢	Practical Example	Matlab	Practical session	Exam
Twelfth	٢	Reports	Matlab	Explanation, presentation of model and lecture	Exam
Thirteenth	٢	Control panel	Onenote	Explanation, presentation of model and lecture	Exam
fourteenth	٢	Practical Example	Onenote	Practical session	Exam
Fifteenth	٢	Practical Example	Exam	Practical session	Exam

١١. Course Evaluation

١-Theoretical tests	٢٥
٢- Practical tests	١٥
٣- Final exam	٦٠

١٢. Learning and Teaching Resources

Required textbooks (curriculum books, if any)	
Main references (sources)	١- Microsoft Access ٢٠١٠ book(UNIVERSITY OF VIRGINIA HEALTH SYSTEM). ٢- Lectures of Microsoft Access ٢٠١٠ prepared by Eng.M.Abou Elale.
Recommended books and references (scientific journals, reports...)	
Electronic Websites	https://support.microsoft.com/ar-sa/office/%D8%A7%D9%A4%D9%A5%D9%A7%D8%A7%D9%A5-%D8%A7%D9%A4%D8%A3%D8%B3%D8%A7%D8%B3%D9%AA%D8%A9%D9%A1%D9%AA-access-٢٠١٠-٢٦acfed-٢٤A4-4A22-acb3-c30e08040000

Course Description Form

١. Course Name:					
Soil survey and classification					
٢. Course Code:					
٣. Semester / Year:					
Fall Semester					
٤. Description Preparation Date:					
١١/٩/٢٠٢٤					
٥. Available Attendance Forms:					
Actual presence					
٦. Number of Credit Hours (Total) / Number of Units (Total)					
٧ theoretical		٧ practical		units ٣	
٧. Course administrator's name (mention all, if more than one name)					
Name: Prof. Hashim hanin karim					
Email: hashim.hanin@uomisan.edu.iq					
٨. Course Objectives					
Course Objecti	• For the student to become familiar with the science of surveying and classification • The student should classify all types of soil • That the student can distinguish soil • The student gets to know the types of classifications in the world • The student will be able to manage soil according to its characteristics				
٩. Teaching and Learning Strategies					
Strategy	١-Explanation and clarification ٢- Lecture method ٣- Student groups ٤- Practical lessons ٥- Scientific trips ٦ - Self-learning method				
١٠. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluati on method
First	٤	The student gets to know the concepts of surveying and classification	Soil survey and classification	Explanation, presentation of model and lecture	the exam
the second	٤	The student gets to know the types of international categories	Soil survey and classification	Explanation, presentation of model and lecture	the exam
the third	٤	For the student to become familiar with classification methods.	Soil survey and classification	Explanation, presentation of model and lecture	the exam
the fourth	٤	The student will be familiar with the stages of soil classification	Soil survey and classification	Explanation, presentation of model and lecture	the exam

Fifth	ξ	The student will learn how to conduct soil mineral surveys	Soil survey and classification	Explanation, presentation of model and lecture	the exam
Sixth	ξ	The student will know how to prepare soil maps.	Soil survey and classification	Explanation, presentation of model and lecture	the exam
Seventh	ξ	For the student to become familiar with the classification of land uses.	Soil survey and classification	Explanation, presentation of model and lecture	the exam
Eighth	ξ	The student will be familiar with drawing and preparing soil maps.	Soil survey and classification	Explanation, presentation of model and lecture	the exam
Ninth	ξ	For the student to become familiar with the modern American system of soil classification.	Soil survey and classification	Explanation, presentation of model and lecture	the exam
The tenth	ξ	The student gets to know the climate and humidity factors	Soil survey and classification	Explanation, presentation of model and lecture	the exam
Eleventh	ξ	The student gets to know diagnostic soil horizons	Soil survey and classification	Explanation, presentation of model and lecture	the exam
Twelfth	ξ	The student will know how to diagnose unidentified soils	Soil survey and classification	Explanation, presentation of model and lecture	the exam
Thirteenth	ξ	The student gets to know the types	Soil survey and classification	Explanation, presentation of model and lecture	the exam
fourteenth	ξ		Soil survey and classification	Explanation, presentation of model and lecture	the exam
Fifteenth	ξ		Soil survey and classification	Explanation, presentation of model and lecture	the exam

