Level-One
(UGI)
Semester-One

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Qualitative Analytical Chemistry			**Module Delivery**	
Module Type	Core			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	CHE1101				
ECTS Credits	8				
SWL (hr/sem)	200				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Chemistry		**College**	Science	
Module Leader	Wasan Abdulameer Alwan		**e-mail**	wasan.s@sc.uobaghdad.edu.iq	
Module Leader's Acad. Title	Professor		**Module Leader's Qualification**	M.Sc.	
Module Tutor	Dr. Wafaa Waleed Al-Qaysi		**e-mail**	wafa.w@sc.uobaghdad.edu.iq	
Peer Reviewer Name	Prof. Dr. Yehya Kamal Khaleel		**e-mail**	yehya.kamal@sc.uobaghdad.edu.iq	
Scientific Committee ApprovalDate	9-11-2023		**Version Number**	1	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الارشادية	
Module Objectives أهداف المادة الدراسية	1. Teaching students the fundamental principles of quantitative analysis methods. 2. Training and equipping specialists in the field of general chemistry and its practical applications, capable of meeting the demands of the job market in state institutions and industry sectors, and contributing to the country's development and progress. 3. Cultivating an educated generation that embraces science as a solid foundation for driving transformative changes, applying scientific knowledge and methods in critical thinking, analysis, and adaptation to evolving technologies to address expanding human needs. 4. Actively fostering and strengthening the university's connection with society through advisory counseling, training programs, and the professional development of faculty and staff. 5. Providing graduates specialized in chemistry who actively contributes to the country's development. 6. Addressing the needs of various sectors by supplying highly qualified individuals in the field of chemistry. 7. Encouraging outstanding individuals in the field to serve as teaching assistants in the department, nurturing their potential to become part of the academic teaching staff in the future.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	***A. Cognitive goals*** 1- To provide students with a solid understanding of quantitative analysis methods. 2- To educate students on the principles of calculating concentrations and the weight of substances in samples, including the preparation of solutions from solid or liquid materials. 3- To ensure a comprehensive understanding of gravimetric analysis, including types, calculations of gravimetric coefficients, and the application of volumetric analysis, particularly titration, and its various uses. This includes studying the calculations of solubility product constants and determining the mathematical conditions for sediment formation. 4- To examine the characteristics of sediments and the factors influencing their solubility, as well as studying the factors affecting sediment formation. 5- To equip students with the necessary knowledge and skills to effectively apply classical quantitative analytical methods in various laboratory environments. ***B. The skills goals special to the program*** 1- To foster sound scientific research skills, encourage constructive scientific discussions, and promote the expression of opinions. 2- To develop practical usage and technical skills. 3- To enhance critical thinking abilities, enabling students to understand and solve scientific problems related to the laws of chemistry. 4- To cultivate the skills and capabilities necessary to apply theoretical and practical scientific knowledge gained from studies to real-life situations, taking into account industrial and commercial considerations.
Indicative Contents المحتويات الارشادية	The course is designed to provide students with a solid foundation in Analytical Chemistry. It aims to equip them with the necessary knowledge and skills to understand and apply the principles, theories, and calculations essential for successful analysis and experimentation in the field. Throughout the course, students will develop a deep understanding of various analytical techniques and their underlying principles. They will learn how to perform accurate calculations, interpret experimental results, and effectively analyze chemical samples. Practical

	laboratory sessions will allow students to apply their knowledge in hands-on experiments, honing their skills and building confidence in their abilities. By the end of the course, students will be well-prepared to undertake analytical tasks, solve complex problems, and contribute to advancements in the field of Analytical Chemistry.

Learning and Teaching Strategies إستراتيجيات التعلم والتعليم	
Strategies	The module will be delivered using a main strategy focused on promoting active student engagement and enhancing critical thinking skills. This will be accomplished through a variety of methods including interactive classes, engaging tutorials, and the incorporation of interesting and relevant sampling activities. By encouraging students to actively participate in exercises, their ability to think critically and analyze information will be refined and expanded. The module aims to create an interactive learning environment where students can apply their knowledge to practical situations, fostering a deeper understanding of the subject matter.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـــ15 اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	109	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب اسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	91	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب اسبوعيا	6
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 and 10	LO #1, #2 and #4, #5
	Assignments	2	10% (10)	2 and 12	LO #2, #3 and #4, #5
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #1, #2 and #4
Summative assessment	**Midterm Exam**	2	10% (10)	10	LO #1 - #5
	Final Exam	4	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
Week	**Material Covered**
Week 1	General introduction, what is chemistry and its branches? What is analytical chemistry? Branches of analytical chemistry, Quantitative analysis, Qualitative analysis, Application of analytical chemistry.
Week 2	Weight and concentration unites, Concentration, The mole, Examples, Molarity, Normality.
Week 3	Percent concentrations, Part per million, Calculations of equivalent weight, Converting of percentage to molarity.
Week 4	The dilute solutions, Preparation of solid materials solutions, Preparation of liquid materials solutions.
Week 5	Aqueous solution chemistry, Classification of electrolytes, Acid -Base theory.
Week 6	Amphiprotic species, Autoprotolysis, Strengths of acid and bases.
Week 7	Mid-Term Exam
Week 8	Chemical equilibrium, Types of equilibrium, Equilibrium constants (Ionic -product constant of water.
Week 9	Solubility and Solubility product constant, examples, calculations.
Week 10	Dissociation of a weak acid or base, Hydrolysis constant (KH), Formation constant of complex.
Week 11	Multistep equilibrium types, definitions, calculations, Effect of common ion, Effect of complex formation on solubility, and problems.
Week 12	Activity and activity coefficient: definitions, examples, calculations.
Week 13	Ionic strength: definitions, examples, calculations.
Week 14	Various of home works
Week 15	Mid Term Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
Week	**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	Characteristic descriptive interactions of the third group ions
Week 9	A test on the analysis of the known samples of the third group
Week 10	A test on the analysis of anonymous samples of the third group
Week 11	Characteristic descriptive interactions of the four group ions
Week 12	A test on the analysis of the known samples of the four group
Week 13	A test on the analysis of anonymous samples of the four group
Week 14	**Final Term Exam**

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-J.N. Miller & J.C. Miller" Statistical for anal. Chem.", 2nd, New York, 1988.	
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 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
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Department of Chemistry

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Inorganic Chemistry I			**Module Delivery**	
Module Type	Core			☒ **Theory** ☐ **Lecture** ☐ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	CHE1102				
ECTS Credits	8				
SWL (hr/sem)	200				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Chemistry		**College**	Science	
Module Leader	Alyaa Khider Abbas		**e-mail**	alyaa.abbas@sc.uobaghdad.edu.iq	
Module Leader's Acad. Title	Assistant Professor		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**		
Peer Reviewer Name	Basim Ibrahim Mehdi		**e-mail**	basim.ibrahim@sc.uobaghdad.edu.iq	
Scientific Committee Approval Date	9-11-2023		**Version Number**	1	

