Academic Program Description Form

University Name: Al-Nahrain

Faculty/Institute: Sciences

Scientific Department: Forensic science

Academic or Professional Program Name: Forensic science

Final Certificate Name: Forensic Science

Academic System: Bologna

Description Preparation Date: 22/9/2024

File Completion Date: 20/4/2024

Signature:

Head of Department Name:
Dr. Ibrahim A. Sadiq

Date: 28/4/2025

Signature:

Scientific Associate Name:
Manaf Adnan

Date: 28/4/2025

The file is checked by: Dr. Otooba Nadhem Hanbi
Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date: 4.5.2025

Signature:

جامعة النهرين كلية العلوم
قسم الادلة الجنائية

Approval of the Dean

Prof. Dr. Asmaa H. Mohammed

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Mechanic physics**			**Module Delivery**	
Module Type	**Basic**			☐ **Theory** ☒ **Lecture** ☒ **Lab** ☒ **Tutorial** ☒ **Practical** ☒ **Seminar**	
Module Code	**CREQ1111**				
ECTS Credits	**5**				
SWL (hr/sem)	**150**				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Forensic Science		**College**	**College of Science**	
Module Leader	Omar adnan jasim		**e-mail**	Omar.a.jasim@nahrainuniv.edu.iq	
Module Leader's Acad. Title	lecture		**Module Leader's Qualification**	PH. D	
Module Tutor	Omar Adnan Jassim		**e-mail**	Omar.a.jasim@nahrainunvi.edu.iq	
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	8/11/2023		**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 Aims	1. To describe the evolution of physics science and the relation between physics and forensic science. 2. To develop problem solving skills and understanding of mechanic concepts through the application of techniques. 3. To provides a link between the Facts and the concepts that the student study and his daily community life. 4. To describe the projectile terms in forensic science and its application. 5. To describe the difference between the vector quantity and scaler quantity. 6. To explain the relation between work, energy, and power 7. To understanding of sound and wave motion and its application in evidence.
Module Learning Outcomes	Upon completion of the course, students should be able to: 1. clarify the relationship between science and technology in science eld and its elect on development. 2. and linking it to practical life. 3. gives the student methodology of scientific thinking and moving him from the basic way of 4. learning to a way full of fun and motivation. 5. trying to train the student for discovering through developing of the monitoring and analyzing. 6. skills. 7. gives the student life skills and applicable scientific capabilities. 8. develop the concept of modern ways in maintaining the environmental equilibrium practically, and globally. 9. Use the mechanics physics in forensic science.
Indicative Contents	Indicative content includes the following. In Our practical life we need to indicate the location of an object whether it is static Or moving, and to determine the location of that object we use what is called "coordinates". There are several types of coordinates that we can apply. as "Rectangular Coordinates" and "polar coordinates". and study the benefit of vector application in our life. [6 hrs] Mechanics is one of the branches in physics that studies the motion, it include two main sections are (Kinematics) a science that describes the objects motion ignoring what causes the motion. (Dynamics) science that cares about Ine causes of motion such as Force and Energy. where first we will get to know the concepts of location, displacement, velocity and acceleration of objects for motion in one dimension and in two dimensions with some appellations) [10 hrs] The scientist physical Isaak Newton built his theory about motion through three laws that are known as Newton's Laws of Motion, where he described the forces influence on the objects motion by these laws and know the difference between the mass and weight. [6 hrs]

	While solving an exercise in motion science (dynamic) it is important to Analyze the forces influencing the object or the system in a correct way, so the object. (Static or dynamic) will be Insulated from its surrounding, then every Foree from the forces influencing it will be clarified, and this method is called free body diagram. [4 hrs] concept of equilibrium, tensional equilibrium, rotational equilibrium, Torque, torque is a vector, couple, center of mass, center of gravity. [10 hrs] Work, Power, Energy and Momentum and type of energy [6 hrs] Clarify the periodic motion, versional motion, simple harmonic motion, the relation between uniform circular motion and simple harmonic motion, simple pendulum, damping simple harmonic motion, wave motion [10 hrs]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Assessment is based on hand-in assignments, written exam, Case study, Quizzes, seminars, Practical testing, lab, and Online testing.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem)	75	**Structured SWL (h/w)**	5
Unstructured SWL (h/sem)	75	**Unstructured SWL (h/w)**	5
Total SWL (h/sem)	150		

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	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	15% (15)	Continuous	
	Report	1	5% (5)	13	LO # 5, 8 and 10
Summative assessment	**Midterm Exam**	2 hr	15% (15)	7	LO # 1-7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري محتوى كل اسبوع يجب ان يغطي الوقت المحدد

	Material Covered
Week 1	Introduction, Vectors, coordinate system and properties of vectors.
Week 2	Analysis of vectors and multiplication of vectors
Week 3	Linear motion, acceleration, linear equation motion with regular acceleration and free fall objects.
Week 4	Motion in two dimensions (motion in plane), projectile and motion in three dimensional.
Week 5	Laws of motion, inertia and mass, newton's Law of motion.
Week 6	free body diagram and Friction
Week 7	Equilibrium, Torque, couple, and center of mass.
Week 8	Work, power, and energy.
Week 9	Momentum and impulse
Week 10	Circular Motion
Week 11	Rotational Motion.
Week 12	Work and Power in rotational motion, and angular momentum
Week 13	Wave, Vibrational Motion and Sound
Week 14	Beats, sound characteristics, ultrasonic waves, Doppler effect
Week 15	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Lab 1: :Instructions to students, Basic personal needs and other requirements. Writing the account of an experiment, Introduction to graphical representation of experimental

	data, Errors, their determination and minimization, least square fitting. Units.
Week 2	Lab 2: Forces and Equilibrium
Week 3	Lab 3: Spiral Spring and Hooks Law
Week 4	Lab 4: Spiral Spring: Determination of force constant and effective mass of a spring.
Week 5	Lab 5: Spiral Spring: To deduce the acceleration of free fall from a combination of the static and dynamic experiments.
Week 6	Lab 6: Simple Pendulum and determination of gravitational acceleration (g).
Week 7	Lab 7: The Cantilever experiment
Week 8	Lab 8: The bifilar suspension: Variation of the period of oscilation with the distance between the vertical suspension threads.
Week 9	Lab 9: The bifilar suspension: Variation of Oscillation with length of the suspension threads.
Week 10	Exam

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	**Available in the Library?**
Recommended Texts	➢ Theory and Problems of College Physics By Frederick Bueche and Eugene Hecht. ➢ Fundamental of Physics by Halliday, Resnick and Walker	Yes

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
Al-Nahrain University
College of Science
Physics Department

MODULE DESCRIPTOR FORM
نموذج وصف المادة الدراسية

Module Information
معلومات المادة الدراسية

Module Title	INTRODUCTION TO CHEMISTRY	**Module Delivery**	
Module Type	CORE		☒**Theory** ☒**Lecture** ☒**Lab** ☒**Tutorial** ☐**Practical** ☐**Seminar**
Module Code	CREQ1103		
ECTS Credits	6		
SWL (hr/sem)	150		
Module Level	1	**Semester of Delivery**	1
Administering Department	Forensic Science	**College**	**College of Science**
Module Leader	Dr. Marwa Ibrahim khalil	**e-mail**	Marwaibrahim2007@outlook.com
Module Leader's Acad. Title	Assistant Professor	**Module Leader's Qualification**	Ph.D.
Module Tutor		**e-mail**	
Peer Reviewer Name	ecturer Rash Alwan ecturer Esraa Salah Lecturer Mena Safaa	**e-mail**	
Review Committee Approval	5\5\2025	**Version Number**	

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	The primary objective of this course is to acquire basic concepts, principles, and techniques of modern analytical chemistry that would empower students with an analytical mind set and the abilities to solve diverse analytical problems in an efficient and quantitative way that conveys the importance of accuracy and precision of the analytical results. On successful completion of this course, students will be able: 1. To develop an understanding of the range and uses of analytical methods in chemistry. 2. To establish an appreciation of the role of chemistry in quantitative analysis 3. To develop an understanding of the broad role of the chemist in measurement and problem solving for analytical tasks. 4. To provide an understanding of chemical methods employed for elemental and compound analysis. 5. To provide experience in some scientific methods employed in analytical chemistry. 6. To develop some understanding of the professional and safety responsibilities residing in working on chemical analysis.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	After attending this course in Analytical Chemistry, **t**he students have to be able to develop a basic knowledge of main principles of analytical methods as follows 1. To understand qualitative and quantitative properties of solutions, understanding all kinds of analytical concentrations. 2. To describe and explain chemical equilibriums of acid base reactions 3. To know basic definitions, properties and nomenclature of alkan, alkenes, alcohol etc. 4. Understanding the principles of gravimetric and specrochemical methods

	5. Understanding the acid/base reactions and titration methods Effectively teach practical science through the context of analytical chemistry Design problem solving activities to challenge student understanding of analytical chemistry Understanding the safe handling of chemicals and the principles apparatus and unit operation in analytical chemistry
Indicative Contents المحتويات الإرشادية	
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The main strategy that will be dopted in delivering this module is to encourage students' participation in the exercises presented during the class, home works and quizzes. Furthermore, encourage the student participation in panel discussion.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	102	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	98	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	200		

Module Evaluation
تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 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	Chemicals, Apparatus, and Unit Operations of Analytical Chemistry
Week 2	Concentrations of solutions: molarity, normality, part per million and percentage
Week 3	Aqueous solutions: solubility and Chemical Equilibria
Week 4	
Week 5	Gravimetric method of analysis
Week 6	Acid and Bases: pH buffer acid-base and titration
Week 7	Introduction to Spectrochemical Methods
Week 8	The nature of chelation: Equilibria in solution of chelating ligands. Conditions for chelation.
Week 9	Med exam
Week 10	Organic Chemistry: Alkanes
Week 11	Alkenes and Alkynes, Nomenclature of Alkenes and Alkynes
Week 12	Aromatic compounds: Nomenclature of Benzene Derivatives
Week 13	Structure and Properties of Alcohols: Ethers: Thiols
Week 14	Mid exam
Week 15	**Preparatory Week**
Week 16	**Final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Safety rules and Laboratory equipment's
Week 2	Lab 2:Preparation solution of 0.1 N NaOH
Week 3	Lab 3:Preparation solution of 0.1 N HcL
Week 4	Lab 4:Titration of strong acid and strong base
Week 5	Lab 5:PH meter
Week 6	Lab 6:Solubility
Week 7	Lab 7:Detection of primary, secondary and tertiary alcohols

Learning and Teaching Resources مصادر التعلم و التدريس		
	Text	**Available in the Library?**
Required Texts	1. Fundamental of analytical chemistry: Nine edition, Skoog	Yes
Recommended Texts	Fundamentals of chemistry: Fourth Edition, David E. Goldberg	No
Websites	Different 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.

ملاحظة: هذا النموذج تم وضعه وتقديمه من قبل مديرية ضمان الجودة في وزارة التعليم العالي والبحث العلمي

	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Science Physics Department	

MODULE DESCRIPTOR FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**DEMOCRACY AND HUMAN RIGHTS**			**Module Delivery**	
Module Type	BASIC			☒**Theory** ☒**Lecture** ☐**Lab** ☐**Tutorial** ☐**Practical** ☒**Seminar**	
Module Code	**URDEM**				
ECTS Credits	2				
SWL (hr/sem)	50				
Module Level			**Semester of Delivery**	1	
Administering Department			**College**		
Module Leader	Mohannad emad		**e-mail**	Mohannad.emad@nahrainuniv.edu.iq	
Module Leader's Acad. Title			**Module Leader's Qualification**	Ph.D	
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Review Committee Approval			**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	The goal of studying human rights and democracy is to enhance understanding and awareness of human rights issues and the fundamental principles of democracy. There are several key objectives in studying this subject: 1. Understanding human rights: The study of human rights aims to familiarize you with the core concepts of human rights and their fundamental value in society. You will learn about the history and legal development of human rights, as well as the international treaties and agreements related to this subject. 2. Awareness of the core principles of democracy: You will become acquainted with the concept of democracy and its core values, including the rule of law, citizenship rights, and political participation. You will also learn about different systems of governance and how democratic principles are applied in different societies. 3. Familiarity with current challenges: You will learn about current challenges and issues in the field of human rights and democracy. You will study issues related to discrimination, social justice, women's rights, minority rights, children's rights, and refugee rights, as well as how to address these challenges within a democratic framework. 4. Application of concepts to real-world situations: You will learn how to apply the concepts and principles studied in human rights and democracy to practical situations. You will study the various roles of human rights organizations and democratic institutions, and how to work towards promoting human rights and enhancing democracy in societies. 5. Development of critical and analytical skills: You will learn how to analyze issues related to human rights and democracy and evaluate the legal, ethical, and political contexts surrounding them. You will practice formulating strong arguments and providing constructive criticism of unjust policies and practices. By studying human rights and democracy, you will acquire the necessary knowledge and understanding to contribute to the promotion of human rights and democracy in society and work towards creating positive change.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	The University of Al-Nahrain works through teaching the subject of human rights and democracy to promote education, awareness, and train students on the importance of active participation in various aspects of public life. This

	includes promoting respect for the principles of human rights, active engagement in political and cultural life, and fostering values, beliefs, and positions that encourage all students to support their own rights and the rights of others. It also facilitates an understanding of the shared responsibility of this ,group in making human rights a lived reality, equipping them with knowledge skills, and attitudes that enable them to comprehend these rights and adhere to them
Indicative Contents المحتويات الإرشادية	-Understanding the concept of rights and the concept of human beings, both linguistically and terminologically, and understanding the concept of human rights and studying the legal personality of humans, as well as the characteristics of natural persons. - Understanding the historical development of the idea of human rights in ancient and medieval eras, and the concept of human rights in divine scriptures. - Studying the sources of local and international human rights. - Studying the guarantees of human rights and understanding constitutional and judicial guarantees, as well as guarantees of human rights in Islam. - Understanding the role of organizations in human rights at the regional and international levels. - Studying the impact of globalization on human rights. - Studying the concept of democracy, its evolution, definition, and dimensions. - Studying representative democracy and understanding the representative system and its legal nature. - Understanding the concept of elections and its legal adaptation. - Understanding the organization of elections, including the delineation of electoral districts, electoral lists, candidates, election campaigns, and voting. - Studying electoral systems and understanding direct elections, indirect elections, individual elections, and list-based elections. -Understanding the advantages and disadvantages of democracy
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1. POWERPOINT 2. Writing reports 3. Online learning 4. Field visits

