MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**physical geology**			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**GEO-111**				
ECTS Credits	**8**				
SWL (hr/sem)	**200**				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Type Dept. Code		**College**	Type College Code	
Module Leader	**Dr. Mustafa Ali Hassan**		**e-mail**	Dr.musstafali@gmail.com	
Module Leader's Acad. Title	Assistant Professor		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Dr. Mohammad Hassan		**e-mail**	Mohammad Hassan @sc.uobaghdad.edu.iq	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	06/06/2023		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	physical geology	**Semester**	1
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	1-. Physical geology is defined as one of the branches of earth science that specializes in the study of the solid, non-living features of the planet Earth and other planets. It is done by studying the various rocks, minerals and materials that formed the earth and the processes related to it through time, and employing scientific tools and combined techniques to find out the approximate ages of the rocks on and in the earth's interior, and using this information to determine the history of the earth and the terres it passed through. 2- Providing students with an appropriate amount of information and expertise in the field of geoscience in a functional manner that contributes to the acquisition of a scientific culture and contributes to academic preparation and helps them to identify the natural resources in their country
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- Gaining the ability and skill in field interpretation and deduction. 2- Acquiring the skill of distinguishing between different geological features. 3- Dealing with the basic laws of various earth sciences. 4-Using the principle of the past is key to the present
Indicative Contents المحتويات الإرشادية	1-. Physical geology is defined as one of the branches of earth science that specializes in the study of the solid, non-living features of the planet Earth and other planets. It is done by studying the various rocks, minerals and materials that formed the earth and the processes related to it through time, and employing scientific tools and combined techniques to find out the approximate ages of the rocks on and in the earth's interior, and using this information to determine the history of the earth and the terres it passed through. 2- Providing students with an appropriate amount of information and expertise in the field of geoscience in a functional manner that contributes to the acquisition of a scientific culture and contributes to academic preparation and helps them to identify the natural resources in their country 3-Gaining the ability and skill in field interpretation and deduction. 4- Acquiring the skill of distinguishing between different geological features. 5- Dealing with the basic laws of various earth sciences. 6-Using the principle of the past is key to the present

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	1. Fieldwork and Hands-on Experience. Hands-on experience allows students to develop observational skills, make connections between theoretical concepts and real-world examples, and enhance their understanding of stratigraphic principles. 2. Visual Aids: Utilize visual aids, such as diagrams, charts, maps, and photographs, to help students visualize and comprehend stratigraphic concepts. Use geological maps to demonstrate the distribution and relationships between different rock units and incorporate stratigraphic columns to illustrate the vertical succession of strata. 3. Virtual Resources: Take advantage of virtual resources, such as interactive online modules, virtual field trips, and digital simulations. These resources can provide students with immersive experiences, allowing them to explore stratigraphic principles and study geological features virtually. 4. Case Studies and Real-life Examples 5. Laboratory Work: Conduct laboratory exercises that involve the description and interpretation of rock samples, including the identification of lithology, sedimentary structures, and fossil content. Encourage students to create stratigraphic logs or cross-sections based on the laboratory data, promoting critical thinking. 6. Collaborative Learning: Foster collaborative learning environments where students can work in groups or pairs to solve problems, analyze data, or interpret stratigraphic information. This approach encourages active engagement, promotes discussions, and allows students to learn from one another's perspectives and insights. 7. Multimedia Resources: Incorporate multimedia resources, such as videos, animations, and online lectures, to supplement traditional teaching methods. Multimedia resources can help reinforce key concepts, illustrate geological processes, and provide additional visual and auditory learning opportunities. . 8Continuous Assessment and Feedback: Implement regular assessments, such as quizzes, assignments, or class discussions, to gauge student understanding and provide timely feedback. This allows students to monitor their progress, identify areas of improvement, and reinforces learning.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	109	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7.27
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	91	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6.07
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	200		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 8
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 5, 9 and 10
Summative assessment	**Midterm Exam**	2 hr	10% (10)	8	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction- physical geology
Week 2	The importance of geology A brief summary of history of geology
Week 3	Branches of the geology Relationship between geology and other sciences
Week 4	The earth and the Solar System
Week 5	Crystals and crystallography(Crystals: (Introduction, Lattices Crystal,Crystals properties)
Week 6	Crystal symmetry, Elements of symmetry, Crystallographic axes, Crystal systems, System of the crystals)
Week 7	Crystals and crystallography(Crystals: (Introduction, Lattices Crystal,Crystals properties)Crystal symmetry, Elements of symmetry, Crystallographic axes, Crystal systems, System of the crystals)
Week 8	**Midterm Exam**
Week 9	Minerals:

	(Introduction, Minerals groups,Physical properties of minerals,) Economic use of Minerals
Week 10	Petrology I Igneous rocks (Introduction to
Week 11	Petrology II Sedimentary rocks (Introduction to sedimentary rocks, Types of sedimentary rocks, Sedimentary environments
Week 12	Petrology III Metamorphic rocks (Introduction to metamorphic rocks, Agents of metamorphism, Textural and mineralogical changes)
Week 13	Surface Water
Week 14	Groundwater
Week 15	**Weathering and soil**
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Crystals
Week 2	Lab 2: Crystals properties
Week 3	Lab 3: Crystal symmetry, Elements of symmetry, Crystallographic axes, Crystal systems, System of the crystals
Week 4	Lab 4 Crystal symmetry, Elements of symmetry, Crystallographic axes, Crystal systems, System of the crystals
Week 5	Lab 5: Crystal symmetry, Elements of symmetry, Crystallographic axes, Crystal systems, System of the crystals
Week 6	Lab 6: Physical properties of minerals
Week 7	Lab 7: Physical properties of minerals
Week 8	**Midterm Exam**
Week 9	Lab 9 Igneous rocks
Week 10	Lab 10: Igneous rocks
Week 11	Lab 11: Sedimentary rocks
Week 12	Lab 12: Sedimentary rocks
Week 13	Lab 13: Metamorphic rocks

Week 14	Lab 14 Metamorphic rocks
Week 15	Lab 15 Comprehensive laboratory review

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	**Available in the Library?**
Required Texts	1. Physical Geology First University of 1. ٩102Saskatchewan Edition, 2. Physical geology–Laboratory manuals.	Yes
Recommended Texts	مبادئ علم الارض للدكتور سعد الدهان . 2015	No
Websites		

Program Manager:

ا.م.د.مصطفى علي Dr.musstafali@gmail.com 07736049131

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Crystallography**			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**GEO-112**				
ECTS Credits	**8**				
SWL (hr/sem)	**200**				
Module Level	2		**Semester of Delivery**	1	
Administering Department	Type Dept. Code		**College**	Type College Code	
Module Leader	Dr. Hasan Kattoof Jasim		**e-mail**	Hasan.jasim@sc.uobaghdad.edu.iq	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	Ph.D.	
Module Tutor			**e-mail**		
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	21/06/2023		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Crystallography	**Semester**	1
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	1. Crystals aims to define how minerals crystallize in nature and what are the methods of crystallization that occur in nature through which minerals will be formed and these minerals will form rocks in nature Training students on how to take field models and convert them into applied products used in making geological maps.

	2. Training students to identify the types of bodies that crystals take upon crystallization, and try to benefit from them in diagnosing minerals
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Gain experience in the process of studying the shapes of crystals. 2. Attempting to diagnose crystal parts and crystal systems. 3. Training to identify the elements of symmetry in the crystal 4. Benefit from the study of crystallography and its use in the processes of diagnosing minerals
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. We have introduced you to the basic principles of crystallography . Let us now summarize what you have learned in this unit; 1- Crystallography aims to know how and how crystals are formed in nature 2- Crystallography is closely related to mineralogy, as it is considered one of the branches of mineralogy, and this science is important, especially in mineral diagnostic processes that have many applications, especially in the classification of rocks, as well as the diagnosis of minerals of economic importance 3- Crystallography has many important applications, especially in the detection and determination of crystalline and amorphous chemical substances

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	When it comes to learning and teaching crystallography , it is important to employ various strategies that cater to different learning styles and maximize understanding and retention. Here are some effective learning and teaching Crystallography : 1- Identify the models of crystals that are used in the laboratory and their relationship with real crystals of minerals in nature 2- Understand the ways in which minerals crystallize, which will vary according to the processes by which the types of igneous, sedimentary, and metamorphic rocks are formed. 3- After understanding the crystallization processes and the different bodies and shapes of the crystals, the link is made with the crystals of natural minerals, which will be seen in field work and in nature sometimes. 4- Absorbing and understanding crystallography will have many industrial and

	economic applications, as it is possible to go to what is known as industrial minerals and how to crystallize them in a laboratory.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	109	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7.27
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	91	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6.06
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	200		

Module Evaluation
تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 8
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 5, 9 and 10
Summative assessment	**Midterm Exam**	2 hr	10% (10)	8	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction to Crystallography
Week 2	Methods of Crystallization
Week 3	Form and Habits of Crystals
Week 4	Parts of Crystals

Week 5	Symmetry of Crystals
Week 6	Face intercepts
Week 7	32 Crystal Classes
Week 8	**Midterm Exam**
Week 9	Triccinic and monoclinic Systems
Week 10	Orthorhombic and tetragonal Systems
Week 11	Hexagonal and Trigonal Systems
Week 12	Cubic System
Week 13	Streographic Projection of Crystals
Week 14	Crystal Drawings
Week 15	Internal Structure of Crystals
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Lab 1: Introduction to Crystallography
Week 2	Lab 2: Parts of Crystals
Week 3	Lab 3: Crystallographic Systems
Week 4	Lab 4: Symmetry of Crystals, Elements and Operation of Crystals
Week 5	Lab 5: Forms of Crystals
Week 6	Lab 6: 32 Crystal Classes
Week 7	Lab 7: Pinacoidal Class – Triclinic System and Prismatic Class – Monoclinic System
Week 8	**Midterm Exam**
Week 9	Lab 9: Orthorhombic Dipyramidal Class – Orthorhombic System
Week 10	Lab 10: Ditetragonal Dipyramidal Class – Tetragonal System
Week 11	Lab 11: Dihexagonal Dipyramidal Class – Hexagonal System
Week 12	Lab 12: Scalenohedral class – Trigonal System
Week 13	Lab 13: Hexaoctahedreal Class – Cubic System
Week 14	Lab 14: Hexahetraderal Class – Cubic System
Week 15	Lab 15: Diploidal Class – Cubic System

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	**Philip, F. C., 1971,** An Introduction to Crystallography, 4th edition, Longman Group Ltd, United Kingdom, 349P.	Yes
Recommended Texts	**Al-Kufaishi, F, A,. and Mahmood, M, M,.1989,** Crystallography, Mosul University Prints, (In Arabic), 352P.	Yes
Websites	www.Mindat.com	

Program Manager:

Grading Scheme مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(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.

