MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**الحاسوب**			**Module Delivery**	
Module Type	Core			☒ **Theory** ☒ **Lecture** ☐ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	-M101				
ECTS Credits	٢				
SWL (hr/sem)	٦٠				
Module Level		**UGI**	**Semester of Delivery**		1
Administering Department		**FOR**	**College**	Science	
Module Leader	**الياس خضير**		**e-mail**	ilyas@uowasit.edu.iq	
Module Leader's Acad. Title		مدرس مساعد	**Module Leader's Qualification**		ماجستير
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date		22/11/2023	**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	الدراسة الثانوية	**Semester**	0
Co-requisites module	لا توجد	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	هذه المادة إلى تزويد الطلبة بالمعرفة الأساسية حول الحاسوب وتطبيقاته المختلفة، مع التركيز على الأدلة الجنائية الرقمية. يتكون المنهج من أربعة فصول رئيسية تتناول مختلف الجوانب المتعلقة بالحاسوب.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	• فهم الأساسيات والمفاهيم الأولية للحاسوب. • التعرف على التطور التاريخي لأجيال الحاسوب. • معرفة مكونات الحاسوب المادية والبرمجية. • تعلم أساسيات الأمان الحاسوبي وتراخيص البرامج. • فهم أنظمة التشغيل، مع التركيز على نظام ويندوز ٧.
Indicative Contents المحتويات الإرشادية	–الفهم –الاستنتاج – الابداع والتفكير العلمي –حل اسئلة الكتاب

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	• المحاضرات النظرية. • الجلسات العملية في مختبرات الحاسوب. • الواجبات والمشاريع الصغيرة. • الاختبارات القصيرة والمتوسطة.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	30	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	30	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	60		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	10% (10)	2, 8	LO #1, 3, 9 and 11
	Assignments	3	10% (10)	3, 10, 12	LO # 1, 2, 3, 10, 11and 13
	Projects / Lab.	-			
	Report	-			
Summative assessment	**Midterm Exam**	2	30%(30)	4 and 8	LO # 1-3 and LO # 4-7
	Final Exam	3hr	50%(50)		All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	تعريف الحاسوب.
Week 2	تاريخ تطور الحاسوب وأجياله المختلفة.
Week 3	تطبيقات الحاسوب في المجالات المختلفة.
Week 4	مفاهيم حول لغة الحاسبة وماهي أنواع لغات البرمجة
Week 5	اختبار نظري
Week 6	اختبار عملي
Week 7	مكونات الحاسوب المادية: المعالج، الذاكرة، وحدات التخزين، وغيرها.
Week 8	مكونات الحاسوب البرمجية: نظم التشغيل، البرامج التطبيقية، البرامج الخدمية.
Week 9	مفاهيم الأمان الحاسوبي.
Week 10	أنواع الفيروسات والبرامج الضارة وكيفية الحماية منها.
Week 11	تراخيص البرامج: البرمجيات الحرة، البرمجيات التجارية، البرمجيات مفتوحة المصدر
Week 12	اختبار نظري
Week 13	تعريف أنظمة التشغيل ووظائفها.
Week 14	نظرة عامة على أنظمة التشغيل المختلفة.
Week 15	التركيز على نظام التشغيل ويندوز ٧: الخصائص، الاستخدامات، والإعدادات الأساسية
Week 16	تعريف أنظمة التشغيل ووظائفها.

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	Thomas calculus 14th Edition Joel R. Hass (2017)	Available online as pdf
Recommended Texts	Calculus	Available online as pdf
Websites	Any website especially www. google.com	

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

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	General Physics			**Module Delivery**	
Module Type	Suport			☒ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	KUSO12				
ECTS Credits	6:00				
SWL (hr/sem)	150				
Module Level		UGI	**Semester of Delivery**		ONE
Administering Department		FOR	**College**	Science	
Module Leader	Oday Jawad Kadhim		**e-mail**	Oday.kadhim@uowasit.edu.iq	
Module Leader's Acad. Title		Lecturer	**Module Leader's Qualification**		Ph.D
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date		22/11/2023	**Version Number**		2

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	It is desired to identify the physical laws and its rule on Forensic science phenomena and life. Solved problems will cover the applications of physics in on Forensic science systems. Analysis and communication: real on Forensic science systems are extremely complex and rarely well-defined. Making reasonable assumptions and identifying models is the key to progress.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Objectives: The course provides a general introduction to the physics of on Forensic science systems. Contents: The course introduces the fundamental concepts of living systems, cell structure and functions, the concept of replication, Brownian motion and diffusion, electrophoresis, descriptive models of liquids flow, electrophoresis and osmosis. Course Outcomes: At the end of the course the student will be able to deal with different components and problems such as charge, field, volts, currents, etc. Students can read diagrams and connect circuits and get results. He can analyze the results and get the properties of the components …., Something like that is how to write the outcome of the course
Indicative Contents المحتويات الإرشادية	A-Knowledge: Lectures will provide a- basic understanding of the key concepts of physics by applying physical principles, methods and techniques. B-Cognitive Skills It is desired to identify the physical laws and its rule on Forensic science phenomena and life. Solved problems will cover the applications of physics in biological systems C- Interpersonal skills and responsibilities Students will be encouraged to attempt the problems independently and then collaborate and solve together. D- Analysis and communication: Real Forensic science systems are extremely complex and rarely well-defined. Making reasonable assumptions and identifying models is the key to progress.