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	2.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1.1
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
	Seminar	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	**The concept of human rights**
Week 2	**Human rights in ancient civilizations**
Week 3	**Human rights in divine laws and religions**
Week 4	**Human rights resources**
Week 5	**Human rights guarantees and means of protecting them**
Week 6	**The role of organizations in protecting human rights**
Week 7	**Globalization and human rights**
Week 8	**The concept of democracy**
Week 9	**Representative democracy.**
Week 10	**The concept of election and its legal adaptation**
Week 11	**Organizing the election process**

Week 12	**Election systems**
Week 13	**Formation of the electorate**
Week 14	**Obstacles and Foundations of Good Governance**
Week 15	**Disadvantages and advantages of democracy**
Week 16	**Final Exam**

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

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Maher Saleh Allawi Al-Jubouri, Human Rights, Children and Democracy, The Law Library, 2009	yes
Recommended Texts	-Dr.. Hamid Hanoun Khaled, Human Rights, Al 2015 ,Sanhouri Library	no
Websites		

APPENDIX:

GRADING SCHEME مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
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	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Science Forensics Science Department	

MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	English Language			**Module Delivery**	
Module Type	BASIC			☒**Theory** ☐**Lecture** ☐**Lab** ☐**Tutorial** ☐**Practical** ☐**Seminar**	
Module Code					
ECTS Credits	2				
SWL (hr/sem)	50				
Module Level		1	**Semester of Delivery**		1
Administering Department		Department of Forensic Science	**College**	Science	
Module Leader	Lecturer Israa Namh Abdula		**e-mail**	Israa.asultani@nahrainuniv.edu.iq	
Module Leader's Acad. Title		Assist. Lecturer	**Module Leader's Qualification**		M.A.
Module Tutor	None		**e-mail**	None	
Peer Reviewer Name		None	**e-mail**	None	
Review Committee Approval			**Version Number**		

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. Developing Basic Communication Skills: - Enable students to express themselves effectively in everyday situations. - Focus on building a foundation in speaking and listening. 2. Enhancing Reading Comprehension: - Improve students' ability to understand and interpret written texts. - Introduce strategies for effective reading comprehension. 3. Strengthening Writing Proficiency: - Develop students' writing skills across different genres (e.g., essays, emails, reports). - Emphasize grammar, sentence structure, and vocabulary usage. 4. Expanding Vocabulary: - Introduce new words and phrases to broaden students' vocabulary. - Provide strategies for effective vocabulary acquisition and retention. 5. Grammar Mastery: - Ensure a solid grasp of essential grammar rules and structures. - Focus on practical application in spoken and written communication. 6. Listening Skills Development: - Improve students' ability to comprehend spoken English in various contexts. - Provide exposure to different accents and speaking speeds. 7. Critical Thinking through Discussions: - Encourage students to engage in discussions to develop critical thinking skills. - Promote the use of evidence and persuasive language in discussions. 8. Effective Presentation Skills: - Equip students with the skills to deliver clear and engaging presentations. - Focus on aspects such as organization, delivery, and visual aids.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Students will demonstrate the ability to initiate and sustain simple conversations in English. 2. Students will be able to ask and respond to basic questions related to personal information, daily activities, and immediate surroundings. 3. Students will exhibit improved reading comprehension by accurately summarizing and analyzing information from a variety of texts. 4. Students will produce well-organized written compositions with a clear introduction, body, and conclusion. 5. Students will apply correct grammar and sentence structures in spoken and written communication.

	6. Students will demonstrate improved listening comprehension across a range of accents and contexts 7. Students will actively participate in discussions, expressing and defending their opinions. 8. Students will deliver clear and organized presentations using appropriate language and visuals.
Indicative Contents المحتويات الإرشادية	Basic Communication Skills: • Greetings and introductions • Describing daily routines • Asking and answering simple questions Reading Comprehension: • Short stories and simple narratives • Comprehension exercises with questions Writing Proficiency: • Sentence structure and formation • Paragraph writing Vocabulary Expansion: • Everyday vocabulary • Academic vocabulary Listening Skills Development: • Listening to dialogues and conversations • Podcasts and audio materials
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	• Emphasize interactive and communicative activities to engage students actively in the learning process • Design tasks that require students to use English to accomplish specific goals, fostering language use in context. • Recognize and accommodate diverse learning styles and paces within the classroom. • Incorporate authentic materials like newspaper articles, blogs, or videos to expose students to real-life language use. • Implement ongoing formative assessments, such as quizzes, peer evaluations, and class discussions, to gauge student progress. • Provide constructive feedback on both spoken and written language, and encourage students to reflect on their learning experiences • Adapt lesson plans based on the evolving needs and interests of the students, allowing for flexibility in the teaching approach.

Student Workload (SWL) الحمل الدراسي للطالب			
SSWL (Structured SWL (h/sem)) الحمل الدراسي المنتظم للطالب خلال الفصل	32	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	18	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1.2
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**	1	10% (10)	5, 10	LO #1, 3, 5 and 8
	Assignments	1	10% (10)	4, 12	LO # 2, 4, 5 and 6
	presentation	1	10% (10)	3-14	
	Report	1	10% (10)	11	LO #4
Summative assessment	**Midterm Exam**	2 hr	10% (10)	7	LO # 1, 3, 7, and 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 the course, syllabus, and expectations.
Week 2	Unit One of the textbook “Hello”: Basic greetings and practice activities. Basic grammar
Week 3	Writing skills: the basics of writing a paragraph
Week 4	Unit Two of the textbook “Your World”: Vocabulary related to daily routines and countries’ names. Present simple tense for daily activities. Describing things using adjectives.
Week 5	Unit Three of the textbook “All About You”: Vocabulary related to professions, questions and negatives, and Social expressions.
Week 6	Unit Four of the textbook “Family and Friends”: Possessive Adjectives, Possessive (‘s), and (Adjective+noun) • Reading and Speaking. • Role-playing on-campus scenarios.

Week 7	Mid-term
Week 8	Unit Five of the textbook "The Way I Live": Uses of definite and indefinite articles, Adjectives + nouns. - Languages and Nationalities
Week 9	Unit Six of the textbook "Every day": Adverbs of frequency used with present simple tense. - Vocabulary related to travel and transportation. - Asking for and giving directions. - Role-playing travel scenarios.
Week 10	Unit Seven of the textbook "My Favourites": Reading and writing a postcard and an e-mail to a friend. Adjectives and their opposites.
Week 11	Unit Eight of the textbook "Where I live": Introduction to prepositions (prepositions of place and time)
Week 12	-Writing and talking about personal interests. -Group activity: planning a class event based on shared interests.
Week 13	Vocabulary related to health and daily activities. Expressions for discussing health. Role-playing doctor-patient scenarios.
Week 14	Listening Skill: Listening to a podcast, and class discussions
Week 15	**Preparatory Week for the final exam**
Week 16	**Final Exam**

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

Learning and Teaching Resources

مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	"New Headway Plus - Beginner", John and Liz Soars, 2014.	Yes
Recommended Texts		
Websites	www.youtube.com (short videos+ chosen movies)	

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.



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	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Science Forensic Science	

MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Thermodynamics**			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code					
ECTS Credits	**6**				
SWL (hr/sem)	**150**				
Module Level	2nd		**Semester of Delivery**	1	
Administering Department			**College**		
Module Leader	Dr.Soror Ali Mahdi		**e-mail**		
Module Leader's Acad. Title	Ass. Prof.		**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			**Version Number**	1.0	

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 Aims أهداف المادة الدراسية	1. The course aims to provide 2nd stage students with basic knowledge of thermodynamics. 2. To understand that everything related to energy and understand the concepts such as the first law of thermodynamics and the second law and its applications. 3. To enable students to access the science of thermodynamics by understanding how to correct engineering analysis and how to deal with laws, equations, illustrations and other data. 4. Enabling the student to be able to analyze, devise and draw conclusions. theory through the application of techniques 5. Follow-up of scientific development through the Internet and keeping pace with scientific development by setting up experiments synchronized with theoretical topics.
Module Learning Outcomes	1. Learning the basic concepts of thermodynamics and the properties of substances using property tables or property relations. 2. Understanding the different forms of energy, energy interactions by heat and work transfer, and the 1st law of thermodynamics. 3. Solving real world engineering problems related to energy by applying the 1st law thermodynamics to closed and open systems like piston-cylinder devices, turbines, and charging/discharging processes.

مخرجات التعلم للمادة الدراسية	4. Understanding the 2nd law of thermodynamics and quantifying the performance of heat engines, heat pumps and refrigerators, reversible and irreversible processes 5. Defining entropy, developing entropy change relations, and deriving the increase of entropy principle, 6. Performing 2nd law analysis of engineering processes by quantifying entropy generation. 7. Analyzing some basic thermodynamics cycles like the Otto, Diesel, Brayton cycles for power production and the vapor compression refrigeration cycle for cooling applications.
Indicative Contents المحتويات الارشادية	Indicative content includes the following. Part A -Thermodynamic systems

	Thermodynamic systems (closed and open),Thermodynamic properties and equilibrium, State of a system, state postulate for simple compressible substances, state diagrams, paths and processes on state diagrams, Concepts of heat and work, different modes of work, Concept of temperature [15 hrs]. Concept of energy and various forms of energy, Internal energy, enthalpy, Specific heats, First law applied to elementary processes, closed systems and control volumes, steady and unsteady flow analysis [13 hrs] Part B -Thermodynamic properties Thermodynamic properties of pure substances in solid, liquid and vapor phases, P-vT behaviour of simple compressible substances, phase rule [10hrs]. Thermodynamic property tables and charts, ideal and real gases, ideal gas equation of state and van der Waals equation of state, Law of corresponding states, compressibility factor and generalized compressibility chart [15 hrs] Part C: laws of thermodynamics Limitations of the first law of thermodynamics , Concepts of heat engines and heat pumps/refrigerators, Kelvin-Planck and Clausius statements and their equivalence, Reversible and irreversible processes, Carnot cycle and Carnot principles/theorems, Thermodynamic temperature scale, Clausius inequality and concept of entropy, Microscopic interpretation of entropy (The principle of increase of entropy) and (T-s diagrams), Second law analysis of control volume, Availability and irreversibility, Third law of thermodynamics [20 hrs].

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The main strategy in delivering this course is to encourage students to participate in thermodynamic problem solving, while simultaneously improving and expanding their critical thinking skills through training in the correct way of thinking to solve complex problems. This is achieved through classes and practical experiments matched with theoretical studies and by thinking about the type of scientific experiments that include some applications of thermodynamic laws that are of interest to students.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	78	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	72	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**150**		

Module Evaluation
تقويم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	4	10% (10)	2,6,10,12	LO #1, 2, 10 and 11
	Assignments	1	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	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction -Introduction to Thermodynamics -Thermodynamics System -Dimensions, Units & symbols , units system
Week 2	Properties of System -Thermodynamic Process -Intensive & extensive Variables -Specific Value, Mole -Independent & dependent properties
Week 3	Thermal Equilibrium, Temperature -Thermal & thermodynamic equilibrium -Zero Law -Thermometers -Temperature Scale
Week 4	Energy -Types and source of energy -Kinetic & potential energy -The conservation of energy
Week 5	Heat transfer and the specific heat capacity
Week 6	Equation sate and work
Week 7	1st law of thermodynamics and the internal energy function
Week 8	2nd law of thermodynamics and irreversible processes
Week 9	Carnot cycle
Week 10	Gibbs and Helmholtz free energy
Week 11	Entropy
Week 12	Enthalpy
Week 13	Maxwell equations
Week 14	3rd law of thermodynamics
Week 15	Nernast principle
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Measurement of Thermal Conductivity by Lee's Disc method.
Week 2	Lab 2: Specific Heat Capacity of liquid by cooling method Experiment
Week 3	Lab 3: Determination of the coefficient of apparent cubic expansivity of a liquid by Mathiessen' s sinker method.
Week 4	Lab 4: Entropy of system.
Week 5	Lab 5: Experiment to measure Specific Heat Capacity of a Metal by Method of Mixtures.
Week 6	Lab 6: Measuring the Specific Heat Capacity for Different material
Week 7	Lab 7:Coefficient of Linear Expansion of copper

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Fundamental of thermodynamics (6th edition) S. BORGNAKKE and VAN WYLEN	Yes
Recommended Texts	Thermodynamics: An Engineering Approach, 9th ed in SI Units Yunus A. Çengel, Michael A. Boles, M. Kanoğlu, McGraw-Hill Education.	No
Websites	https://www.tutorialspoint.com/gate_syllabus/gate_xe_thermodynamics_syllabus.htm	

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

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

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	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Science Forensic Science Department	

MODULE DESCRIPTOR FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية			
Module Title	organic chemistry	**Module Delivery**	
Module Type	CORE	☒**Theory** ☒**Lecture** ☒**Lab** ☒**Tutorial** ☒**Practical** ☒**Seminar**	
Module Code			
ECTS Credits	6		
SWL (hr/sem)	**150**		
Module Level		**Semester of Delivery**	1
Administering Department		**College**	
Module Leader	Dr Rasha Saad Jwad	**e-mail**	rasha.saad@nahrainuniv.edu.iq
Module Leader's Acad. Title	Assistant Professor	**Module Leader's Qualification**	PhD
Module Tutor	Saja Subhi Abbood	**e-mail**	saja@nahrainuniv.edu.iq
Peer Reviewer Name		**e-mail**	
Review Committee Approval		**Version Number**	

