



Ministry of Higher Education and Scientific Research
Scientific Supervision and Evaluation System
Quality Assurance and Academic Accreditation Department

Academic Program Description Form for Colleges
For the academic year 2024-2023

University: Wasit University
College/Institute: College of Science
Scientific Department: Department of Forensic Sciences
File Fill Date : / / 2024

Signature:

Name of Head of Department: Asst. Prof. Dr. Rafed
Abbas Kadhum

Date:

Signature:

Asst. Scientific Name: Dr. Ali Jabar Frauah

Date:

The file was audited by:
Division of Quality Assurance and University Performance

Signature:

Name of Division of Quality Assurance and University Performance: Dona Fadal

Date : / / 2024

Approval of Dean

ASSIST. PROF.
Dr. Faik Jameel Hassan Mayal
Dean

Dr. Faik Jameel Hassan
Dean

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. Nawras Najah Mubark		e-mail	nawras@uowasit.edu.iq
Module Leader's Acad. Title		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		/ / 2024	Version Number	1.0

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

Module Aims, Learning Outcomes and Indicative Contents	
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.
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Student Workload (SWL) الحمل الدراسي للطلاب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	100	Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	75	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	2
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب 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	Deoxyribonucleic acid molecule				
Week 2	Initial development of DNA extraction				
Week 3	Non organic extraction methods				
Week 4	Organic DNA extraction methods				
Week 5	Minicolumn DNA purification				
Week 6	Chelex extraction				
Week 7	DNA solid phase extraction methods				
Week 8	Exam				
Week 9	DNA extraction methods silica and silica matrices				
Week 10	DNA extraction methods using anion exchange resin				

Week 11	DNA extraction methods using magnetic beads
Week 12	Boom method of DNA extraction
Week 13	Choosing the appropriate protocol for DNA extraction
Week 14	Quantification of nucleic acids
Week 15	Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

Week	Material Covered
Week 1	Buffer preparation
Week 2	Collecting DNA from different biological samples
Week 3	DNA extraction using alcohol
Week 4	Ethanol precipitation method
Week 5	Phenol-chloroform extraction method
Week 6	Nucleic acid analysis via UV spectrophotometry
Week 7	Enzymatic extraction of DNA
Week 8	Exam
Week 9	Plasmid extraction method
Week 10	Mitochondrial extraction method
Week 11	DNA purification
Week 12	Gel electrophoresis
Week 13	Polymerase chain reaction (PCR)
Week 14	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

نموذج وصف المادة الدراسية

Module Information				
معلومات المادة الدراسية				
Module Title	biochemistry		Module Delivery	
Module Type	core		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	FOR23014			
ECTS Credits	5			
SWL (hr/sem)	125			
Module Level	UGI	Semester of Delivery		1
Administering Department	FOR	College	Science	
Module Leader	Hussein F. AL. Robaay		e-mail	Husseinf313@yahoo.com
Module Leader's Acad. Title	Assi. professor		Module Leader's Qualification	Ph.D
Module Tutor	Name (if available)		e-mail	e-mail
Peer Reviewer Name	Name		e-mail	e-mail
Scientific Committee Approval Date	9/9/2024		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	Module Aims of this course deals with the basic concept of bio Chemistry; 1- Students know how to relate the position of metabolism. 2- Identify the major organelles of the cell and their function. 3- Identify the major organs of the body and their functions 4- Reproduce the structure of the cell at a schematic level 5- Hand in laboratory reports showing the data and conclusion drawn from the data. 6- The students are also given a test at the end of the semester testing their theory and practical knowledge of biochemistry they learned during the semester.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	benchmark and develop a student and discipline-association aligned and equity-centered learning outcomes for bio 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.
Indicative Contents المحتويات الإرشادية	1- Classroom teaching of structures and properties of amino acids and laboratory experiments on titration curves and identification of functional groups 2- Traditional chalk and board teaching; learning properties of carbohydrates through laboratory based identification 3- Traditional teaching of structures of lipids and video presentation of membrane lipids: learning structure and function of lipids and membranes through discussion and power point presentations 4- Power point presentations; Chalk and board; Student interaction in class; Case studies with examples of each protein structural class

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.
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	79	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	46	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Module Evaluation

تقييم المادة الدراسية

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

assessment	Final Exam	2hr	50% (50)	16	All
Total assessment			100%(100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction I
Week 2	The Properties of Water
Week 3	CHEMISTRY OF CARBOHYRATES 1
Week 4	Chemistry of Carbohydrates I1
Week 5	Chemistry of Amino Acids and Protein (I)
Week 6	Chemistry of Amino Acids and Protein (I1
Week 7	Exam
Week 8	Acids and bases
Week 9	Buffer Solutions
Week 10	exam
Week 11	Chemistry of Lipids
Week 12	Enzymes
Week 13	Vitamins and minerals
Week 14	exam
Week 15	Review week
Week 16	