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

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	64	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	86	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
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	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	10% (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%		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري	
	Material Covered
Week 1	**Introduction physical principles**
Week 2	Kinematics in one dimension
Week 3	Kinematics in two dimensions
Week 4	Newtons laws of motion
Week 5	Dynamics of uniform Circular Motion
Week 6	Component of vector
Week 7	Refraction of Light
Week 8	Interference
Week 9	Structure of the eye
Week 10	Fluids: Statics & Dynamics
Week 11	Temperature and Heat
Week 12	The Ideal Gas Law
Week 13	Thermodynamics
Week 14	Waves
Week 15	**Review week**
Week 16	Final exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Simple pendulum
Week 2	Lab 2: Calculate the focal length of a convex lens
Week 3	Lab 3: Calculate the focal length of a concave lens
Week 4	Lab 4: Calculating the focal length of mirrors
Week 5	Lab 5: Calculating the viscosity coefficient of liquids
Week 6	Lab 6: Helical spring
Week 7	Lab 7: Ohm's law
Week 8	Lab 8: Kirchhoff's law
Week 9	Lab 9: Calculate the internal resistance of the voltmeter

Week 10	Lab 10: Compound pendulum
Week 11	Lab 11: Calculate the coefficient of friction
Week 12	Lab 12: Calculate the density of the liquid
Week 13	Lab 13: Calculate the surface tension coefficient
Week 14	Lab 14: RC Circuits
Week 15	Lab 15: RLC Circuits
Week 16	Final Exam

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Biophysics: An Introduction, by Cotterill, John Wiley and Sons (2000). Supplementary references Biophysics, by R. Glasser, Springer Verlag (2001). – -Introduction to Molecular Biophysics, by J. - Tuszynski, CRC Press (2003). Biophysics: An Introduction, by C. Sybesma, Kluwer Academic (1989)	
Recommended Texts	-Biology in Physics: Is Life Matter, by K. Bogdanov, - Academic Press (2000).	
Websites		

Grading Scheme
مخطط الدرجات

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

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

MODULE DESCRIPTION FORM

Module Information معلومات المادة الدراسية					
Module Title	**Organic chemistry**			**Module Delivery**	
Module Type	**C**				
Module Code	**FOR009**				
ECTS Credits	٧				
SWL (hr/sem)	١٧٥				
Module Level	1 (level 1		**Semester of Delivery**	1	
Administering Department	FOR		**College**	كلية العلوم /جامعة واسط	
Module Leader	Dr. Hussein F. AlRobaay		**e-mail**	*Husseinf313@yahoo.com*	
Module Leader's Acad. Title	Assists prof.		**Module Leader's Qualification**	PhD	
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	22/11/1023		**Version Number**	1.0	

Relation with other Modules			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
1. Module Aims	Module Aims of this course deals with the basic concept of General Chemistry; 1- Students know how to relate the position of an element in the periodic table to its atomic number and atomic mass. 2- Students know atoms combine to form molecules by sharing electrons to form covalent or metallic bonds or by exchanging electrons to form ionic bonds. 3- Students know the observable properties of acids, bases, and salt solutions. 4- Students know the definitions of solute and solvent.

Module Learning Outcomes	benchmark and develop a student and discipline-association aligned and equity-centered learning outcomes for Organic Chemistry. For the purposes of this work, we define learning outcomes as measurable student performance expectations based upon what the student learned in each core topic area .
Learning and Teaching Strategies	
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 experiment

Student Workload (SWL)			
Structured SWL (h/sem)	94	**Structured SWL (h/w)**	٦
Unstructured SWL (h/sem)	81	**Unstructured SWL (h/w)**	2
Total SWL (h/sem)	175		

Module Evaluation					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	1	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	2	10% (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)	
	Material Covered
Week 1	Introduction I
Week 2	carbon and its Properties
Week 3	chemical bonds
Week 4	Exam
Week 5	Alkanes, cycloalkanes, and functional groups
Week 6	hydrocarbon
Week 7	The Periodic Table
Week 8	Bonding and Chemical Interactions
Week 9	Compounds and Stoichiometry
Week 10	Resonance and acid-base chemistry
Week 11	Alkanes, cycloalkanes, and functional groups8: Chemical Equilibrium
Week 12	depicting the bonding in simple molecule
Week 13	Alcohols, ethers, epoxides, sulfides
Week 14	Aldehydes and ketones
Week 15	Exam
Week 16	Review week

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	General chemistry by Darrell 2007	Yes
Recommended Texts		No
Websites	**Fundamentals of chemistry by Romain 2012**	