م.د.حسن كطوف جاسم hasan.jasim@sc.uobaghdad.edu.iq 07700078739

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	General Chemistry			**Module Delivery**	
Module Type	**B**			☒**Theory** ☐ **Lecture** ☒**Lab** ☐ **Tutorial** ☐ **Practical** ☐**Seminar**	
Module Code	GEO-113				
ECTS Credits	**7**				
SWL (hr/sem)	**175**				
Module Level	3		**Semester of Delivery**	1	
Administering Department	Department of		**College**	Science College/ University of Baghdad	
Module Leader	Dr.Shurooq Badri Al-badri		**e-mail**	s.b.albadr@sc.uobaghdad.edu.iq	
Module Leader's Acad. Title	Assistant professor		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Dr.Shurooq Badri Al-badri		**e-mail**	s.b.albadri@sc.uobaghdad.edu.iq	
Peer Reviewer Name			**e-mail**		
Scientific Committee ApprovalDate	08/06/2023		Version Number		

Relation with other Modules العلاقة مع المواد الدراسية الاخرى			
Prerequisite module		**Semester**	
Co-requisites module		**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الارشادية	
Module Objectives أهداف المادة االدراسية	1. Provide students with a comprehensive understanding of the fundamental principles underlying volumetric analysis and quantitative analysis methods. As well as general knowledge in bath Organic Chemistry and Biochemistry. 2. Develop specialists in the field of general chemistry and its practical applications, preparing them to fulfill the country's developmental and industrial needs. 3. Foster a scientifically literate generation that recognizes the value of science as a catalyst for transformative change. This includes cultivating critical thinking skills, promoting analytical thinking, and facilitating adaptability to evolving technologies and societal demands. 4. Strengthen the connection between the university and society by offering advisory counseling, training programs, and professional development opportunities for faculty and staff, ensuring that academic knowledge is effectively applied to real-world contexts. 5. Contribute to the country's overall progress by producing chemistry graduates who possess the skills and knowledge to actively contribute to its development. 6. Address the increasing demand for highly qualified professionals in various sectors that require specialized expertise in chemistry. 7. Encourage exceptional students to serve as teaching assistants within the department, nurturing their potential to become future members of the academic teaching staff and fostering the growth of a knowledgeable and skilled workforce
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	A. Cognitive goals 1- Introduce students to the fundamental principles of volumetric analysis and quantitative analysis methods, establishing a solid foundation in the field. 2- Foster an understanding of the theoretical principles and practical applications of titration, enabling students to detect both inorganic and organic compounds effectively. 3- Provide students with a comprehensive knowledge of volumetric analysis, with a specific focus on titration, and its extensive range of applications in various scientific disciplines. 4- Provide students knowledge of definition of organic chemistry, the classification of organic compounds, how to distinguish between them, and a method. As well as how given the name to organic compound. 5- Provide students' knowledge of biochemistry, the basic elements of life, and the structure and components of a cell.as well as the types of carbohydrates, fats, proteins and nucleic acids. A. The skills goals special to the program 1- Enhance students' research skills by encouraging them to engage in scientific exploration and facilitating constructive discussions where informed opinions are shared. 2- Develop proficiency in the use and development of laboratory techniques and equipment, enabling students to conduct experiments effectively and obtain accurate results. 3- Cultivate critical thinking skills that allow students to analyze and solve scientific problems related to the laws of chemistry, promoting a deeper understanding of the subject. 4- Foster the development of practical skills and the ability to apply theoretical and empirical scientific knowledge gained through their studies in real-life situations, taking into account industrial and commercial constraints.

Indicative Contents المحتويات الارشادية	The course aims to provide students with a comprehensive understanding of classical titration methods in analytical chemistry. It covers the fundamental principles of acid/base titration, complexometric titration, redox titration, and precipitation titration. Students will delve into the theory behind these methods and explore their wide-ranging applications. In addition to theoretical knowledge, the course emphasizes practical skills. Students will learn how to calculate pH values for various acids, bases, salts, and buffers, enabling them to make accurate determinations in real-world scenarios. They will also develop the ability to evaluate and interpret the results obtained from titration experiments, enhancing their analytical capabilities. Throughout the course, selected classical quantitative analytical methods will be highlighted, giving students a deeper understanding of their importance and practical use. By the end of the course, students will have gained the necessary knowledge and skills to apply classical titration methods effectively in analytical chemistry, both in theory and practice.

Learning and Teaching Strategies إستراتيجيات التعلم والتعليم	
Strategies	The module will be conducted using a student-centered approach, placing emphasis on active participation and the cultivation of critical thinking skills. Through a combination of classes, interactive tutorials, and purposeful experiments, students will be actively engaged in the learning process, fostering the development of their critical thinking abilities. The aim is to create an interactive and dynamic learning environment that encourages students to actively participate, think critically, and attain a profound comprehension of the subject matter. By adopting this strategy, students will have the opportunity to apply their knowledge, engage in analytical discussions, and enhance their overall learning experience.

Student Workload (SWL) العمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) العمل الدراسي المنتظم للطالب خلال الاسبوع	79	**Structured SWL (h/w)** العمل الدراسي المنتظم للطلاب اسبوعيا	5.27
Unstructured SWL (h/sem) العمل الدراسي غير المنتظم للطالب خلال الاسبوع	96	**Unstructured SWL (h/w)** العمل الدراسي غير المنتظم للطلاب اسبوعيا	6.4
Total SWL (h/sem) العمل الدراسي للطلاب خلال الفصل	**175**		

Module Evaluation تقييم المادة الدراسية					
		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
	Report	1	10% (10)	13	LO #5, #9 and #10
	Projects / Lab.	1	10% (10)	Continuous	All
Summative assessment	**Midterm Exam**	2hr	10% (10)	8	LO #1 - #7
	Final ExamLab	1hr	20% (20)	16	All
	Final Exam Theory	2hr	40% (40)	16	
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)المنهاج الاسبوعي النظري	
	Material Covered
Week 1	General introduction, what is chemistry and its branches? Branches of analytical chemistry, Quantitative analysis, Qualitative analysis.
Week 2	Weight and concentration unites, Concentration, The mole, Examples, Molarity, Normality. Perce concentrations, Part per million,
Week 3	Calculations of equivalent weight, Converting of percentage to molarity. The dilute solution Preparation of solid materials solutions, Preparation of liquid materials solutions
Week 4	Chemical equilibrium, Types of equilibrium, Equilibrium constants (Ionic -product constant water. Solubility and Solubility product constant, examples, calculations.
Week 5	Dissociation of a weak acid or base, Hydrolysis constant (KH),
Week 6	Volumetric Methods of Analysis, Requirements for a primary standard, Volumetric Calculations for Acid-Base Titrations.
Week 7	Equilibrium in acid-base solutions, Calculating the pH of weak acids and base solutions, Calculating the pH of salts solutions, 1-Salt differential from strong acid and strong base.
Week 8	Mid Term Exam 1
Week 9	2-Salt differential from weak acid and strong base, 3-Salt differential from strong acid and weak base, 4-Salt differential from weak acid and weak base.
Week 10	Buffer Solutions, Calculating the pH of Buffer solutions, Buffer capacity, Acid – Base Titration, Acid – Base Indicators, Methyl Orange, Phenolphthalein .
Week 11	Titrating a Weak Acid with a Strong base, Differential titration, Titration mixtures of two acids, Titration one Base or Mixture of two Bases with Strong Acid.
Week 12	Introduction to Organic Chemistry, and Classes of Organic compound.
Week 13	Chemistry of the Functional Groups (Alcohols ,Aldehydes and Ketones, and Carboxylic Acids)
Week 14	General introduction, in Biochemistry
Week 15	Mid Term Exam 2

Delivery Plan (Weekly Lab. Syllabus)المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Learn about laboratory tools and equipment and how to use them
Week 2	Learn the principles of descriptive analysis and the descriptive interactions of the first group of ions
Week 3	A test on the analysis of information samples for the first group, based on the descriptive analysis
Week 4	A test on the analysis of the anonymous samples of the first group, based on the descriptive analysis
Week 5	Characteristic descriptive interactions of the second group ions
Week 6	A test on the analysis of the known samples of the second group
Week 7	A test on the analysis of anonymous samples of the second group
Week 8	Calculations of volumetric analysis, preparation of approximately (0.1N) HCI and (0.IN) sodium carbonate, Standardization of HCl solution with standard solution of Na_2CO_3.
Week 9	Unknown solution: Practical exam.
Week 10	Analysis of a mixture (sodium hydroxide + sodium carbonate)
Week 11	Analysis of a mixture (sodium bicarbonate + sodium carbonate)
Week 12	Oxidation-reduction reactions, A: Preparation of 0.1N potassium permanganate, Preparation of 0.1 N sodium oxalate (Na2C2O4).
Week 13	Determination the concentration of ferrous ion.
Week 14	Complexometric titration, Determination of total hardness (permanent and temporary) of water