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 اهداف المادة الدراسية	1. Bawling the theoretical foundation for the students of the second stage in the lesson of inorganic chemistry to expand their studies in the later stages 2. Enable the student to obtain knowledge and understanding of the chemistry Sciences 3. Enable the student to obtain knowledge and understanding of the chemistry law 4. Enable the student to learn and understand the correct ways of using the devices to synthesise and identify different chemical compounds. 5. Enable the student to obtain knowledge and understanding to pace with global development in all scientific fields and understand international chemicalstandards. 6. Enable the student to obtain knowledge and understanding of intellectual frame workand systems of chemistry.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	***A. Cognitive goals*** 1. Bawling the theoretical foundation for the students of the second stage in the lesson of inorganic chemistry to expand their studies in the later stages 2. Enable the student to obtain knowledge and understanding of the chemistry Sciences 3. Enable the student to obtain knowledge and understanding of the chemistry law 4. Enable the student to learn and understand the correct ways of using the devices to synthesise and identify different chemical compounds. 5. Enable the student to obtain knowledge and understanding to pace with global development in all scientific fields and understand international chemicalstandards. 6. Enable the student to obtain knowledge and understanding of intellectual frame workand systems of chemistry. ***B. Skills goals specific to the program*** 1. Scientific and practical skills. 2. Skills of analysis and cultivating the competence to apply theoretical and practical scientific knowledge gained from studies to real-life situations while considering industrial and commercial constraints. 7. Enabling students to solve problems related to the intellectual framework and international chemistry standards, considering the laws of control and quality.
Indicative Contents المحتويات الارشادية	In this semester, focus is on studying the atomic structure and the electronic configuration of the elements with their arrangement in the periodic table according to the groups and periods by following the regulation and rules that determine the permissible orbitals in the process of entering electrons into the main shells and studying the periodic properties of the elements. As well as addressing the atomic states (Term symbol) of the elements pro investigation in the properties and crystal structure of the ionic compounds.

Learning and Teaching Strategies إستراتيجيات التعلم والتعليم	
Strategies	Providing students with the basics and additional topics related to previous education outcomes of skills to solve scientific problems Solve a set of examples by the academic staff Asking the students during the lecture to solve some scientific questions

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	**63**	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب اسبوعي	**4**
Unstructured SWL (h/sem) الحمل الدراسي الغير المنتظم للطالب خلال الفصل	**137**	**Unstructured SWL (h/w)** الحمل الدراسي الغير المنتظم للطالب اسبوعي	**9**
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 and 10**	**LO # 1, #2 and #4,#5**
	Assignments	**2**	**10% (10)**	**2 and 12**	**LO # 2, #3 and #4, #5**
	Projects / Lab.	**1**	**10% (10)**	**Continuous**	**All**
	Report	**1**	**10% (10)**	**13**	**LO # 1, #2 and #4**
Summative assessment	**Midterm Exam**	**2**	**10% (10)**	**10**	**LO # 1- #5**
	Final Exam	**3**	**50% (50)**	**16**	**All**
Total assessment			**100% (100)**		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	The electronic structure of an atom
Week 2	Quantum theory
Week 3	Electromagnetic radiation
Week 4	Bohr theory and quantum numbers
Week 5	Electronic configuration
Week 6	Shielding constant
Week 7	**Mid Term Exam**
Week 8	Term symbol
Week 9	Periodic table and Periodic properties of elements
Week 10	Periodic table and Periodic properties of elements
Week 11	Ionic compounds
Week 12	crystallization energy and crystal properties
Week 13	polarization and polarity
Week 14	Crystal structure
Week 15	Crystal structure

Learning and Teaching Resources مصادر التعلم و التدريس		
	Text	**Available in the Library?**
Required Texts	1. Basic InOrganic chemistry by F.A.Cotton & G.Wilkinson 2. Inorganic chemistry by G.E.Huheey	**Yes**
Recommended Texts	الكيمياء اللاعضوية للمرحلة الاولى	
Websites	https://chemistlibrary.files.wordpress.com/2015/05/cotton-wilkinson-advanced-inorganicchemistry.pdf https://www.academia.edu/31826388/_Huheey_Inorganic_chemistry_BookZZ_org_	

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
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MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Chemical Safety & Security			**Module Delivery**	
Module Type	Basic			☒ **Theory** ☐ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	CHE1103				
ECTS Credits	4				
SWL (hr/sem)	100				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Chemistry		**College**	Science	
Module Leader	Dr. Khitam Tareq Ahmed		**e-mail**	khitam.t@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	9-11-2023		**Version Number**	1	

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 Chemical Safety. 2. Providing students with knowledge of the good specifications of the laboratory in which they work. 3. To gain knowledge of the correct application of the rules of safety and security in laboratories. 4. Teaching the student how to deal with materials and glassware in the laboratory. 5. Giving students a number of external questions as homework and giving them an opportunity to think and find solutions. 6. Motivate students to conduct reports and research in relation to the subjects

	they study, use modern technologies in research, and develop their research skills, such as the Internet. 7. The service of preparing graduates specialized in Chemistry who contribute to development in the country. 8. Meeting the needs of various sectors with highly qualified personals in the field of chemistry.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Enable students to obtain knowledge and understanding of the concept of Chemistry. 2. Enable students to obtain knowledge and understanding of the scientific laws of dealing with chemicals. 3. Enable students to keep pace with scientific development in all scientific fields of chemistry.
Indicative Contents المحتويات الإرشادية	1. Conducting some scientific debates with other universities or well-known scientific cente honoring the outstanding ones. 2. Developing personal skills by reciting poetry debates through their participation in the ce celebrations held at the university

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 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	**33**	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	**2**
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	**67**	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	**4**
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	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	-	-	Continuous	All
	Report	-	-	13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2	30% (30)	7	LO #1 - #7
	Final Exam	3	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
Week	**Material Covered**
Week 1	A brief summary of the General precautions for safety in chemical laboratories
Week 2	Hazards and injuries in chemical laboratories
Week 3	Precautions for experiments that require heating
Week 4	Safety precautions when handling glassware
Week 5	Safety precautions when handling compressed gas cylinders
Week 6	Safety precautions after completing work in the laboratory
Week 7	Safety precautions when storing and preserving chemicals
Week 8	Mid-term exam
Week 9	Types of extingusheefires and means of extinguishing them
Week 10	Compatible and incompatible materials
Week 11	Personal protective equipment
Week 12	Differences between chemical safety and security terms
Week 13	How to deal with chemicals
Week 14	Seminar about selected topics that are related with the chemical
Week 15	Final-term 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
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College of Science
Department of Chemistry

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	COS1104				
ECTS Credits	6				
SWL (hr/sem)	150				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Physics		**College**	Science	
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	None		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	9-11-2023		**Version Number**	1	

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 the nature and properties of matter and energy. It includes an introduction to understanding natural phenomena, the forces and movement affecting their course, and the formulation of knowledge into laws that do not only explain the aforementioned processes, but also predict the course of natural processes with models that gradually approach reality. The topic of general physics includes an introduction to physics, vector analysis, Newton's laws in linear motion, circular motion, and rotational motion. Also, gravitational force, work, energy, torque, angular momentum, laws of motion with constant or uniform acceleration of linear and rotational motion, dynamic fluids, static fluids, particle stability, electric charge, electric field, 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	**64**	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	**4**
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	**86**	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	**6**
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**150**		

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
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2	10% (10)	7	LO #1 - #7
	Final Exam	4	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
Week	**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	Mid-term 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,

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
Week	**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

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Fundamental of Physics (Halliady, Resnick, and Walker).	Yes
Recommended Texts	Electromagnetic theory (book). 2000.vol.1	yes
Websites	https://www.coursera.org/browse/physical-science-and-engineering/electricalengineering	

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 Engineering
Department of Electrical Engineering

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information
معلومات المادة الدراسية

Module Title	Arabic Language 1	**Module Delivery**	
Module Type	Basic		☒ **Theory**
Module Code	UOB1105		☐ **Lecture**
			☐ **Lab**
			☐ **Tutorial**
ECTS Credits	2		☐ **Practical**
SWL (hr/sem)	50		☐ **Seminar**