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**General Biology**			**Module Delivery**	
Module Type	C			**Theory & Lab**	
Module Code	1101 (level 1 semester1)				
ECTS Credits	7				
SWL (hr/sem)	175				
Module Level	UGI		**Semester of Delivery**	Two	
Administering Department	FOR		**College**	College of science	
Module Leader	Abdulsada A. Rahi		**e-mail**	aabbas@uowasit.edu.iq	
Module Leader's Acad. Title	**Professor**		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Not available		**e-mail**	Not available	
Peer Reviewer Name	Not available		**e-mail**	Not available	
Scientific Committee Approval Date	22/11/2023		**Version Number**		

Relation with other Modules العلاقه مع المواد الدراسيه الاخرى			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents اهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims اهداف الماده الدراسيه	1. To provide a broad multi-knowledge features in Zoology. 2. This module will offer a strong foundation in biology in an accessible format by student engagement and encouraging science students toward high academic levels which would ultimately lead to more meaningful and memorable learning experiences for biological students.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	When you complete this unit successfully, you will be able to: 1. Identify the properties of life, organization levels among living organisms. 2. Define matter and elements and explain the ways in which naturally occurring elements combine to create molecules, cells, tissues, organ systems, and organisms. 3. Understand the synthesis of macromolecules. 4. Describe the role of cells in organisms besides, summarize cell theory. 5. Compare and contrast prokaryotic cells and eukaryotic cells. As well as, recognize the components, structure and function of cell. 6. Knowledge the cellular exchange pathways of plasma membrane. 7. Explain the respiration, gas exchange and circulation in animals 8. Demonstrate the excretory systems in animals. 9. Understand the nerve system, muscle types and muscle construction 10. Describe of animal's hormones: feedback mechanisms; chemistry of hormones; actions of hormones besides the endocrine glands.
Indicative Contents المحتويات الإرشادية	1. The Chemistry of Life. Our opening unit introduces students to the sciences, including the scientific method and the fundamental concepts of chemistry and physics that provide a framework within which learners comprehend biological processes. 2. The Cell. Students will gain solid understanding of the structures, functions, and processes of the most basic unit of life: the cell. 3. The diversity of life is explored with detailed study of various organisms and discussion of emerging phylogenetic relationships among zoology. 4. An introduction to the form and function of the animal body is followed by chapters on specific body systems and processes. This unit touches on the biology of all organisms while maintaining an engaging focus on human anatomy and physiology that helps students connect to the topics.
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1. Biology is grounded on a solid scientific base and designed to help students understand the concepts at hand. Throughout the text, one can explore features of zoology that engage the students in scientific inquiry by taking selected topics a step further. 2. Provide exam questions that model good assessment tools and help determine the level of student understanding of the lab work and the concepts upon which it is based. 3. Equal importance is given to practical learning and presentation skills of

	students

Student Workload (SWL) الحمل الدراسي للطالب محسوب ل ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	94	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب اسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	81	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب اسبوعيا	2
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

Module Evaluation

تقييـــم الماده الدراسيه

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	26% (20)	7, 12	LO #1, 2, 3,4,5,6 and 6,7,8,9,10,11
	Assignments	1	2	15	12,13,14
	Lab.	2	12% (12)	Continuous	All
	Report				
Summative assessment	**Midterm Exam**	2 hr	10% (10)	17	All
	Final Exam	2hr	50% (50)	19	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري / الفصل الاول

	Material Covered
Week 1	**Course introduction : what is biology**
Week 2	**The nature of life**
Week 3	**Atomic structure and chemistry of water**
Week 4	**Carbohydrates, proteins, and lipids**
Week 5	**Nucleic acids**
Week 6	**Exam**

Week 7	**Cells, part 1**
Week 8	**Cells, part 2**
Week 9	**Energy & metabolism, part 1**
Week 10	**Energy & metabolism, part 2**
Week 11	**Cellular respiration , part 1**
Week 12	**Cellular respiration , part 2**
Week 13	**Photosynthesis**
Week 14	**DNA& its role in heredity**
Week 15	**Exam**

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري / الفصل الثاني

Week 1	**Introduction to zoology and other biological science As well as classification of living organisms١**
Week ٢	**Introduction to zoology and other biological science As well as classification of living organisms٢**
Week ٣	**Structure and Function of Cells١**
Week ٤	**Structure and Function of Cells ٢**
Week ٥	**Basics nutrition, Classification of proteins١**
Week ٦	**Basics nutrition, Classification of proteins٢**
Week ٧	**Muscular tissues and Nervous tissues١**
Week ٨	**Muscular tissues and Nervous tissues ٢**
Week ٩	**Classification of Lipids and carbohydrates١**
Week ١٠	**Classification of Lipids and carbohydrates٢**
Week ١١	**Introduction to animal tissues ١**
Week ١٢	**Introduction to animal tissues ٢**
Week ١٣	**Nutrition**
Week ١٤	**Microbiology**
Week 1٥	**Course Final Term Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي المختبري	
	Material Covered
Week 1	Measurement
Week 2	Course intro; life and the scientific theory
Week 3	Enzyme function 1
Week 4	Enzyme function 2
Week 5	Microscope &cell structure
Week 6	Cell behavior
Week 7	Respiration
Week 8	Photosynthesis
Week 9	Restriction digest of plasmids
Week 10	Gene transformation
Week 11	Mitosis , meiosis, and gametogenesis
Week 12	Mendelian crosses
Week 13	Outcomes of evolution
Week 14	Blood typing
Week 15	**Exam**