١١. Course Evaluation

١-Theoretical tests	٢٥
٢- Practical tests	١٥
٣- Final exam	٦٠

١٢. Learning and Teaching Resources

Required textbooks (curriculum books, if any)	١-Soil survey and classification, Dr. Ahmed Al-Mashdani
Main references (sources)	
Recommended books and references (scientific journals, reports...)	Iraqi academic scientific journals
Electronic Websites	Soil classification

Course Description Form

٢٥.	Course Name:	Soil fertility			
٢٦.	Course Code:				
٢٧.	Semester / Year:	Spring Semester			
٢٨.	Description Preparation Date:	١١/٩/٢٠٢٤			
٢٩.	Available Attendance Forms:	Actual presence			
٣٠.	Number of Credit Hours (Total) / Number of Units (Total)				
	٢ theoretical ٢ practical units ٣				
٣١.	Course administrator's name (mention all, if more than one name)				
	Name: Prof. Dr. Kahraman Hussein habib				
	Email: : kahraman@uowasit.edu.iq				
٣٢.	Course Objectives				
Course Objecti		- The student gets to know the science of soil fertility - The student should classify the types of elements and their importance to plant - The student should detail the factors affecting nutrient readiness - The student will be familiar with soil fertility evaluation - The student should evaluate the soil elements according to their importance to plants			
٣٣.	Teaching and Learning Strategies				
Strategy		١-Explanation and clarification ٢- Lecture method ٣- Student groups ٤- Practical lessons ٥- Scientific trips ٦ - Self-learning method			
٣٤.	Course Structure				
Week	Hour s	Required Learning Outcomes	Unit or subject name	Learning method	Evaluatio n method
First	٤	The student gets to know growth and the factors affecting it	Fertilizer technology	Explanation, presentation the model and lecture	the exam
the second	٤	The student gets to know the types of nutrients	Fertilizer technology	Explanation, presentation the model and lecture	the exam
the third	٤	The student recognizes the movement and absorption of elements in the soil	Fertilizer technology	Explanation, presentation	the exam

				the model a lecture	
the fourth	ξ	The student gets to know the types elements in the soil	Fertilizer technology	Explanation, presentation the model a lecture	the exam
Fifth	ξ	The student gets to know the necess elements	Fertilizer technology	Explanation, presentation the model a lecture	the exam
Sixth	ξ	The student gets to know the ma elements	Fertilizer technology	Explanation, presentation the model a lecture	the exam
Seventh	ξ	The student gets to know the smal elements	Fertilizer technology	Explanation, presentation the model a lecture	the exam
Eighth	ξ	The student gets to know the useful a encouraging elements for growth	Fertilizer technology	Explanation, presentation the model a lecture	the exam
Ninth	ξ	For the student to recognize the distinc between elements	Fertilizer technology	Explanation, presentation the model a lecture	the exam
The tenth	ξ	For the student to get to know Factors affecting the readiness elements	Fertilizer technology	Explanation, presentation the model a lecture	the exam
Eleventh	ξ	The student gets to know nitrogen and factors	Fertilizer technology	Explanation, presentation the model a lecture	the exam
Twelfth	ξ	The student gets to know phosphorus a potassium and their factors	Fertilizer technology	Explanation, presentation the model a lecture	the exam
Thirteenth	ξ	The student gets to know sulfur, calci magnesium, and trace elements	Fertilizer technology	Explanation, presentation the model a lecture	the exam
fourteenth	ξ	The student will be familiar with evaluation of soil fertility	Fertilizer technology	Explanation, presentation the model a lecture	the exam
Fifteenth	ξ	The student will be familiar with organic matter	Fertilizer technology	Explanation, presentation the model a lecture	the exam