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	General safety rules of Lab.
Week 2	spectrophotometry
Week 3	Determination of Ca Con.
Week 4	Determination of P Con.
Week 5	Determination of F Con.
Week 6	PH –Matric titration
Week 7	exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Biochemistry-Campbell-Sixth-Edition.pdf	Websites
Recommended Texts	HARPER'S ILLUSTRATED BIOCHEMISTRY 30 th	Websites
Websites	Fundamentals of analytical chemistry by Stook and West 2012 on Websites	

Grading Scheme

مخطط الدرجات

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

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Baath Party crimes		Module Delivery
Module Type	S		☒ Theory ☒ Lecture ☒ Lab ☒ Tutorial ☐ Practical ☐ Seminar
Module Code	WOU23019		
ECTS Credits	2		
SWL (hr/sem)	50		
Module Level	UGI	Semester of Delivery	One
Administering Department	FOR	College	Science
Module Leader	Wagnaa Razaq Abd	e-mail	wagna@uowasit.edu.iq
Module Leader's Acad. Title	Teacher	Module Leader's Qualification	Master's
Module Tutor	Wagnaa Razaq Abd	e-mail	E-mail wagna@uowasit.edu.iq
Peer Reviewer Name	None	e-mail	None
Scientific Committee Approval Date	9/9/2024	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	Semester	One
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- Teaching students and increasing their awareness by learning about all types of crimes committed by the former regime's party and becoming familiar with all its topics in terms of identifying the concept of crimes and their types. 2- - Identifying the most prominent psychological and physical violations to which the Iraqi people were exposed 3- - Identifying the psychological and social effects of these crimes and providing the student with special knowledge and skills in defending these rights and demanding all their civil and political rights. 4- Providing the student with general knowledge about the basics of the former regime and all the crimes it committed against the Iraqi people of various components and sects, and establishing a conscious generation that rejects all types of injustice, tyranny, and tyranny, and the extent of its demands for all its rights.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- The ability to collect and consolidate information 2- Receiving information correctly 3- The student can distinguish between the concept of crime linguistically, the concept of crime terminologically, and its concept in all other human sciences.

	4- The student's reception and acceptance of the subject 5- The student can distinguish between the types of Baath Party crimes
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. -Methods of teaching and learning • Lectures • Using recitation, discussion and problem solving • Assignments -Evaluation • Daily and monthly exam • In-class exercises

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Teaching and learning strategies and methods adopted in implementing the program in general. Interactive lectures between the professor and students, exchange of ideas, questions, and group discussions on all topics of Baath Party crimes. Daily and monthly tests. Research reports in order to increase students' ability to understand and understand the crimes of the Baath Party

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.				
	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 الأسبوعي النظري	
	Material Covered
Week 1	Introduction to the concept of crimes linguistically and terminologically
Week 2	Crime departments

Week 3	Baath Party crimes according to the Supreme Criminal Court Law
Week 4	Identify international crimes
Week 5	Learn about the decisions issued by the Supreme Criminal Court
Week 6	Identifying psychological crimes and their most prominent effects
Week 7	Identify the mechanisms of psychological crimes
Week 8	Identify social crimes
Week 9	The Baath Party's position on religion
Week 10	Militarizing society.
Week 11	Identify environmental crimes
Week 12	Identifying mass graves ✓
Week 13	Identifying military pollution and the leveling of orchards
Week 14	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Baath Party crimes approach	Yes
Recommended Texts	Archives of the Political Prisoners Foundation	
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Genetic		Module Delivery		
Module Type	C		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar		
Module Code	FOR013				
ECTS Credits	5				
SWL (hr/sem)	175				
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		9/9/2024	Version Number		1.0

Relation with other Modules

العلاقة مع المواد الدراسية الأخرى

Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	Genetics provides an introduction to both classical and modern molecular genetics. We start by looking at Mendelian genetics, including consideration of how genetic maps are created and an introduction to human pedigrees. We then examine the basic mechanisms of transcription and translation and how gene expression can be regulated. The module concludes by considering the molecular tools that geneticists use and how these have been used to uncover the content of diverse genomes.
Module Learning Outcomes	By the end of this module a student will be able to: Define what is a gene and understand how genotype relates to phenotype Describe how genetic material is transmitted Construct genetic maps based upon linkage data Solve Mendelian Genetic problems Describe the basic mechanisms of transcription and translation Solve problems to demonstrate an understanding of how gene expression is controlled Understand some of the principles of recombinant DNA technology Compare and contrast the content and organization of prokaryotic and eukaryotic genomes
Indicative Contents	1. Understanding 2. Knowledge 3. Creativity and scientific thinking 4. The importance of genetics

	5. Human genome 6. Genetic variation
Learning and Teaching Strategies	
Strategies	1. Protein synthesis. 2. Teach meiosis with genetics, not with mitosis in cells. 3. Emphasize the complexity of inheritance. 4. Discuss epigenetics. 5. Create space for students to ask questions, research, and explore extension topics that interest them.