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	1- **Biology: A Functional Approach** by Roberts; M. BV. Thomas Nelson and Sons Ltd 4th edition (1995). 2- **Concepts of Biology:** by Samantha Fowler, James Wise, Rice University (2017). 3- **Biology (Zoology):** by Tmt. V. M. Gayathri Rani and Thiru. T. Sekar	Non

	4- Practical Zoology: By Uttarakhand Open University (2017)	
Recommended Texts	The following textbooks are recommended but not compulsory text materials. You may use any other textbook provided it will help you achieve the objects of the course and do your assignment. 1. **Biology 2e:** by Mary Ann Clark; Jung choi and Matthew Douglas. University of Rice (2020). 2. **General Zoology: Lab Supplement** (Stephen W. Ziser) To Accompany the Zoology Lab Manual: Smith, D. G. & M. P. Schenk (2020).	Non
Websites	**https://openstax.org/books/concepts-biology/pages/1-introduction** **htpp://uou.ac.in**	

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 المعالجه)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

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

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Legal regulation of Forensic expert			Module Delivery	
Module Type	B			Theory	
Module Code	FOR009				
ECTS Credits					
SWL (hr/sem)	75				
Module Level	UGI		Semester of Delivery	One	
Administering Department	FOR		College	College of science	
Module Leader	Wagnaa razaq abd		e-mail	wagna@uowasit.edu.iq	
Module Leader's Acad. Title	Teacher		Module Leader's Qualification	Masters	
Module Tutor	Wagnaa razaq abd		e-mail	wagna@uowasit.edu.iq	
Peer Reviewer Name	Not available		e-mail	wagna@uowasit.edu.iq	
Scientific Committee Approval Date	22/11/2023		Version Number		

Relation with other Modules العلاقه 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 الإرشادية	
Objectives of the study subject أهداف المادة الدراسية	1- Developing a generation of qualified graduates with a high level of scientific knowledge that enables them to detect crimes . 2- Providing a distinguished study program characterized by academic, research and applied excellence in the field of criminal expertise and enabling students to achieve excellence in the academic and professional fields. 3- Teaching students a full legal understanding of the work of a forensic expert, which enables our graduates to excel in their work.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- Explaining the concept of judicial experience and its types. 2- Introduction to a Forensic expert and the most important conditions and characteristics of experience. 3- Legal basis for expertise. 4- Explaining the relationship between experience and testimony and how to appoint an expert. 5- The legal nature of an expert and the expert's forensic and civil responsibility.
Indicative Contents المحتويات الارشادية	1-Knowledge and understanding 2-Creativity and scientific thinking 3- Learning about scientific research methods 4-Learn about the concept of experience and the importance of the forensic expert in investigating the crime scene 5- Legal protection for the forensic expert
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	

Strategies	The teaching and learning strategy followed in the Forensic Expert Legal Regulation Program includes a variety of interactive and comprehensive methods to ensure that learning objectives are effectively achieved. Among these strategies are: 1- Interactive lectures: Lectures are organized in an interactive manner that encourages student participation and the exchange of ideas and questions between the professor and other students. 2- Group discussions: Discussion sessions are organized to discuss complex topics and exchange views and experiences among students 3- Practical lessons: Practical lessons are organized that aim to apply the acquired concepts and skills 4- Research projects: Students are directed to conduct research projects that allow them to apply legal skills and concepts in the field of expert legal regulation of work 5- Cooperative learning: The program encourages cooperative learning and teamwork through group projects 6- Diagnostic assessment: Personal assessment is used to understand the extent of students' understanding of the material and identify weaknesses and strengths

	students

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خالل الفصل	58	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	26% (20)	7, 12	LO #1, 2, 3,4,5,6 and 6,7,8,9,10,11
	Assignments	1	2	15	12,13,14
	Lab.	2	12% (12)	Continuous	All
	Report				
Summative assessment	Midterm Exam	2 hr	10% (10)	17	All
	Final Exam	2hr	50% (50)	19	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الأسبوعي النظري	
	Material Covered
Week 1	A general overview of law and its branches
Week 2	The concept of judicial expertise and its types
Week 3	Forensic expert definition and characteristics
Week 4	Experience requirements
Week 5	The relationship between experience, informants and witnesses
Week 6	Legal basis for expert work
Week 7	quiz
Week 8	Civil responsibility of the expert
Week 9	The importance of the expert for the investigation
Week 10	How to delegate an expert

Week 11	Legal protection for the expert, witness and informant
Week 12	Legal value of judicial expertise
Week 13	Criminal responsibility of the expert
Week 14	A week of preparation before the final exam
Week 15	The final exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Lectures prepared by the subject teacher	yes

Recommended Texts		No
Websites	Special lectures on the subject/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	(قيد المعالجة)راسب	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