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. Equip students with a foundational understanding of organic chemistry. 2. Cover essential topics such as chemical bonding, structure, nomenclature of organic compounds, reactivity of basic functional groups and the chemistry of different functional groups. 3. Exploring molecules of biological significance. 4. Serve as a universal baseline of organic chemistry knowledge for incoming first-year students. 5. Construct the practical skills of organic chemistry for students.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. The student will be able to recognize and name different types of organic molecules based on their structure, functional groups, and systematic nomenclature rules. 2. Describe the bonding and shape of organic molecules: Understanding the types of bonds present in organic molecules (e.g., covalent bonds) and how these bonds influence the three-dimensional shape or geometry of the molecules. 3. Understanding the factors that influence the reactivity of organic molecules, such as the presence of functional groups, steric hindrance, and electronic effects. 4. Being able to describe the physical and chemical properties of different functional groups, as well as methods for preparing them and their typical reactions. 5. Being able to use the information about organic compound structure, bonding, reactivity, and functional groups to predict and explain the outcomes of organic reactions and to solve problems related to organic chemistry.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. 1. Structure and bonding in organic molecules: This covers the basics

	of molecular structure, including the shapes of organic molecules and the nature of chemical bonds within them. 2. Functional groups: Organic molecules are classified based on functional groups, which are specific arrangements of atoms within the molecule that confer characteristic chemical properties. 3. Nomenclature: Organic chemistry has a systematic way of naming compounds, which is essential for communication within the field. This includes the IUPAC (International Union of Pure and Applied Chemistry) naming system. 4. Isomerism: Organic molecules can exist as different isomers, compounds with the same molecular formula but different structural arrangements or spatial orientations, leading to distinct chemical properties. 5. Organic reactions: Understanding how organic reactions occur at the molecular level is fundamental to organic chemistry. 6. Stereochemistry: This branch of organic chemistry focuses on the spatial arrangement of atoms within molecules and how it influences the properties and reactivity of compounds. 7. Bioorganic chemistry: This interdisciplinary field explores the chemical processes occurring in living organisms, including the structures and functions of biological macromolecules like proteins, nucleic acids, and carbohydrates.
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The primary approach for introducing this unit will involve fostering student engagement through active participation in homework exercises, aiming to enhance and broaden their critical thinking abilities. This will be facilitated through class sessions and interactive tutorials, supplemented by the exploration of simple experiments designed to incorporate sampling activities tailored to students' interests.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	102	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	98	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	200		

Module Evaluation
تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 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	Introduction to organic chemistry: Hybridized Atomic Orbitals
Week 2	Acids and bases
Week 3	Saturated hydrocarbons
Week 4	Unsaturated hydrocarbons
Week 5	Alkyl halides
Week 6	Alcohols
Week 7	Amines
Week 8	Ethers
Week 9	**Mid Exam**
Week 10	Aldehydes and Ketones
Week 11	Carboxylic acids and their derivatives

Week 11	Carboxylic acids and their derivatives
Week 12	Aromatic compounds
Week 13	Phenols
Week 14	Bioorganic molecules
Week 15	**Final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Lab safety guide and laboratory glass wares
Week 2	Lab 2: Introduction to organic chemistry compounds
Week 3	Lab 3: Crystallization
Week 4	Lab 4: Liquid-liquid extraction
Week 5	Lab 5: Determination of melting point and boiling point
Week 6	Lab 6: TLC; Ink Investigation
Week 7	Lab 7: Iodine Fingerprint or Amino Acid Fingerprints
Week 8	Lab 8: identification of chemical compounds

Lab Staff:

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Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Bruice, Paula Yurkanis. (2014). Organic Chemistry, 7th ed. New Jersey: Pearson Education International, pages 1392.	Yes
Recommended Texts	McMurry, John E., (2016). Organic Chemistry, 9th ed., Cengage Learning, pages 1518.	No
Websites	https://www.khanacademy.org/science/organic-chemistry https://www.masterorganicchemistry.com/	

APPENDIX:

GRADING SCHEME مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
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	F – Fail	راسب	(0-44)	Considerable amount of work required
Note:				

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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية			
Module Title	**The concept of drugs and psychoactive substances**		**Module Delivery**
Module Type	**Core**		☒ **Theory** • ☒ **Lecture** • ☐**Lab** • ☐ **Tutorial** • ☐ **Practical** • ☒**Seminar**
Module Code			
ECTS Credits			
SWL (hr/sem)			
Module Level	1	**Semester of Delivery**	1
Administering Department	Forensic ScienceS	**College**	SCIENCE
Module Leader	Saif Kareem Abdul Hussein	**e-mail**	Alighost220@gmail.com
Module Leader's Acad. Title	Lecture Assist.	**Module Leader's Qualification**	M.Sc
Module Tutor		**e-mail**	
Peer Reviewer Name		**e-mail**	
Scientific Committee Approval Date		**Version Number**	1.0

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims **أهداف المادة الدراسية**	**The goal of studying drugs** 1. **Scientific Understanding:** Studying how drugs affect the body and mind, including understanding chemical, neurological, and psychological effects. 2. **Prevention and Treatment:** Identifying the factors that lead to drug use and addiction, and developing effective strategies for prevention and treatment of individuals suffering from addiction. 3. **Legislation and Policies:** Assisting governments and institutions in formulating policies and laws regulating drug use, including laws restricting illicit drugs and regulating medical drugs. 4. **Awareness:** Raising awareness within communities about the risks of drugs and their negative impacts on individuals and society, aiming to reduce usage rates. 5. **Medical Research:** Using certain drugs in the development of new medications, as some psychoactive substances may be useful in treating certain conditions like chronic pain or depression. Studying drugs contributes to reducing their spread and gaining a better understanding of their nature and effects, helping to protect public health and society.
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	1. **Scientific and Technical Understanding:** Understanding the definition of drugs, their types, and their effects on the body and mind, as well as their physical and psychological health impacts. It also involves discussing the social and economic consequences of drug use on individuals and communities. 2. **Prevention Strategies:** Developing skills and methods for preventing drug use, identifying the factors that lead to addiction, and creating prevention programs targeting young people and groups most at risk of substance abuse. 3. **Improving Policies and Laws:** Formulating effective policies based on scientific results that help establish evidence-based laws, such as regulating the use

	of drugs for medical purposes or preventing illegal drug trafficking. 4. **Community Awareness:** • **Increasing Public Awareness:** Raising awareness about the health and social risks of drugs, leading to a reduction in usage and addiction rates. • **Education in Schools and Institutions:** Implementing awareness programs in schools and universities to reduce drug prevalence among youth.
Indicative Contents **المحتويات الإرشادية**	1. **Guidance Contents:** The aim is to understand the concept of drugs and explain what drugs are, their types (such as natural drugs, synthetic drugs, and psychoactive substances), and how they are classified. It also focuses on enhancing personal and community protection from their harmful effects. 2. **Highlighting Factors Leading to Drug Use:** Focusing on the factors that may lead to drug use and the associated risks. Providing prevention tips, such as: • Strengthening the role of schools in raising awareness among students about the dangers of drugs through educational programs. 3. **Legislation and Laws:** Raising awareness about the laws governing drug use and the legal penalties for using or trafficking drugs. Using real-life stories of individuals who have experienced drug abuse as a means of education and awareness.

Learning and Teaching Strategies **استراتيجيات التعلم والتعليم**	
Strategies	• **Using Printed Media:** Utilizing printed materials such as brochures, posters, and pamphlets to raise awareness and provide educational content. • **Learning through Modern Technological Tools:** Using tablets, computers, software, and applications to enhance learning experiences and engagement. • **Online Learning and Using E-Learning Platforms:** Taking advantage of the internet and e-learning platforms for access to

	educational resources, courses, and interactive learning.

Student Workload (SWL)
الحمل الدراسي للطالب

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

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
	Seminar	1	10% (10)	13	LO # 5, 8 and 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	مقدمة عن مفهوم المخدرات
Week 2	انواع المخدرات وتصنيفها
Week 3	المخدرات الطبيعية)النباتية(
Week 4	الحشيش
Week 5	الافيون
Week 6	المخدرات الصناعية
Week 7	الهيروين
Week 8	الكوكايين
Week 9	المخدرات التخليقية
Week 10	الامفيتامينات
Week 11	عقاقير مهلوسة
Week 12	الباربيتولات
Week 13	اعراض تعاطي المخدرات
Week 14	دور المجتمع في الوقاية من المخدرات
Week 15	قانون المخدرات العراقي ومشروعية المتاجرة بالمخدرات

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	• "Drugs, Society, and Human Behavior" by Carl L. Hart and Charles Ksir • "The Science of Addiction: From Neurobiology to Treatment" by Carlton K. Erickson	لا
Recommended Texts	• Chitty, Mary. "The Drug Book: From Arsenic to Xanax, 250 Milestones in the History of Drugs." (2013): 122-122. مشرف، عبد الإله بن عبد الله. *المخدرات والمؤثرات العقلية: اسباب التعاطي واساليب المواجهة*. Vol. 505. Naif Arab University	لا

	(NAUSS), 2011. ظاهرة المخدرات في العراق بين الاتفاقات الاتفاقات الدولية والقانون الوطني /حسين عبدلله –ط1-بغداد 2022	
Websites	(Encyclopedia Britannica) الموسوعة الإلكترونية توفر مقالات حول المخدرات وأنواعها وتأثيراتها	

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 Al-Nahrain University College of Science Forensic Science Department	

MODULE DESCRIPTOR FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية			
Module Title	التحليل العقدي	**Module Delivery**	
Module Type	SUPLEMENT	☒**Theory** ☐**Lecture** ☒**Lab** ☒**Tutorial** ☐**Practical** ☐**Seminar**	
Module Code	CRCOMANA		
ECTS Credits	5		
SWL (hr/sem)	**125**		
Module Level		**Semester of Delivery**	1
Administering Department		**College**	Science
Module Leader		**e-mail**	Iman.a.hussain@nahrainuiv.edu.iq
Module Leader's Acad. Title		**Module Leader's Qualification**	
Module Tutor		**e-mail**	
Peer Reviewer Name		**e-mail**	
Review Committee Approval		**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	Learning the complex integration, the improper integrals, finding the poles of function, use the infinite series to represent the analytic functions and study the conformal mapping.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	This module is concerned with complex functions, that is functions which are both defined for and assume complex values. Their theory follows a quite different development from that of real functions, is remarkable in its directness and elegance, and leads to many useful applications.Topics covered will include: Complex numbers. Domains and simple connectivity. Cauchy-Riemann equations. Integration and Cauchy's theorem. Singularities and residues. Applications.
Indicative Contents المحتويات الإرشادية	It is to help the student discover his abilities and academic potential, help him design a plan that is unique to him, meet his requirements for editing requirements, and help him overcome any difficulties that could determine his successful path.
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	the strategies used by a faculty member to develop student learning. It can be defined as a set of general rules and broad lines that concern the means of achieving the desired goals of teaching. It refers to the methods and plans followed by the faculty member to reach learning goals.

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	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	46	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6.5
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	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	Basic concepts
Week 2	Limit in complex functions
Week 3	Continuity, differential in complex functions
Week 4	Cauchy integral equations
Week 5	Cauchy integral equations in polar form
Week 6	Analytic functions
Week 7	Analytic equations in polar form
Week 8	Log functions and Exponential functions
Week 9	Triangle functions
Week 10	harmonic functions
Week 11	Integral
Week 11	Infinite integral
Week 12	Linear integral
Week 13	Resedu theorem
Week 14	Sequences
Week 15	Series

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Complex variables and applications Ruel v. Churchill	Yes
Recommended Texts		No
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.

ملاحظة: هذا النموذج تم وضعه وتقديمه من قبل مديرية ضمان الجودة في وزارة التعليم العالي والبحث العلمي

	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Science	

MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية			
Module Title	**PENAL CODE GENERAL SECTION (1)**	**Module Delivery**	
Module Type	CORE		☒**Theory** ☒**Lecture** ☐**Lab** ☐**Tutorial** ☐**Practical** ☐**Seminar**
Module Code	FORE 1201		
ECTS Credits	5		
SWL (hr/sem)	125		
Module Level		**Semester of Delivery**	1
Administering Department		**College**	
Module Leader	Ihab natiq khalid	**e-mail**	ihab.natiq@nahrainuniv.edu.iq
Module Leader's Acad. Title	Assistant Lecturer	**Module Leader's Qualification**	M.sc
Module Tutor		**e-mail**	
Peer Reviewer Name		**e-mail**	
Review Committee Approval		**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	• **Community Protection**: Aims to protect individuals and society from crimes and harmful behaviors. • **Justice**: Seeks to achieve justice by punishing offenders in a manner that corresponds to the severity of the committed crimes. • **Rehabilitation**: Aims to rehabilitate criminals and reintegrate them into society instead of merely punishing them. • **Achieving Security**: Contributes to achieving security and stability in society by enforcing a legal system that governs behaviors. • **Regulating Social Relations**: Helps organize relationships between individuals and ensure their rights. • **Legal Awareness**: Contributes to raising awareness among individuals about laws, rights, and duties.		
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	• **Understanding Theoretical Foundations**: Recognizing the fundamental principles of criminal law and its objectives. • **Knowledge of Crimes**: The ability to classify crimes into categories (crimes against individuals, crimes against property, crimes against the state, etc.). • **Analyzing Legal Texts**: The ability to read and analyze legal texts related to punishments. • **Applying Laws**: Applying laws and regulations to real cases to understand the legal impact. • **Evaluating Punishments**: Assessing the penalties imposed for various crimes and understanding their appropriateness. • **Understanding Legal Procedures**: Familiarity with legal procedures related to investigation and prosecution. • **Professional Ethics**: Understanding the values and ethics associated with practicing law. • **Critical Thinking**: Developing critical thinking skills to analyze legal challenges and social issues. • **Effective Communication**: Enhancing written and verbal communication skills in the legal field.		
Indicative Contents المحتويات الإرشادية	• **Understanding the Concept of Criminal Law**: What are the objectives and functions of criminal law, and its relationship with related sciences. • **Knowledge of Sources of Criminal Law**: Familiarity with the principle of legality of crimes and penalties, and the scope of application of criminal law. • **Studying the Scope of the Non-Retroactivity Principle in Criminal Laws**: Application of criminal law in terms of location and the exceptions to the principle of territoriality. • **Studying the Application of Criminal Law to Individuals and Extradition of Criminals**.		