۳۰. Course Evaluation

۱-Theoretical tests	۲۰
۲- Practical tests	۱۰
۳- Final exam	۶۰

٣٦. Learning and Teaching Resources	
Required textbooks (curriculum books, if any)	Soil fertility ٢٠١٤/a. Dr. Nour El-Din Shawky Ali
Main references (sources)	Fertilizer technologies and uses, ٢٠١٢, Prof. Dr. Nour El-Din Shawqi Ali
Recommended books and references (scientific journals, reports...)	Iraqi academic scientific journals
Electronic Websites	Soil Science Society Of America Library Genesis

Course Description Form

٣٧.	Course Name:	Research methodology
٣٨.	Course Code:	
٣٩.	Semester / Year:	Spring Semester
٤٠.	Description Preparation Date:	١٩\٢٠٢٤
٤١.	Available Attendance Forms:	Actual presence
٤٢.	Number of Credit Hours (Total) / Number of Units (Total)	٢ theoretical ٢ units
٤٣.	Course administrator's name (mention all, if more than one name)	Name: Dr. Jawadin talib abd Email: jalkooranee@uowasit.edu.iq
٤٤.	Course Objectives	
Course Objectives	١ -Thinking skill according to the student's ability. The goal of this skill is for the student to believe in what is tangible and understand when, what and how he should think and work to improve the ability to think reasonably ٢ -Observation and perception ٣ - Analysis and interpretation ٤ - Preparation and evaluation ٥ - Critical thinking strategy in learning.	
٤٥.	Teaching and Learning Strategies	

Strategy	١. Why do we do scientific research and how do we choose the topic? ٢. Identify the foundations of scientific writing. ٣. Introducing the student to the components of scientific research in detail ٤ - What skills must the researcher possess? ٥ - Learn how to use software to express results. ٦ - Interpretation of the results
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٤٦. Course Structure

Week	H ou rs	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	٢	Scientific research its goals and requirements	Research methodology	Explanation, presentation of model and lecture	the exam
the second	٢	Scientific writing	Research methodology	Explanation, presentation of model and lecture	the exam
the third	٢	Components of Scientific research	Research methodology	Explanation, presentation of model and lecture	the exam
the fourth	٢	Components of Scientific research	Research methodology	Explanation, presentation of model and lecture	the exam
Fifth	٢	Characteristics of research and ethical	Research methodology	Explanation, presentation of model and lecture	the exam
Sixth	٢	Exam	Research methodology	Explanation, presentation of model and lecture	the exam
Seventh	٢	Data collection	Research methodology	Explanation, presentation of model and lecture	the exam
Eighth	٢	Data Analysis	Research methodology	Explanation, presentation of model and lecture	the exam
Ninth	٢	Show results	Research methodology	Explanation, presentation of model and lecture	the exam
The tenth	٢	Link the results obtained	Research methodology	Explanation, presentation of model and lecture	the exam
Eleventh	٢	Abstract of results	Research methodology	Explanation, presentation of model and lecture	the exam

Twelfth	٢	Exam	Research methodolog	Explanation, presentation of model and lecture	the exam
Thirteenth	٢	Use of scientific references	Research methodolog	Explanation, presentation of model and lecture	the exam
fourteenth	٢	Plagiarism	Research methodolog	Explanation, presentation of model and lecture	the exam
Fifteenth	٢	Publishing in scientific journal +cour review	Research methodolog	Explanation, presentation of model and lecture	the exam

٤٧. Course Evaluation

١-Theoretical tests	٢٥
٢- Practical tests	١٥
٣- Final exam	٦٠

٤٨. Learning and Teaching Resources

Required textbooks (methodology, if any)	
Main references (sources)	
Recommended supporting books and references (scientific journals, reports....)	Iraqi academic scientific journals
Electronic references, Internet sites	