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Fundamental of analytical chemistry by Skoog, West, Holler & Crouch, 8th , 2004.	Yes
Recommended Texts	1-Fundamental of analytical chemistry by Skoog, West, Holler, 6th , 1992. 2-Principles of instrumental analysis by Skoog, West, Holler & Crouch, 8th, 2004. 3-K. Burger D, Sc, "Organic regents in metal analysis", 1st,New York, 1973. 4- General Chemistry: The Essential Concepts 5th Edition by Raymond Chang	
Websites	https://www.goodreads.com/book/show/1568659.General_Chemistry	

Grading Scheme مخطط الدرجات				
Group	**Grade**	التقدير	**Marks %**	**Definition**
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	راسب (احتمال ياخذ فرار)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks with decimal places above or below 0.5 will be rounded to the higher or lower full mark accordingly. For instance, a mark of 54.5 will be rounded up to 55, while a mark of 54.4 will be rounded down to 54. The University strictly adheres to a policy that does not allow for "near-pass fails," and therefore, the only adjustment made to the marks awarded by the original marker(s) will be the automatic rounding as described above.

	Ministry of Higher Education and Scientific Research - Iraq University of Baghdad College of Engineering Department of Electrical Engineering	

MODULE DESCRIPTOR FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**HUMAN RIGHTS & DEMOCRACY**			**Module Delivery**	
Module Type	**BASIC**			**X Theory** **Lecture** **Tutorial** **Seminar**	
Module Code					
ECTS Credits	2				
SWL (hr/sem)	50				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Type Dept. Code		**College**	Type College Code	
Module Leader	**Ansam Faik Abdul - Rezzak Al-Obidi**		**e-mail**	**ansam.faik@sc.uobaghdad.edu.iq**	
Module Leader's Acad. Title	**Lecturer**		**Module Leader's Qualification**	M.Sc.	
Module Tutor	None		**e-mail**	None	
Peer Reviewer Name			**e-mail**		
Review Committee Approval	8/06/2023		**Version Number**	1.0	

Relation With Other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	**Semester**	

Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims أهداف المادة الدراسية	**1. This course deals with the basic concept of human rights& democracy** **2. Clarifying and training students on the most important principles of human rights and democracy.** **3. Organizing discussions and presentations on the most vital and basic topics affecting community building, related to human rights and democracy..** **4. Adopting teamwork with students to develop their cognitive abilities and create a spirit of cooperation, initiative, creativity and exchange of views in an effort to build the foundations of peaceful community coexistence.** **5. Providing society with conscious youth aware of the importance of its role in building society, its unity and cohesion through spreading the culture of human rights and establishing the rules of correct democracy.** **6. Human rights guarantee the protection and respect of an individual's interests, even when he or she is not a majority. In a democratic climate, sustainable democratic power cannot be conceived without respecting, protecting and fulfilling human rights. Through their combined influence, they allow the individual a life based on the freedom of self-determination and collective. That is why the protection and realization of human rights truly form the basis of the democratic project.**
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**Cognitive goals.** **1. Educate students and inform them about the importance of human rights and democracy.** **2. Recognize and understand the methods of teamwork for the exchange of ideas and creative discussions** **3. Developing students' performance through guidance in preparing mini-research on modern vocabulary on vital topics related to human rights and democracy.** **4. Providing students with creative development abilities in modern proposals and creative developmental ideas by discussing awareness videos presented on electronic classes.** **5. Developing the skills of sharing opinions and ideas and respecting others opinion.** **6. Objective Skills :** **7. Basic knowledge in the principles of human rights and democracy.**

	8. Building the innovative personality of knowledge through online research and the transfer and exchange of information. **9. Discuss the various properties about everything related to human rights and their importance in our daily lives.** **10. Identify everything related to democracy and the foundations of the performance of the electoral process and its importance in building the nation.** **11. Identify the capacitor and inductor phasor relationship with respect to voltage and current.**
Indicative Contents **المحتويات الإرشادية**	**- Developing the student's analytical and critical skills regarding the reality and future of human rights and democracy** **- Training the student on the importance of active participation in aspects of public life, such as promoting respect for the principles of public human rights and active participation in political and cultural life.** **- Enable students to understand the importance of education and its role in spreading the culture of human rights and democracy in building a civilized society based on good governance, the most important component of which is belief in human rights, education and active participation in governance through free and fair elections.**
Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	**The main strategy that will be adopted in delivering this module is to encourage students' participation in the discussions, dialogues and group work lectures & exercises, while at the same time refining and expanding their critical thinking skills. There are many teaching and learning methods used, and the most important of these methods are: Theoretical lecture, discussion and dialogue, panel discussions on certain topics, theoretical student research** **Library and electronic activities (which helps students to reach the following results:** **1- The scientific ability to distinguish between correct information and wrong information.** **2- Ease of scientific drafting and ease of correction.** **3. Ability to memorize and guess.** **4- The ability to link concepts and principles with reality.** **5. Ability to invoke, link, interpret.**

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1.25
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50		

Module Evaluation
تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Attending lectures	1	1%	1.5	41#15 weeks
	Report	1	10% (10)	13	LO # 5, 9 and 10
Summative assessment	**Midterm Exam**	2 hr	10% (10)	8	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري مادة حقوق الانسان و الديمقراطية

	Material Covered **Human rights & Democracy**
Week 1	**Familiarity with the concept of human rights and the definitions approaching it, discussing, dismantling and criticizing them in a scientific way in order to reach the most accurate and objective. - Definition of right , of human, of the concept of human rights. Human rights qualities, Types of human rights Human Rights Categories**
Week 2	**The historical development of human rights: Orcagina Reforms 1- Urnamo Law.2- The law of Ishtar Bit. 3- The law of the Kingdom of Eshnuna.4- Code of Hammurabi.**
Week 3	**Human rights in other ancient civilizations: 1- Indian and Chinese civilization 2- Pharaonic civilization of Egypt 3- Greek civilization 4- Roman civilization**
Week 4	**Human rights in heavenly laws** **Human Rights in Judaism, Human rights in Christianity, Human Rights in Islam.**
Week 5	**Human rights in Renaissance - modern and contemporary societies** **Introducing the student to the most important UN document in the field of human rights, which was approved and approved by the Assembly on January 10, 1948**

	Universal Declaration of Human Rights 1948.
Week 6	**Non-governmental organizations defending human rights: Amnesty International, b. International Committee of the Red Cross. Arab Organization for Human Rights.**
Week 7	**Definition of the phenomenon of administrative corruption, Types of administrative corruption, Causes of administrative corruption. The repercussions of the phenomenon of administrative corruption on human rights and society. Successful treatments to combat corruption and protect society from it.**
Week 8	**Introduction - Historical development of the concept of democracy, definition of democracy, freedom. The difference between freedom and democracy, The relationship between the rights and public freedoms of individuals and democracy, Islamic views in a democratic system of government , Shura and Democratic System**
Week 9	**Specifications and duties of the Islamic ruler reading, The era of Imam Ali "peace be upon him" to his governor over Egypt: Specifications of the Islamic ruler: First: The moral and doctrinal components of the ruler Second: The general culture of the Islamic ruler, Third: Acumen and good choice: -Fourth: Direct relationship with people: Fourth: Direct relationship with people.** **Duties of the Islamic ruler:** **First: Social Reform: Second: Achieving security and defense** **Third: The architecture of the country "economic development"**
Week 10	**Forms of democracy: (1): Direct democracy ,(2): Semi-direct democracy , (3): Parliamentary democracy (parliamentary representation)4): Liberal Democracy** **(5): consociation Democracy, (6): Delegated Democracy.**
Week 11	**Conditions for the success of the elements and pillars of the democratic system General conditions for the success of the democratic system: 1. Respect for human rights, 2. Political pluralism 3. Peaceful transfer of power 4. Political equality 5. Respect the principle of the majority 6. Existence of the rule of law.**
Week 12	**Components or elements of democracy:** **1 – Citizenship 2- Political participation 3. Elections 4. MPs and Responsibility 5. Opposition 6- Separation of government and parliament 7- Constitutional legitimacy**
Week 13	**The concept of elections and their legal adaptation: First: The concept of election Second: Legal adaptation of the Election, Third: Conditions of Election, Fourth: Concepts of Elections, Fifth: Types of Electoral Systems. Assessing the Democratic System, Pros and advantages of the democratic system, Disadvantages and disadvantages of the democratic system, Implementing the democratic system in Iraq.**
Week 14	**Lobbyists: First: the concept and definition. Second: Types of pressure groups. Third: The methods of pressure groups that they use to achieve their goals.** **Fourth: Lobbying and Democracy.**
Week 15	**Preparatory Week**
Week 16	**Final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Martyrdom verses from the Holy Quran Mohammed Al-Tarawneh et al., International Humanitarian Law, ICRC, Amman, 2005 Diamond Larry, Democracy: Its Development and Ways to Enhance It, translated by Fawzia Naji, Dar Al-Mamoun for Translation, Iraq, 2005.	Yes
Recommended Texts	journal.un.org Hadi, Riad Azabz. (2005). Human rights (evolving contents and protection) (Baghdad).	Yes
Websites	Universal Declaration of Human Rights | United Nations https://sc.uobaghdad.edu.iq/?page_id=8415 https://www.youtube.com/@ansamalobidimanagerofhuman2891	

APPENDIX:

GRADING SCHEME مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria

Fail Group (0 – 49)	**FX** – Fail	مقبول بقرار	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note:				

NB 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.

