University Name: Al-Muthanna University

Faculty/Institute: science college

Scientific Department: Department of chemistry

Academic or Professional Program Name: Bachelor's degree in Science

Final Certificate Name: Bachelor's degree in chemistry

Academic System: Semester (courses)

Description Preparation Date: april 2024

File Completion Date: 11/4/2024

Signature:

Head of Department Name:

Asst.Prof. Dr. azal Shakir wheeb

Date:28/4/2024

Signature:

Scientific Associate Name:

Asst.Prof. Matham A. makey

Date:28/4/2024

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

M.Sc Saleh A. Lazam

Date: 4/4/2024

Signature:

Approval of the Dean

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	CHE-1208				
ECTS Credits	**7.00**				
SWL (hr/sem)	**175**				
Module Level	one		**Semester of Delivery**	Two	
Administering Department	Type Dept. Code		**College**	Type College Code	
Module Leader	Azal Shakir Waheeb		**e-mail**	Azilshker@mu.edu.iq	
Module Leader's Acad. Title	Assistant 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	13/02/2024		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	The aim is to provide the student with the basic concepts of chemical bonding, and how bonding occurs in ionic and covalent compounds, which prepares him to study advanced courses in this field.	**Semester**	2
Co-requisites module	Elementary principles of chemical bonding, represented by the Lewis structure, ionic bonding, and covalent bonding	**Semester**	2

	Molecular engineering and molecular shape, which is represented by (VSEPR) theory, hybridization, and (M.O.T) theory of particles .		

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	1- Enable students to obtain knowledge and understanding of inorganic chemistry . 2- Enable students to describe the formation of covalent bonds between two atoms. Examine electronegativity to assess the polarity of covalent bonds. Distinguish coordinate covalent bonds from conventional covalent bonds. Correlate the bonding character of molecules from the electronegativity differences between atoms. 3- Enable students to explain the formation of cations, anions, and ionic compounds. Predict the charge of common metallic and nonmetallic elements, and write their electron configurations. Explain the energetics of ionic bonding. 4- Enable students to compute formal charges for atoms in any Lewis structure. Use formal charges to identify the most reasonable Lewis structure for a given molecule. Explain the concept of resonance and draw Lewis structures representing resonance forms for a given molecule.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	This is theoretical course designed to describe and explain the historical development of atomic structure . Teaching students all the necessary information related to inorganic chemistry, which qualifies them to work and research in all areas of inorganic chemistry. Giving an idea of the primary principles of chemical bonding, ionic bonding and how to calculate enthalpy through the Bourne Harbor course, knowing how to draw the Lewis arrangement and giving a detailed explanation about the coordination theories, which prepares him to study advanced courses in this field and gives him the necessary scientific skills to develop his professional performance.
Indicative Contents المحتويات الإرشادية	The student able to describe the energetics of covalent and ionic bond formation and breakage. Use the Born-Haber cycle to compute lattice energies for ionic compounds. Use average covalent bond energies to estimate enthalpies of reaction. Predict the structures of small molecules using valence shell electron pair repulsion (VSEPR) theory.

	Explain the concepts of polar covalent bonds and molecular polarity. Calculate formula masses for covalent and ionic compounds.

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 thinking skills. Lectures will deliver core content; providing students with the opportunity to acquire the information to enhance their knowledge and understanding of basic undergraduate-level inorganic chemistry. This will be complemented by group discussions and tutorials to allow students to apply this learning to specific example problems. Directed study provides students with the opportunity to undertake guided reading and to develop their own portfolio of learning to enhance transferable skills and knowledge. Assessment 1: You will be given a search task that will require you to use chemical databases. You will produce a fully referenced written report on your search results.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	78	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4.4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	97	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	5.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

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.				
	Report		10% (10)		
Summative assessment	**Midterm Exam**	2 hr	20% (20)	7	LO # 1-7
	Final Exam	2hr	50% (50)	16	All