Course Description Form

٤٩.	Course Name:	Soil microbiology
٥٠.	Course Code:	
٥١.	Semester / Year:	Spring Semester
٥٢.	Description Preparation Date:	١١/٩/٢٠٢٤
٥٣.	Available Attendance Forms:	Actual presence
٥٤.	Number of Credit Hours (Total) / Number of Units (Total)	٢ theoretical ٢ practical units ٣
٥٥.	Course administrator's name (mention all, if more than one name)	Name: Prof. Dr. Radhi Kadhim Email: : radhi_alrashidi@ahoo.com

٥٦. Course Objectives					
Course Objecti	• The student gets to know the classification and types of Soil microbiology and their importance • For the student to learn about methods of Soil microbiology • For the student to recognize method of Soil microbiology • The student should evaluate Soil microbiology				
٥٧. Teaching and Learning Strategies					
Strategy	١-Explanation and clarification ٢- Lecture method ٣- Student groups ٤- Practical lessons ٥- Scientific trips ٦ - Self-learning method				
٥٨. Course Structure					
Week	H ou rs	Required Learning Outcomes	Unit or subject name	Learning method	Evaluatio n method
First	٤	Historical overview, definition, and	Soil Microbiology	Explanation, presentation of model and lecture	the exam
the second	٤	importance of studying soil microbiology Sections of soil microbiology	Soil Microbiology	Explanation, presentation of model and lecture	the exam
the third	٤	Soil microbial groups: bacteria, fungi, algae, actinomycetes, archaea, mycorrhizae.	Soil Microbiology	Explanation, presentation of model and lecture	the exam
the fourth	٤	Organic matter: carbon cycle, enzymatic activity in soil	Soil Microbiology	Explanation, presentation of model and lecture	the exam
Fifth	٤	Biotransformations of N, nitrogen cycle, urea decomposition, nitrification process, mineralization and assimilation, C/N ratio	Soil Microbiology	Explanation, presentation of model and lecture	the exam
Sixth	٤	Biological nitrogen fixation	Soil Microbiology	Explanation, presentation of model and lecture	the exam
Seventh	٤	Biological transformations of phosphorus, its cycle and the role of microorganisms in its transformations	Soil Microbiology	Explanation, presentation of model and lecture	the exam
Eighth	٤	Biological transformations of phosphorus, its cycle and the role of microorganisms in its transformations	Soil Microbiology	Explanation, presentation of model and lecture	the exam
Ninth	٤	Biological transformations of sulfur, sulfur cycle, mineralization, microbial metabolism, oxidation, and reduction of inorganic sulfur compounds.	Soil Microbiology	Explanation, presentation of model and lecture	the exam

The tenth	ξ	Biotransformations of iron: oxidation, reduction, and decomposition of organic iron compounds	Soil Microbiology	Explanation, presentation of model and lecture	the exam
Eleventh	ξ	Biotransformations of iron: oxidation, reduction, and decomposition of organic iron compounds	Soil Microbiology	Explanation, presentation of model and lecture	the exam
Twelfth	ξ	Decomposition of pesticides in soil	Soil Microbiology	Explanation, presentation of model and lecture	the exam
Thirteenth	ξ	Relationships between microorganisms and the area surrounding the root (rhizosphere) and the activity of microorganisms in this area Factors affecting the growth of	Soil Microbiology	Explanation, presentation of model and lecture	the exam
fourteenth	ξ	microorganisms, growth of microorganisms	Soil Microbiology	Explanation, presentation of model and lecture	the exam
Fifteenth	ξ	Factors affecting the growth of microorganisms, growth of microorganisms	Soil Microbiology	Explanation, presentation of model and lecture	the exam

٥٩. Course Evaluation

١-Theoretical tests	٢٥
٢- Practical tests	١٥
٣- Final exam	٦٠

٦٠. Learning and Teaching Resources

Required textbooks (curriculum books, if any)	١- Soil Microbiology, Dr. Ghayath Muhammad Al-Sourji ٢-Lectures
Main references (sources)	
Recommended books and references (scientific journals, reports...)	Iraqi academic scientific journals
Electronic Websites	Soil Micrology