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

MODULE DESCRIPTION FORM

Module Information معلومات المادة الدراسية					
Module Title	**General chemistry**			**Module Delivery**	
Module Type	**C**				
Module Code	١١٠٢				
ECTS Credits	٧				
SWL (hr/sem)	١٧٥				
Module Level	1 (level 1		**Semester of Delivery**		1
Administering Department	FOR		**College**	كلية العلوم /جامعة واسط	
Module Leader	Dr. Hussein F. AlRobaay		**e-mail**	*Husseinf313@yahoo.com*	
Module Leader's Acad. Title	Assists prof.		**Module Leader's Qualification**		PhD
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	22/11/2023		**Version Number**		1.0

Relation with other Modules			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
1. Module Aims	Module Aims of this course deals with the basic concept of General Chemistry; 1- Students know how to relate the position of an element in the periodic table to its atomic number and atomic mass. 2- Students know atoms combine to form molecules by sharing electrons to form covalent or metallic bonds or by exchanging electrons to form ionic bonds. 3- Students know the observable properties of acids, bases, and salt solutions. 4- Students know the definitions of solute and solvent.

Module Learning Outcomes	benchmark and develop a student and discipline-association aligned and equity-centered learning outcomes for General Chemistry. For the purposes of this work, we define learning outcomes as measurable student performance expectations based upon what the student learned in each core topic area .
Learning and Teaching Strategies	
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 experiment

Student Workload (SWL)			
Structured SWL (h/sem)	94	**Structured SWL (h/w)**	٦
Unstructured SWL (h/sem)	81	**Unstructured SWL (h/w)**	2
Total SWL (h/sem)	175		

Module Evaluation					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	1	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	2	10% (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)	
	Material Covered
Week 1	Introduction I
Week 2	Draw Lewis structures
Week 3	Matter and its Properties
Week 4	Exam
Week 5	Atomic Structure
Week 6	The Periodic Table
Week 7	Bonding and Chemical Interactions
Week 8	Compounds and Stoichiometry
Week 9	Chemical Kinetics
Week 10	Chemical Equilibrium
Week 11	Write Lewis symbols for neutral atoms and ions.
Week 12	depicting the bonding in simple molecule
Week 13	Solutions
Week 14	Chemical reaction
Week 15	Exam
Week 16	Review week

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	General chemistry by Darrell 2007	Yes
Recommended Texts		No
Websites	**Fundamentals of chemistry by Romain 2012**	

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Mathematics I**			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☒ **Lecture** ☐ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**1103**				
ECTS Credits	2				
SWL (hr/sem)	60				
Module Level		UGI	**Semester of Delivery**		1
Administering Department		**FOR**	**College**	**Sciences College**	
Module Leader	Dr. Esam A. Ahmed Alnussairy		**e-mail**	eahmed@uowasit.edu.iq	
Module Leader's Acad. Title		Assistant Lecturer	**Module Leader's Qualification**		Ph.D.
Module Tutor			**e-mail**	NA	
Peer Reviewer Name		NA	**e-mail**	NA	
Scientific Committee Approval Date		22/ 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 الارشادية	
Module Aims أهداف المادة الدراسية	The aims of a mathematics module are to provide students with an understanding of mathematical concepts, skills, and techniques that can be applied to a range of real-world problems. This includes topics such as An introductory class in the theory and techniques of differentiation and integration of algebraic and trigonometric functions. Additionally, the module aims to prepare students for future academic and professional pursuits that require mathematical proficiency.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	On successful completion of this module, students will be able to: 1. Find the domain and range of a function and graphs. 2. Evaluate limits, and determine continuity and differentiability of functions. 3. Apply rules of calculus to solve Sciences problems including differential equations. 4. Differential calculus, these concepts are used to analyze rates of change, optimization problems, and the behavior of functions in Sciences applications. 5. Integration: Table of integrals, Rules of integration, Definite integrals, Area bounded by curves, Integration by parts, Integration by substitution and using partial fractions. 6. Student should use more than one method to solve the integration. 7. Express and evaluate a double and triple integral in terms of the Cartesian. 8. Calculate area, volume, and surface area of integral. 9. Application of Integration: Centers of mass, Moments of inertia.
Indicative Contents المحتويات إلرشادية	The Indicative Contents of a Mathematics module will depend on the level and scope of the course. However, some common topics that may be covered in a mathematics module include: 1- Arithmetic: Basic mathematical operations such as addition, subtraction, multiplication, and division. 2- Algebra: The study of mathematical symbols and the rules for manipulating these symbols to solve equations and represent real-world situations. 3- Geometry: The study of shapes, sizes, positions, and measurements of objects in space. 4- Calculus: The study of mathematical concepts such as limits, derivatives, and integrals. Overall, the Indicative Contents of a Mathematics module aims to provide students with a comprehensive understanding of mathematical concepts and their applications in various fields of study.