Total assessment	100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction to Chemical Bonding Types of chemical bonds
Week 2	Ionic compounds, properties , Energy
Week 3	Born landy, Born Haber cycle
Week 4	Polarization
Week 5	Bonding of ionic compounds
Week 6	Types of bonds in compounds
Week 7	Covalent compounds
Week 8	Lewis Structure
Week 9	Resonance
Week 10	The VESPER theory
Week 11	How to calculate formal charge
Week 12	Hybridization
Week 13	Molecular orbital theory
Week 14	How to calculate crystal field energy .
Week 15	Magnetic momentum
Week 16	Preparatory week before the final Exam

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

Week 5	
Week 6	
Week 7	

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Inorganic chemistry Thanaa al hassany .	Yes
Recommended Texts	Basic inorganic chemistry Dr. Noman Al Nuaimi Inorganic chemistry Dr. Ehsan Abdul Ghani Electrons and chemical bonding Dr. Mahdi Naji Zakum	No
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.

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	CHE-1207				
ECTS Credits	7				
SWL (hr/sem)	175				
Module Level	UGI		**Semester of Delivery**	2	
Administering Department	Type Dept. Code		**College**	Type College Code	
Module Leader	Zaman Sahib Mahdi		**e-mail**		
Module Leader's Acad. Title	Lecture		**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	13/02/2024		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	1-define relevant terms in volumetric method of analysis 2. identify ways of expressing solution concentration 3. solve problems on direct acid-base (neutralization) , precipitation , complex and redox titrations .	**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. describe volumetric analysis and its uses, 2. recall how to calculate the number of moles from concentration and volume, 3. recall how to use balanced equations and ratios to calculate the number of moles of one reactant from the volume of another reactant, 4. calculate the concentration of an acid from the volume of base that neutralizes it and vice versa, 5. use the results from a titration experiment to calculate the unknown concentration of a solution, 6. calculate the percentage of an acid or base in a mixture.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Expresses the role of analytical chemistry in science. 2. compare qualitative and quantitative analyses. 3. expresses the quantitative analysis methods. 4. Apply an understanding of pH pOH , pX , and E to characterize aqueous solutions and determine ion concentrations 5. Perform equilibrium calculations for all systems 6. Explain acid-base indictors theories 7. Make calculations with reaction quotients and equilibrium constants 8. apply the equilibrium calculations to precipitation and complex titrations . 9. solves the problems related to ion determine by control of the concentration of the standard reagents
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. Part A – Titrations in Analytical Chemistry , Neutralization Titrations ,Some Terms Used in Volumetric Titrations Standard Solutions , Volumetric Calculations ,Another Approach to Example ,Titration Curves Principles of Neutralization Titrations , Solutions and Indicators for Acid/Base Titrations , Titration of Strong Acids and Bases, Using the Charge-balance Equation to Construct Titration Curves , Titration Curves for Weak Acids , Determining Dissociation Constants of Weak Acids and Bases , A Master Equation Approach to Weak Acid/Strong Base Titrations , Titration Curves for Weak Bases , The Composition of Solutions During Acid/Base Titrations ,Locating Titration End Points from pH Measurements(**30 hrs**) Part B - Complexation and Precipitation Reactions and Titrations The Formation of Complexes , Calculation of Alpha Values for Metal Complexes Titrations with Inorganic Complexing Agents , Species Present in a Solution of EDTA , EDTA as a Preservative , EDTA Titration Curves When a Complexing Agent Is Present , Enhancing the Selectivity of EDTA Titrations with Masking and Demasking Agents , Water Hardness **(30hrs**). Part C- Redox titration Introduction to Electrochemistry ,Characterizing Oxidation/Reduction Reactions , Balancing Redox Equations Electrochemical Cells ,Applications of Standard Electrode Potentials ,Calculating Potentials of Electrochemical Cells Calculating Redox Equilibrium Constants , A General Expression for Calculating Equilibrium Constants from Standard Potentials , Constructing Redox Titration Curves , Oxidation/Reduction Indicators, Applications of Oxidation/Reduction Titrations (21hrs)