Module Level	1	**Semester of Delivery**	1
Administering Department	Chemistry	**College**	Science
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	9-11-2023	**Version Number**	1

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	1- تعلم مهارات الكتابة والاملاء والتعبير الصحيح خلال تطبيق قواعد اللغة العربية بشكل مفصل وتطبيقي على نصوص عربية. 2- لفهم الجمع وأنواع الاسماء وكيفية التعامل معها. 3- لفهم العدد واستعماله بشكل صحيح من حيث المطابقة والمخالفة للتفريق بين الضاد والظاء. 4- للتفريق ومعرفة استعمال التاء المربوطة والتاء الطويلة. 5-التمييز بين العلامات الاصلية والفرعية. 6- تعلم استعمال الأدوات وعمل كل أداة ومعناها في التعبير.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	هام: اكتب 6 مخرجات تعليمية على الأقل، ومن الأفضل أن تكون مساوية لعدد أسابيع الدراسة 1-التعرف على كيفية جمع الأسماء وأنواع الجموع وسبب اختلافها وقائمة بالمصطلحات المختلفة المرتبطة ببلاغة اللغة العربية تعلم كتابة الهمزة وانواعها. 2-وصف عمل الجمل الفعلية وأنواع الافعال 3-ناقش وتفاعل ومشاركة قواعد الجمل الاسمية وعلامات الاعراب الاصلية والفرعية والتطبيقات ضمن نصوص أدبية وقرانية. 4-القدرة على استعمال علامات الترقيم في كتابة البحوث و التقارير. 5-التمييز بين الأدوات وأسلوب العطف والجر. 6-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 (6 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 (6 ساعات) (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. (6 ساعات)

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	كتب شيئاً 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 15 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**
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**	**2 hr**	**10% (10)**	**8**	**LO #1 - #7**
	Final Exam	**3 hr**	**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		
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 Engineering Department of Electrical Engineering	

MODULE DESCRIPTOR FORM
وصف المادة الدراسية نموذج

Module Information معلومات المادة الدراسية					
Module Title	Democracy and Human Rights			**Module Delivery**	
Module Type	Basic			☒ **Theory** ☐ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	UOB1106				
ECTS Credits	2				
SWL (hr/sem)	50				
Module Level	1		**Semester of Delivery**	1	
Administering Department	College of Science		**College**	Science	
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	None		**e-mail**	None	
Review Committee Approval	9-11-2023		**Version Number**	1	

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**
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	10% (10)	8	LO # 1-7
	Final Exam	2	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري مادة حقوق الانسان و الديمقراطية	
Week	**Material Covered**
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

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.

Level- One
(UGI)
Semester-Two

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Volumetric Analytical Chemistry			**Module Delivery**	
Module Type	Core			☒ **Theory** ☐**Lecture** ☒ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	CHE1217				
ECTS Credits	8				
SWL (hr/sem)	200				
Module Level		1	**Semester of Delivery**		2
Administering Department		Chemistry	**College**		Science
Module Leader	Dr. Hind Hadi Abdullah		**e-mail**	hind.h@sc.uobaghdad.edu.iq	
Module Leader's Acad. Title		Professor	**Module Leader's Qualification**		Ph.D.
Module Tutor	Dr. Mohammad K. Hammood		**e-mail**	mohki276@sc.uobaghdad.edu.iq	
Peer Reviewer Name		Prof. Dr. Yehya Kamal Khaleel	**e-mail**	yehya.kamal@sc.uobaghdad.edu.iq	
Scientific Committee ApprovalDate		9-11-2023	**Version Number**		1

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الارشادية	
Module Objectives أهداف المادة الدراسية	Teach students the fundamental principles of volumetric analysis and quantitative analysis methods. Train specialists in general chemistry and its practical applications, equipping them to meet the country's developmental and industrial needs. Cultivate a scientifically literate generation that embraces science as a foundation for transformative change, applying scientific knowledge and methods in critical thinking, analysis, and adaptation to evolving technologies and societal needs. Foster a strong connection between the university and society by providing advisory counseling, training, and professional development opportunities for faculty and staff. Contribute to the country's development by producing chemistry graduates who can contribute to its progress. Meet the demand for highly qualified professionals in various sectors requiring expertise in chemistry. Encourage outstanding students to become teaching assistants within the department, nurturing their potential to become future members of the academic teaching staff
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	***Cognitive goals*** Familiarize students with the fundamentals of volumetric analysis and quantitative analysis methods. Develop an understanding of the theoretical principles and applications of titration in detecting both inorganic and organic compounds. Provide students with a comprehensive knowledge of volumetric analysis, particularly titration, and its wide range of applications. Equip students with the necessary knowledge and skills to apply classical quantitative analytical methods in various laboratory settings. ***The skills goals special to the program*** Enhance students' research skills and promote constructive scientific discussions while expressing informed opinions. Develop proficiency in the use and development of laboratory techniques and equipment. Cultivate critical thinking skills and enable students to comprehend and solve scientific problems related to the laws of chemistry. Develop the skills and ability to apply theoretical and practical scientific knowledge gained from their studies in real-life situations, considering 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.

Delivery Plan (Weekly Syllabus)

Learning and Teaching Strategies إستراتيجيات التعلم والتعليم	
Strategies	The module will employ a student-centered approach, focusing on active participation and the development of critical thinking skills. Through classes, interactive tutorials, and relevant experiments, students will be engaged in the learning process and encouraged to refine their critical thinking abilities. This strategy aims to create an interactive learning environment where students actively participate, think critically, and gain a deeper understanding of the subject matter.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	109	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب اسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غيرالمنتظم للطالب خلال الفصل	91	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب اسبوعيا	6
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 and 10	LO #1, #2 and #3, #4
	Assignments	2	10% (10)	2 and 12	LO #1, #2 and #3, #4
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #2, #3 and #4
Summative assessment	**Midterm Exam**	2	10% (10)	10	LO #1 - #4
	Final Exam	4	50% (50)	16	All
Total assessment			100% (100 Marks)		

المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Volumetric Methods of Analysis, Requirements for a primary standard, Volumetric Calculations for Acid-Base Titrations.
Week 2	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, 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 3	Buffer Solutions, Calculating the pH of Buffer solutions, Buffer capacity, Acid – Base Titration, Acid – Base Indicators, Methyl Orange, Phenolphthalein.
Week 4	**Selection of suitable indicator or choice of indicator,** Theories of color indicators, 1-Ostwald theory(ionic theory), 2-Chromophore theory, 3-Ionic-chromophor theory, The Titration of Strong Acid with Strong Base.
Week 5	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 6	Calculation the concentration of pieces of weak acids in known pH, 1-Monoprotic acids, 2-Diprotic acids, 3-Triprotic acid, Titration of polyprotic acid.
Week 7	Precipitation titrations, Solubility, The Solubility of Precipitates. Applying solubility-product constants, Common Ion Effect on Solubility, Conditions for Precipitation Titrations, Classification of Precipitation Titrations
Week 8	Titration Curves, Determination of End point for precipitation titrations: Indicator, Mohr Method (formation of a colored precipitate).
Week 9	Volhard Method (formation of colored complex), Fajan Method (adsorption indicators): An Example.
Week 10	**Mid Term Exam**
Week 11	Complexometric titration, Types of ligands, Complex formation constant, EDTA equilibrium, Titration curve of EDTA, Titration curve of EDTA when the pH value is not limited.
Week 12	Effect of pH on EDTA content, Titration curve of EDTA when the pH value is limited, EDTA Titration Techniques, 1.Direct titration, 2.Back titration , 3.Displacement titration, 4.Indirect titration.
Week 13	Masking and Demasking, Masking by Precipitation, Masking by Complex formation, Indicators in complexometric titration.
Week 14	Oxidation/reduction reactions, Electrochemical cell (EC), Electrode Classification, Nernst Equation, Potential relation with various equilibrium constants.
Week 15	Oxidation-Reduction Titration, Indicators in oxidation-reduction titrations, 1-Self-Indication, 2-Starch indicator, 3-Redox indicator.