	Ministry of Higher Education and Scientific Research - Iraq University of Baghdad College of Engineering Department of Electrical Engineering	

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Arabic Language**			**Module Delivery**	
Module Type	**Basic**			☒Theory ☐Lecture ☐Lab ☐Tutorial ☐Practical ☐Seminar	
Module Code					
ECTS Credits	2				
SWL (hr/sem)	50				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Type Dept. Code		**College**	Type College Code	
Module Leader	**Dr. Leqaa faleh owdaa**		**e-mail**	leqaa.falih@ircoedu.uobaghdad.edu.iq	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	11/06/2023		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	**١-تعلم مهارات الكتابة والاملاء والتعبير الصحيح خلال تطبيق قواعد اللغة العربية بشكل مفصل وتطبيقي على نصوص عربية.** **٢- لفهم الجمع وأنواع الاسماء وكيفية التعامل معها.** **٣- لفهم العدد واستعماله بشكل صحيح من حيث المطابقة والمخالفة** **للتفريق بين الضاد والظاء.** **٤- للتفريق ومعرفة استعمال التاء المربوطة والتاء الطويلة.** **٥-التمييز بين العلامات الاصلية والفرعية.** **٦- تعلم استعمال الأدوات وعمل كل أداة ومعناها في التعبير.**
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**هام: اكتب ٦ مخرجات تعليمية على الأقل، ومن الأفضل أن تكون مساوية لعدد أسابيع الدراسة** **١-التعرف على كيفية جمع الأسماء وأنواع الجموع وسبب اختلافها وقائمة بالمصطلحات المختلفة المرتبطة ببلاغة اللغة العربية تعلم كتابة الهمزة وانواعها.** **٢-وصف عمل الجمل الفعلية وأنواع الافعال** **٣-ناقش وتفاعل ومشاركة قواعد الجمل الاسمية وعلامات الاعراب الاصلية والفرعية والتطبيقات ضمن نصوص أدبية وقرانية.** **٤-القدرة على استعمال علامات الترقيم في كتابة البحوث والتقارير .** **٥-التمييز بين الأدوات وأسلوب العطف والجر.** **٦-التعرف على قواعد اللغة العربية الأساسية وتطبيقاتها.**
Indicative Contents المحتويات الإرشادية	**يتضمن المحتوى الإرشادي ما يلي.** **مقدمة في البداية التي أسس لها علماء اللغة العربية وكيف بدأت كتابة المؤلفات بالمعاجم والقواعد وجمع اللهجات واستقراء اللغة وحركة الترجمة والفتوحات وتطور اللغة.** **ومشكلات المراجعة (٦ ساعات)** **ودراسة الجمل وانواعها والافعال والعلامات الاصلية والفرعية والعدد. ومشكلات الكتابة والاملاء التي يقع فيها الطلبة في التفرقة بين الضاد والظاء والتاء المربوطة والطويلة والهمزة وانواعها وكيفية كتابتها. (٦ساعات)** **ودراسة الموضوعات الصرفية التي تخص المشتقات من اسم الفاعل واسم المفعول وصيغة المبالغة واوزانها ومعانيها وصيغها السماعية والقياسية..** **وعلامات الترقيم وكيفية توظيفها في كتابة التقارير والبحوث والمخطوطات.** **(٦ساعات)**

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	**كتب شيئًا مثل: الاستراتيجية الرئيسية التي سيتم تبنيها في تقديم هذه الوحدة هي تشجيع الطلاب على المشاركة في التمارين، مع تحسين مهارات التفكير النقدي وتوسيعها في نفس الوقت. سيتم تحقيق ذلك من خلال الفصول والبرامج التعليمية التفاعلية ومن خلال النظر في أنواع التجارب البسيطة التي تتضمن بعض أنشطة أخذ العينات التي تهم الطلاب.**

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	1.25
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50		

Module Evaluation تقييم المادة الدراسية					
		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	6	10% (10)	2,3,6,8,10 and 12	LO #3, #4 and #6, #7
	Projects / Lab.		10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr:	10% (10)	8	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	علامات الترقيم والتنقيط والنواسخ
Week 2	المشتقات.
Week 3	الجملة الاسمية
Week 4	الجملة الفعلية
Week 5	الفرق بين الضاد والظاء
Week 6	التاء المربوطة والتاء المفتوحة
Week 7	الهمزة وانواعها
Week 8	Mid Exam

Week 9	**الجمع** **العدد**
Week 10	**العلامات الاصلية والعلامات الفرعية**
Week 11	**اعلام عراقيون بدر شاكر السياب والجواهري**
Week 12	**العطف**
Week 13	**حروف الجر**
Week 14	**الاسم المؤنث والاسم المذكر**
Week 15	**الحذف والزيادة**
Week 16	**الأسماء المنصوبة**

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	جامع الدروس العربية وشرح ابن عقيل	Yes
Recommended Texts	Electromagnetic theory (book). 2000.vol.1	yes
Websites	https://www.coursera.org/browse/physical-science-and-engineering/electrical-engineering	

Grading Scheme
مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(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

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Computer I**			**Module Delivery**	
Module Type	**B**			☐ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**UOB-111**				
ECTS Credits	**3**				
SWL (hr/sem)	**75**				
Module Level	6		**Semester of Delivery**	1	
Administering Department	Type Dept. Code		**College**	Type College Code	
Module Leader	Abdallah A. Ibrahim		**e-mail**	Abdullah.i@sc.uobaghdad.edu.iq	
Module Leader's Acad. Title	Assistant Lecturer		**Module Leader's Qualification**	MS.c.	
Module Tutor			**e-mail**		
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	06/06/2023		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	1. Operating System Proficiency: Understanding computer windows, such as Microsoft Windows, allows you to navigate and manage your computer effectively. You can learn how to interact with the graphical user interface, customize settings, manage files and folders, install and uninstall applications, troubleshoot common issues, and ensure overall system security. 2. Productivity Enhancement: Microsoft Word is a widely used word processing software that can help you create professional documents, such as reports, essays, letters, resumes, and more. By learning Microsoft Word, you can improve your typing and formatting skills, utilize features like spell check and grammar check, insert images and tables, create headers and footers, use styles and formatting options, and collaborate with others on documents. 3. Career Advancement: Proficiency in computer windows and Microsoft Word is often expected in many workplaces. By learning these tools, you can enhance your employability and increase your chances of success in various fields, including administration, data entry, content creation, customer support, and more. Knowledge of these tools may also be required for specific job roles or industry certifications. 4. Academic Pursuits: Students often need to use computer windows and Microsoft Word for their academic work. Learning these tools can help you create well-structured documents, format citations and references, organize research materials, collaborate on group projects, and effectively manage your academic workload. 5. Personal Use: Even outside of work or academia, learning about computer windows and Microsoft Word can benefit you in your personal life. You can use these tools for creating invitations, writing personal letters, designing newsletters, maintaining personal budgets, and more. They provide you with the skills to be more efficient and organized in various day-to-day tasks.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Learning outcomes for Microsoft Windows: 1. Basic Navigation: Students will be able to navigate the Windows operating system, including using the Start menu, taskbar, and file explorer to locate and manage files and applications. 2. File Management: Students will learn how to create, rename, copy, move, and delete files and folders, as well as how to organize their files using folders and subfolders. 3. System Settings: Students will understand how to customize and adjust system settings such as display resolution, desktop backgrounds, screen savers, power settings, and sound preferences. 4. Application Management: Students will be able to install, update, and uninstall applications from the Microsoft Store and third-party sources, as well as manage application shortcuts and configure default applications. 5. Internet and Network Connectivity: Students will learn how to connect to Wi-Fi networks, manage network connections, and troubleshoot common internet connectivity issues.