	• **Studying the Concept of Crime**: What are the elements of a crime (material element, mental element, legal element). • **Examining Forms of Committing Crimes**: Studying the attempt to commit a crime and understanding the stages preceding the attempt. • **Studying the Elements of Attempted Crime**: How to initiate execution and the intent behind committing a felony or misdemeanor. • **Understanding the Punishment for Attempt**: What constitutes an impossible crime. • **Studying Participation in Crime**: Distinguishing between the principal participant and the accessory participant. • **Understanding the Legal, Material, and Mental Elements for Participants in a Crime**. • **Understanding the Impact of Crime Circumstances on Participants**. • **Understanding the Effect of Justifications on Participants in Crime**. • **Studying Justification Reasons**: What are the general rules regarding justification reasons.
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	• **POWERPOINT** • **Report Writing** • **Online Learning** • **Field Visits**

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	2.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1.1
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
	Seminar	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

الاسابيع	المواضيع المغطاة خلال الفصل
الاسبوع الاول	• **Understanding the Concept of Criminal Law**: Its subject, function, and relationship with related sciences.
الاسبوع الثاني	• **Knowledge of the Source of Criminal Law and its Scope of Application**.
الاسبوع الثالث	• **Understanding the Scope of Application of Criminal Law**.
الاسبوع الرابع	• **Understanding the Scope of the Non-Retroactivity Principle in Criminal Laws**.
الاسبوع الخامس	• **Studying the Application of Criminal Law in Terms of Location**.
الاسبوع السادس	• **Knowledge of Exceptions to the Principle of Territoriality of Laws**.
الاسبوع السابع	• **Understanding How Criminals are Extradited**.
الاسبوع الثامن	• **Studying the Concept of Crime and its Elements**.
الاسبوع التاسع	• **Examining Forms of Committing Crimes**.
الاسبوع العاشر	• **Studying Participation in Crime**.
الاسبوع الحادي عشر	• **Studying the Impact of Crime Circumstances on Participants**.
الاسبوع الثاني عشر	• **Studying the Effects of Potential Outcomes, Intent Variation, and Knowledge in Participants in Crime**.
الاسبوع الثالث عشر	• **Studying Justification Reasons**.
الاسبوع الرابع عشر	• **Review**.
الاسبوع الخامس عشر	**Midterm Exam**
الاسبوع السادس عشر	**Final Exam**

Delivery Plan (Weekly Lab. Syllabus)
المنهاج الاسبوعي للمختبر

	Material Covered

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

Learning and Teaching Resources مصادر التعلم و التدريس		
	Text	**Available in the Library?**
Required Texts	D. Ali Hussein Al-Khaf and Sultan Abdul Qadir Al-Shawi, General Principles in the Penal Code, Al-Sanhouri Library, 2015.	Yes
Recommended Texts	Dr. Fakhri Abdul Razzaq Al-Hadithi, Explanation of the Penal Code, General Section, Dar Al-Thaqafa 2010 ,Publishing House	No
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.

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Ministry of Higher Education and Scientific Research - Iraq
Al-Nahrain University
College of Science
Forensic Science Department

MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information
معلومات المادة الدراسية

Module Title	ELECTRICITY AND MAGNETISM	**Module Delivery**	
Module Type	Basic	☒**Theory** ☒**Lecture** ☒**Lab** ☒**Tutorial** ☐**Practical** ☐**Seminar**	
Module Code	CREQ1212		
ECTS Credits	5		
SWL (hr/sem)			
Module Level	1	**Semester of Delivery**	2
Administering Department	Forensic Science	**College**	college of science
Module Leader	Omar Adnan Jasim	**e-mail**	Omar.a.jasim@nahrainunvi.edu.iq
Module Leader's Acad. Title	lecturer	**Module Leader's Qualification**	Ph.D.
Module Tutor	Dr. Omar Adnan Jassim	**e-mail**	Omar.a.jasim@nahrainunvi.edu.iq
Peer Reviewer Name		**e-mail**	Omar.a.jasim@nahrainunvi.edu.iq
Review Committee Approval	2024/3/5	**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 الدراسي ة	1- Understand electric charge and electric field. 2- Knowing the materials. 3- Identify the electric field of charges and electric field lines. 4- Identifying the forces, moments and electric potential energy. 5- Learn about Causs' law ,Ohm's Law, Coulomb's law. 6- Identify the electric flux and the enclosed charge. 7-Learn about the electrostatic field. 8-Identification of a point charge inside a spherical surface. 9 - Identify the resistance and capacitance.
Module Learning Outcomes مخرجات التعلم للمادة الدراسي ة	Make the student able to: 1- Understand electric charge and electric field. 2- Knowing the composition of the material. 3- Know the types of matter. 4- Know the types of electric charge. 5- Learn about Coulomb's law. 6- Identify the electric field of charges and electric field lines. 7- Identifying the forces, moments and electric potential energy. 8- Learn about Causs' law. 9- Identify the electric flux and the enclosed charge. 10-Learn about the electrostatic field. 11-Identification of a point charge inside a spherical surface. 12- Learn about Ohm's Law. 13 - Identify the resistance and capacitance.
Indicative Contents المحتويات الإرشادي ة	Indicative content includes the following. electric charge and electric field, electric charge and structure of matter, types of matter, charge is conserved, charging by induction and friction,electric forces on uncharged objects, Coulomb's law, electric field, electric field on a point charge, electric field calculations, electric field lines, electric dipole, forces, moments and electric potential energy, Causs' law, electric flux and the enclosed charge, calculating electric flux, flux of a nonuniform electric field, point charge inside a spherical surface, the electrostatic field, Ohm's Law, resistance and capacitance, capacitor in series and parallel, inductive CCT, inductive resistance XL, capacitive reactance Xc
Learning and Teaching Strategies استراتيجيات التعلم والتعلي م	
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students and by oral, written exams and homeworks.

Magnetism

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفص ل	78	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفص ل	47	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3.1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفص ل	125		

Module Evaluation
تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	5 % (5)	2, 5, 10, 12	
	Assignments	2	10%(10)	2, 12	
	Projects / Lab.	1	15% (15)	Continuous	
	Report	1	10% (10)	13	
Summative assessment	**Midterm Exam**	2 hr	10% (10)	8	
	Final Exam	2hr	50% (50)	16	
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظر ي

	Material Covered
Week 1	electric charge, electric field, electric charge and structure of matter.
Week 2	types of matter, charge is conserved, charging by induction and friction
Week 3	electric forces on uncharged objects, Coulomb's law
Week 4	electric field, electric field on a point charge,
Week 5	electric field calculations, electric field lines,
Week 6	electric dipole, forces, moments and electric potential energy

Week 7	Causs' law, electric flux and the enclosed charge, calculating electric flux,
Week 8	Mid exam
Week 9	Ohm's Law -inductive resistance XL, capacitive reactance Xc
Week 10	motion of charge partical inside magnetic field

Week 11	magnetic field of conductor wire, ring and solenoid
Week 12	energy stored in the magnetic field, , ,
Week 13	induced voltage and induced current
Week 14	Alternating- current
Week 15	**Preparatory Week**
Week 16	**Final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Ohms law
Week 2	Lab 2: Ohmic and Non Ohmic materials
Week 3	Lab 3: Series and parallel of capacitor and energy
Week 4	Lab 4: Electrical resonance phenomenon
Week 5	Lab 5: Voltage difference for The resistance and capacitance
Week 6	Lab 6: Voltage and resistance for the battery
Week 7	Lab 7: parallel and series for resistance and equivalent resistance

Learning and Teaching Resources مصادر التعلم والتدري س		
	Text	**Available in the Library?**
Required Texts	Edward M.Purcell, Electrisity and magnetism,3rd edition	yes

Recommended Texts	University physics with modern physics, 13th edition	Yes
Websites		

APPENDIX:

GRADING SCHEME مخطط الدرجا ت				
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.

Cytology Description Form

نموذج وصف علم الخلية

Module Information معلومات المادة الدراسية					
Module Title	**Cell Biology**			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☒ **Seminar**	
Module Code	**FORE 1102**				
ECTS Credits	**7**				
SWL (hr/sem)	**150**				
Module Level		1	**Semester of Delivery**		25/2/2024
Administering Department		Forensic Science	**College**	**College of Science**	
Module Leader	**Dr. Samah Ali Abd**		**e-mail**	Samah.a.a@nahrainuniv.edu.iq	
Module Leader's Acad. Title		Lecturer	**Module Leader's Qualification**		Ph.D.
Module Tutor	**Assistant lecturer Manar Talib Suhail** **Assistant lecturer Zainab Sameed** **Assistant lecturer Noor Adel Jasim** **Assistant lecturer Sara Saeb Rasheed** **Assistant lecturer Raneem Mohammed Abd-aljaleel**		**e-mail**	manar.t.s@nahrainuniv.edu.iq zainab.samer@nahrainuniv.edu.iq noor.a.j@nahrainuniv.edu.iq sarah.s.r@nahrainuniv.edu.iq Raneem.mohammed@nahrainuniv.edu.iq	
Peer Reviewer Name		Name	**e-mail**	E-mail	
Scientific Committee Approval Date			**Version Number**		

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	أهداف الوحدة - غايات الوحدة: تهدف هذه الوحدة إلى تطوير فهم متقدم لبيولوجيا الخلية. ستتناول العمليات الرئيسية التي تحدث داخل الخلايا، بما في ذلك: مبادئ إشارات الخلية، وتنظيم شكلها، وانقسامها، وموت الخلايا المبرمج، ووظائف نظام الغشاء الداخلي.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Students will develop a deeper understanding of cell structure and how it relates to cell functions. 2. Students will understand how these cellular components are used to generate and utilize energy in cells 3. Students will understand how cells grow, divide, and die and how these important processes are regulated. 4. Students will understand cell signaling and how it regulates cellular functions. 5. Students will apply their knowledge of cell biology to selected examples of changes or losses in cell function. These can include responses to environmental or physiological changes, or alterations of cell function brought about by mutation.
Indicative Contents المحتويات الإرشادية	**Tier 1**- All cell biology sections will cover the following topics Understand the basic components cell and its basic activities. **The cell concept** Cellular compartmentalization. The functions of organelles and how do they accomplish them. Materials storage and transportation between intracellular compartments. **Membranes** Lipids, bilayers Chemical evolution: micelles into cells M Pores and pumps: facilitated diffusion, active transport, cotransport Organelles Prokaryotes vs. eukaryotes **Understand how energy is used and generated in cells** ATP and its uses Respiration Electron carriers

	Roles of enzymes Glycolysis Krebs Oxidative phosphorylation **The cytoskeleton and cell motility** Microtubule ultrastructure Microfilaments Cilia and flagella The cells cortex **Cell nucleus and chromosome organization** Nucleus structure and functions Organization of DNA in chromosomes. **Cellular level: cell cycle and cell division** 1. The key roles of mitosis and meiosis during the life cycle. Compare and contrast different life cycle strategies, focusing on the human life cycle. 2. Stages of mitosis and meiosis, highlighting similarities and differences. Describe stages of the Cell cycle. **Cell differentiation** Stem cells and development The Major Types of Stem Cells Cellular Differentiation Human Diseases that Experimentally Being Treated with Stem Cells **Cell apoptosis** Cell Renewal Cell death Mechanism of Necrosis Mechanism of Apoptosis Regulation of Apoptosis **Cell signaling** Signaling Molecules Signal Transduction Signaling Defects and Disease

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	57	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	5
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	LO #1, 2, 10 and 11
	Assignments	2	5% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	15% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	**Midterm Exam**	2 hr	10% (10)	7	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction and basic principle of cell biology
Week 2	Cell types, structure and functions
Week 3	Cytoplasmic membrane system and membrane trafficking
Week 4	Energy release and mitochondria
Week 5	Protein synthesis and Transportation
Week 6	The cytoskeleton and cell motility
Week 7	Cellular Metabolism
Week 8	Mid exam
Week 9	Cell nucleus and chromosome organization
Week 10	Cell cycle : Mitosis
Week 11	Cell cycle :Meiosis
Week 12	Cell differentiation
Week 13	Cell apoptosis
Week 14	Cell signaling
Week 15	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Laboratory safety roles
Week 2	Types of microscopes and Parts of the Microscope
Week 3	Cell structure
Week 4	Types of cells in human body
Week 5	Cell membrane and transportation
Week 6	The Chromosomes
Week 7	Mid exam
Week 8	The Cell Cycle: Mitosis
Week 9	The Cell Cycle: Meiosis
Week 10	Apoptosis
Week 11	Necrosis
Week 12	Chromosomal defect
Week 13	Cell culture
Week 14	Preparatory week
Week 15	Final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Reference book: Bruce Alberts Karen Hopkin Alexander D. Johnson David Morgan Martin Raff , Essential Cell Biology	No (Available as an e-book)
Recommended Texts		
Websites	From Wikipedia, the free encyclopedia	

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 Al-Nahrain University College of Science Physics Department	

MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	INORGANIC CHEMISTRY			**Module Delivery**	
Module Type	SUPPORT			☒**Theory** ☒**Lecture** ☒**Lab** ☒**Tutorial** ☐**Practical** ☐**Seminar**	
Module Code	CREQ1221				
ECTS Credits	5				
SWL (hr/sem)	125				
Module Level	rensic science		**College**	Type College Code	
Administering Department	Assest. Prof. Dr. Marwa Ibrahim Khalil		**e-mail**	marwaibrahim2007@outlook.com	
Module Leader	Assest. professor		**Module Leader's Qualification**	Ph.D.	
Module Leader's Acad. Title	Name (if available)		**e-mail**		
Module Tutor	Raha Alowan Israa Salah		**e-mail**	E-mail	
Peer Reviewer Name	5/5/2025		**Versio**	1.0	

		n Numbe r	
Review Committee Approval	Forensic science	**College**	Collage of Science

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- Atomic Theory, picturing atoms and elements, inside the atom, atomic number 2- General view to periodic table and atomic structure 3- energy revisited, concept of minimum energy 4- Groups 1 & 2, the Alkali Metals and the Alkaline Earth metals 5- Atoms, Molecules, Ions and ionic compounds Chemical bonding ,how can atoms achieves lower-energy states		
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Teach students the principle of chemistry 2. Explain the atomic structures and its compounds 3. Explain some of chemical phenomena 4. Study the properties of some chemical elements 5. Practical and laboratory skills 6. Improvement skills, to improve student's mind and to let students think more about chemistry Productive skills		
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. 1. Areas of inorganic chemistry 2. The current role of inorganic chemistry 3. Improve the student's mind by how he or she can deal with chemicals and its uses Teach students about hazardous chemicals in the lab and how can avoid any risk in the lab		
Learning and Teaching Strategies استراتيجيات التعلم والتعليم			
Strategies	• In class interactive lectures involving educational videos • Practical in lab lectures • Adapting interactivity with student's interaction by raising a question and asking the group to find the relevant answers to them as a main way of teaching.		