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	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 2	Unknown solution: Practical exam.

Week 3	Analysis of a mixture (sodium hydroxide + sodium carbonate)
Week 4	Analysis of a mixture (sodium bicarbonate + sodium carbonate)
Week 5	Unknown solution: Practical exam.
Week 6	Determination of chloride ion by Mohr method.
Week 7	Oxidation-reduction reactions, A: Preparation of 0.1N potassium permanganate, Preparation of 0.1 N sodium oxalate ($Na_2C_2O_4$).
Week 8	Standardization of permanganate solution with oxalate ion
Week 9	Unknown solution: Practical exam.
Week 10	Determination the concentration of ferrous ion.
Week 11	Unknown solution: Practical exam.
Week 12	Complexometric titration, Determination of total hardness (permanent and temporary) of water
Week 13	Unknown solution: Practical exam.
Week 14	Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Fundamentals of analytical chemistry /Skoog and West ,7th ed.,2000 -Fundamental of analytical chemistry by Skoog, West, Holler & Crouch, 8th , 2004.	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 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 Science Department of Chemistry	

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Inorganic Chemistry II			**Module Delivery**	
Module Type	Core			☒ **Theory** ☐ **Lecture** ☐ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	CHE1218				
ECTS Credits	8				
SWL (hr/sem)	200				
Module Level	1		**Semester of Delivery**	2	
Administering Department	Chemistry		**College**	Science	
Module Leader	Alyaa Khider Abbas		**e-mail**	alyaa.abbas@sc.uobaghdad.edu.iq	
Module Leader's Acad. Title	Assistant Professor		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**	Name	
Peer Reviewer Name	Name		**e-mail**	Name	
Scientific Committee Approval Date	9-11-2023		**Version Number**	1	

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 اهداف المادة الدراسية	1. Raise a generation with knowledge of general chemistry and inorganic chemistry in particular in all fields, weather scientific or practical, given the importance of this science in all aspects of life. They are responsible for study the development needs of the country and are able to meet the requirements of the labor market in both public institutions and industrial sector 2. Spreading awareness and knowledge in the fields of chemistry sciences by providing the country with researchers and professors, who are able to deal with recent changes and developments in science and technology to keep pace with the development of the times and contribute to the development of science and technology. As well as knowledge and understanding in the use of laboratory equipment and how to prepare novel compounds and identification with different analysis method, which have been importance in the various pharmaceutical or industrial fields 3. Contribute meaning fully to strengthening the university's relationship with the community by providing consultations, as well as training and developing the teaching and administrative staff 4. Encourage outstanding students in the chemistry department to work as assistance in the department, and enable them to become part of teaching staff in the future.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	***A. Cognitive goals*** 1. Bawling the theoretical foundation for the students of the second stage in thel lesson of inorganic chemistry to expand their studies in the later stages 2. Enable the student to obtain knowledge and understanding of the chemistry Sciences 3. Enable the student to obtain knowledge and understanding of the chemistry law 4. Enable the student to learn and understand the correct ways of using the devices to synthesise and identify different chemical compounds. 5. Enable the student to obtain knowledge and understanding to pace with global development in all scientific fields and understand international chemical standards. 6. Enable the student to obtain knowledge and understanding of intellectual frame workand systems of chemistry. ***C. Skills goals specific to the program*** 3. Scientific and practical skills. 4. Skills of analysis and cultivating the competence to apply theoretical and practical scientific knowledge gained from studies to real-life situations while considering industrial and commercial constraints. 5. Enabling students to solve problems related to the intellectual framework and international chemistry standards, considering the laws of control and quality.

Indicative Contents المحتويات الارشادية	In this semester, focus is on studying the atomic structure and the electronic configuration of the elements with their arrangement in the periodic table according to the groups and periods by following the regulation and rules that determine the permissible orbitals in the process of entering electrons into the main shells and studying the periodic properties of the elements. As well as addressing the atomic states (Term symbol) of the elements pro investigation in the properties and crystal structure of the ionic compounds.

Learning and Teaching Strategies إستراتيجيات التعلم والتعليم	
Strategies	1. Providing students with the basics and additional topics related to previous education outcomes of skills to solve scientific problems Solve a set of examples by the academic staff 2. Asking the students during the lecture to solve some scientific questions 3.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	**63**	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب اسبوعي	**4**
Unstructured SWL (h/sem) الحمل الدراسي الغير المنتظم للطالب خلال الفصل	**137**	**Unstructured SWL (h/w)** الحمل الدراسي الغير المنتظم للطالب اسبوعي	**9**
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 and 10	LO #1, #2 and #4, #5
	Assignments	2	10% (10)	2 and 12	LO #2, #3 and #4, #5
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	10% (10)	13	LO #1, #2 and #4
Summative assessment	**Midterm Exam**	2	10% (10)	10	LO #1- #5
	Final Exam	3	50% (50)	16	All
Total assessment			100% (100)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Covalent compounds
Week 2	Lewis octet rule
Week 3	Molecular orbital theory
Week 4	Molecular orbital theory
Week 5	valence shell electron pair repulsion
Week 6	valence shell electron pair repulsion
Week 7	**Mid Term Exam**
Week 8	valence bond theory
Week 9	Hydrogen chemistry
Week 10	Alkaline Elements
Week 11	Alkaline Elements
Week 12	Alkaline earth Elements
Week 13	Boron chemistry
Week 14	Boron chemistry
Week 15	carbon chemistry

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	1. Basic InOrganic chemistry by F.A.Cotton & G.Wilkinson 2. Inorganic chemistry by G.E.Huheey	Yes
Recommended Texts	الكيمياء اللاعضوية للمرحلة الاولى	
Websites	https://chemistlibrary.files.wordpress.com/2015/05/cotton-wilkinson-advanced-__inorganicchemistry.pdf https://www.academia.edu/31826388/_Huheey_Inorganic_chemistry_BookZZ_org_	

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	(قيد المعالجة)راسب	(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 Chemistry

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Cytology			**Module Delivery**	
Module Type	Basic			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	COS1209				
ECTS Credits	3				
SWL (hr/sem)	75				
Module Level		1	**Semester of Delivery**		2
Administering Department		Chemistry	**College**	Science	
Module Leader	Assist. Prof.Dr.Rakad Mohammed Khamas		**e-mail**	rakad.aljumaily@sc.uobaghdad.edu.iq	
Module Leader's Acad. Title		Assistant Professor	**Module Leader's Qualification**		Ph.D.
Module Tutor	Assist. Prof.Dr.Rakad Mohammed Khamas Assist. Prof. Dr. Fadhel Mohammed Lafta Assist. Prof.Dr.Rasha Kareem Mohammed Assist. Prof.Dr.Rasha Hussain Kuba Lctr. Dr. Zainab khidhair hussain Lctr. Dr.Dina Khudhair Hussein Ali Lctr. Dr. Aliaa Abdul Aziz Hammed Assist. Lctr. Israa Muhammad Mubarak Ali Biol. Alyaa Wael Saadi Biol. Osama Ismail Awad		**e-mail**	rakad.aljumaily@sc.uobaghdad.edu.iq fadhellafta@sc.uobaghdad.edu.iq rasha.Kareem@sc.uobaghdad.edu.iq Rasha.hussain@uobaghdad.edu.iq zainab. Khidhair@sc.uobaghdad. edu.iq dina.khudhair@sc.uobaghdad.edu.iq Aliaa.a@sc.uobaghdad.edu.iq Israa.Ali@sc.uobaghdad.edu.iq Aliazhersalah13@gmail.com osamaismail80@gmail.com	
Peer Reviewer Name		Name	**e-mail**	E-mail	
Scientific Committee Approval Date		9-11-2023	**Version Number**		1