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

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خالل الفصل	30	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خالل الفصل	30	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	٢
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خالل الفصل	60		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	10% (10)	2, 8	LO #1, 3, 9 and 11
	Assignments	3	10% (10)	3, 10, 12	LO # 1, 2, 3, 10, 11and 13
	Projects / Lab.	-			
	Report	-			
Summative assessment	**Midterm Exam**	2	30%(30)	4 and 8	LO # 1-3 and LO # 4-7
	Final Exam	3hr	50%(50)		All
Total assessment			100% (100 Marks)		100% (100 Marks)

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	**Functions:** Domain and Range, Functions and their graphs, Trigonometric Functions.
Week 2 **Week 3**	**Limits and Continuity:** Limit of a Function and Limit Laws, One-Sided Limits Continuity, Limits Involving Infinity, Asymptotes of Graphs.
Week 4 **Week 5** **Week 6**	**Derivatives**: Tangent Lines and the Derivative at a Point, The Derivative as a Function, Differentiation Rules, Derivatives of Trigonometric Functions, The Chain Rule, Implicit Differentiation, Linearization and Differentials.
Week 7 **Week 8** **Week 9**	**Applications of Derivatives:** Extreme Values of Functions, The Mean Value Theorem, Monotonic Functions and the First Derivative Test, Concavity and Curve Sketching, Applied Optimization, Antiderivatives
Week 10 **Week 11** **Week 12**	**Integrals:** The Definite Integral, The Fundamental Theorem of Calculus, Indefinite Integrals and the Substitution Method, Definite Integral Substitutions and the Area Between Curves.
Week 13 **Week 14** **Week 15**	**Applications of Definite Integrals:** Volumes using Cross-Sections, Volumes using Washer and Cylindrical Shells methods, Arc Length, Areas of Surfaces of Revolution, Work and Fluid Forces, Moments and Centers of Mass.
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	George B. Thomas Jr., "CALCULUS", 14th Edition.	Yes
Recommended Texts	1. Erwin Kreyszig, "Advanced Sciences Mathematics", 11th Ed. 2. Schaum's Outline of College Mathematics, Fourth Edition.	No
Websites	Thomas calculus 14th Edition Joel R. Hass (2017)	Available online as pdf

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

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

MODULE DESCRIPTION FORM
نموذج وصف
ENGLISH LANGUAGE

Module Information معلومات المادة الدراسية					
Module Title	English Language			Module Delivery	
Module Type	C			Theoretically	
Module Code	FOR011				
ECTS Credits	2				
SWL (hr/sem)	75				
Module Level	UGI		Semester of Delivery	One	
Administering Department	FOR		College	College of science	
Module Leader	Hussein Najm Salman		e-mail	Husseinn109@uowasit.edu.iq	
Module Leader's Acad. Title	Assistant Teacher		Module Leader's Qualification	M.S.c	
Module Tutor	Not available		e-mail	Not available	
Peer Reviewer Name	Not available		e-mail	Not available	
Scientific Committee Approval Date	22/11/2023		Version Number		

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

Module Aims, Learning Outcomes أهداف المادة الدراسية ونتائج التعلم	
Module Aims أهداف المادة الدراسية	The program aims to enhance students' English language skills and work on acquiring new methods of language learning that help enhance these skills and improve the students' current language level to better achieve the program's ultimate goal, which is to move the students' linguistic level to a better place
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**1-Knowledge** *Enabling students to obtain knowledge of English grammar. *Introducing students to correct reading and writing in English. *Enabling students to obtain knowledge of the origins of speech and sentences and what they consist of and their types. *Enabling students to obtain knowledge of the correct pronunciation of English vocabulary. **2- Skills** * Students acquire general knowledge of the English language. * Gaining students the ability to speak properly and in accordance with the principles of the language. * Gaining students the ability to correctly pronounce letters, vocabulary, and sounds. *Students acquire the skill of writing sentences correctly and with the fewest possible errors.
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1-The use of explanation by the teacher in English 2-Using image, video and audio presentation methods
Evaluation methods طرائق التقييم	1- Quizzes 2- Midterm exams 3- Final exams 4- Oral exams 5- Reports and research 6- Activities 7- Festivals

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خالل الفصل	58	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خالل الفصل	17	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خالل الفصل	75		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	5	30% (20)	2,4,6,12,14	LO #1, 2, 3,4,5,6 and 6,7,8,9,10,11,12
	Assignments	1	2	15	12,13,14
	Report	2	10%	7	
Summative assessment	Midterm Exam	2 hr	10% (10)	17	All
	Final Exam	3hr	50% (50)	17	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الأسبوعي	
	Material Covered
Week 1	English Alphabetic, Parts of speech, Sentences, Verb to BE, Verb to DO, Verb to have.
Week 2	Nouns -Countable Nouns -Spelling Rules for Plurals -Uncountable Nouns Definite & Indefinite Articles
Week 3	Pronouns -Object Pronouns -Reflexive Pronouns -Relative Pronouns
Week 4	Making Questions -Uses of How Some/ any
Week 5	Making Negative Imperative Modals

Week 6	TENSES -Present Simple Tense -Past Simple Tense -Future Simple Tense
Week 7	-Present Continuous Tense -Past Continuous Tense
Week 8	-Future Continuous Tense -Present Perfect Tense
Week 9	Examination
Week 10	-Past Perfect Tense -Future Perfect Tense -Present Perfect Continuous
Week 11	Comparing Adjectives Adverbs
Week 12	Active & Passive
Week 13	Transitive & Intransitive Verbs Prepositions
Week 14	Question –Tags Conditional " if "
Week 15	Reported Speech Counties and Nationalities

Course development plan خطة تطوير المقرر الدراسي
-Study the latest modern sources and modern translations. -Relying on specialized books. -Using means of presenting and explaining the vocabulary of the educational material.