	Power point presentation, examples from books and internet

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	102	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	98	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	200		

Module Evaluation
تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 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	Elements and their invisible structures ,Atomic Theory Isotopes
Week 2	mass number, charged atoms, Relative atomic mass, average atomic weight

Week 3	Periodic table ,periodic groups,
Week 4	elemental makeup, Electronic structure of atom, energy revisited, concept of Minimum energy in the atom ,electron –configuration notation
Week 5	Quantum numbers ,evidence and uses of the electron energy levels Periodic table ,lewis electron dot structures ,periodic trends
Week 6	Chemical bonding ,how can atoms achieves lower-energy states
Week 7	Metals lose electrons ,nonmetals gain electrons , Electron transfer
Week 8	,ionic charges, polyatomic ions, Formulas for ionic compounds
Week 9	The nature of the ionic bond ,why are there two types of compounds diatomic molecules The nature of the covalent bond lewis electron dot formulas,
Week 10	coordinate covalent bonds ,electronegativity and polarity, recognizing ionic versus molecular compounds ,law of definite composition revisited
Week 11	Crystal Lattice energy, Effective atomic number
Week 12	Mid Exam
Week 13	**Preparatory Week**
Week 14	**Final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab1:Test for positive ions (Cations)
Week 2	Lab2:Test for negative ions (Anions)
Week 3	Lab3: Prepare calcium carbonate ($CaCO_3$).
Week 4	Lab4: Prepare magnesium carbonate ($MgCO_3$)
Week 5	Lab5: Prepare Potash alum (K_2SO_4. $Al_2(SO_4)_3$ .24 H_2O)
Week 6	Lab6: Detection of Sulphate in given sample
Week 7	Lab7: Identification of boric acid in given sample

Learning and Teaching Resources
مصادر التعلم و التدريس

	Text	Available in the Library?
Required Texts	Inorganic chemistry, Sharpe, A. G. (Alan George), Harlow: Longman Scientific and Technical, 3rd Edition 1992	Yes
Recommended Texts	Basic Inorganic Chemistry F. Albert Cotton, Geoffrey Wilkinson, Paul L. Gaus, , 3rd Edition, 1995	Yes
Websites	https://courses.lumenlearning.com/boundless-chemistry/chapter/the-structure-of-the-atom/ https://www.acs.org/content/acs/en/careers/chemical-sciences/areas/inorganic-chemistry.html https://courses.lumenlearning.com/boundless-chemistry/chapter/periodic-trends/	

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
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	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.



ملاحظة: هذا النموذج تم وضعه وتقديمه من قبل مديرية ضمان الجودة في وزارة التعليم العالي والبحث العلمي

	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Science Department of Forensic Science	

Criminology and Penology DESCRIPTOR FORM

Module Information

Module Title	**Criminology and Penology**		**Module Delivery**	
Module Type	CORE		☒**Theory** ☐**Lecture** ☐**Lab** ☐**Tutorial** ☐**Practical** ☐**Seminar**	
Module Code	**FORE 1201**			
ECTS Credits	5			
SWL (hr/sem)	125			
Module Level	1.0	**Semester of Delivery**	1/3/2025	
Administering Department	Forensic Science	**College**	Science	
Module Leader	Dr- mohannad emad	**e-mail**	mohaand.emad@nahrainuniv.edu.iq	
Module Leader's Acad. Title	Lecturer Assist.	**Module Leader's Qualification**	Ph. D	
Module Tutor		**e-mail**		
Peer Reviewer Name		**e-mail**		
Review Committee Approval		**Version Number**	1.0	

Relation With Other Modules

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

Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	Crime and punishment is an important field for understanding the phenomenon of crime and its impact on societies. It contributes to guiding criminal policies, improving justice systems, and developing prevention strategies. This analysis aims to provide a comprehensive view of the factors that contribute to the commission of crimes and help in developing strategies to prevent them. The study of criminology and punishment aims to achieve several important objectives, including: 1. Understanding crime: Criminology and punishment aims to understand the nature of crime and the reasons behind its occurrence. Researchers examine the factors influencing crime, such as social, economic, psychological, and cultural factors. This analysis seeks to provide a comprehensive view of the factors contributing to the commission of crimes and assists in developing strategies to prevent them. 2. Analyzing crime patterns: Criminology and punishment aims to analyze crime patterns and their changes over time and space. Researchers use statistical and analytical tools to study crime trends and identify areas and populations with high crime rates. This knowledge can be used to develop effective strategies for crime prevention and enhancing public safety. 3. Evaluating criminal policies: Criminology and punishment aims to assess the effectiveness of criminal policies and procedures related to punishment, analyzing the impact of different sanctions on society and offenders. This evaluation seeks to improve criminal policies and ensure the implementation of effective and fair penalties. 4. Studying the impact of punishment and rehabilitation: Criminology and punishment aims to study the effects of punishment on offenders and societies. Researchers address topics such as criminal deterrence, the impact of prisons on offenders, and how to achieve the rehabilitation of offenders and reintegrate them into society. 5. Social justice: Criminology and punishment aims to achieve social justice within the criminal justice system and the penalties imposed. Researchers study disparities in the distribution of justice, as well as racial and social discrimination within the criminal justice system.

Module Learning Outcomes	1. A better understanding of crime: Criminology and punishment provides a deeper understanding of crime and the reasons behind its occurrence. It helps analyze the factors influencing crime, such as social, economic, and cultural factors. This understanding can aid in developing effective strategies for crime prevention and reduction. 2. Improving criminal policies: Criminology and punishment works to assess the effectiveness of criminal policies and identify their strengths and weaknesses. This knowledge can be used to improve policies and procedures related to criminal justice, ensuring better justice and the implementation of effective penalties. 3. Reducing crime and increasing public safety: Criminology and punishment contributes to developing effective strategies for crime prevention and reducing crime rates. The findings and recommendations can be used to enhance public safety and protect the community from various crimes. 4. Improving the criminal justice system: Criminology and punishment works to analyze the performance of the criminal justice system and identify areas that need improvement. It can contribute to enhancing the investigation, trial, and enforcement processes to ensure better justice and strengthen public trust in the judicial system. 5. Improving rehabilitation programs: Criminology and punishment helps in evaluating and improving the effectiveness of rehabilitation programs. It aims to understand how punishment and reform affect offenders and to develop rehabilitation programs that aim for successful reintegration and the reentry of offenders into society. Overall, the outcomes of studying criminology and punishment help achieve social justice, reduce crime, improve the criminal justice system, and enhance safety within society.

Indicative Contents	• **Understanding the concept of criminology** and its goals and functions, as well as the relationship between criminology and the science of punishment. • **Exploring scientific approaches to explaining criminal behavior** through studying biological explanations, and understanding the schools that have addressed this topic. • **Studying the social explanation of criminal behavior**, and identifying key schools that have discussed this subject, such as the geographical school and others. • **Examining the integrated explanation of criminal behavior**, understanding the concept of integrative theory, and exploring the Islamic perspective on criminal behavior. • **Identifying factors influencing criminal behavior**, including individual factors such as heredity, gender, age, and others. • **Studying external environmental factors affecting criminal behavior**, including social, geographical, economic factors, and more. • **Understanding the origins and concept of the science of punishment**, and examining its stages of development. • **Studying penal institutions** and understanding the historical development of these institutions, along with the various types of penal institutions. • **Exploring the role of penal institutions in enforcing criminal sanctions**, including how they carry out these punishments. • **Understanding the role of penal institutions in executing penalties**, and studying the concept of punishment and its types. • **Exploring the role of penal institutions in enforcing precautionary measures**, including the types and conditions of these precautionary measures. • **Identifying penal treatment methods inside penal institutions**, including the classification system, healthcare, and medical treatment. • **Studying post-sentence care**, and understanding the forms of post-sentence care provided.
Learning and Teaching Strategies	
Strategies	POWERPOINT .1 Writing reports .2 Documentary .3 Field visits .4

Student Workload (SWL)			
Structured SWL (h/sem)	48	**Structured SWL (h/w)**	
Unstructured SWL (h/sem)	77	**Unstructured SWL (h/w)**	
Total SWL (h/sem)	125		

Module Evaluation					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	1	10% (10)	7	1
	Assignments	1	10% (10)	13	2
	Seminar	1	10% (10)	Continuous	
	Report	1	10% (10)	10	3
Summative assessment	**Midterm Exam**	1 hr	10% (10)	12	4
	Final Exam	3hr	50% (50)	15	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
The weeks	**The topics covered during the semester**
The first week	The conceptual framework of criminology and scientific research methods for criminal behavior.
The second week	Understanding scientific approaches to explaining criminal behavior.
The third week	Understanding the biological explanation.
The fourth week	Understanding the social explanation.
The fifth week	Understanding the integrated explanation of criminal behavior.
The sixth week	Understanding the factors of criminal behavior, including individual factors.
The seventh week	Studying the external environmental factors affecting criminal behavior.
The eighth week	The conceptual framework of the science of punishment.
The ninth week	Studying penal institutions.
The tenth week	Understanding the role of penal institutions in enforcing criminal sanctions.
The eleventh week	Understanding the role of penal institutions in implementing precautionary measures.
The twelfth week	Penal treatment methods within prisons.
The thirteenth week	Penal treatment methods outside prisons.
The fourteenth week	Modern punishments.
The fifteenth week	**Midterm Exam**
The sixteenth week	**Final Exam**

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	Dr. Gamal Ibrahim Al-Haidari, *Contemporary Criminology*, Al-Sanhouri Library, 2018. Dr. Gamal Ibrahim Al-Haidari, *Modern Punishment Science*, Al-Sanhouri Library, 2015.	yes
Recommended Texts	Dr. Ramsis Behnam, *The Criminal by Nature and Reform*, Manshāt al-Ma'arif, Alexandria, no publishing house.	No
Websites	https://mandumah.com/	

	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Science Forensics Department	

MODULE DESCRIPTOR FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	COMPUTER SCIENCE			**Module Delivery**	
Module Type	ELECTIVE			☐**Theory** ☒**Lecture** ☒**Lab** ☐**Tutorial** ☐**Practical** ☐**Seminar**	
Module Code					
ECTS Credits	3				
SWL (hr/sem)	45 H				
Module Level		first stage	**Semester of Delivery**		second
Administering Department		Forensics Department	**College**	College of science	
Module Leader	Dr. dalal naeem hamood		**e-mail**	Dalal.naeem@ced.univnahrain.edu.iq	
Module Leader's Acad. Title		Assist.Prof	**Module Leader's Qualification**		PhD
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Review Committee Approval			**Version Number**		

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. The main aim of the course is to introduce the students to the principles of Computer. 2. It focuses on explain the abbreviations of the computer 3. In this semester, focuses on the common skills for the computer application Such as word.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	4. To teach students how the use the computer . 5. To teach students how to use the application such as word 6. To teach students the working with windows 7. To teach students the working with word
Indicative Contents المحتويات الإرشادية	Computers and Operating System Software and Hardware Interaction Windows File Management Computer Hardware Exploring Microsoft Office 2010 Getting Started with Word Essentials Editing and Formatting Documents Getting Started with Power point Essentials Organizing and Enhancing Presentation Getting Started with Excel Essentials Organizing and Enhancing Worksheets Creating Formulas and Charting Data
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Book, Lectures , lab & homework's.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	102	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	98	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	200		

Module Evaluation
تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 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	• WHAT IS COMPUTER? • Major Functions of Computer System) • CHARACTERISTICS OF COMPUTERS

Week 2	-The Computer System -The Generations Of Computer -Classification Of Computer
Week 3	• Components Of Computer Hardware • Application Of Computers • Central Processing Unit Arithmetic Logic Unit
Week 4	• Memory Unit • Input And Output Devices • I/O Ports
Week 5	• Types Of Software • System software • Application software
Week 6	Exam 1
Week 7	• Bus technology Computer virus
Week 8	• Network technology • Importance Of Networking
Week 9	• Network Devices • Wireless Networking
Week 10	• History Of Internet • The Internet Architecture • World Wide Web (WWW)
Week 11	• Data, Information And Knowledge • Characteristics Of InformATION
Week 12	• GIS • GPS
Week 13	• Wifi • Bluetooth
Week 14	EXAM 2
Week 15	**Preparatory Week**
Week 16	**Final Exam**

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

Week 1	Lab 1: windows skills:(create folder, create file, screen saver)
Week 2	Lab 2: windows skills:(compression, drives, storing files)
Week 3	Lab 3: windows skills:(start menu, task bar)
Week 4	Lab 4: windows skills:(control panel)
Week 5	Lab 5: word processor"(create new file, open ,edit, save, save as)
Week 6	Lab 6: word processor: (draw shapes, draw different flowchart)
Week 7	Lab 7:word Processor: (tables)
Week 8	Lab8: word Processor: (Insert Image)
Week 9	Lab 9: word Processor (chart)
Week 10	Lab 10: Mid Exam
Week 11	Lab 11: Power point(create new Presentation, open ,edit, save, save as)
Week 12	Lab 12: Power point (Translation slides, sorter slide, animation slides)
Week 13	Lab 13: Excel(create new sheet, open ,edit, save, save as)
Week 14	Lab 14: excel (formula, chart)
Week 15	Final Exam

Learning and Teaching Resources
مصادر التعلم و التدريس

	Text	Available in the Library?
Required Texts	**Introduction to computers** **Prter Norton** **Mc Grow Hill** **2017**	No
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.