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 module will provide an introduction to the structure, function and diversity of eukaryote cells. 2. The main methods of studying cells will be first outlined and will cover topics such as cell fractionation, organelle purification and various microscopic techniques.. 3. The following organelle systems will be described: cell membranes, the nucleus and cell cycle; the cytoskeleton and its cellular functions; the cellular endomembrane system and exo- and endocytosis and their role in cell function.		
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Knowledge about the basics chemical structures of cellular components. 2. Understanding how cell organelles perform their function. 3. How cells become specialised during the development of multicellular organisms. 4. Knowing how cells are reproduced and proliferated by understanding the key events of cell cycle.		
Indicative Contents المحتويات الإرشادية	The module will begin with a brief introduction outlining the module's goals, content, and evaluation criteria, as well as the learning outcomes. Following that, the module material is divided into separate themes, offering details for the most relevant cytological concepts. In this context, we will also examine how such knowledge might help understanding cellular components and their functions. Laboratory sessions of 2-hours duration will give active practice in a variety of cytological aspects and techniques in tandem with lecture topics.		

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	This module's contact teaching will be conducted through lecturing (15 lectures) and compulsory 15 practical sessions, which include learning videos and scientific animations. Students will be invited to participate in interactive discussion throughout this program.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	64	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	11	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
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**	3	20	2, 4, 6	LO #1, #2
	Assignments	1	20	8	LO #4
Summative assessment	**Midterm Exam**	1	10% (10)	7, 8	LO #1, #2, #3
	Final Exam	3	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
Week	**Material Covered**
Week 1	The Cell : Introduction to the Cytology
Week 2	Prokaryotic and Eukaryotic Cells
Week 3	The Living Cellular Components
Week 4	The Non-living Cellular Inclusions and Cytoskeleton
Week 5	The Chemistry of Life (Biomolecules)
Week 6	The Chemical Structure of Cell Wall
Week 7	Mid-term Exam
Week 8	The Chemical Structure of Plasma Membrane
Week 9	Membrane Transport Mechanisms
Week 10	Energy-releasing pathways (Cellular Respiration)
Week 11	Replication of DNA
Week 12	Protein Synthesis
Week 13	Cell Division-Mitosis
Week 14	Cell Division-Meiosis
Week 15	Replication of DNA
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
Week	**Materials Covered**
Week 1	Course induction, Introduction, and Lab Safety Guidelines
Week 2	Light Microscopes
Week 3	Electron Microscopes
Week 4	Compound Light Microscope Calibration
Week 5	Living Cellular Components 1
Week 6	Living Cellular Components 2
Week 7	Non-Living Cellular Components1

Week 8	Mid-Term Exam
Week 9	Non-Living Cellular Components1
Week 10	Cell Shape and Size
Week 11	Cell Cycle- Cell Division-Mitosis
Week 12	Cell Cycle- Cell Division-Meiosis
Week 13	Cytogenetics
Week 14	Plant Cytogenetics
Week 15	Human and Cancer cytogenetic
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	1. George Plopper, David Sharp, Eric Sikorski (2015) Lewin's cells. — 3rd ed. Jones & Bartlett Learning. 2. Alberts,Bruce, Hopkin, Karen, Johnson, Alexander D., Morgan, David, Raff, Martin, Roberts, Keith, Walter, Peter. (2018). Essential Cell Biology: Fifth International Student Edition. W.W. Norton & Company,	No
Recommended Texts	Edmund S. Cibas & Barbara S. Ducatman (2021). Cytology, 5th Edition. Elsevier Publishing Company	No
Websites	https://www.cytology-iac.org/	

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
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	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 Engineering Department of Electrical Engineering	

MODULE DESCRIPTOR FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Mathematics I			**Module Delivery**	
Module Type	Support or related learning activity			☒ **Theory** ☐**Lecture** ☐ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	COS12010				
ECTS Credits	3				
SWL (hr/sem)	75				
Module Level	1		**Semester of Delivery**	2	
Administering Department	Chemistry		**College**	Science	
Module Leader	Dr. Zainab Talib		**e-mail**	zinatalib77@gmail.com	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	Ph.D.	
Module Tutor	None		**e-mail**	None	
Peer Reviewer Name	None		**e-mail**	None	
Review Committee Approval	9-11-2023		**Version Number**	1	

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	Helping students to rely on themselves in academic achievement im mathematics. Teaching students the basic principles of mathematic Develop some healthy habits , such a cooperation , construction criticism , mutual respect and accuracy . Develop scientific innovations and mental skills.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Define and write the basics and concepts of mathematics Building mathematical arguments and proofs and applying the unified basic structures of mathematics 3- Ability to work independently and within a team 4- Communicate and convey mathematical ideas , both orally and in writing .
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. Part A 1- To enable the student to know and understand the basics of mathematic 2- To make student able to understand the basics of mathematic 3- Enable student to obtain knowledge , understand the scientific laws of mathematic and practical applications Part B 1- Sound scientific research skills and constructive scientific discussions and expressing of opinions 2- Thinking skills and enabling the student to understands and solve scientific problems related to laws of mathematic
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Type something like: teaching strategy are the set of activities or mechanisms used by the teacher (presentation – coordination – training – discussion in order to achieve predetermined teaching objectives . it includes two components methodology and procedure , while together form an overall plan for teaching a particular lesson , unit or course .

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	12	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
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 7
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	**Midterm Exam**	2	10% (10)	7	LO # 1-7
	Final Exam	3	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
Week	**Material Covered**
Week 1	Calculus, Sets and numbers
Week 2	Inequality, solving Inequality
Week 3	Absolute value and Coordinate in the plane
Week 4	Functions, Domain and range
Week 5	Type of functions , graphs of functions,
Week 6	Definition of Limit, The sandwich theorem
Week 7	Mid-term Exam + Unit-Step Forcing, Forced Response, the RLC Circuit
Week 8	Continuous functions properties of continuous and Trigonometric function
Week 9	Limit and continuity of trigonometric function
Week 10	Derivatives, the derivative of f at point a and differential rules
Week 11	Implicit differentiation and derivative of Trigonometric function
Week 12	Application of derivative, hopitals rule for from zero and infinite
Week 13	Integration, Antiderivative , indefinite integral and definite integral
Week 14	Integration by parts, the natural logarithm function and the exponential function
Week 15	Preparatory Week
Week 16	Final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Thomas calculus, George B.thomas	yes
Recommended Texts		
Websites		

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 DESCRIPTOR FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Geology			**Module Delivery**	
Module Type	Basic			☒ **Theory** ☐ **Seminar** ☒ **Lab** ☐ **Tutorial** ☐ **Practical**	
Module Code	COS12011				
ECTS Credits	3				
SWL (hr/sem)	75				
Module Level	1		**Semester of Delivery**	2	
Administering Department	Chemistry		**College**	Collage of science	
Module Leader	Rasha fawzi faisal		**e-mail**	Rasha.faisal@sc.uobaghdad.edu.iq	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Dr.Zainab Hassan		**e-mail**	Zainab.hassan@sc.uobaghdad.edu.iq	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Review Committee Approval	9-11-2023		**Version Number**	1	