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Web sites "Grammar For All Levels" By Adnan Naim	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.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Forensic DNA**			**Module Delivery**	
Module Type	C			☒ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	FOR013				
ECTS Credits	6				
SWL (hr/sem)	100				
Module Level		UGI	**Semester of Delivery**		One
Administering Department		FOR	**College**	College of science	
Module Leader	Dr. .Rafed Abbas Kadhum		**e-mail**	Rafedabbass@uowasit.edu.iq	
Module Leader's Acad. Title		Asst.prof.Dr	**Module Leader's Qualification**		Ph.D.
Module Tutor	Not available		**e-mail**	Not available	
Peer Reviewer Name		Not available	**e-mail**	Not available	
Scientific Committee Approval Date		22/ 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	
Module Aims	It aims to provide the student with sufficient scientific and practical experience about DNA and its important role in crime scenes. In addition to learning about methods for extracting DNA from various sources, using various advanced methods and the latest technologies.
Module Learning Outcomes	1-The graduate of the course was able to collect DNA samples from various sources and study the chemical composition of DNA and its physical properties. 2- The graduate of the course was able to analyze DNA samples from various sources, such as blood, hair, skin, and teeth. 3- The graduate of the course was able to use various DNA extraction devices. 4- The graduate of the course will be able to learn about forensic medicine and its importance. 5- Knowing the difference between the DNA present in the nucleus and the DNA present in the mitochondria. 6- Identify the advantages and disadvantages of DNA extraction methods. 7- Identify the biological composition of hair, the difference between human and animal hair, and methods of extracting it. 8- Identify the biological structure of teeth and how to extract DNA from them.
Indicative Contents	1. Understanding and knowledge. 2. Creativity and scientific thinking. 3. Analysis of accident and crime scene data. 4. The importance of DNA as criminal evidence. 5. Extraction methods.
Learning and Teaching Strategies	
Strategies	1-Collecting the crime evidences and DNA samples and analyzing the results based on the laboratory test results. 2-Providing exam questions that are good assessment tools and help determine students' level of understanding of the material and the concepts on which it is based. 3-Focus on the practical aspect equally with the theoretical aspect. 4- Diversity in methods of explanation and presentation. 5-Holding seminars, scientific courses, and practical workshops to develop the scientific and practical aspects of students. 6- Organizing classroom and extracurricular activities to enhance knowledge and understanding.

	7- Organizing field trips to enhance knowledge and understanding and gain a closer look at the practical aspect.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	100	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	75	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	7, 12	L# 1,2.3.4,5 & 6,7,8,9
	Assignments	1	2	14	10,11,12.13
	Lab.	3	10% (10)	Continuous	All
	Report	1	10%(10)	Continuous	All
Summative assessment	**Midterm Exam**	2 hr	20% (10)	17	All
	Final Exam	3hr	50% (50)	19	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	**Basic of DNA biology and genetics**
Week 2	**Fundamentals of forensic DNA typing**
Week 3	**Basic principles of DNA extraction** 1-Cell and tissue disruption 2-Lysis of cellular and organelle membranes
Week 4	**4-Storage of DNA solution** 5-Contamination
Week 5	**Methods of DNA extraction**
Week 6	**Sources of biological evidence** **1-Body fluids** **2-extracellular nucleic acid**

Week 7	**Cells** Cell surface markers Nucleated cells Mitochondria and other organelles
Week 8	**Quiz**
Week 9	**Cytosol** **Messenger RNAs** **MicroRNAs**
Week 10	**Tissues** **Skin** **Biology of skin** **Skin as sources of DNA evidence**
Week 11	**Hair** **Biology of hair** **Hair as source of DNA evidence**
Week 12	**Quiz**
Week 13	**Teeth** Biology of teeth and teeth as source of DNA evidence
Week 14	**Bone** Biology of bone Bone as source of DNA evidence
Week 15	**Quiz**
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	الأدلة الجنائية و عينات الحامض النووي
Week 2	DNA extraction kit
Week 3	Removal of proteins and cytoplasmic constituents
Week 4	Bodily fluids
Week 5	Types of cells
Week 6	Mitochondrial DNA
Week 7	**Quiz**
Week 8	Tissues
Week 9	Teeth DNA
Week 10	Bone DNA
Week 11	Gel electrophoresis
Week 12	Preparatory week before the final Exam
Week 13	**Final Exam**

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	**Available in the**

		Library?
Required Texts	Forensic science Lectures prepared by subject's teacher	NO
Websites		