	6. System Security: Students will understand the importance of system security and learn how to use built-in Windows features like Windows Defender to protect their computer from malware and other security threats. Learning outcomes for Microsoft Word: 1. Document Creation: Students will be able to create, open, and save documents using Microsoft Word, including understanding different file formats and choosing appropriate file names and locations. 2. Formatting and Styling: Students will learn how to format text, paragraphs, and pages, including adjusting font styles, sizes, and colors, applying different types of alignments, adding headers and footers, and setting up page numbering. 3. Editing and Proofreading: Students will develop skills in editing and proofreading documents, including using features like spell check, grammar check, thesaurus, and word count to ensure accuracy and clarity in their writing. 4. Document Organization: Students will understand how to organize their documents using features such as headings, subheadings, bulleted and numbered lists, tables, and page breaks to create a clear and well-structured document. 5. Inserting and Formatting Graphics: Students will learn how to insert and manipulate images, shapes, and other graphical elements into their documents, as well as adjust their size, position, and text wrapping options. 6. Citing a references: Students will learn how to manage document references by using the tools like insert citation, insert captions, footnote, endnote, and table of contents.
Indicative Contents المحتويات الإرشادية	Indicative contents of learning Microsoft Windows: 1. Introduction to Microsoft Windows • Overview of the Windows operating system • Evolution of Windows versions 2. Windows Interface and Navigation • Start menu and taskbar • File Explorer and file management • Desktop customization and personalization 3. System Settings and Control Panel • Display settings and resolution • Power and sleep settings • Sound and volume control • Device management and drivers 4. Application Management • Installing and uninstalling applications • Microsoft Store and third-party applications • Managing application shortcuts and default programs 5. Internet and Network Connectivity

	• Connecting to Wi-Fi networks • Network and internet settings • Troubleshooting internet connection issues 6. System Security • Introduction to system security • Windows Defender and antivirus protection • User account management and password security Indicative contents of learning Microsoft Word: 1. Introduction to Microsoft Word • Overview of Word's features and capabilities • Understanding the Word interface and ribbon 2. Document Creation and Formatting • Creating, opening, and saving documents • Text formatting (font styles, sizes, colors) • Paragraph formatting (alignment, indentation, spacing) • Page formatting (margins, orientation, page breaks) 3. Editing and Proofreading • Spell check and grammar check • AutoCorrect and AutoFormat features • Thesaurus and word count tools • Tracking changes and reviewing documents 4. Document Organization and Navigation • Headings and styles • Table of contents and navigation pane • Creating and managing sections and headers/footers • Bookmarks and hyperlinks 5. Inserting and Formatting Graphics • Inserting images and resizing options • Shapes, symbols, and icons • SmartArt graphics and charts • Text wrapping and alignment with graphics 6. Citation and References • Insert citation, caption, footnote, and endnote • Manage sources and bibliography • Table of contents and table of figures

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1. Hands-on Practice: Emphasize practical exercises and hands-on activities where learners actively engage with the software. Provide step-by-step instructions and guided practice opportunities to ensure learners gain experience. 2. Demonstration: Start by demonstrating key features and functionalities of Windows and Word. Use screen sharing or projection to show learners how to navigate the interface, perform tasks, and utilize various tools and options effectively. 3. Interactive Tutorials and Simulations: Utilize interactive tutorials and simulations that allow learners to interact in a simulated environment. These resources provide guided instructions and immediate feedback, enabling learners to practice and reinforce their skills. 4. Scenario-based Learning: Present real-life scenarios where learners can apply their knowledge to solve problems or complete specific tasks. Encourage critical thinking and problem-solving skills by challenging learners to find solutions using the software. 5. Group Activities and Discussions: Foster collaboration and peer learning by incorporating group activities and discussions. Encourage learners to share their experiences, ask questions, and help each other troubleshoot issues or explore advanced features. 6. Multimedia Resources: Supplement traditional instruction with multimedia resources such as video tutorials, interactive e-learning modules, and online resources. These resources can provide additional explanations, demonstrations, and visual aids to enhance understanding and retention of the content. 7. Practice Projects and Assignments: Assign practical projects or assignments that require learners to apply their skills to create documents, presentations, or other tasks. Provide clear objectives and guidelines, and encourage creativity to promote active learning. 8. Assessments and Feedback: Use formative and summative assessments to gauge learners' understanding and progress. Provide constructive feedback on their work to highlight areas for improvement and reinforce correct practices. 9. Adaptability and Differentiation: Recognize the diverse needs and learning styles of learners and adapt the instruction accordingly. Provide differentiated instruction, additional resources, or alternative learning paths to cater to individual learners' abilities and preferences.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	32	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2.13
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	43	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2.87
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 8
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 5, 9 and 10
Summative assessment	**Midterm Exam**	2hr	10% (10)	8	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	
Week 9	

Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab1: Windows 10 Introduction
Week 2	Lab2: Windows 10 Start Menu
Week 3	Lab3: Windows 10 Taskbar
Week 4	Lab4: Windows 10 File Explorer
Week 5	Lab5: Windows 10 File Explorer - 2
Week 6	Lab6: Windows 10 - Settings
Week 7	Lab7: Word 2016 File Tab
Week 8	**Midterm Exam**
Week 9	Lab8: Word 2016 Home Tab
Week 10	Lab9: Word 2016 Insert Tab
Week 11	Lab10: Word 2016 Table Design and Layout Tab
Week 12	Lab11: Word 2016 Design + Layout Tab
Week 13	Lab12: Word 2016 References Tab
Week 14	Lab13: Word 2016 References Tab II
Week 15	Lab14: Word 2016 Review + View Tab
Week 16	**Preparatory week before the final Exam**

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	1. Windows 10 quick reference 2. Word 2016 quick reference	No
Recommended Texts		No
Websites	The official Microsoft Support website https://support.microsoft.com/en-us My official youtube channel https://www.youtube.com/channel/UCZRoVqavqTqM9kd9cQ8DUFg	

Grading Scheme مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(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.

Abdallah A. Ibrahim Abdullah.i@sc.uobaghdad.edu.iq 07706447484

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Historical geology**			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**GEO-124**				
ECTS Credits	**8**				
SWL (hr/sem)	**150**				
Module Level	7		**Semester of Delivery**	2	
Administering Department	Type Dept. Code		**College**	Type College Code	
Module Leader	**Dr. Mustafa Ali Hassan**		**e-mail**	Dr.musstafali@gmail.com	
Module Leader's Acad. Title	Assistant Professor		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Dr. Mohammad Hassan		**e-mail**	Mohammad Hassan @sc.uobaghdad.edu.iq	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	020/06/2023		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Historical geology	**Semester**	2
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	1 Historical geology is the use of the principles of geology to reconstruct and understand the history of the Earth. It focuses on the geological processes that change the Earth's surface and core, and uses stratigraphy, structural geology, and paleobiology to identify the sequence of these events.2- Providing students with an appropriate amount of information and expertise in the field of geoscience in a functional manner that contributes to the acquisition of a scientific culture and contributes to academic preparation and helps them to identify the natural resources in their country 2- It includes the study of the changes that occurred on the earth's surface in terms of water distribution and land areas since its inception Earth from about 6.4 billion years ago until now. 3- The study of the Earth's relations with the solar system and the universe, as this section means by studying the effects and remains of ancient life on Earth Earth since the emergence of life about two billion years ago to the present time
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- Gaining the ability and skill in field interpretation and deduction. 2- Acquiring the skill of distinguishing between different geological features. 3- Dealing with the basic laws of various earth sciences. 4- Using the principle of the past is key to the present 5- Field and laboratory description 6 - investigation and exploration 7 - Scientific reports
Indicative Contents المحتويات الإرشادية	1- It includes the study of the changes that occurred on the earth's surface in terms of water distribution and land areas since its inception Earth from about 6.4 billion years ago until now. 2- Studying the Earth's relations with the solar system and the universe, as this section means by studying the effects and remnants of ancient life on Earth Earth since the emergence of life about two billion years ago to the present time 3- Providing students with an appropriate amount of information and expertise in the field of earth science in a functional manner that contributes to their acquisition of a scientific culture and contributes to academic preparation and helps them to identify the natural resources in their country.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1. Fieldwork and Hands-on Experience. Hands-on experience allows students to develop observational skills, make connections between theoretical concepts and real-world examples, and enhance their understanding of stratigraphic principles. 2. Visual Aids: Utilize visual aids, such as diagrams, charts, maps, and photographs, to help students visualize and comprehend stratigraphic concepts. Use geological maps to demonstrate the distribution and relationships between different rock units and incorporate stratigraphic columns to illustrate the vertical succession of strata. 3. Virtual Resources: Take advantage of virtual resources, such as interactive online modules, virtual field trips, and digital simulations. These resources can provide students with immersive experiences, allowing them to explore stratigraphic principles and study geological features virtually. 4. Case Studies and Real-life Examples 5. Laboratory Work: Conduct laboratory exercises that involve the description and interpretation of rock samples, including the identification of lithology, sedimentary structures, and fossil content. Encourage students to create stratigraphic logs or cross-sections based on the laboratory data, promoting critical thinking. 6. Collaborative Learning: Foster collaborative learning environments where students can work in groups or pairs to solve problems, analyze data, or interpret stratigraphic information. This approach encourages active engagement, promotes discussions, and allows students to learn from one another's perspectives and insights. 7. Multimedia Resources: Incorporate multimedia resources, such as videos, animations, and online lectures, to supplement traditional teaching methods. Multimedia resources can help reinforce key concepts, illustrate geological processes, and provide additional visual and auditory learning opportunities. . 8Continuous Assessment and Feedback: Implement regular assessments, such as quizzes, assignments, or class discussions, to gauge student understanding and provide timely feedback. This allows students to monitor their progress, identify areas of improvement, and reinforces learning.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	109	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7.27
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	91	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6.07
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	200		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 8
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 5, 9 and 10
Summative assessment	**Midterm Exam**	2 hr	10% (10)	8	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction- Historical geology
Week 2	Relative Time and Geologic Time scale
Week 3	Geologic Laws
Week 4	Faunal succession and index fossils1
Week 5	Faunal succession and index fossils)2
Week 6	Absolute Time Parent Atom, Potassium-Argon Dating,
Week 7	Absolute Time Radiometric Dating, Uranium Dating

Week 8	**Midterm Exam**
Week 9	Interior of the earth
Week 10	Earth's magnetic field
Week 11	Plate tectonics
Week 12	Structural geology1
Week 13	Structural geology2
Week 14	Maps
Week 15	**The history of the earth**
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1 Geologic Laws
Week 2	Lab 2: Geologic Laws
Week 3	Lab 3 difference between fossil and index fossil
Week 4	Lab 4 superposition and faunal fossil
Week 5	Lab 5 magnetic field
Week 6	Lab 6: Folding
Week 7	Lab 7: Faulting and Fracturing
Week 8	Lab 8: Topographic map, Structural map
Week 9	Lab 9 geologic map
Week 10	Lab 10: index fossil
Week 11	Lab 11: Map of isochatel and isobach
Week 12	Lab 12: Geological section
Week 13	Lab 13: compass and field tools
Week 14	Lab 14 hydraulic properties

Week 15	Lab 15 Comprehensive laboratory review

Grading Scheme
مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(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.