ملاحظة: هذا النموذج تم وضعه وتقديمه من قبل مديرية ضمان الجودة في وزارة التعليم العالي والبحث العلمي

	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Sciences Department of Mathematics and Computer Applications	

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية			
Module Title	**Mathematics**		**Module Delivery**
Module Type	**Core**		☐ **Theory** • ☒ **Lecture** • ☐ **Lab** • ☒ **Tutorial** • ☐ **Practical** • ☐ **Seminar**
Module Code	**CREQ1201**		
ECTS Credits	**4**		
SWL (hr/sem)	**100**		
Module Level		**Semester of Delivery**	1
Administering Department	Department of Forensic Science	**College**	College of Sciences
Module Leader	Abbas Ibrahim	**e-mail**	abbas.ibrahim@nahrainuniv.edu.iq
Module Leader's Acad. Title	ASS.LECT.	**Module Leader's Qualification**	Master
Module Tutor	Name (if available)	**e-mail**	E-mail
Peer Reviewer Name		**e-mail**	E-mail
Scientific Committee Approval Date		**Version Number**	

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**	The aim of this course is for student to gain proficiency in computations. In calculus, we use two main tools for analyzing and describing the behavior of functions: limits and derivatives. Students will use these tools to solve application problems in a variety of setting ranging from chemistry to Biology.
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	1. To determine the solution set of inequalities involving absolute value, 2. To determine domain, range and operation of some one variable functions and the graphs. 3. To determine limit and continuity of one variable functions. 4. To determine derivate of one variable functions. 5. To determine the solution of problems involving the derivate of one variable function. 6. To determine inverse function and its derivative. 7. To learn about application of derivatives. 8. To determine proper integral of one variable functions. 9. To determine integral involving the fundamental theorem of Calculus and method of substitution. 10. To determine the solution of problems involving the integral of one variable function. 11. To compute integral involving transcendental functions. 12. To compute integral with advanced integration techniques. 13. To demonstrate ability to think critically by recognizing patterns and determining and using appropriate techniques for solving a variety of integration problems.
Indicative Contents **المحتويات الإرشادية**	1. function and its graph, operation on function, trigonometry function. 2. Definition, theorems of limit, trigonometry function limit, limit on infinity, infinite limit, continuity function, 3. Definition and rule of derivate, derivate of trigonometry function, chain rule, higher order derivate, implicit derivate, related rate, basic concept

	of differential, 5. Natural logarithm function, inverse function and its derivate, natural exponential function, general exponential function, general logarithm function, hyperbolic function and its inverse. 6. Proper integral, Fundamental Theorem of Calculus, basic rules of integration. 7. Methods of integrations, method of substitution, partial integration method, trigonometry integral and integral of rational function with partial fraction. 8. Improper integrals, test for convergence and divergence of improper integrals. 9. Application of Definite Integrals, Mean value theorem of integration, Area, solid revolution volume and Arc length.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The module will be presented to the students through a specified series of lectures, supported by practice and directed study outside the classroom. Formative assessment takes place throughout the module during lectures and feedback is given during these lectures.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) **الحمل الدراسي المنتظم للطالب خلال الفصل**	60	**Structured SWL (h/w)** **الحمل الدراسي المنتظم للطالب أسبوعيا**	4
Unstructured SWL (h/sem) **الحمل الدراسي غير المنتظم للطالب خلال الفصل**	40	**Unstructured SWL (h/w)** **الحمل الدراسي غير المنتظم للطالب أسبوعيا**	2.667
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)	3, 8	LO #1, 2, and 3
	Assignments	2	10% (10)	6, 9	LO # 4 and 5
	Report	1	10% (10)	12	LO # 5 and 6

Summative assessment	**Midterm Exam**	2	20% (20)	5,10	LO # 1-5
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) **المنهاج الاسبوعي النظري**	
	Material Covered
Week 1	Preliminaries, elementary Functions, and graphing.
Week 2	Exponential growth and decay, Sequences, More population models.
Week 3	Limits, Continuity, Limits at infinity, The Sandwich Theorem and some trigonometric limits, Properties of continuous functions.
Week 4	Formal definition of the derivative, The power rule, the basic rules of differentiation, and the derivatives of polynomials and applications
Week 5	Midterm Exam.
Week 6	The product and quotient rules, and the derivatives of rational and power functions. The chain rule and higher derivatives. Derivatives of trigonometric functions.
Week 7	Derivatives of exponential functions. Derivatives of inverse and logarithmic functions. Approximations and local linearity
Week 8	Extrema and the Mean Value Theorem. Monotonicity and Concavity.
Week 9	Extrema, inflection points, and graphing. Optimization.
Week 10	Midterm Exam.
Week 11	L'Hospital's rule.
Week 12	Antiderivatives.
Week 13	The definite and indefinite integral. The Fundamental Theorem of Calculus.
Week 14	Difference equations: stability.
Week 15	Applications of integration.
Week 16	**Preparatory week before the final Exam.**

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Calculus for Biology and Medicine, fourth edition by Claudia Neuhauser & Marcus Roper.	No
Websites	www.mathhandbook.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.

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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية			
Module Title	**Arabic language**		**Module Delivery**
Module Type	**Basic**		• ☒ Theory • ☒ Lecture • ☐Lab • ☐ Tutorial • ☐ Practical • ☒ Seminar
Module Code	**URARA**		
ECTS Credits	**2**		
SWL (hr/sem)	**50**		
Module Level	1	**Semester of Delivery**	1
Administering Department	Forensic Science	**College**	College of science
Module Leader	Rana Majed Hamed	**e-mail**	Rana.Majid@nahrainuniv.edu.iq
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**	M.D.
Module Tutor	None	**e-mail**	E-mail
Peer Reviewer Name	Dr. Fadhel Subhi Fadhel	**e-mail**	fadhel.subhi@nahrainuniv.edu.iq
Scientific Committee Approval Date	2025	**Version Number**	1.0

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims **أهداف المادة الدراسية**	The main objective of this semester is to strengthen the Queen of First Graders and develop their linguistic abilities and focus on: 1.Acquiring knowledge skills about linguistic concepts 2.Keep the tongue from falling into the word's pronunciation error 3.Developing the student's expressive abilities 4.Teaching students to analyze the speech system 5.Teach students to distinguish between the origins of the word or increase and what it does in increasing meaning. 6.Teaching students on methods and rules of control and drafting of vocabulary. 7.Enabling the student to use the language vocabulary in the proper location 8.Provide trainings to strengthen the student's queen and develop his ability in language practice and influential rhetoric, taking advantage of experiences and training. 9.Enabling students to read and analyze literary texts, understand them and be able to save them. Teaching students to read properly the words of the Holy Quran, learn its meaning and develop students' ability to keep and pronounce.
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	The University of Nahrin works by teaching Arabic to strengthen the student's linguistic queen. By adjusting and perfecting the rules of Arabic, introducing students to speech systems and the possibility of contributing to the teaching and refinement of writing and damaged times, and being able to know the divisions of actions. This develops students' ability to understand the subject. and have the ability to detect language errors. Teaching the right reading and understanding of educational grammatical systems and developing the skill in addressing the problems faced by students in teaching Arabic and directing it correctly.
Indicative Contents **المحتويات الإرشادية**	Students should be able to understand the basic principles of Arabi by studying the sections of speech (name, verb and letter) and describing the definition of each of them and what their connotation is. Innovative knowledge, experience and detailed knowledge of its types with representation The study was made by her sisters, her sisters, the statement of her meaning, her work, what changes occurred in the sentence when she entered it, how to write the number, numbering marks, tied and open tags, and other topics of interest to the student in learning the principles of Arabic.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1. POWERPOINT DISPLAY 2. Writing Reports 3. Quarterly Tests 4. Discussing and Solving Questions 5 Homework

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	2.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1.1
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
	Seminar	1	10% (10)	13	LO # 5, 8 and 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	Grammar - Speech Section (Name, verb, letter), beginner, types, news and types
Week 2	It was her sisters, her sisters.
Week 3	Muthanna and his attachment, the collection of the peaceful masculine and his attachment, the collection of the peaceful feminine and his attachment, the five names
Week 4	Building the past act, building the act.
Week 5	The tense act of building and godmother
Week 6	Assigned names (effect - absolute effect - effect - effect - effect - effect)
Week 7	Hair - Nazik Angels
Week 8	Poetry - Mohammed Mahdi Al Jawahiri
Week 9	Dictatorship - Writing the Shame (Connecting and Cutting)
Week 10	Intermediate and Extreme Shaking
Week 11	Writing Antidote and Adversity
Week 12	Writing short and long diversion
Week 13	Punctuation -The rule of a thousand paradoxes
Week 14	Writing Number
Week 15	The Holy Quran

Learning and Teaching Resources **مصادر التعلم والتدريس**		
	Text	**Available in the Library?**
Required Texts	Expression, creation, written drawing and written dictation/a. d. Abdulrahman Matlak al-Jabouri	لا
Recommended Texts	Clarify the trajectory of the millennium of the son of Malik/Ibn Hisham. Qatar al-Nada and Bel al-Echo of Hisham's son. The hummus of the Sooty, as adequate as Abbas Hassan, is a shrewd custom in the art of drainage, polite in drainage.	لا
Websites	Adequate Grammar / Abbas Hassan.	

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 Al-Nahrain University College of Science Forensic Science	

MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Physics of Waves and Sound**			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code					
ECTS Credits	5				
SWL (hr/sem)	**150**				
Module Level	2nd		**Semester of Delivery**	2	
Administering Department			**College**		
Module Leader	Dr.Soror Ali Mahdi		**e-mail**	Soror.a.mahdi@nahrainuniv.edu.iq	
Module Leader's Acad. Title	Ass. Prof.		**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			**Version Number**	1.0	

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 Aims أهداف المادة الدراسية	1. The course aims to provide 2nd stage students with basic knowledge of waves and sound. 2.To understand that everything related to waves and understand the concepts such as types of waves ,Simple harmonic motion, position ,velocity ,acceleration and energy and its applications. 3. To enable students to access the science of waves by understanding how to analysis sound waves and how to deal with laws, equations, illustrations and other data. 4. Enabling the student to be able to analyze, devise and draw conclusions. theory through the application of techniques 5. Follow-up of scientific development through the Internet and keeping pace with scientific development by setting up experiments synchronized with theoretical topics.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Learning the basic concepts of waves and the properties of substances using property tables or property relations. 2. Understanding the different types of waves, position ,velocity,acceleration and energy . 3. Understanding the Superposition principle, damped harmonic oscillation and Forced vibration (force oscillation) 4. Defining Resonance ,Sound,and Doppler effect 5. Performing Sound and its characteristics 6. Analyzing some basic applications of sound and waves in forensic science fields.

Indicative Contents المحتويات الارشادية	Providing the student with general information about: - Identifying the science of waves and its importance in understanding the various branches of physics such as sound - Being able to understand and interpret the various wave phenomena and solve their practical problems - Identifying vibrations, their types, interference, and analysis, as well as the types of waves and their equations - Their propagation in different media - The basic concepts of sound and knowing the conditions of its emission and transmission - Making a comparison between simple harmonic motion and uniform circular motion - Deriving the general equations of simple harmonic motion - Identifying applications in forensic science - Understanding the superposition of waves in media - Understanding the interference of sound waves of equal amplitude and frequency, whether they are equal or different in phase - Understanding the phenomena of reflection and diffraction in sound - Identifying ultrasonic waves and their most important applications

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The main strategy in delivering this course is to encourage students to participate in analysis of waves sound problem solving, while simultaneously improving and expanding their critical thinking skills through training in the correct way of thinking to solve complex problems. This is achieved through classes and practical experiments matched with theoretical studies and by thinking about the type of scientific experiments that include some applications of sound waves laws that are of interest to studentsin forensic science field.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	78	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	72	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	4.8
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**	4	10% (10)	2,6,10,12	LO #1, 2, 5 and 6
	Assignments	5	10% (10)	2,,4,6, 8,10	LO # 1, 3, 5 and 6
	Projects / Lab.	1	15% (15)	Continuous	
	Report	1	5% (5)	13	LO # 1-6
Summative assessment	**Midterm Exam**	2 hr	10% (10)	7	LO # 1-6
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction of wave ,types of waves Properties of wave
Week 2	Simple harmonic motion,position ,velocity ,acceleration and energy
Week 3	Examples in forensic science
Week 4	Superposition principle
Week 5	Interference, diffraction and standing waves
Week 6	The damped harmonic oscillation
Week 7	Midterm exam
Week 8	damped harmonic oscillation
Week 9	Damping scale. examples
Week 10	Forced vibration (force oscillation)
Week 11	Resonance and its application
Week 12	Sound and its characteristics
Week 13	Sound and its characteristics
Week 14	Doppler effect ,examples
Week 15	Preparatory week before the final Exam

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

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Vibration and wave By : W.W.Norton and company	Yes
Recommended Texts	Wave phenomena By: Akira Hirose	No
Websites	All books and global sites in the internet	

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

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	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Science Applied Pathological Analysis Department	

MODULE DESCRIPTOR FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Histology			**Module Delivery**	
Module Type	CORE			☒ **Theory** ☒ **Lecture** **Lab** ☒ **Tutorial** ☐ **Practical** ☒ **Seminar**	
Module Code					
ECTS Credits	7				
SWL (hr/sem)	47				
Module Level	2		**Semester of Delivery**	2	
Administering Department	Applied Pathological Analysis		**College**	Type College Code	
Module Leader	Pro.Dr. Arafat A Muttar		**e-mail**	Arafataam3@yahoo.com	
Module Leader's Acad. Title	Prof.		**Module Leader's Qualification**	Ph. D.	
Module Tutor	Pro.Dr. Arafat A Muttar		**e-mail**	Arafataam3@yahoo.com	
Peer Reviewer Name	Pro.Dr. Arafat A Muttar		**e-mail**		
Scientific Committee Approval Date	10/2/2025		**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	The course aims to teach students the following: Histology is an essential tool for medical students. This study aims to introduce the student to the basic types of cells and classify those cells according to the study of the shape of the cells that form those tissues and the basic function of these cells, which form the various tissues and organs of the human body, by examining thin slices of tissue under a microscope.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Learn the structure of organs 2. The ability to distinguish the types of tissues that make up organs. 3. Understand how the body's organs perform their functions 4. The ability to make tissue sections 5. Learn how to obtain samples from the patient and how to deal with them
Indicative Contents المحتويات الإرشادية	Introduction to histology, epithelial tissue and its types
	Glandular epithelial tissue and specializations on the surfaces of epithelial tissues
	Connective tissue, elements of connective tissue and types of connective tissue
	Disintegrated connective tissue and tendon and introduction to special connective tissue
	Skeletal tissue, cartilage and bone types
	Mid-term exam
	Blood formation and muscle tissue, skeletal, smooth and cardiac muscles
	Nerve tissue, nerve cells, nerve fibers
	Final exam