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

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

MODULE DESCRIPTION FORM

Module Information					
Module Title	**Language Arabic**			**Module Delivery**	
Module Type	**Theory**			☒ **Theory** ☒ **Lecture** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	KUS010				
ECTS Credits	2				
SWL (hr/sem)	75				
Module Level		UGI	**Semester of Delivery**		1
Administering Department		FOR	**College**	College of Science/ Wasit University	
Module Leader	**Saja Jawad Mahdi**		**e-mail**	sajaaltaee77@gmail.com	
Module Leader's Acad. Title		Assist. Lecturer	**Module Leader's Qualification**		M.S.c
Module Tutor	**Saja Jawad Mahdi**		**e-mail**	sajaaltaee77@gmail.com	
Peer Reviewer Name		None	**e-mail**	None	
Scientific Committee Approval Date		22/11/2023	**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	1. Knowledge of grammatical and morphological rules to avoid linguistic errors. 2. Employing language in writing scientific research. 3. Developing the student's ability to dialogue, discussion and participation. 4. Increasing students' knowledge by assigning them to prepare reports by Arabic language.
Module Learning Outcomes	**Knowledge, understanding and avoid linguistic errors**
Learning and Teaching Strategies	
Strategies	1. Interactive lectures 2. Group discussions 3. Scientific reports 4. Cooperative learning 5. Personal evaluation

Student Workload (SWL)

The student's academic load is calculated for 15 weeks

Structured SWL (h/sem)	58	**Structured SWL (h/w)**	2
Unstructured SWL (h/sem)	17	**Unstructured SWL (h/w)**	1
Total SWL (h/sem)	75		

Module Evaluation

		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	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)

	Material Covered
Week 1	Dictation material - Writing Taa, Haa, cabin Alif and extended Alif
Week 2	Arabic sun and moon letters (Alshamsia and Alqamaryia)
Week 3	Tanwin “Nunnation”
Week 4	Grammar of Arabic language- Parts of speech, verb and letter
Week 5	The number, its dual and plural
Week 6	The phrase and predicate
Week 7	An appeal “call” in Arabic language
Week 8	The five verbs
Week 9	Kana and its sisters – Inna and its sisters
Week 10	Literature - the emergence and development of literature in literary times
Week 11	The poet Al-Motanabi
Week 12	The poet Abu Tammam
Week 13	The poet Al-Jawahri and renewal in his poetry
Week 14	The poet Badr Shaker Al-Sayyab and free poetry
Week 15	Linguistic errors
Week 16	Exam

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	**Lectures prepared by the tutor**	Yes
Recommended Texts	**None**	No
Websites	**Lectures on the subject / Internet**	

Grading Scheme			
Group	**Grade**	**Marks (%)**	**Definition**

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

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

MODULE DESCRIPTION FORM

Module Information					
Module Title	**Human Rights**			**Module Delivery**	
Module Type	**B**			☒ **Theory** ☒ **Lecture** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	KUS010				
ECTS Credits	2				
SWL (hr/sem)	75				
Module Level		UGI	**Semester of Delivery**		1
Administering Department		FOR	**College**	College of Science/ Wasit University	
Module Leader	**Saja Jawad Mahdi**		**e-mail**	sajaaltaee77@gmail.com	
Module Leader's Acad. Title		Assist. Lecturer	**Module Leader's Qualification**		M.S.c
Module Tutor	**Saja Jawad Mahdi**		**e-mail**	sajaaltaee77@gmail.com	
Peer Reviewer Name		None	**e-mail**	None	
Scientific Committee Approval Date		22/11/1023	**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	1. The student learns about the importance of human rights and its direct impact on the life of the individual and society and the urgent need to protect human rights while preserving human dignity and protecting all human rights. 2. It aims to acquire students' general knowledge about the origins and roots of the concept of human rights and how to deal with problems affecting human rights and fundamental freedoms, especially the problems facing students, which are represented by domestic violence, electronic extortion and drug abuse and the extent of his demand for the maintenance of these rights and how to see the Iraqi Constitution of 2005, which included basic rights and freedoms.
Module Learning Outcomes	1. Human rights article, which is a group of basic rights that cannot be violated and are due and inherent to every person simply because he is a human being. 2. Issuing reports on human rights issues.

Learning and Teaching Strategies

Strategies	1. Interactive lectures 2. Group discussions 3. Scientific reports 4. Cooperative learning 5. Personal evaluation

Student Workload (SWL)

The student's academic load is calculated for 15 weeks

Structured SWL (h/sem)	58	**Structured SWL (h/w)**	2
Unstructured SWL (h/sem)	17	**Unstructured SWL (h/w)**	1
Total SWL (h/sem)	75		

Module Evaluation

		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	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)	
	Material Covered
Week 1	The concept of human rights Characteristics of human rights
Week 2	Types of human rights
Week 3	Constitution Rights and freedoms in the Iraqi Constitution in force for the year 2005
Week 4	Human rights in ancient civilizations
Week 5	Human Rights in Islam
Week 6	Human rights in modern times
Week 7	Human Rights Resources National human rights sources
Week 8	International sources of human rights
Week 9	Democracy Forms of democracy
Week 10	Characteristics of democracy
Week 11	Features of a democratic system
Week 12	Elections
Week 13	Types of electoral systems
Week 14	NGOs and their role in human rights
Week 15	Review and preparation before the exam
Week 16	Exam

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	**Lectures prepared by the tutor**	Yes
Recommended Texts	**None**	No
Websites	**Lectures on the subject / Internet**	

Grading Scheme			
Group	**Grade**	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A** - Excellent	90 - 100	Outstanding Performance
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