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 module will provide an introduction to the geology Like all forms of science, we study geology to make new discoveries and learn more about the world around us. Geology looks at some of the most important issues in society today including energy sources and sustainability, climate change, the impacts of developments on the environment, water management, mineral resources and natural hazards. 2-By studying these issues, geologists, along with other scientists, can anticipate earth's future and examine any changes that may need to be made. A key example of this is the study of climate change and how society needs to change to improve the earth's future. By switching from fossils fuels to geothermal energy and other renewable sources, we can reduce our carbon emissions and the effects of global warming. 3-Understanding the mechanical properties of soils help us evaluate risks for landslides and identifying zones that are prone to risks. Studying the movement of groundwater underneath our feet supports drinking water protection from pollution.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Knowledge about the basics of all geology application. 2. Understanding the benefit of this science and its relationships with all other sciences
Indicative Contents المحتويات الإرشادية	The module will begin with a brief introduction outlining the module's goals, content, and evaluation, as well as the learning outcomes. Following that, the module material is divided into, historical geology and physical geology to help the student to understand the rock cycle and types . laboratory session will help them to make a whole vision about the rocks types differences and structures,
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	This module's contact teaching will be conducted through lecturing (15 lectures) and compulsory 15 practical sessions, which include learning videos and scientific animations. Students will be invited to participate in interactive discussion throughout this program.

Student Workload (SWL) الحمل الدراسي للطالب محسوب ل 15 اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	64	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	11	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
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 7
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	**Midterm Exam**	2	10% (10)	7	LO # 1-7
	Final Exam	3	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
Week	**Material Covered**
Week 1	General geology, uses of geological science, solar system, the earth system
Week 2	Geological time scale
Week 3	The soil
Week 4	Weathering and erosion
Week 5	The earth system dynamic,
Week 6	Plate tectonics
Week 7	Exam 1
Week 8	Igneous rock, texture of igneous rocks
Week 9	Classification of igneous rock
Week 10	Sedimentary rock, classification of sedimentary rocks
Week 11	Types of sedimentary rocks
Week 12	Exam 2
Week 13	Metamorphic rocks
Week 14	Classification of metamorphic rocks
Week 15	review
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
Week	**Material Covered**
Week 1	Lab 1: Crystallography (crystal systems)
Week 2	Lab 2: Crystallography (symmetry)
Week 3	Lab 3: Mineralogy (Visual attributes)
Week 4	Lab 4: Mineralogy (Physical attributes)
Week 5	Lab 5: Petrology (Physical attributes of Igneous rocks)
Week 6	Lab 6: Petrology (Texture, Classification, Occurrence and Mineralogy of Igneous rocks)
Week 7	Lab 7: Exam 1
Week 8	Lab 8: Petrology (Physical attributes of Sedimentary rocks)
Week 9	Lab 9: Petrology (Texture, Classification, Occurrence and Mineralogy of Sedimentary rocks)
Week 10	Lab 10: Petrology (Type and Degree of Metamorphism)
Week 11	Lab 11: Petrology (Physical attributes of Metamorphic rocks)
Week 12	Lab 12: Petrology (Texture, Classification, Occurrence and Mineralogy of Metamorphic rocks)
Week 13	Lab 13: Exam 2
Week 14	Lab 14: Review
Week 15	Lab 15: Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	karla panchuk,(2018), introduction to geology ,2nd edition	Yes
Required Texts	Karla panchuk,(2019),physical geology ,2nd edition	No
Recommended Texts	www.rockcycle.com	
Websites	karla panchuk,(2018), introduction to geology ,2nd edition	

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 Science
Department of Chemistry

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Computer I			**Module Delivery**	
Module Type	Basic			☐ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	UOB12012				
ECTS Credits	3				
SWL (hr/sem)	75				
Module Level		1	**Semester of Delivery**		2
Administering Department		Computer Science	**College**		Science
Module Leader	Mela Ghazi Abdul-Haleem		**e-mail**		a.mela@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		Dr. Assmaa A.Fahad	**e-mail**		Assmaa.fahad@sc.uobaghdad.edu.iq
Scientific Committee Approval Date		9-11-2023	**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	1. This module sets out essential concepts and skills relating to the use of devices. 2. This module covers the key skills and main concepts relating to computers, devices, file creation and management, web browsing, and data security. 3. Help students to demonstrate the ability to use word processing 4. application to accomplish everyday tasks associated with creating, formatting, finishing small-sized word processing documents, such as letters and other everyday documents. 5. Help students to demonstrate the ability to use a power point application to accomplish tasks associated with creating, and formatting a presentation. 6. Help students to demonstrate the ability to use Excel application to accomplish a spreadsheet for tasks.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Upon successful completion of the course, a student will be able to: 1. Understand key concepts relating to computers, devices and software. 2. Identify the main types of Integrated and External equipment 3. Understand concepts of online communities, communications and e-mail 4. Adjust the main operating system settings and use built-in help features. 5. Know about the main concepts of file management and be able to efficiently organize files and folders. 6. Create a report by Ms. Word document and print an output. 7. Use University email to Collaborate inside and outside university and How to participate in video conference using meet 8. Create a presentation using power point application. 9. Create a spreadsheet using Excel application.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: - The general purpose computer model: All types of computers follow the same structure and perform the basic operations (Input, Processing, Output, Storage and controlling) to converting raw input (data) to information. - Components of a computer Hardware: Each computer consists of Hardware and software. The Hardware includes input devices, output devices, system units, storage devices, and communication devices. - System Units (Internal & External components of system units): The internal component of the system units is consists of (CPU, Motherboard, RAM, Ports, Hard disk …). - Central Processing Unit: ALU, CU, and memory unit. Memory and its Types ▪ Cache Memory ▪ Primary memory –Comparison between RAM & ROM ▪ Secondary Storage Ports and their types (Ports: is a connection points used as an interface between the computer and its peripheral devices (Serial ports, Parallel ports, PS/2, USB, VGA …)).

	- Input Devices (Keyboard, Mouse, …) - Output Devices (Printer, speaker, monitors, …) - Software Types of Software ▪ Operating System (Windows, Linux, …) ▪ Application Software & their types ▪ Programming Languages (Low, Assembly, High level). - Internet, Benefits, Browsing the Web (Web Browser) , Search the web (search engine) - Communication Technology: It plays an important role in almost every activity that we performed. The best examples of Communication technology includes: blogs, Web sites, live video, social media technology, and E-mail communication. - E-mail: free e-mail providers (G-mail, Yahoo-mail, …), send and receive E-mail operation, send e-mail with attachment, checking the e-mail boxes (inbox, send box, spam …). - Security and keeping information safe: protect the information from unauthorized access and prevent use, modification, and destruction of this information. - Virus transmission ways to the computer: by e-mail, Downloading from the Internet, Pirated software, Exchange of diskettes, in attached e-mail, and in documents. - Protection against viruses: install good anti-viruses. - Antivirus, benefits and Types Introduction to windows - Desktop Components: (Icons, Start, task bar …) - The start menu (its functions and properties)

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. Different forms of teaching will be used to reach the objective of this module, including power point presentation for the subjects which contains titles, definitions, summary and conclusions, whiteboard will be used and classroom discussion with assignments, the students will be asked to prepare papers on selective topics.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	62	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	13	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
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	5% (5)	6 and 10	(1), (2), (3), (4), (5), (8), (9)
	Assignments	2	5% (5)	11 and 13	
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	10	
Summative assessment	**Midterm Exam**	2	20% (20)	13	
	Final Exam	2	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي	
	Material Covered
Week 1	Introduction to Computers – definition - The purposes of using a computer. -The general purpose computer model. -The difference between Data and Information concepts. Introduction to windows - Desktop Components - The start menu (its functions and properties)
Week 2	The Components of a computer: Hardware - System Units (Internal & External components of system units) - Central Processing Unit (Features and components) Windows: - Task bar and its functions and properties
Week 3	- Memory and its Types ▪ Cache Memory ▪ Primary memory –Comparison between RAM & ROM
	Secondary Storage Windows: - Files and Folders: All operations on files and folders (selection, creation, saving, moving and renaming.