Learning and Teaching Strategies استراتيجيات التعلم والتعليم

Strategies	- Encourage students to take structured notes during lectures. - - Provide practical questions and problem-solving exercises. - - Actively participate in group discussions and collaborative activities. - - Use textbooks, online resources, and supplementary materials to enhance learning. - - Provide constructive feedback on assignments and assessments. - - Review helps students understand their strengths and areas for improvement. Teaching Strategies: - Encourage students to actively engage with the material through group discussions and activities to promote deeper understanding. - Provide well-structured lectures that provide a clear overview of the topic. - Incorporate videos, animations, and interactive simulations to illustrate complex biological processes. - Assign readings or video lectures as homework and use class time for discussions and activities.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	47	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	53	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	100		

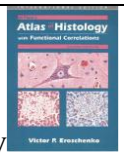
Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	10% (10)	all	ALL
	Assignments	2	5% (10)	3.11	ALL
	Projects / Lab.	0	15% (10)	Continues	All

	Seminar	1	10% (10)	Continues	All
Summative assessment	**Midterm Exam**	1 hr	10% (10)	7	ALL
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction and overview of methods used in histology, Classification of Histology, Tissue preparation
Week 2	Overview of Cell structure & types
Week 3	Tissues: Concept and classifications of primary tissues.
Week 4	Epithelial tissue: Simple Ep. T. , Compound Ep. T.
Week 5	The glandular Tissues (The Glands)
Week 6	Connective and Supportive Tissue: Embryonic and adult C.T. Connective Tissue proper (General C.T.)
Week7	**Exam**
Week8	Cartilage, Histogenesis, Growth and repair of cartilage
Week9	Bone & Histogenesis of Bone
Week 10	The Blood
Week11	The haemopoietic organ (bone marrow), Formation of blood cells.
Week12	Muscular tissue
Week13	Nervous tissue: Overview of nervous system (CNS & PNS) Nervous system: the Nerve cells (neurons) and their classification
Week14	Supporting cells of nervous system
Week 15	**Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
Weeks	**Material Covered**

Week 1	Microscope: study the microscope parts of types and lines, how can be used
Week 2	Preparation of slides, methods and materials used
Week 3	Epithelial tissue, The Glands
Week 4	Connective tissue Cartilage ,Bone, bone marrow
Week 5	Muscular tissue
Week 6	Nervous tissue
Week 7	Brain, spinal cords, meninges

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Histology Dr. Kawakib Abdul Qadir University of Baghdad	yes
Recommended Texts	difori's Text and Atlas of Histology 	yes
Websites	https://docs.google.com/file/d/0B3yBUlQNJt0ldjhlVlZSZmJHUUk/edit?resourcekey=0-EvVSt1KzjYHTm24HsAhU2A	

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.

ملاحظة: هذا النموذج تم وضعه وتقديمه من قبل مديرية ضمان الجودة في وزارة التعليم العالي والبحث العلمي

	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Science Physics Department	

MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information

معلومات المادة الدراسية

Module Title	**Analytical chemistry**	**Module Delivery**	
Module Type	**Basic**	☒**Theory** ☒**Lecture** ☒**Lab** ☒**Tutorial** ☒**Practical** ☒**Seminar**	
Module Code	**CRANACHE**		
ECTS Credits	**8**		
SWL (hr/sem)	**2**		
Module Level	1	**Semester of Delivery**	1
Administering Department	forensic science	**College**	Science
Module Leader	Dr. Shaimaa Imad Ali	**e-mail**	shaimaa.emad@nahrainuniv.edu.iq
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**	Ph.D.
Module Tutor	Dr. Shaimaa Imad Ali	**e-mail**	shaimaa.emad@nahrainuniv.edu.iq
Module lab.	م.م سجى صبحي عبود م.م شهد فاضل علي م.م عائشة جمال م.م. مريم محمد جبر م.م. سنا باسم محمد م.م. مديحة حامد محمود م.م. رغد فلاح حسن م.م. بسمة سعدي طالب	**e-mail**	Saja@nahrainuniv.edu.iq shahad_f@nahrainuniv.edu.iq maryam.mohammed@nahrainuniv.edu.iq sana.basim@nahrainuniv.edu.iq madeha.almahmood@nahrainuniv.edu.iq raghad.falah@nahrainuniv.edu.iq basma.saadi@nahrainuniv.edu.iq
Peer Reviewer Name	Shaimaa Imad Ali	**e-mail**	shaimaa.emad@nahrainuniv.edu.iq

Review Committee Approval		**Version Number**	

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.The course aims to acquire practical skills related to an unknown acidic solution by adding a basic solution of known concentration, or vice versa, and the role of the reagent in titrating chemical solutions. 2. Providing practical support for the related analytical chemistry course through laboratory activities and educational programs. The goal is to acquire basic concepts of titration chemistry and preparation of solid and liquid solutions. 3. Students will learn a variety of practical techniques in the synthesis, characterization and handling of a variety of materials and solutions used in analytical chemistry. 4. Enhancing students' learning and helping them understand the full picture of the field of analytical chemistry.		
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Fine glassware and specialty reagents can be used safely with general guidelines and basic knowledge of the rare species often encountered in analytical chemistry laboratories. 2. Use common instruments in the chemical laboratory. 3.Interpret results and laboratory data correctly within the inherent limitations of accuracy and report results in an open notebook using appropriate and acceptable descriptive notation that is understandable and reproducible. 4.Write scientific journals and reports that omitted scientific data clearly and in detail and make logical and definitive determinations based on experimental data44.		
Indicative Contents المحتويات الإرشادية	تجارب باستعمال الاجهزة التحليلية كما هو مفصل في دليل المختبر		

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Providing students with the basics and additional topics related to thinking outcomes - Discussing lesson topics that require thinking and analysis, with students participating in a mini-discussion group during the lecture. - Raising a set of intellectual questions during the lecture time, which increases and motivates students to analyze, conclude and reach the correct answer. - Giving students homework that requires self-explanation - Linking the lecture curriculum to practical applications, especially in our daily lives.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	102	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	98	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	200		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 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	Analytical methods (Introduction, Classification of analytical methods)
Week 2	Instrumental Analysis, Precision and Accuracy
Week 3	Random Errors, Systematic Errors, Instrumental Errors
Week 4	Statical analysis, Normal Distribution
Week 5	Electromagnetic Radiation
Week 6	Med exam
Week 7	UV-VISIBLE ABSORPTION SPECTRA
Week 8	Fluorescence and phosphorescence (photoluminescence)
Week 9	Spectral analysis methods
Week 10	UV/visible photometers and Spectrophotometers
Week 11	Beer-Lambert Law, UV/visible: Applications
Week 12	Infra-Red Absorption Spectroscopy, Fourier Transform Infrared
Week 13	Atomic absorption spectroscopy
Week 14	Gas chromatography
Week 15	High performance liquid chromatography (HPLC)
Week 16	Final exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Safety rules
Week 2	Lab 2: Laboratory equipment's
Week 3	Lab 3: PH meter measurement
Week 4	Lab 4: measurement of maximum wave length (ʎ max) of $KMnO_4$ and $K_2Cr_2O_7$ individually
Week 5	Lab 5: Determination of Mn ion concentration by spectroscopic method
Week 6	Lab 6: Spectroscopic determination of Manganese-Coronium binary mixture
Week 7	Lab 7: Spectroscopic determination of formulas of complex ion using Mole-Ratio Method

Week 8	Lab 8: Spectroscopic determination of iron by 1,10-phenanthroline method
Week 9	Lab 9: Med exam
Week 10	Lab 10: Thin layer chromatography
Week 11	Lab 11: Final exam

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	***1-*** التحليل الكيمياوي الالي , تاليف : د.فاضل جاسم محمد ,د.صبري ميخائيل فروحة 2الكيمياء التحليلياة الاساساية الحدي اة الاساسايات النظرياة في طرق التحليل الالي تاليف : -- د.معاين ساكندر د.عبد المحسن الحيدري د.هادي كاظم عوض ,د. جواد سلمان البدري	yes
Recommended Texts	Principles of instrumental analysis 6th Edition, 2007. Douglas A. Skoog, James Holler, Stanly R.Crouch.	yes
Websites	Understanding Chemistry, INSTRUMENTAL ANALYSIS. Jim Clark 2008	

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:

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	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Science	

MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية			
Module Title	**PENAL CODE GENERAL SECTION (2)**	**Module Delivery**	
Module Type	CORE		☒**Theory** ☒**Lecture** ☐**Lab** ☐**Tutorial** ☐**Practical** ☐**Seminar**
Module Code	FORE 1201		
ECTS Credits	5		
SWL (hr/sem)	125		
Module Level		**Semester of Delivery**	1
Administering Department		**College**	
Module Leader	Ihab natiq khalid	**e-mail**	ihab.natiq@nahrainuniv.edu.iq
Module Leader's Acad. Title	Assistant Lecturer	**Module Leader's Qualification**	M.sc
Module Tutor		**e-mail**	
Peer Reviewer Name		**e-mail**	
Review Committee Approval		**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	• **Community Protection**: Aims to protect individuals and society from crimes and harmful behaviors. • **Justice**: Seeks to achieve justice by punishing offenders in a manner that corresponds to the severity of the committed crimes. • **Rehabilitation**: Aims to rehabilitate criminals and reintegrate them into society instead of merely punishing them. • **Achieving Security**: Contributes to achieving security and stability in society by enforcing a legal system that governs behaviors. • **Regulating Social Relations**: Helps organize relationships between individuals and ensure their rights. • **Legal Awareness**: Contributes to raising awareness among individuals about laws, rights, and duties.		
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	• **Understanding Theoretical Foundations**: Recognizing the fundamental principles of criminal law and its objectives. • **Knowledge of Crimes**: The ability to classify crimes into categories (crimes against individuals, crimes against property, crimes against the state, etc.). • **Analyzing Legal Texts**: The ability to read and analyze legal texts related to punishments. • **Applying Laws**: Applying laws and regulations to real cases to understand the legal impact. • **Evaluating Punishments**: Assessing the penalties imposed for various crimes and understanding their appropriateness. • **Understanding Legal Procedures**: Familiarity with legal procedures related to investigation and prosecution. • **Professional Ethics**: Understanding the values and ethics associated with practicing law. • **Critical Thinking**: Developing critical thinking skills to analyze legal challenges and social issues. • **Effective Communication**: Enhancing written and verbal communication skills in the legal field.		
Indicative Contents المحتويات الإرشادية	• • **Knowing the reasons for permissibility, the general rules for the reasons for permissibility, what are the sources of permissibility, and how to distinguish the reasons for permissibility.** • • **Knowledge of performing duty, the general principle of performing duty, and using right as a general reason for permissibility and applications of using right.** • • **Study of legitimate defense, what are the conditions of legitimate defense, the restrictions of legitimate defense, and the effect of legitimate defense.**		

	• • Study the types of crimes in terms of their seriousness and nature. • • Studying the types of crimes in terms of their material element and knowing positive crimes, negative crimes, temporary crimes, ongoing crimes, simple crimes, and habitual crimes. • • Study the criminal and criminal responsibility, what is the basis of criminal responsibility and the reason for criminal responsibility • • Study criminal intent, types of intent, and knowledge of unintentional error. • • Knowing the obstacles to responsibility and studying the loss of awareness or will due to insanity or mental disability. • • Studying the loss of awareness or will due to drunkenness or anesthesia to take intoxicating or narcotic substances and knowing whether it was forced or unknowingly and studying coercion and knowing the state of necessity. • • Studying young age and knowing the mitigating factors of responsibility • • Knowing the concept of punishment, what are the objectives of punishment, and what are the types of punishment. • • Knowing the subsidiary and complementary penalties, individualizing the penalty, and what are the aggravating circumstances of the penalty. • • Studying the mitigating circumstances of punishment, the multiplicity of crimes, their impact on punishment, and knowing when the execution of the punishment is suspended.
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	• **POWERPOINT** • **Report Writing** • **Online Learning** • **Field Visits**

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	2.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1.1
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
	Seminar	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

الاسابيع	المواضيع المغطاة خلال الفصل
الاسبوع الاول	Study the reasons for permissibility and the general rules for the reasons for permissibility
الاسبوع الثاني	Study the performance of duty
الاسبوع الثالث	Study the legitimate defense and what are the conditions for legitimate defense
الاسبوع الرابع	Study the types of crimes
الاسبوع الخامس	Study the types of crimes in terms of their material element
الاسبوع السادس	Study the criminal and criminal responsibility
الاسبوع السابع	Study criminal intent
الاسبوع الثامن	Knowledge of impediments to responsibility
الاسبوع التاسع	Study the loss of awareness or will due to drunkenness or drugging
الاسبوع العاشر	Study the young age and knowledge of mitigating factors for responsibility
الاسبوع الحادي عشر	Knowledge of the concept of punishment and what are the objectives of punishment
الاسبوع الثاني عشر	Knowledge of accessory and complementary punishments
الاسبوع الثالث عشر	Study of mitigating circumstances for punishment
الاسبوع الرابع عشر	Review
الاسبوع الخامس عشر	**Midterm Exam**
الاسبوع السادس عشر	**Final Exam**

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

Learning and Teaching Resources مصادر التعلم و التدريس		
	Text	**Available in the Library?**
Required Texts	D. Ali Hussein Al-Khaf and Sultan Abdul Qadir Al-Shawi, General Principles in the Penal Code, Al-Sanhouri Library, 2015.	Yes
Recommended Texts	Dr. Fakhri Abdul Razzaq Al-Hadithi, Explanation of the Penal Code, General Section, Dar Al-Thaqafa 2010 ,Publishing House	No
Websites		

APPENDIX:

GRADING SCHEME مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**

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

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	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Science Forensics Science Department	