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

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	94	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	6.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	81	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	5.4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

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

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	**Introduction to Titration**
Week 2	**Acid Base Titration and Titration Curve& Calculation of strong acid –Strong base Titration**
Week 3	**Calculation of Weak acid –Strong base Titration**
Week 4	**Calculation of strong acid –Weak base Titration**
Week 5	**End point detection methods**
Week 6	**Acid Base Titration Application**
Week 7	**Precipitation titration and titration curve**
Week 8	**Calculation of Precipitation titration**
Week 9	**Methods of determination of end point & Application**
Week 10	**Complexomtric titration and titration curve**
Week 11	**Calculation of Complexomtric titration , determination of end point**
Week 12	**Calculation of Complexomtric titration , determination of end point**
Week 13	**Quantitative application**
Week 14	**Reduction oxidation titration**
Week 15	**Determination of Reduction oxidation end point , Quantitative and qualitative application**
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: **Preparation solution 0.1 N approximately HCl and neutralization**
Week 2	Lab 2: **Determination carbonate from Mixture (double titration**
Week 3	Lab 3: **Determination the acidity of vinegar**
Week 4	Lab 4: **Determination chloride ion in tap water by Mohr method**
Week 5	Lab 5: **Determination chloride ion by Volhard method(back titration)**
Week 6	Lab 6: **Determination the hardness tap water with EDTA**
Week 7	Lab 7: **Determination of Fe^{+2} by reduction – oxidation reaction**

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Skoog D. ,Fundamentals of Analytical Chemistry,Nitnth ed., 2016	Yes
Recommended Texts	Gary D.Chritian,Analytical Chemistry,fifth editionjohn Willy & sons,inc, 1986. 2) Modern of Analytical Chemistry, Daived 2000	No
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.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

الفيزياء العامةGeneral Physics

Module Information معلومات المادة الدراسية					
Module Title	**General Physics**			**Module Delivery**	
Module Type	B			☒ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	COS-12010				
ECTS Credits	7				
SWL (hr/sem)	**175hr/sem**				
Module Level	UGI		**Semester of Delivery**	2	
Administering Department	chemistry		**College**	Science	
Module Leader	Majid Kamel Ghatheeth		**e-mail**		
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	Msc.	
Module Tutor	-		**e-mail**	-	
Peer Reviewer Name	-		**e-mail**	--	
Scientific Committee Approval Date	13/02/2024		**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	1- Understanding fundamental principles: General physics aims to provide students with a solid foundation in understanding the basic principles of physics. This includes concepts such as motion, forces, energy, electricity, magnetism, waves, and optics. 2- Developing problem-solving skills: Physics is known for its emphasis on problem-solving. General physics aims to develop students' ability to analyze and solve problems using scientific methods, mathematical reasoning, and critical thinking skills. 3- Applying theoretical knowledge to real-world phenomena: General physics seeks to help students understand the application of physics principles to real-world phenomena. This includes explaining everyday occurrences, technological advancements, and natural phenomena through the lens of physics. 4- Fostering scientific inquiry and experimentation: Physics is a science that relies on experimentation and observation. General Physics aims to introduce students to the scientific method and experimental techniques, encouraging them to design and conduct experiments, analyze data, and draw conclusions. 5- Promoting quantitative reasoning: Physics involves mathematical calculations and quantitative analysis. General physics aims to enhance students' ability to use mathematical tools and apply them to physical problems, promoting quantitative reasoning skills. 6- Cultivating a scientific mindset: General physics aims to foster a scientific mindset characterized by curiosity, skepticism, and the ability to think critically. Students are encouraged to question, explore, and evaluate scientific theories and models. 7- Preparing for advanced studies: General physics serves as a foundation for more specialized branches of physics, as well as other scientific and engineering disciplines. It aims to equip students with the necessary knowledge and skills to pursue further studies or careers in related fields.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	• By the end of the module the student will be able to: • Understanding fundamental principles: Students should develop a solid understanding of the fundamental principles of physics, including concepts such as motion, forces, energy, and momentum. • Applying mathematical skills: Physics relies heavily on mathematical modeling and calculations. Students should learn to apply mathematical concepts, such as algebra, trigonometry, and calculus, to solve physics problems and analyze physical phenomena. • Developing scientific inquiry skills: Physics involves a scientific approach to understanding the natural world. Students should develop skills in observation, experimentation, data analysis, and critical thinking. They should learn how to formulate hypotheses, design experiments, collect and interpret data, and draw