Course Description Form

١. Course Name:	Soil Chemistry
٢. Course Code:	
٣. Semester / Year:	Spring Semester
٤. Description Preparation Date:	

٥. Available Attendance Forms:

Actual presence

٦. Number of Credit Hours (Total) / Number of Units (Total)

٧ theoretical ٧ practical units ٧

٧. Course administrator's name (mention all, if more than one name)

Name: Assistant Professor Dr. Mahdi wsami sahib

Email: malaiedy@uowasit.edu.iq

٨. Course Objectives

Course Objectives

The soil chemistry course aims to explain the principles used in studying the chemical composition of soil. During this course, the student is introduced to all the chemical properties of soil and how to estimate and calculate them practically and in the field. During this course, the chemical properties of soil are linked to other branches of soil science.

٩. Teaching and Learning Strategies

Strategy

- Make the learner active and effective in educational situations.
- Teach students to respect different opinions and value others
- Benefit from other people's ideas and information.

١٠. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	٤	The importance of studying soil chemistry,	Soil chemistry	Explanation, presentation of the model and lecture	Exam
the second	٤	Ion exchange equations, physicochemical equations	Soil chemistry	Explanation, presentation of the model and lecture	Exam
the third	٤	chemical equations of soil anion exchange capacity	Soil chemistry	Explanation, presentation of the model and lecture	Exam
the fourth	٤	Solubility balance in soil	Soil chemistry	Explanation, presentation of the model and lecture	Exam
Fifth	٤	Carbonate equilibrium, CO_2 - H_2O system, CaCO_3 - H_2O - CO_2 system in soil	Soil chemistry	Explanation, presentation of the model and lecture	Exam
Sixth	٤	Phosphorus balance, ionization of phosphorus in soil, phosphorus reactions	Soil chemistry	Explanation, presentation of the model and lecture	Exam

Seventh	ξ	Chemical potential of ions in the soil solution	Soil chemistry	Explanation, presentation of the model and lecture	Exam
Eighth	ξ	phosphorus dissolution Soil acidity and alkalinity	Soil chemistry	Explanation, presentation of the model and lecture	Exam
Ninth	ξ	curves in Al^{3+} - Fe^{3+} - CaO - P^{5+} - H_2O system	Soil chemistry	Explanation, presentation of the model and lecture	Exam
Tenth	ξ	the importance of studying the degree of soil reaction	Soil chemistry	Explanation, presentation of the model and lecture	Exam
Eleventh	ξ	sources of acidity in the soil, methods of measuring acid and alkalinity	Soil chemistry	Explanation, presentation of the model and lecture	Exam
Twelfth	ξ	effect of the degree of reaction on cation exchange capacity.	Soil chemistry	Explanation, presentation of the model and lecture	Exam
Thirteenth	ξ	Equilibrium curves of soil buffering acidity	Soil chemistry	Explanation, presentation of the model and lecture	Exam
Fourteenth	ξ	alkalinity of soils in dry and semi-arid areas, calcareous soils, and gypsum soils.	Soil chemistry	Explanation, presentation of the model and lecture	Exam

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc

12. Learning and Teaching Resources

Required textbooks (curriculum books, if any)	Soil chemistry
Main references (sources)	Books related to the subject and scientific research
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	https://onlinelibrary.wiley.com/doi/full/10.1002/9781119300762.wsts0020