Week 4	Ports and their types - Input Devices, - Output Devices Windows: - Delete Files. - Recycle bin. - Creating a Shortcut. - Desktop Icons. - The Windows Explorer Views. - Sort files.
Week 5	- Software Types of Software ▪ Operating System ▪ Application Software & their types Programming Languages Windows: -Customizing the desktop. -Change screen resolution. - Change Desktop Background
Week 6	- Communication Technology - E-mail Windows: - Print Screen - Cleaning Up the Disk - Defragmenting the Disk **Quiz (1, 2, 3, 4, 5) -Windows only**
Week 7	- Internet, Browsing the Web (Web Browser) , Search the web (search engine) - Security and keeping information safe -Virus transmission ways to the computer -Protection against viruses -Antivirus, benefits and Types
Week 8	Microsoft Word - Word Program Interface -Keyboard Shortcuts in Microsoft Word -The operations on Text - File Menu
Week 9	Microsoft Word - Home Tab & it commands - Insert Tab (Pages & tables Groups) - Table Tools
Week 10	Microsoft Word - Insert Tab (Illustrations, Header & Footer, Text and Symbols Groups) - Page Layout, References, Review Tabs **Quiz (Week 8, 9)**
Week 11	Microsoft PowerPoint - PowerPoint program Interface. - File Menu - Home Tab & it commands

	- Operations on the Slides (duplicate, Delete, and Move)
Week 12	Microsoft PowerPoint - Insert Tab, Design Tab, Slide Show Tab and their commands
	- Transitions, and Animations Tabs
Week 13	Microsoft Excel - File Menu, Home Tab & it commands
Week 14	Microsoft Excel - Excel Worksheet Basics - Cell format
Week 15	**Preparatory Week**
Week 16	**Final Exam**

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	**Available in the Library?**
Required Texts	1. M. E. Vermaat and G. B. Shelly, *Discovering Computers Fundamentals: Living in a Digital World,* Shelly Cashman, 2011 Edition. 2. J. Lambert, J. Cox , and C. Frye, *Microsoft Office Professional 2010 Step by Step* , 1'st Edition, Microsoft Press, 2010, 152P.	E-Copy
Recommended Texts	D. Hajek and C. Herrera***, Introduction to Computers 2022 Edition,*** Independently published, May 19, 2022, 255P.	NO
Websites	1. https://theictbook.com/components-of-the-system-unit-and-their-functions/ 2. https://www.tutorialspoint.com/computer_fundamentals/index.htm 3. https://www.slideshare.net/Jamjolojessa/types-of-applicationsoftware?from_action=sav 4. https://www.bbc.co.uk/bitesize/guides/zbfny4j/revision/1 5. https://generalnote.com/Computer-Fundamental/ 6. https://edu.gcfglobal.org/en/word2010/# 7. https://edu.gcfglobal.org/en/powerpoint2010/# 8. https://edu.gcfglobal.org/en/excel2010/# 9. https://antivirus.comodo.com/blog/computer-safety/what-is-antivirus 10. https://thingscouplesdo.com/what-is-the-antivirus-software-that-is-best-for-auser	

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 Chemistry

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية			
Module Title	English Language I	**Module Delivery**	
Module Type	Basic		☒ **Theory** ☐ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**
Module Code	UOB 12013		
ECTS Credits	2		
SWL (hr/sem)	50		
Module Level	1	**Semester of Delivery**	2
Administering Department	College of Science	**College**	Science
Module Leader	Dr. Muthana Hameed Khalaf	**e-mail**	muthana.khalaf@sc.uobaghdad.edu.iq
Module Leader's Acad. Title	Assistant Professor	**Module Leader's Qualification**	Ph.D.
Module Tutor	None	**e-mail**	None
Peer Reviewer Name	None	**e-mail**	None
Scientific Committee Approval Date	9-11-2023	**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	New Headway Beginner Plus is a Beginner course in English intended to provide students with the fundamentals of the language and a foundation at First Year students / college of science, moving towards a higher level of proficiency at this stage. 1. Listening Objectives: • Understand and respond to basic greetings, introductions, and simple instructions. • Comprehend and extract information from short, simple spoken passages related to everyday topics. • Identify and understand common vocabulary and expressions in spoken English. 2. Speaking Objectives: • Engage in basic conversations using simple greetings, introductions, and expressions related to personal information. • Ask and answer simple questions about personal details, daily routines, and familiar topics. • Participate in short dialogues and role-plays to practice communication skills. 3. Reading Objectives: • Read and comprehend simple texts, such as signs, labels, short passages, and dialogues. • Recognize and understand basic vocabulary words and phrases in context. • Extract information from texts related to everyday situations and topics. 4. Writing Objectives: • Write short sentences and paragraphs about personal information, experiences, and familiar topics. • Fill out basic forms with personal details, such as name, age, and nationality. • Write simple messages, notes, and emails related to everyday situations. 5. Vocabulary and Grammar Objectives: • Acquire a basic vocabulary related to common topics, such as greetings, numbers, time, family, food, and everyday objects. • Understand and use basic grammatical structures, including present simple, present continuous, simple past, and basic question forms. • Recognize and use common prepositions, articles, and basic sentence structures. 6. Cultural Awareness Objectives: • Develop an understanding of cultural customs and practices related to greetings, social norms, and everyday interactions in English-speaking countries. • Gain exposure to cultural elements through reading or listening to texts about customs, traditions, and holidays.

Module Learning Outcomes مخرجات التعلم للمادة الدراسية	By the end of the course, the students will be able to: 1. Listening and Speaking Skills: • Understand and respond appropriately to basic questions and statements. • Engage in simple conversations related to personal information, daily routines, and immediate surroundings. • Follow simple instructions and directions. • Develop basic pronunciation and intonation skills. 2. Reading Skills: • Recognize and understand basic vocabulary words and phrases in simple texts. • Comprehend and extract information from short, simple texts such as signs, notices, and labels. • Understand basic sentence structures and common grammatical patterns. 3. Writing Skills: • Write simple sentences and short paragraphs about personal information, experiences, and familiar topics. • Fill out simple forms and write basic personal information. • Write simple messages, notes, and emails related to everyday situations. 4. Vocabulary and Grammar: • Acquire and use a basic range of vocabulary related to everyday topics, such as greetings, numbers, time, family, food, and common objects. • Understand and use basic grammatical structures, including present simple, present continuous, simple past, and basic question forms. • Recognize and use common prepositions, articles, and basic sentence structures. 5. Cultural Awareness: • Develop an understanding of cultural customs and practices related to greetings, social norms, and everyday interactions in English-speaking countries. • Gain exposure to cultural elements through reading or listening to texts about customs, traditions, and holidays.
Indicative Contents المحتويات الإرشادية	1. Use simple forms of polite expressions to establish basic social contact and to perform everyday functions including making requests and offers, conducting simple phone conversations, asking and telling time, giving simple directions, asking about price, ordering a meal, etc. 2. Use a narrow range of positive and negative adjectives to describe objects, people and places. 2.3. Exchange information by forming and responding to simple questions. 3. Produce simple sentences using the correct word order and punctuation marks. 4. Use capital and lower case letters accurately in writing.