	logical conclusions. • Applying problem-solving strategies: Physics teaches problem-solving skills that can be applied in various real-world scenarios. Students should learn how to break down complex problems, identify relevant principles and equations, and apply appropriate problem-solving strategies to find solutions. • Understanding the nature of scientific knowledge: Physics courses often emphasize the nature of scientific knowledge, including its provisional and empirical nature. Students should develop an appreciation for the scientific method, the role of evidence and experimentation, and the process of scientific inquiry. • Analyzing and interpreting data: Physics involves analyzing experimental data and interpreting the results to draw meaningful conclusions. Students should learn how to analyze graphs, interpret experimental data, and assess the uncertainties and limitations of measurements. • Understanding the interdisciplinary nature of physics: Physics has connections with various other disciplines, such as mathematics, engineering, chemistry, and astronomy. Students should develop an understanding of how physics relates to and influences these other fields. • Developing communication skills: Physics requires clear and effective communication of scientific ideas. Students should learn to communicate their findings, explanations, and reasoning through written reports, oral presentations, and scientific discussions. • Appreciating the applications of physics: Physics has numerous practical applications in everyday life, technology, and various industries. Students should gain an appreciation for the real-world applications of physics and its impact on society, such as in areas like energy, transportation, telecommunications, and medicine.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. 1- Mechanics: Newton's laws of motion ,Forces and motion ,Energy, work, and power, Momentum and collisions , Circular motion and gravitation, Fluid mechanics Thermodynamics: Laws of thermodynamics , Temperature and heat ,Thermal properties of matter ,Heat transfer mechanisms , Thermodynamic processes.20h 2- Waves and Optics: Wave properties and characteristics ,Wave motion and superposition, Sound waves and their properties, Geometric optics (reflection, refraction, lenses), Interference and diffraction of light .20h 3- Electricity and Magnetism: Electric charge and electric fields, Electric potential and capacitance ,Electric current and circuits ,Magnetic fields and forces ,Electromagnetic induction, AC and DC circuits.20h 4- Applied Physics: Applications of physics in various fields ,Properties of material, Semiconductor devices, Lasers and their applications.11h