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	1. Physical Geology First University of 1. ٩102Saskatchewan Edition, 2. ٤102Historical geology	Yes
Recommended Texts	اساسيات الجيولوجيا التاريخية هو كتاب علمي من تأليف أ.د.محمد أحمد حسن هيكل - د. عبد الجليل عبد الحميد هويدي ٧002	No
Websites		

Program Manager:
ا.م.د.مصطفى علي Dr.musstafali@gmail.com 07736049131

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Mineralogy**			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**GEO-125**				
ECTS Credits	**8**				
SWL (hr/sem)	**200**				
Module Level	8		**Semester of Delivery**	2	
Administering Department	Type Dept. Code		**College**	Type College Code	
Module Leader	Hasan Kattoof Jasim		**e-mail**	Hasan.jasim@sc.uobaghdad.edu.iq	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Hind Fadhil Abdullah		**e-mail**	Hind.abduggah1108@sc.uobaghdad.iq	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	21/06/2023		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	GEO-112	**Semester**	1
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	1. Mineralogy aims to introduce the student to this very important science, which has many applications, as rocks are composed in nature of minerals, and therefore the earth's crust will also be composed of minerals, which will affect many of the events that occur in the earth's crust, as well as the economic importance of minerals, which are included in Lots of industries

	2. Mineralogy also aims to recognize that minerals are the main source of chemical elements, which are considered the basic element of many sciences, especially chemistry, physics and engineering branches.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- Learn about the physical properties of minerals 2- Training on the physical and chemical properties, which will help in the process of distinguishing between minerals according to their properties 3- Training in the diagnosis of minerals in the laboratory, and this will be of importance in geological work, especially in mines and field work 4- Training on the types of minerals and understanding the differences between them will have great economic importance, especially in the field of industrial minerals
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. We have introduced you to the Mineralogy. Let us now summarize what you have learned in this unit; 1- Mineralogy aims to know how and how Minerals are formed in nature 2- Mineralogy is the main branch of geology , , and this science is important, especially in mineral diagnostic processes that have many applications, especially in the classification of rocks, as well as the diagnosis of minerals of economic importance 3- Mineralogy has many important applications, especially in the identification of minerals for many purpose especially in industrial uses

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	When it comes to learning and teaching Mineralogy, it is important to employ various strategies that cater to different learning styles and maximize understanding and retention. Here are some effective learning and teaching Mineralogy: 1- Identify the minerals are used in the laboratory and their relationship with real crystals of minerals in nature 2- Understand the ways in which minerals crystallize, which will vary according to the processes by which the types of igneous, sedimentary, and metamorphic rocks are formed. 3- The study of minerals is very important, as many industrial and engineering

	applications are based on it, such as construction supplies and various industries 4- Minerals are considered the backbone of the economy for many countries, as they are considered a natural wealth, just like crude oil, and minerals are found in all countries of the world because they make up the earth's crust.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	109	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7.27
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	91	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6.07
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	200		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 8
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 5, 9 and 10
Summative assessment	**Midterm Exam**	2 hr	10% (10)	8	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction to Mineralogy

Week 2	Methods of Minerals Crystallization in the nature
Week 3	Steps of Discovering and naming a new Mineral
Week 4	Physical properties of Minerals - Optical and Cohesive Properties
Week 5	Classification of Minerals
Week 6	Form and Habits of Minerals
Week 7	Important of Minerals
Week 8	**Midterm Exam**
Week 9	Hazards of Minerals
Week 10	Classes and Groups of Minerals
Week 11	Non- Silicates Minerals
Week 12	Bowen Reaction Series
Week 13	Silicates Minerals
Week 14	Structure of Silicate minerals – Types of Silica Tetrahedron Connection
Week 15	Minerals in Iraq
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Introduction to Crystallography
Week 2	Lab 2: Methods for Identification of Minerals
Week 3	Lab 3: Physical properties of minerals (Optical Properties)
Week 4	Lab 4: Color of Minerals
Week 5	Lab 5: Luster of Minerals
Week 6	Lab 6: Streak of Minerals
Week 7	Lab 7: Transparency of Minerals
Week 8	**Midterm Exam**
Week 9	Lab 9: Physical properties of Minerals (Cohesive Properties) and Hardness of Minerals
Week 10	Lab 10: Fracture of Minerals
Week 11	Lab 11: Cleavage of minerals
Week 12	Lab 12: Other properties of identification (Electrical , Magnetic, Thermal, Test Properties)
Week 13	Lab 13: Form and Habit of Minerals
Week 14	Lab 14: Classes of Minerals
Week 15	Lab 15: Final practical Examination of Minerals

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	**Berry, L, G., and Meson, B., 1959,** Elements of Mineralogy, W. H. Freeman and Co., USA, 550P.	Yes
Recommended Texts	**Nesse, W. D., 2000,** Introduction to Mineralogy, Oxford University Press, New York, 442P.	No
Websites	www.Mindat.com	

Grading Scheme مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(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.

Program Manager:

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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	General Physics			**Module Delivery**	
Module Type	**BASIC**			☒ **Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	GEO-126				
ECTS Credits	5				
SWL (hr/sem)	**125**				
Module Level	9		**Semester of Delivery**	2	
Administering Department	Department of Physics		**College**	Science College/ University of Baghdad	
Module Leader	Dr. Ali Hassan Khidhir		**e-mail**	ali.khidhir@sc.uobaghdad.edu.iq	
Module Leader's Acad. Title	Asst. Professor		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/06/2023		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module		**Semester**	
Co-requisites module		**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1. Teaching students the basic principles of physics. 2. Preparing specialists in the field of general physics and its practical applications, which bears the responsibility of studying the country's need for development and progress and capable of meeting the needs of the job market in state institutions and industry sectors. 3. Preparing an educated generation armed with science and adopts it as a sound basis to bring about radical changes and assign scientific knowledge and scientific methods in thinking, analysis and adaptation with the development of technologies, to keep up with the expansion of human needs. 4. Effective contribution for deepening and documenting the connection of the university with the society through the implementation of advisory counseling, training and development of teaching and administrative staff. 5. The service of preparing graduates specialized in physics who contribute to development in the country. 6. Meeting the needs of various sectors with highly qualified personals in the field of physics. 7. Encouraging the distinguished in this field to work as teaching assistants in the department to be part of the academic teaching staff in the future.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- enable students to obtain knowledge and understanding of the concept of physics. 2- Enable students to obtain knowledge and understanding of the scientific laws of physics. 3- Enable students to keep pace with scientific development in all scientific fields of physics.
Indicative Contents المحتويات الإرشادية	This course contains a lot of vocabulary, which is a branch of physics concerned with and properties of matter and energy. It includes an introduction to understanding natural phenomena, the forces and moven affecting their course, and the formulation of knowledge into laws that do not only ex aforementioned processes, but also predict the course of natural processes with model gradually approach reality. The topic of general physics includes an introduction to physics, vector analysis, New in linear motion, circular motion, and rotational motion. Also, gravitational force, wor torque, angular momentum, laws of motion with constant or uniform acceleration of li rotational motion, dynamic fluids, static fluids, particle stability, electric charge, electr and electric potential in electrical circuits and ray optics.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and

	expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	79	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	5.27
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	46	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3.07
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**125**		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	4	10% (10)	3,6 and 10,13	LO #1, #2 and #10, #11
	Assignments	4	10% (10)	2,5 and 10, 13	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #9 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	8	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	A brief summary of the vectors, scalar and vector quantities, addition of vectors, unit vector, component of vectors, dot product and cross product. With examples for all these topics.
Week 2	Motion on a straight line: Displacement, Average velocity, Instantaneous velocity, Average acceleration, and Instantaneous acceleration. With examples for all these topics.
Week 3	Application of Motion with a constant acceleration: Freely falling bodies, and Projectile of motion. With examples for all these topics.
Week 4	Equilibrium of a particle: Understanding of forces, Newton's first law, Newton's second law, Newton's third law, and mass and weight. With examples for all these topics.

Week 5	Friction force, inclined plane, Torque of force, Center of gravity of the body, Center of mass, Motion of a system of particle, and Newton's law of universal gravitation. With examples for all these topics.
Week 6	Circular and Rotational motion: Motion in a circle, uniform circular motion, central or radial force, non-uniform circular motion, Central or radial acceleration, Central force, tangential acceleration, and tension in circular motion. With examples for all these topics.
Week 7	Rotational motion, angular displacement, angular velocity, and angular acceleration. With examples for all these topics.
Week 8	**Midterm exam**
Week 9	Rotational motion with a constant angular acceleration, relation between angular and linear velocity and acceleration, torque, angular acceleration, and moment of inertia. With examples for all these topics.
Week 10	Elasticity: The street and strain, elastic modulus, Hook's law, tensile and compressive stress and strain, Young's modulus, bulk stress and strain, bulk modulus, compressibility, shear stress and strain, Poisson's ratio, and force constant. With examples for all these topics.
Week 11	Static fluids: Density, specific gravity, pressure in a fluid, atmospheric pressure, pressure-depth-Pascal's law, buoyancy, Archimedes principle, and define the surface tension. With examples for all these topics.
Week 12	Dynamic fluids: Ideal fluid, the continuity equation, Bernoulli's equation, Venturi meter, and define the viscosity. With examples for all these topics.
Week 13	Electric charge and electric field: Conductor, insulator, and induced charges. Coulomb's law, electric field, intensity of electric field, electric potential energy, electric potential energy in a uniform field, electric potential energy of two point charges, potential difference, potential gradient, equipotential surfaces, and electric potential. With examples for all these topics.
Week 14	Geometric optics: Nature and propagation of light, wave front, properties of light, types of reflection, index of refraction, laws of reflection and refraction, total internal reflection, real and apparent depth, refraction by prism.
Week 15	mirrors & lenses: Spherical mirrors, image formations, spherical aberration, types of simple lenses, converging lens, diverging lens, properties of lenses, image formation by thin lenses,
Week 16	**Final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Moment of inertia for flywheel
Week 2	Simple pendulum
Week 3	Surface tension
Week 4	Speed of sound
Week 5	Glass refractive index
Week 6	diffraction grating
Week7	Equilibrium forces

Week 8	**Mid. term exam.**
Week 9	Ohm's law
Week 10	Viscosity
Week 11	Wheatstone bridge
Week 12	inclined plane
Week 13	Archimedes principle
Week 14	focal length of the lens
Week 15	standing waves
Week 16	**Final Exam**

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Fundamental of Physics (Halliady, Resnick, and Walker).	Yes
Recommended Texts		
Websites		

Grading Scheme
مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	**A -** Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(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.