MODULE DESCRIPTOR FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	NEW HEADWAY PLUS			**Module Delivery**	
Module Type	BASIC			☒**Theory** ☐**Lecture** ☐**Lab** ☐**Tutorial** ☐**Practical** ☐**Seminar**	
Module Code					
ECTS Credits	2				
SWL (hr/sem)					
Module Level			**Semester of Delivery**	3	
Administering Department	Department of Forensics Science		**College**	College of Sciences	
Module Leader	Assist. Lect. Israa Namh Abdula		**e-mail**	israa.alsultani@nahrainuniv.edu.iq	
Module Leader's Acad. Title	Assistant Lecturer		**Module Leader's Qualification**	Master's Degree	
Module Tutor	None		**e-mail**	None	
Peer Reviewer Name	None		**e-mail**	None	
Review Committee Approval			**Version Number**		

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. Developing Basic Communication Skills: - Enable students to express themselves effectively in everyday situations. - Focus on building a foundation in speaking and listening. 2. Enhancing Reading Comprehension: - Improve students' ability to understand and interpret written texts. - Introduce strategies for effective reading comprehension. 3. Strengthening Writing Proficiency: - Develop students' writing skills across different genres (e.g., essays, emails, reports). - Emphasize grammar, sentence structure, and vocabulary usage. 4. Listening Skills Development: - Improve students' ability to comprehend spoken English in various contexts. - Provide exposure to different accents and speaking speeds. 5. Effective Presentation Skills: - Equip students with the skills to deliver clear and engaging presentations. - Focus on aspects such as organization, delivery, and visual aids.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Students will demonstrate the ability to initiate and sustain simple conversations in English. 2. Students will be able to deal with the basics of English language Grammar. 3. Students will enhance their knowledge of vocabulary. 4. Students will be able to ask and respond to basic questions related to personal information, daily activities, and immediate surroundings. 5. Students will exhibit improved reading comprehension by accurately summarizing and analyzing information from a variety of texts. 6. Students will deliver clear and organized presentations using appropriate language and visuals.
Indicative Contents المحتويات الإرشادية	Advanced Communication Skills: • Greetings and introductions • Describing daily routines Reading Comprehension: • Reading stories and articles • Comprehension exercises with questions Writing Proficiency: • Article writing

	• Summarizing various texts Vocabulary Expansion: • Everyday vocabulary • Academic vocabulary Listening Skills Development: • Listening to dialogues and conversations • Podcasts and audio materials
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	• Emphasize interactive and communicative activities to engage students actively in the learning process • Design tasks that require students to use English to accomplish specific goals, fostering language use in context. • Recognize and accommodate diverse learning styles and paces within the classroom. • Incorporate authentic materials like newspaper articles, blogs, or videos to expose students to real-life language use. • Implement ongoing formative assessments, such as quizzes, peer evaluations, and class discussions, to gauge student progress. • Provide constructive feedback on both spoken and written language, and encourage students to reflect on their learning experiences • Adapt lesson plans based on the evolving needs and interests of the students, allowing for flexibility in the teaching approach.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	32	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	18	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1.2
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	1	10% (10)	5, 10	LO # 2, 1, 5
	Report	1	10% (10)	11	LO # 1,6
	Assignments	1	10% (10)	10-14	
	Presentation	1	10% (10)	14	LO # 6
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
الأسبوع الاول	Introduction to the course, syllabus, and expectations.
الأسبوع الثاني	Unit One of the textbook: Tenses – writing formal e-mails
الأسبوع الثالث	Unit Two of the textbook: Describing objects and people – Collocations
الأسبوع الرابع	Grammar: Irregular verbs- making connections with words
الأسبوع الخامس	Writing Skills: Basics of academic writing
الأسبوع السادس	Reading Comprehension: Reading extracts from a novel+ discussions
الأسبوع السابع	**Mid-Exam**
الأسبوع الثامن	Unit Three of the textbook: Quantity – Articles – Medical Physics-related 1vocabulary part
الأسبوع التاسع	Writing basics: Summarizing texts – how to extract information from various texts
الأسبوع العاشر	Grammar: Passive and active voice- Reported speech

الأسبوع الحادي عشر	Listening skill: Listening to a podcast- discussions
الأسبوع الثاني عشر	Speaking skill: Exchanging and discussing information about DNA and Google
الأسبوع الثالث عشر	Unit Four of the textbook: Pathology-related vocabulary part2 - Comparative and superlative adjectives
الأسبوع الرابع عشر	Writing and talking about personal interests. -Group activity: planning a class event based on shared interests.
الأسبوع الخامس عشر	**final exam preparation**
الأسبوع السادس عشر	

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

Learning and Teaching Resources مصادر التعلم و التدريس		
	Text	**Available in the Library?**
Required Texts	New Headway Plus: Pre-intermediate	
Recommended Texts	Think Big (Recommended Book)	
Websites	www.youtube.com (short videos+ chosen movies)	

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.



ملاحظة: هذا النموذج تم وضعه وتقديمه من قبل مديرية ضمان الجودة في وزارة التعليم العالي والبحث العلمي

	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Science Forensics Science Department	

MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information

معلومات المادة الدراسية

Module Title	Computer 2	**Module Delivery**	
Module Type	CORE		**√Theory** √Lecture **√Lab** **√Tutorial** Practical Seminar
Module Code	URCOM2		
ECTS Credits	6		
SWL (hr/sem)	150		

Module Level	2	**Semester of Delivery**	2
Administering Department	Department of Forensics Science	**College**	College of Sciences
Module Leader	Abdulhakeem Amer A.	**e-mail**	abdulhakeem@coie-nahrain.edu.iq
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**	M.Sc.
Module Tutor	None	**e-mail**	None
Peer Reviewer Name		**e-mail**	
Review Committee Approval		**Version Number**	4.0

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. The aim of the course is to introduce the basic principles of computer organization and architecture in addition to computer network. 2. To introduce students basic about the characteristics of computers, components of a computer, types of computers, computer system hardware and software. 3. Identify computer number systems and data representation. 4. To present the basic Types of computer networks, network components, network topology and concept of internet.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Upon completing this course, the student will have learned, through appropriate classroom and laboratory experiences, the following: 1. Identify the computers including Characteristics of Computers, Components of a computer, Types of Computers, Computer System Hardware. 2. In addition they get knowledge about the basic Computer Organization and Architecture. 3. Identify the types of computer networks, network components, and network topology. 4. In addition they get knowledge about the basic of the internet and computer viruses in addition to some application program like Microsoft word, Microsoft excel.
Indicative Contents المحتويات الإرشادية	**Indicative content includes the following.** **Part A** - Introduction to Computers ● The characteristics of computers ● Components of a computer ● Types of computers ● Computer system hardware. Part B – Computer Organization and Architecture ● Central Processing Unit (CPU) ● Computer Memory ● System bus ● Motherboard ● Expansion Slots ● Built-in Components ● External Connectors ● Power Supplies ● Ports and Interfaces Part C – COMPUTER HARDWARE ● Input and Output Devices ● processing device

	• Storage Devices Part D – Computer Software • System software • Operating System, Types of Operating Systems • Functions of an Operating System • Windows Operating System, application software Part E- Computer Network • Types of computer networks • network components, • network topology • Concept of internet. • Basic Internet Terminology • Types of Internet Connections • Uses of Internet, E-commerce • Computer Viruses
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, laboratory 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		**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل		**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل			

Module Evaluation
تقييم المادة الدراسية

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

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

	Material Covered
Week 1	**Introduction to Computers**: Characteristics of Computers, Components of a computer, Types of Computers, Computer System Hardware
Week 2	**Computer Organization and Architecture**: Central Processing Unit (CPU), Computer Memory, System bus.
Week 3	Motherboard, Expansion Slots, Built-in Components, External Connectors, Power Supplies, Ports and Interfaces
Week 4	Input and Output Devices
Week 5	processing device
Week 6	Storage Devices
Week 7	**Computer Software**: System software, Operating System, Types of Operating Systems, Functions of an Operating System
Week 8	Windows Operating System, application software
Week 9	**Computer number systems and data representation:** Binary, Octal and Hexadecimal number systems
Week 10	Binary Coded Decimals (BCD), Binary Coded Octal (BCO), Binary Coded Hexadecimals (BCH), 1's complement, 2's complement, conversion from one number system to another
Week 11	**Computer Network:** What is a Network, Types of Computer Networks, Internetwork, and Types Of Internetwork.
Week 12	Network Components ,Network Topology
Week 13	**The Internet:** Concept of Internet, Evolution of Internet, World Wide Web, Basic Internet Terminology, Types of Internet Connections, Uses of Internet, E-commerce
Week 14	**Computer Viruses**
Week 15	**Preparatory Week**
Week 16	**Final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Introduction To Hardware Components
Week 2	Lab 2: How To Set A Computer
Week 3	Lab 3: Introduction To Software
Week 4	Lab 4: Setup Windows Applications
Week 5	Lab 5: Application Program 1: Microsoft Word
Week 6	Lab 6: Application Program 2: Microsoft PowerPoint
Week 7	Lab 7: Application Program 3:Microsoft Excel
Week 8	Lab 8: An Introduction to Networking
Week 9	Lab 9: Introduction to TCP/IP Protocols Topologies and Ethernet Standards
Week 10	Lab 10: Topologies and Ethernet Standards Network Hardware(hub and switch)
Week 11	Lab 11. Network Hardware(hub and switch)
Week 12	Lab 12: Network Hardware(router)
Week 13	Lab 13: Wireless Networking.

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	• S. M. Freund, et al, Discovering Computers and Microsoft Office 2016: A Fundamental Combined Approach, Cengage Learning, 2017. • W. Stallings, Computer Organization and Architecture Designing for Performance, 10th Ed., Pearson, 2016.	
Recommended Texts	• F. Wempen, et. al, Computing Fundamentals IC3 Ed, John Wiley & Sons Ltd, 2014	
Websites		

APPENDIX:

GRADING SCHEME مخطط الدرجات				
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اقرار

اني التدريسي (م. عبدالحكيم عامر عبدالامير) المكلف من قبل القسم باعداد منهاج مادة (Computer 2) قد تم اعدادها من قبلي وقد دققت من قبل الاستاذ المشرف ( ) وذلك حسب تكليف القسم وبتاريخ / / 20

الاستاذ المعد: abdulhakeem@coie-nahrain.edu.iq الاستاذ المدقق:

الاسم: م. عبدالحكيم عامر عبدالامير الاسم:

التوقيع : التوقيع:

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية			
Module Title	**Arabic language**		**Module Delivery**
Module Type	**Basic**		• ☒ Theory • ☒ Lecture • ☐Lab • ☐ Tutorial • ☐ Practical • ☒ Seminar
Module Code	**URARA**		
ECTS Credits	**2**		
SWL (hr/sem)	**50**		
Module Level	2	**Semester of Delivery**	4
Administering Department	Forensic Science	**College**	College of science
Module Leader	Rana Majed Hamed	**e-mail**	Rana.Majid@nahrainuniv.edu.iq
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**	M.D.
Module Tutor	None	**e-mail**	E-mail
Peer Reviewer Name	Dr. Fadhel Subhi Fadhel	**e-mail**	fadhel.subhi@nahrainuniv.edu.iq
Scientific Committee Approval Date	2025	**Version Number**	1.0

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims **أهداف المادة الدراسية**	The main objective of this semester is to strengthen the Queen of First Graders and develop their linguistic abilities and focus on: 1.Acquiring knowledge skills about linguistic concepts 2.Keep the tongue from falling into the word's pronunciation error 3.Developing the student's expressive abilities 4.Teaching students to analyze the speech system 5.Teach students to distinguish between the origins of the word or increase and what it does in increasing meaning. 6.Teaching students on methods and rules of control and drafting of vocabulary. 7.Enabling the student to use the language vocabulary in the proper location 8.Provide trainings to strengthen the student's queen and develop his ability in language practice and influential rhetoric, taking advantage of experiences and training. 9.Enabling students to read and analyze literary texts, understand them and be able to save them. Teaching students to read properly the words of the Holy Quran, learn its meaning and develop students' ability to keep and pronounce.
Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	The University of Nahrin works by teaching Arabic to strengthen the student's linguistic queen. By adjusting and perfecting the rules of Arabic, introducing students to speech systems and the possibility of contributing to the teaching and refinement of writing and damaged times, and being able to know the divisions of actions. This develops students' ability to understand the subject. and have the ability to detect language errors. Teaching the right reading and understanding of educational grammatical systems and developing the skill in addressing the problems faced by students in teaching Arabic and directing it correctly.
Indicative Contents **المحتويات الإرشادية**	Students should be able to understand the basic principles of Arabi by studying the sections of speech (name, verb and letter) and describing the definition of each of them and what their connotation is. Innovative knowledge, experience and detailed knowledge of its types with representation The study was made by her sisters, her sisters, the statement of her meaning, her work, what changes occurred in the sentence when she entered it, how to write the number, numbering marks, tied and open tags, and other topics of interest to the student in learning the principles of Arabic.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1. POWERPOINT DISPLAY 2. Writing Reports 3. Quarterly Tests 4. Discussing and Solving Questions 5 Homework

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	2.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1.1
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
	Seminar	1	10% (10)	13	LO # 5, 8 and 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	Grammar - Speech Section (Name, verb, letter), beginner, types, news and types
Week 2	It was her sisters, her sisters.
Week 3	Muthanna and his attachment, the collection of the peaceful masculine and his attachment, the collection of the peaceful feminine and his attachment, the five names
Week 4	Building the past act, building the act.
Week 5	The tense act of building and godmother
Week 6	Assigned names (effect - absolute effect - effect - effect - effect - effect)
Week 7	Hair - Nazik Angels
Week 8	Poetry - Mohammed Mahdi Al Jawahiri
Week 9	Dictatorship - Writing the Shame (Connecting and Cutting)
Week 10	Intermediate and Extreme Shaking
Week 11	Writing Antidote and Adversity
Week 12	Writing short and long diversion
Week 13	Punctuation -The rule of a thousand paradoxes
Week 14	Writing Number
Week 15	The Holy Quran

Learning and Teaching Resources **مصادر التعلم والتدريس**		
	Text	**Available in the Library?**
Required Texts	Expression, creation, written drawing and written dictation/a. d. Abdulrahman Matlak al-Jabouri	لا
Recommended Texts	Clarify the trajectory of the millennium of the son of Malik/Ibn Hisham. Qatar al-Nada and Bel al-Echo of Hisham's son. The hummus of the Sooty, as adequate as Abbas Hassan, is a shrewd custom in the art of drainage, polite in drainage.	لا
Websites	Adequate Grammar / Abbas Hassan.	

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.