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Active Learning: Engage in hands-on activities, experiments, and problem-solving exercises. This approach allows you to apply the theoretical concepts to real-world situations, reinforcing your understanding. Conceptual Understanding: Focus on grasping the fundamental concepts of physics rather than just memorizing formulas. Build a strong foundation by understanding the underlying principles and how they relate to various phenomena. Visualization: Physics often involves abstract concepts and mathematical representations. Visualize these concepts through diagrams, graphs, and animations to aid in comprehension. Online simulations and interactive resources can be particularly helpful. Practice and Problem-Solving: Regularly practice solving physics problems to reinforce your understanding and improve your problem-solving skills. Start with simple problems and gradually progress to more complex ones. Collaborative Learning: Form study groups or join online forums where you can discuss and solve physics problems with peers. Explaining concepts to others and engaging in discussions can enhance your understanding and provide different perspectives. Teaching Strategies: Conceptual Approach: Emphasize conceptual understanding rather than focusing solely on mathematical equations. Help students connect physics concepts to their everyday experiences to enhance their engagement and interest. Active Learning Techniques: Incorporate hands-on experiments, demonstrations, and interactive activities in your lessons. Encourage students to actively participate and discover concepts on their own. Real-World Applications: Highlight the practical applications of physics in various fields such as engineering, medicine, and technology. Relate the concepts to real-life examples to make them more relevant and relatable to students. Use Visual Aids: Utilize visual aids such as diagrams, models, and multimedia resources to make abstract concepts more tangible. Visual representations can help students grasp complex ideas more easily. Formative Assessment: Regularly assess student understanding through quizzes, short assignments, and class discussions. Provide feedback and address misconceptions to guide students towards a deeper understanding of the subject. Encourage Questions: Create a supportive environment where students feel comfortable asking questions. Encourage critical thinking and curiosity by addressing queries and fostering discussions in the classroom.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	79	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	5.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	71	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	4.7
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, 10	
	Assignments				
	Projects / Lab.	1	30% (10)	Continuous	
	Report				
Summative assessment	**Midterm Exam**	2 hr	10% (10)	10	
	Final Exam	2hr	50% (50)	16	
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction to Physics Course overview, syllabus review, and introduction to scientific method Measurement, units, and significant figures Introduction to vectors and vector operations
Week 2	Kinematics : Motion in one dimension: position, velocity, and acceleration Motion in two dimensions: projectile motion

Week 3	Newton's Laws of Motion : Newton's first law: Inertia, Newton's second law: Force, mass, and acceleration , Newton's third law: Action and reaction
Week 4	Applications of Newton's Laws , Friction and drag forces , Circular motion and centripetal force
Week 5	Work, Energy, and Power , Work and energy ,Kinetic energy and potential energy Conservation of mechanical energy , Power and efficiency
Week 6	Momentum and Collisions , Linear momentum and impulse , Conservation of linear momentum Collisions: elastic and inelastic collisions
Week 7	Mid-term Exam .
Week 8	Rotational Motion and Torque, Rotational kinematics and dynamics, Moment of inertia Torque and rotational equilibrium
Week 9	Oscillations and Simple Harmonic Motion ,Simple harmonic motion and Hooke's law Energy in simple harmonic motion , Pendulums and springs
Week 10	Waves and Sound , Wave characteristics: wavelength, frequency, and speed Types of waves: transverse and longitudinal , Sound waves and the speed of sound
Week 11	Optics: Reflection and refraction of light , Mirrors and lenses Ray diagrams and image formation
Week 12	Electromagnetism: Electric charge and electric fields ,Electric potential and potential difference, Electric current and resistance ,Ohm's law and electric circuits
Week 13	Magnetism: Magnetic fields and forces, Magnetic induction and electromagnetic induction Electromagnetic waves
Week 14	Properties of fluids, Pressure and Pascal's principle, Archimedes' principle and buoyancy Fluid flow and Bernoulli's principle
Week 15	Review and Applications
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Introduction to the Laboratory: Lab safety procedures and guidelines, Introduction to

	laboratory equipment and measurements , Familiarization with experimental setups and data collection techniques
Week 2	Lab 2: Verification of Newton's laws of motion using pulley systems
Week 3	Lab 3: Measurement of temperature using thermometers
Week 4	Lab 4: Determination of specific heat capacity of a substance
Week 5	Lab 5: Measurement of the speed of sound using resonance tubes or other methods
Week 6	Lab 6: Measurement of electrical quantities (current, voltage, resistance)
Week 7	Lab 7: Verification of Ohm's law and Kirchhoff's laws

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	"University Physics" by Young and Freedman (2021)	Yes
Recommended Texts	"Fundamentals of Physics" by Halliday, Resnick, and Walker (2021)	yes
Websites	https://www.khanacademy.org/science/physics https://www.physicsclassroom.com	