Ministry of Higher Education and
Scientific Research - Iraq
University of Baghdad
College of Science
Department of Mathematics

MODULE DESCRIPTION

وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Mathematic**			**Module Delivery**	
Module Type	**Core**			☐ **Theory** ☒ **Lecture** ☐ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	GEO-127				
ECTS Credits	**4**				
SWL (hr./sem)	**100**				
Module Level	10		**Semester of Delivery**	2	
Administering Department	Mathematics		**College**	Science	
Module Leader			**e-mail**		
Module Leader's Acad. Title			**Module Leader's Qualification**	Ph.D.	
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	22/06/2023		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	**Semester**	___
Co-requisites module	None	**Semester**	___

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	1. To provide students with a solid foundation in Calculus at degree level and equip them with a knowledge of the necessary methods and techniques in applied mathematics for further study. 2. It deals with the basic concept of functions limit, continuity, derivation and their consequences. 3. To develop problem solving skills and understanding of differentiation rules through the application.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Students will become familiar with functions and limits. They will gain an understanding of convergence of sequences and series, and understanding of the foundations of differentiation and integration. 2. Students will be able to compute limits of sequences and series, find derivatives, integrate elementary functions. 3. Students will have enhanced skills in the following areas: modelling, spatial awareness, abstract reasoning and numeracy.
Indicative Contents المحتويات الإرشادية	The course will supply the students with basic concepts of differentiation (chain, product, quotient). Derivatives of standard functions (powers, polynomials, trigonometric). The exponential function: and logarithm as inverse. Derivatives of inverse functions via chain rule, local extrema and curve sketching.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	67	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	4.47
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	100		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	20% (20)	5, 10	1, 3 and 13
	Assignments	2	20% (20)	2, 12	2, 6 and 10
	Projects / Lab.	0	0	___	___
	Report	0	0	___	___
Summative assessment	**Midterm Exam**	2 hr.	10% (10)	8	1-7
	Final Exam	3 hr.	50% (50)	17	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Basic concepts: sets, lines, circles and functions.
Week 2	Domain, range and inverse of functions.
Week 3	Derivative: motivation, informal definition of limit
Week 4	Limits properties
Week 5	Continuity
Week 6	Trigonometric functions, their target and continuity
Week 7	Derivative rules of elementary functions
Week 8	Mid-term Exam + Discussion
Week 9	Derivatives of trigonometric and inverse trigonometric functions
Week 10	Applications of derivative; maximum and minimum
Week 11	Mean value theorem with applications

Week 12	Roll's theorem with applications
Week 13	Introduction to L'Hospital's rule
Week 14	Graph sketching
Week 15	Review
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

None

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Thomas Calculus, Joel R. Hass, Maurice D. Weir, 15th edition (2022).	Yes
Recommended Texts	Differential calculus and their applications, M. Barun, 3rd edition, Applied mathematical sciences.	No
Websites	https://www.sciencebooksonline.info/mathematics.html	

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(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

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**English Language**			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☐ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**UOB-102**				
ECTS Credits	**2**				
SWL (hr/sem)	**50**				
Module Level		11	**Semester of Delivery**		2
Administering Department		Type Dept. Code	**College**	Type College Code	
Module Leader	Lamees Nazar Abdulkareem		**e-mail**	Lames.nazar@sc.uobaghdad.edu.iq	
Module Leader's Acad. Title		Lecturer	**Module Leader's Qualification**		Ph.D.
Module Tutor			**e-mail**		
Peer Reviewer Name		Name	**e-mail**	E-mail	
Scientific Committee Approval Date			**Version Number**		1.0

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	English Language	**Semester**	2
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	1. Raise the level of English language for the students, and help the student to improve their English language(speaking and writing). 2. Helping students to speak in English. 3. Training the student on writing different geologic subjects in English.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Increasing the ability of student to apply what they learned from the grammar lecture in their writing. 2. Increasing the ability of student to apply what they learned from the grammar lecture in their speaking. 3. Encourage students to read and understand geologic papers in English.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. We have introduced you to the basic principles of stratigraphy. Let us now summarize what you have learned in this unit; **1.Learning English Can Help student to think More Creatively** An additional language will increase your creativity levels. In the fifth benefit on our list, we pointed out the fact learning a second language can make the brain becomes more flexible thereby making it easier to switch between different tasks, promoting creativity 2. Learning English Can Help studentsIn Academia A science-based article recently revealed that the number of scientific papers written in English is now outnumbering those written in the researcher's native language. Therefore, having an understanding of the English language opens up a vast amount of knowledge that can be drawn upon during their studies.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	One of the primary benefits of learning English is that it is often considered the language of global business. The international business community often uses it for communication, even among people who do not speak the same native language. Speaking and understanding English can let a person more easily communicate with others and find more job opportunities not only in his or her home country, but around the world as well. There are also many professional informative publications printed in English, which means it is often an essential language for anyone working in science or research. Different learning styles could be applied in the class to improve the english language for the student.

	1. Divide the students into a number of groups and choose a geologic subject to discuss in English. 2. Listen to different types of lectures recorded in English to improve the students listening 3. Ask the student to prepare a short geologic report written in English in the class to evaluate their level in writing.

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1.13
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 8
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 5, 9 and 10
Summative assessment	**Midterm Exam**	2 hr	10% (10)	8	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered

Week 1	Present perfect simple Explain the structure of this tense and when to use it with examples
Week 2	Past perfect simple Explain the structure of this tense and when to use it with examples
Week 3	Words used with the present perfect ever, never, before
Week 4	Present perfect continuous Explain the structure of this tense and when to use it with examples
Week 5	Past perfect continuous Explain the structure of this tense and when to use it with examples
Week 6	Speaking lesson In this lecture students are divided into two groups and we discuss any geological subject in English to practice their speaking.
Week 7	Quantifiers: much/many/a lot of
Week 8	**Midterm Exam**
Week 9	Linking words in writing Define the types of linking word and when to use each word
Week 10	Writing Lesson Each student chooses a geological subject and the write a short paragraph.
Week 11	Preposition This lecture include two types of preposition word with different examples
Week 12	
Week 13	
Week 14	
Week 15	
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	
Week 9	
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Research methodology, method and techniques,C.R.Kothari	Yes
Recommended Texts		
Websites		

Grading Scheme مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

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Program Manager:

Lamees Nazar Abdulkareem lamees.nazar@sc.uobaghdad.edu.iq

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Computer II**			**Module Delivery**	
Module Type	**BASIC**			☐ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**UOB-121**				
ECTS Credits	**3**				
SWL (hr/sem)	**75**				
Module Level	12		**Semester of Delivery**	2	
Administering Department	Type Dept. Code		**College**	Type College Code	
Module Leader	Abdallah A. Ibrahim		**e-mail**	abdullah.i@sc.uobaghdad.edu.iq	
Module Leader's Acad. Title	Assistant Lecturer		**Module Leader's Qualification**	MS.c.	
Module Tutor			**e-mail**		
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	06/06/2023		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	UOB-111	**Semester**	1
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	Aims of learning Microsoft Excel: 1. Basic Functionality: The aim is to provide students with a solid understanding of Excel's interface, navigation, and basic functionalities, enabling them to create, format, and manage spreadsheets effectively. 2. Data Entry and Formatting: The aim is to teach students how to enter data, apply formatting, and use cell formatting options, such as number formats, font styles, colors, and borders, to enhance the visual appeal and organization of their spreadsheets. 3. Formulas and Functions: The aim is to enable students to use formulas and functions in Excel to perform calculations, manipulate data, and automate tasks. They will learn how to write basic formulas, use functions like SUM, AVERAGE, and IF, and apply cell references. 4. Data Analysis and Visualization: The aim is to introduce students to Excel's data analysis and visualization tools, such as sorting, filtering, and conditional formatting. They will learn how to create charts, graphs, and pivot tables to present and analyze data effectively. 5. Data Manipulation and Management: The aim is to equip students with skills in manipulating and managing data in Excel. They will learn techniques like sorting, filtering, data validation, and data consolidation to organize and manipulate data efficiently. Aims of learning Microsoft PowerPoint: 1. Creating and Formatting Slides: The aim is to enable students to create visually appealing slides using PowerPoint's formatting tools. They will learn how to select and customize slide layouts, apply themes, format text, and add multimedia elements like images and videos. 2. Slide Design and Layout: The aim is to teach students how to design slides with effective layout and visual hierarchy. They will learn about slide transitions, animations, and master slides to create cohesive and engaging presentations. 3. Content Creation and Organization: The aim is to develop students' skills in creating meaningful content for their presentations. They will learn how to outline and structure their presentation, create bulleted lists, insert tables, charts, and diagrams, and effectively use speaker notes. 4. Slide Show Delivery: The aim is to equip students with the knowledge and techniques to deliver effective presentations using PowerPoint. They will learn how to navigate slide shows, use presenter view, rehearse timings, and employ effective delivery techniques. 5. Visual Communication: The aim is to teach students how to effectively communicate information through visual elements in PowerPoint. They will learn how to use charts, graphs, and infographics to present data, and employ techniques like color, fonts, and imagery to enhance visual impact.
Module Learning Outcomes	Learning outcomes of Microsoft Excel: 1. Data Management: Students will be able to efficiently manage and organize