Course Description Form

١. Course Name:					
English Language					
٢. Course Code:					
٣. Semester / Year:					
Spring season					
٤. Description Preparation Date:					
١٩\٢٠٢٤					
٥. Available Attendance Forms:					
Actual presence					
٦. Number of Credit Hours (Total) / Number of Units (Total)					
١ theoretical units ١					
٧. Course administrator's name (mention all, if more than one name)					
Name: prof. Dr. Qassim hammad					
Email: qhammad@uowasit.edu.iq					
٨. Course Objectives					
Course Objectives	* Teaching students, the basic concepts related to access to the simple basics of an introduction to the English language for students of the College of Agriculture. * The student gets to know the concept of the English language. * Enabling students to know how to deal with the English language				
٩. Teaching and Learning Strategies					
Strategy	١- Explanation and clarification ٢- Lecture method ٣- Student groups ٤- Practical lessons ٥- Scientific trips ٦- Self-learning method				
١٠. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	١	It's a wonderful world: - Tenses - Auxiliary verbs - Short answers - What's in a word? - Social expressions	١	Explanation, presentation of model and lecture	the exam, Quizzes, Reports, and activities in class
Second	١	Get happy! - Simple or continuous? - Passive - Sport - Numbers and dates	٢	Explanation, presentation of model and lecture	The exam, Quizzes, Reports, and activities in class
Third	١	Telling tales: - Past tenses - Passive - Art and literature	٣	Explanation, presentation of model and lecture	The exam, Quizzes, Reports, and

		- Giving opinions			activities in class
Fourth	١	Doing the right thing: - Modal verbs ١ - Obligation and permission - Nationality words - Requests and offers	٤	Explanation, presentation of model and lecture	The exam, Quizzes, Reports, and activities in class
Fifth	١	On the move: - Future forms - The weather - Travelling	٥	Explanation, presentation of model and lecture	the exam, Quizzes, Reports, and activities in class
Sixth	١	I just love it: - Like - Verb patterns - Describing food, towns, and people - Signs and sounds	٦	Explanation, presentation of model and lecture	The exam, Quizzes, Reports, and activities in class
Seventh	١	The world of work: - Present perfect active and passive - Phrasal verbs - On the phone	٧	Explanation, presentation of model and lecture	the exam, Quizzes, Reports, and activities in class
Eighth	١	Just imagine! - Conditionals - Time clauses - Base and strong adjectives - Making suggestions	٨	Explanation, presentation of model and lecture	The exam, Quizzes, Reports, and activities in class
Ninth	١	Getting on together: - Modal verbs ٢ - Probability - Character adjectives - So do I! Neither do I!	٩	Explanation, presentation of model and lecture	the exam, Quizzes, Reports, and activities in class

tenth	١	Obsessions: - Present perfect continuous - Time expressions - Compound nouns - Quantity	١٠	Explanation, presentation of model and lecture	the exam, Quizzes, Reports, and activities in class
Eleventh	١	Tell me about it! - Indirect questions - Question tags - The body - Informal English	١١	Explanation, presentation of model and lecture	The exam, Quizzes, Reports, and activities in class
Twelfth	١	Life's great events! - Reported speech - Reporting verbs - Birth, marriage, and death - Saying sorry	١٢	Explanation, presentation of model and lecture	the exam, Quizzes, Reports, and activities in class
Thirteenth	١	Writing: - Correcting mistakes ١	١٣	Explanation, presentation of	The exam, Quizzes,

		- Letters and emails - A narrative ١ - For and against - Making a reservation - A description ١ - A letter of Application - A narrative ٢ - A description ٢ - Writing a biography - Words that join ideas - Correcting mistakes ٢		model and lecture	Reports, and activities in class
fourteenth ١		Pairwork activities: - Practice - Vocabulary - Reading and speaking - Problems	١ - ١ ٢	Explanation, presentation of model and lecture	the exam, Quizzes, Reports, and activities in class
Fifteenth ١		Reviewing	١ - ١ ٢	Explanation, presentation of model and lecture	The exam, Quizzes, Reports, and activities in class

١١. Course Evaluation

١ - Theoretical tests	٣٥
٢ - Quizzes, Reports, and Class's Activities	١٥
٣ - Final exam	٥٠

١٢. Learning and Teaching Resources

Required textbooks (curriculum books, if any)	Intermediate Student's Book: New Headway Plus (John and Soars) Oxford University Press
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	Internet network