Grading Scheme
مخطط الدرجات

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

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**chemical safety and security**			**Module Delivery**	
Module Type	**Basic**			☒ **Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	COS-1104				
ECTS Credits	5				
SWL (hr/sem)	125				
Module Level	1		**Semester of Delivery**	2	
Administering Department	Type Dept. Code		**College**	Type College Code	
Module Leader	Asstabraq Mohsin Yasir		**e-mail**	Asstabraq@mu.edu.iq	
Module Leader's Acad. Title	Lecture		**Module Leader's Qualification**		
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	12/02/2024		**Version Number**	1.0	

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

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

Module Aims أهداف المادة الدراسية	This semester aims to study the basic scientific concepts of chemical safety and security, acquire the necessary knowledge in how to deal with chemicals, know the appropriate methods to avoid risks, how to deal with chemical laboratory accidents, and know the appropriate methods for storing different chemicals.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**General Chemical Safety Guidelines** • Maintain an organized and orderly facility. • Communicate hazards to everyone in the facility. • Follow basic safety procedures. • Use engineering controls. • Use PPE as needed or required. • Follow requirements for high hazard chemicals. • Prepare for accidents and emergencies.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. **Part A – chemical safety and security** Promoting chemical safety and security by providing tools and knowledge to mitigate the risks arising from chemical accidents and potential misuse of toxic chemicals. Keep your hands away from your face, eyes, mouth, and body while using chemicals(10 hrs). Food and drink, open or closed, should never be brought into the labora- tory or chemical storage area. Never use laboratory glassware for eating or drinking purposes. Do not apply cosmetics while in the laboratory or storage area(10 hrs). **Part A – keep laboratory chemicals** Chemicals should be stored in accordance with the manufacturer's recommended temperature and humidity level. Chemicals should not be stored near heat sources, such as steam pipes or laboratory ovens(10 hrs). Chemicals should never be stored in direct sunlight. Chemicals should be dated when received and when opened(10 hrs). Studying the types of accidents that occur in laboratories, studying the causes of laboratory fires and how to deal with them, studying appropriate methods for handling and storing chemicals(12 hrs).

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 thinking skills. Lectures will deliver core content; providing students with the opportunity to acquire the information to enhance their knowledge and understanding

	of basic undergraduate Safety and chemical security. This will be complemented by group discussions and tutorials to allow students to apply this learning to specific example problems. Directed study provides students with the opportunity to undertake guided reading and to develop their own portfolio of learning to enhance transferable skills and knowledge.

Student Workload (SWL)
الحمل الدراسي للطالب

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	77	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Module Evaluation
تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	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 hr	10% (10)	7	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

	Material Covered
Week 1	General precautions for safety in chemical laboratories
Week 2	Hazards in chemical laboratories
Week 3	Injuries in chemical laboratories

Week 4	Safety precautions for experiments that require heating
Week 5	Safety precautions when handling glassware.
Week 6	Safety precautions when handling compressed gas cylinders.
Week 7	Safety precautions after completing the laboratory.
Week 8	Proper ways to dispose of chemical waste.
Week 9	Safety precautions when storing chemicals.
Week 10	Safety precautions when transporting chemicals.
Week 11	Types of fires inside the laboratory.
Week 12	Appropriate equipment for extinguishing all types of fires.
Week 13	First aid for chemical burns to the eye.
Week 14	First aid for chemical burns to the skin and eye.
Week 15	First aid in cases of poisoning.
Week 16	Preparatory week before the final Exam.