مخرجات التعلم للمادة الدراسية	data using Excel, including entering data, creating tables, sorting, filtering, and applying data validation. 2. Formulas and Functions: Students will have the skills to use formulas and functions in Excel to perform calculations, analyze data, and solve complex problems. 3. Data Analysis: Students will be able to apply various data analysis techniques in Excel, such as creating charts and graphs, using pivot tables, and utilizing conditional formatting to visually represent and interpret data. 4. Data Visualization: Students will have the ability to create visually appealing charts, graphs, and dashboards in Excel to present and communicate data effectively. 5. Data Manipulation: Students will be able to manipulate data in Excel by using advanced features like text functions, logical functions, lookup functions, and data consolidation. 6. Automation and Efficiency: Students will understand how to automate repetitive tasks and increase efficiency in Excel by utilizing features like macros, templates, and advanced data manipulation techniques. Learning outcomes of Microsoft PowerPoint: 1. Presentation Creation: Students will be able to create well-structured and visually appealing presentations using PowerPoint, including selecting appropriate slide layouts, adding and formatting text, and incorporating multimedia elements. 2. Slide Design and Visual Communication: Students will have the skills to design slides effectively, utilizing principles of visual communication, such as visual hierarchy, contrast, color schemes, and typography. 3. Content Organization and Flow: Students will be able to organize and structure content in a logical and coherent manner, creating clear and engaging presentations with proper sequencing and transitions between slides. 4. Slide Show Delivery: Students will understand how to deliver presentations confidently using PowerPoint, including using speaker notes, rehearsing timings, navigating through slides, and engaging the audience effectively. 5. Data Presentation and Visualization: Students will have the ability to present data and complex information using charts, graphs, and other visual elements in PowerPoint, effectively conveying key messages and insights.
Indicative Contents المحتويات الإرشادية	Indicative contents of Microsoft Excel include the following topics: 1. Introduction to Excel • Overview of Excel's interface and features • Navigating worksheets and workbooks • Understanding the ribbon and menu options 2. Data Entry and Formatting • Entering and editing data in cells • Formatting cells, including number formats, fonts, colors, and borders • Applying cell styles and themes 3. Formulas and Functions

	• Creating basic formulas for calculations • Using built-in functions, such as SUM, AVERAGE, COUNT, and IF • Working with absolute and relative cell references 4. Data Analysis and Manipulation • Sorting and filtering data • Using conditional formatting to highlight data based on criteria • Working with tables and structured references 5. Charts and Graphs • Creating different types of charts, such as column, line, pie, and bar charts • Customizing chart elements, including titles, labels, and legends • Using chart tools for data analysis and visualization 6. Data Validation and Protection • Applying data validation rules to control data entry • Protecting worksheets and workbooks with passwords • Hiding and protecting formulas and sensitive information 7. PivotTables and PivotCharts • Creating PivotTables to summarize and analyze large datasets • Modifying and formatting PivotTables • Creating PivotCharts based on PivotTable data 8. Advanced Functions and Formulas • Working with advanced functions, such as VLOOKUP, SUMIF, COUNTIF, and CONCATENATE • Using logical functions like IF, AND, and OR for conditional calculations • Combining functions to perform complex calculations 9. Data Analysis Tools • Using built-in data analysis tools, such as Goal Seek, Solver, and Scenario Manager • Creating and analyzing data tables and what-if analysis 10. Data Import and Export • Importing data from external sources, such as databases or CSV files • Exporting data to different file formats, including PDF and CSV Indicative contents of learning Microsoft PowerPoint include the following topics: 1. Introduction to PowerPoint • Overview of PowerPoint's interface and features • Navigating slides and slide layouts • Understanding the ribbon and menu options 2. Creating and Editing Slides • Adding, deleting, and rearranging slides • Choosing slide layouts and applying slide themes • Inserting and formatting text boxes, shapes, and images 3. Slide Design and Layout

	• Applying consistent design elements, such as fonts, colors, and backgrounds • Aligning and arranging objects on slides • Using slide masters and layouts for consistent branding 4. Visual Elements and Multimedia • Inserting and formatting images, icons, and illustrations • Adding and formatting charts, graphs, and tables • Incorporating multimedia elements like audio and video 5. Text Formatting and Styling • Formatting text, including font styles, sizes, colors, and effects • Applying text alignment, indentation, and line spacing • Using bullet points and numbered lists effectively 6. Slide Transitions and Animations • Applying slide transitions for smooth visual effects between slides • Adding entrance, exit, and emphasis animations to objects and text • Timing and sequencing animations for dynamic slide shows 7. SmartArt Graphics and Diagrams • Creating and customizing SmartArt graphics for visual representation of information • Inserting and modifying diagrams, such as organizational charts and flowcharts • Adding text and formatting options to SmartArt and diagrams 8. Slide Show Delivery and Navigation • Delivering a slide show effectively, including using presenter view and slide show controls • Navigating through slides, sections, and hidden slides • Using slide show tools for annotations, pen and highlighter options 9. Slide Show Customization and Interactivity • Customizing slide show settings, such as timings, looping, and narration • Creating hyperlinks to other slides, websites, or files • Using action buttons and triggers for interactive presentations 10. Collaboration and Sharing • Collaborating on presentations by using co-authoring and commenting features • Sharing presentations with others and managing access permissions • Exporting presentations to different file formats, such as PDF or video

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1. Hands-on Practice: Emphasize practical exercises and hands-on activities where learners actively engage with the software. Provide step-by-step instructions and guided practice opportunities to ensure learners gain experience. 2. Demonstration: Start by demonstrating key features and functionalities of Excel and PowerPoint. Use screen sharing or projection to show learners how to navigate the interface, perform tasks, and utilize various tools and options effectively. 3. Interactive Tutorials and Simulations: Utilize interactive tutorials and simulations that allow learners to interact in a simulated environment. These resources provide guided instructions and immediate feedback, enabling learners to practice and reinforce their skills. 4. Scenario-based Learning: Present real-life scenarios where learners can apply their knowledge to solve problems or complete specific tasks. Encourage critical thinking and problem-solving skills by challenging learners to find solutions using the software. 5. Group Activities and Discussions: Foster collaboration and peer learning by incorporating group activities and discussions. Encourage learners to share their experiences, ask questions, and help each other troubleshoot issues or explore advanced features. 6. Multimedia Resources: Supplement traditional instruction with multimedia resources such as video tutorials, interactive e-learning modules, and online resources. These resources can provide additional explanations, demonstrations, and visual aids to enhance understanding and retention of the content. 7. Practice Projects and Assignments: Assign practical projects or assignments that require learners to apply their skills to create documents, presentations, or other tasks. Provide clear objectives and guidelines, and encourage creativity to promote active learning. 8. Assessments and Feedback: Use formative and summative assessments to gauge learners' understanding and progress. Provide constructive feedback on their work to highlight areas for improvement and reinforce correct practices. 9. Adaptability and Differentiation: Recognize the diverse needs and learning styles of learners and adapt the instruction accordingly. Provide differentiated instruction, additional resources, or alternative learning paths to cater to individual learners' abilities and preferences.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	32	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2.13
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	43	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2.87
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 8
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 5, 9 and 10
Summative assessment	**Midterm Exam**	2hr	10% (10)	8	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	

Week 8	
Week 9	
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	**Lab1: Excel 2016 – File Tab**
Week 2	**Lab2: Excel 2016 – Home Tab**
Week 3	**Lab3: Excel 2016 – Insert Tab**
Week 4	**Lab4: Excel 2016 – Chart Properties**
Week 5	**Lab5: Excel 2016 – Page Layout Tab**
Week 6	**Lab6: Excel 2016 – Formula Tab**
Week 7	**Lab7: Excel 2016 – Data Tab**
Week 8	**Lab8: Excel 2016 – Review + View Tab**
Week 9	**Midterm Exam 1**
Week 10	**Lab9: Power Point 2016 – File Tab**
Week 11	**Lab10: Power Point 2016 – Home Tab**
Week 12	**Lab11: Power Point 2016 – Insert Tab**
Week 13	**Lab12: Power Point 2016 – Design + Transitions Tab**
Week 14	**Lab13: Power Point 2016 – Animations + Slide Show**
Week 15	**Lab14: Power Point 2016 – Animations + Slide Show II**
Week 16	**Midterm Exam 2**

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	1. Excel 2016 quick reference 2. PowerPoint 2016 quick reference	No
Recommended Texts		No
Websites	The official Microsoft Support website https://support.microsoft.com/en-us my official youtube channel https://www.youtube.com/channel/UCZRoVqavqTqM9kd9cQ8DUFg	

Grading Scheme مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(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.

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