	5. Construct a short guided paragraph on a familiar topic concerning home, family, friends and holidays. 5. Use the basic tenses including the present and past simple, and present continuous correctly. 6. Use the basic auxiliary verbs (am/is/are/was/were/can) and a range of regular and irregular verbs. 7. Demonstrate awareness of the essential grammatical features and functions including questions and negatives, plural nouns, frequency adverbs, possessives, pronouns and determiners.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1. Communicative Approach: Emphasize communicative activities that promote interaction among students. Encourage pair and group work, role-plays, and discussions to practice language skills in meaningful contexts. 2. Integrated Skills: Integrate the four language skills (speaking, listening, reading, and writing) in lessons to create a balanced approach to language learning. Provide opportunities for students to use and develop these skills simultaneously. 3. Vocabulary Expansion: Incorporate vocabulary-building exercises and activities throughout the course. Use real-life contexts, visuals, and practical examples to help students learn and remember new words. 4. Grammar Focus: Teach and reinforce grammar structures in a systematic and progressive manner. Provide clear explanations, examples, and practice exercises to ensure students understand and can apply the grammar rules correctly. 5. Authentic Materials: Include authentic texts, such as articles, newspaper clippings, songs, and videos, to expose students to real-world language usage. This helps develop their reading and listening comprehension skills and exposes them to cultural aspects of English-speaking countries. 6. Cultural Awareness: Integrate cultural topics and discussions into the lessons to foster cultural awareness and sensitivity. Encourage students to share their own cultural backgrounds and experiences to promote understanding and appreciation of diverse perspectives. 7. Error Correction: Provide constructive feedback and error correction during speaking and writing activities. Help students identify and correct their mistakes, focusing on accuracy while encouraging fluency and self-expression. 8. Technology Integration: Utilize technology tools, such as interactive whiteboards, online resources, and language learning apps, to engage students and enhance their language learning experience. Incorporate multimedia materials for listening and speaking practice. 9. Regular Assessment: Assess students' progress regularly through quizzes, tests, and assignments. Provide timely feedback to guide their learning and address areas that need improvement. 10. Individualization: Cater to the individual needs and learning styles of students. Offer differentiated tasks and activities to ensure all learners are

	appropriately challenged and supported. 11. Cooperative Learning: Promote collaboration and teamwork among students through pair work, group projects, and peer feedback. This encourages active participation and a supportive learning environment. 12. Review and Revision: Schedule regular review sessions to consolidate previously learned material. Encourage students to revise and practice independently, providing resources for self-study and additional practice

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**
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	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2	10% (10)	7	LO #1 - #7
	Final Exam	3	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

	Material Covered
Week 1	Hello! p6 ***am/are/is, my/your*** *I'm Pablo.* *My name's Judy.* *What's your name?* p6 ***This is ...*** *This is Ben.* *Nice to meet you.* p7

Week 2	Your world p12***he/she/they, his/her*** *He's from the United States.* *Her name's Karima.* p13 *They're on holiday.* p16 Questions *What's his name?* *Where's she from?* p13
Week 3	All about you p18 ***am/are/is*** *We're all singers.* p20 Negatives *She isn't a nurse.* p18 *I'm not from Scotland.* p20 *They aren't builders.* p20 Questions *What's her address? How old is she?* *Is she married?* p19 Short answers *Yes, she is. / No, she isn't.* p20
Week 4	Family and friends p24 **Possessive adjectives** *my, your, our, their* p24 **Possessive *'s*** *Annie's husband Jim's office* p24 ***has/have*** *I have a small hotel. She has a job.* *We have three sons.* p27 **Adjective + noun** *a small hotel a big house a good job* p27*apples, beer, bread, cake* p36 **Shopping** *newsagent's, chemist's,* *off-licence* p36 **Can you come for dinner?** *Would you like some* *more rice?* *Could you pass the* *salt, please?* *How would you like* *your coffee?* *This is delicious!* p37

Week 5	The way I live p32 **Present Simple *I/you/we/they*** *I like ice-cream. I don't like tennis.* *Do you like football?* p33 *Where do you work? Do you live in Dundee?* p34 *In Brazil they speak Portuguese.* p36 ***a* and *an*** *a waiter, an actor, an Italian restaurant* p34 **Adjective + noun** *an American car Spanish oranges* p37
Week 6	Every day p40 **Present Simple *he/she*** *He gets up at 6.00.* *He has lunch in his office.* p42 *She lives in a small house.* p44 Questions and negatives *What time does he have breakfast?* *He doesn't live in London.* p43 **Adverbs of frequency** *He always works late.* *He never goes out.* p42
Week 7	Mid-term Exam
Week 8	My favourites p48 **Question words** *who*, *where*, *why*, *how* p48 **Pronouns** Subject/Object/Possessive *I/me/my we/us/our they/them/ their* p49 ***this* and *that*** *I like this wine. Who's that?* p50
Week 9	Where I live p56 ***There is/are ...*** *There's an old sofa.* *Are there any armchairs?* *There are some books.* p57 **Prepositions** *in, on, under, next to* p58
Week 10	Times past p64 ***was/were born*** *When were you born?* *I was born in 1996.* p65

	Past Simple – irregular verbs *went, came, saw* *She went shopping.* p68
Week 11	We had a great time! p72 **Past Simple – regular and irregular** *played, got, watched, did* p72 Questions *What did you do?* *Did you go out?* p73 Negatives *They didn't go to work.* p73 ***ago*** *I went to Rome ten years ago.* p78
Week 12	I can do that! p80 ***can/can't*** *He can speak French. I can't draw.* *Can she run fast?* p80 **Adverbs** *I can cook a little bit. I can't cook at all.* *really well, fluently* p82 **Requests and offers** *Can you tell me the time? Can I help you?* p83
Week 13	Please and thank you p88 ***I'd like ...*** *I'd like some ham.* *How much would you like?* p88 ***some* and *any*** *I'd like some cheese.* *Do you have any Emmental?* *I don't have any apple juice.* p89 ***like* and *would like*** *I like Coke.* *I like going to the cinema.* *I'd like to go out.* p91
Week 14	Here and now p96 **Present Continuous** *She's wearing a T-shirt.* *What's he doing?* p97 **Present Simple and Present Continuous** *He lives in London.* *They're staying in a hotel.* p98

Week 15	It's time to go! p104 **Future plans** *They're going on holiday.* *Which countries are you going to visit?* *I'm leaving on Tuesday.* *What are you doing this evening?* p104 **Revision** Question words – *when, where, who, how* p106 Tenses – present, past, and future tenses p110
Week 16	**Preparatory week before the final Exam**

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Soars, John and Liz, (2011), New Headway Plus, Special Edition, Beginner Level, Oxford University Press.	Yes
Recommended Texts	New Headway Plus provides an integrated skills course with each unit divided into grammar, vocabulary, skills work and everyday English segments	yes
Websites	Oxford University Press: The New Headway series is published by Oxford University Press. Visit their website at www.oup.com and search for "New Headway Plus, Special Edition, Beginner Level " or browse their English language teaching section for information on the course.	

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.