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

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	المخاطر الكيميائية والامان كوركيس عبد الله ادم ويوسف زورا يوسف	Yes

Recommended Texts	السلامة في الختبرات والمصانع الكيميائية ابراهيم بن صالح المعتاز ومحمد بن ابراهيم الحسن	No
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.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**حقوق الانسان والديمقراطية**			**Module Delivery**	
Module Type	**S**			☒ **Theory** ☒ **Lecture** **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	UOM-1209				
ECTS Credits	**2.00**				
SWL (hr/sem)	**50**				
Module Level		UGI	**Semester of Delivery**		1
Administering Department		Type Dept. Code	**College**	Type College Code	
Module Leader	Samar abdullah Hwaidi		**e-mail**	samar.abdullah@mu.edu.iq	
Module Leader's Acad. Title			**Module Leader's Qualification**		
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name		Name	**e-mail**	E-mail	
Scientific Committee Approval Date		13/02/2024	**Version Number**		1.0

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	**1- تعريف الطالب بالديمقراطية وحقوق الانسان والاسس الصحيحة لهما من اجل تشكيل وعي مناسب لهذا النظام السياسي المتطور** **2- دراسة مفهوم الديمقراطية وحقوق الانسان من خلال معرفة اسسها واشكالها وعناصرها ومقوماتها مع دراسة اهم التجارب الديمقراطية في دول العالم**
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	-1ان يكون الطالب ملما بمعرفة اسس النظام الديمقراطي - 2- أن يكون يمتلك الثقافة الجيدة للتمييز بين انواع الديمقراطيات 3- أن يمتلك معلومات جيدة حول الية الانتخابات في الدول الديمقراطية - 4- ان يكون الطالب على اطلاع بحقوق الانسان وحرياته الاساسية
Indicative Contents المحتويات الإرشادية	1-حقوق الانسان , حق الحياة, حرية التفكيروالاعتقاد, حرية الراي والتعبير,حقوق المراة في الاسلام (ساعة10) 2- مراحل الاعتراف الدولي بحقوق الانسان(10ساعة) 3- اللجنة الدولية لصليب الاحمر , منظمة العفو الدولية, منظمة مراقبة حقوق الانسان(10 ساعة) 4- نظام الحزب الواحد , نظام الحزبين , نظام الاحزاب المتعددة(10 ساعة) 5- الدمقراطية المباشرة شبه المباشرة,الدمقراطية النيابية ,الدمقراطية الليبرالية 12(ساعة)

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	ب –الأهداف المهاراتية الخاصة بالمادة تقارير حول النظام الديمقراطية -1 ب مناقشات اثناء المحاضرة حول النظام الديمقراطي -2ب ب – 3- شرح اهم حقوق الانسان التي ينبغي ان يتمتع بها

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	3.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	27	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1.8
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 hr	10% (10)	7	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	مفهوم حقوق الانسان تعريف الحق
Week 2	حقوق الانسان في الاديان والشرائع السماوية حقوق الانسان في الاسلام
Week 3	الاعتراف الدولي بحقوق الانسان
Week 4	نشوء المنظمات غير الحكومية ودورها في ميادين حقوق الانسان

	اللجنة الدولية للصليب الاحمر منظمة العفو الدولية منظمة مراقبة حقوق الانسان المنظمة العربية لحقوق الانسان
Week 5	ديمقراطية الاحزاب – التداول السلمي والشرعي للسلطة
Week 6	المساواة السياسية – احترام مبدأ الاغلبية وجود دولة القان
Week 7	انماط الديمقراطية – الديمقراطية المباشرة – الديمقراطية شبه المباشرة
Week 8	الديمقراطية النيابية – الديمقراطية التشاركية – الديمقراطية الليبرالية
Week 9	الديمقراطية التوافقية – ديمقراطية الاغلبية ديمقراطية الكثرة
Week 10	الديمقراطية التفويضية – الديمقراطية الاجتماعية الديمقراطية الصناعية – الديمقراطية التداولية
Week 11	فصل السلطات – السلطة التنفيذية
Week 12	السلطة التشريعية – السلطة القضائية
Week 13	— النظام الحزبي
Week 14	الديمقراطية في العراق – النظام الحزبي في العهد الملكي
Week 15	تطور الحياة النيابية – الملك
Week 16	التحضير ماقبل الامتحان النهائي

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

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

Learning and Teaching Resources

مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	**كتاب الديمقراطية مفاهيم وتجارب للدكتور حسن لطيف الزبيدي والاستاذ نعمة محمد العبادي**	Yes
Recommended Texts		No
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.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	English language I			**Module Delivery**	
Module Type	S			☒**Theory** ☒**Lecture** **Lab** ☐**Tutorial** ☐**Practical** ☐**Seminar**	
Module Code	UOM-12112				
ECTS Credits	2				
SWL (hr/sem)	50				
Module Level		UGI	**Semester of Delivery**		2
Administering Department		Type Dept. Code	**College**	Science	
Module Leader	Asmaa Khadim Sager		**e-mail**	wafamahdi@mu.edu.iq	
Module Leader's Acad. Title		Ass.lecturer	**Module Leader's Qualification**		MSc
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date		13/02/2024	**Version Number**		1.0

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

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

Module Aims أهداف المادة الدراسية	This course is designed to introduce students to English language
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	• By the end of the module the student will be able to: • Understand that the introduction and review English language. • Distinguish between skills in the English language as in reading, listening and writing as well as pronunciation. • The most trusted English course A perfectly-balanced syllabus with extensive resources at level one for students • In-depth treatment of grammar • Integrated skills throughout Full support in English for the true beginner Beginner for lesson preparation and in-class support • Use evidence from skills in the English language as in reading, listening and writing as well as pronunciation Recognize key research questions across the English language discipline. • focuses on the appropriate greetings to use at different times of day, along with other simple phrases used in different everyday situations. 1 Focus attention on the photos and the gapped conversations. Use the photos, mime, and simple clocks on the board to explain that the situations show different times of day. Get two students to read out conversation 1, including the example. Write the complete conversation on the board and point out that Good morning is crossed out from the expressions in the box. Students continue completing the conversations, working in pairs and using the photos to help. Monitor and help, using the photos to help deal with any vocabulary queries.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: • Distinguish between skills in the English language as in reading, listening and writing as well as pronunciation.20h • Use evidence from skills in the English language as in reading, listening and writing as well as pronunciation Recognize key research questions across the English language discipline.17h

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Lectures will deliver core content; providing students with the opportunity to acquire the information to enhance their knowledge and understanding of basic undergraduate-level English language. This will be complemented group discussions and tutorials to allow students to apply this learning to specific exemplar problems. Directed study provides students with the opportunity to undertake guided reading and to develop their own portfolio of learning to enhance transferable skills and knowledge. Assessment 1: You will be given a search task that will require you to use English language. You will produce a fully referenced written report on your search results.

	This exercise measures

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	4.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	37	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2.4
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	5% (5)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	5% (5)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	20% (20)	Continuous	
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	**Midterm Exam**	1 hr	20% (20)	7	LO # 1-7
	Final Exam	3hr	40% (40)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	**Introduction and review to English language**
Week 2	**Introduction to parts of speech**
Week 3	**Sentence patterns**
Week 4	**Reading comprehension and structure (selected scientific passages general to all specialisations)**

Week 5	**Science and technology -simple present**
Week 6	**passive voice is a way of writing sentences so that the subject has the action 'done' to it – the object of the sentence comes first. The passive voice can be useful for making writing sound more formal and objective by focusing on the result of an action rather than the person doing the action.**
Week 7	**Scientific attitudes - simple past - test**
Week 8	**Conversation (from daily Life)**
Week 9	**Meeting people - taking about your gob**
Week 10	**Selected topics from internet to be transited by students**
Week 11	**Writing technical Reports**
Week 12	**Purpose phrases – test**
Week 13	**Word order**
Week 14	**Final exame**
Week 15	

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	**- Oxford Headway Plus/ Beginner students** **- Oxford Headway Plus/ Beginner workbook**	**Yes**
Recommended Texts		**No**
Websites	**https://www.amazon.com/english+grammar**	

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.