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	79	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	46	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
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)	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	Introduction to genetic
Week 2	Classical mendelian genetics
Week 3	The population genetics
Week 4	Human genome
Week 5	Functions of gene and chromosome
Week 6	Mitosis and meiosis genetic code
Week 7	Genetic variation
Week 8	Gene flow and new species
Week 9	Mutation and chromosomal abnormalities
Week 10	Karyotype , banding techniques
Week 11	Mutagens and carcinogens
Week 12	Quiz
Week 13	Autosomal dominant inheritance
Week 14	Autosomal recessive inheritance
Week 15	Quiz
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Organism supported as a model system for genetics
Week 2	The first law of Mendel and deviations from Mendel's first law
Week 3	The second law of Mendel and deviations from Mendel's second law
Week 4	The quantitative inheritance
Week 5	Genetics and sex
Week 6	Link and crossing over
Week 7	Cases of crossing over suppression
Week 8	Genetic mapping
Week 9	Multiple alleles
Week 10	The deadly genes
Week 11	Kay square
Week 12	Inheritance of clans
Week 13	Descent records
Week 14	Preparatory week before the final Exam
Week 15	Final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Genetic 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
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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	Crime scene		Module Delivery		
Module Type	B		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar		
Module Code	FOR23018				
ECTS Credits	5				
SWL (hr/sem)	125				
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		9/9/2024	Version Number		1.0

Relation with other Modules العلاقة مع المواد الدراسية الأخرى	

Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	This module will provide a detailed introduction to crime scene processing, the role of Crime Scene Investigators in the seizure of physical evidence, and the integration of different forensic techniques from simple to complex crime-scene.
Module Learning Outcomes	On successful completion of this module, students will be able to... Understand the principles of crime scene investigation as practiced by police forces Prioritise activities at a crime scene, seize evidence and produce written scene notes and photographs to a professional standard Demonstrate through the paper based scenario that they can prioritise forensic evidence from a complex scene and produce a robust forensic strategy document Problem solve within a simulated crime scene scenario, to self-manage with a defined project in co-operation with other team members
Indicative Contents	1-Understanding 2-Knowledge 3-Creative and scientific thinking
Learning and Teaching Strategies	

Strategies	Learning, Teaching and Assessment Strategy This is a capstone module for scene based forensic processes and protocols. Lectures are used to explore key themes, which are practised during practical sessions and simulated crime scenes. Coursework brings these aspects together in a written exercise. During Directed Study hours students are expected to undertake reading to consolidate and expand on the content of formal taught sessions; research and prepare for assessments; revise material from formal taught sessions; undertake specific elements of reading as directed.
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Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	79	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	46	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
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)	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	Crime scene concept			
Week 2	Types of Crime Scenes			
Week 3	Crime Scene as a Component of the Forensic System			
Week 4	Quiz			
Week 5	Human Evidence			
Week 6	methods of Preservation criminals evidence			
Week 7	Tools & Equipment's for Crime Scene Investigation			
Week 8	The new techniques to investigate crimes			
Week 9	Seminar			
Week 10	Criminal investigation			
Week 11	Qualities of a criminal investigator			
Week 12	Quiz			
Week 13	The concept of forensic research			
Week 14	surces of forensic research			
Week 15	EXAM			
Week 16	Preparatory week before the final Exam			
Delivery Plan (Weekly Lab. Syllabus)				
المنهاج الاسبوعي للمختبر				

	Material Covered
Week 1	Crime scene
Week 2	Fingerprinting
Week 3	Types of fingerprinting
Week 4	Murder investigation report
Week 5	Quiz
Week 6	Investigation procedures
Week 7	Murder investigation report
Week 8	Suicide report
Week 9	Types of theft report
Week 10	Types of fires report
Week 11	Types of forensic evidence
Week 12	Transfer and storage of forensic evidence
Week 13	Drug and toxic
Week 14	Type of forensic department
Week 15	Final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Crime scene Lectures prepared by subject's teacher	NO
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks	Definition
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			(%)	
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	Statistic of Forensic and Application		Module Delivery
Module Type	Basic		☒ Theory ☒ Lecture ☐ Lab ☒ Tutorial ☐ Practical ☒ Seminar
Module Code	For23017		
ECTS Credits	3		
SWL (hr/sem)	75		
Module Level	UGI	Semester of Delivery	2
Administering Department	F0r	College	Science
Module Leader	Dr. Esam A. Ahmed Alnussairy	e-mail	eahmed@uowasit.edu.iq
Module Leader's Acad. Title	Assist. Prof.	Module Leader's Qualification	Ph.D.
Module Tutor	Dr. Esam A. Ahmed Alnussairy	e-mail	eahmed@uowasit.edu.iq
Peer Reviewer Name	None	e-mail	
Scientific Committee Approval Date	9/9/2024	Version Number	

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Yes	Semester	1
Co-requisites module	yes	Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims أهداف المادة الدراسية	provides foundational skills and knowledge in biostatistics and students will gain a deeper understanding of its relevance and application to public health, health policy, clinical medicine, and health economics. All parts of this training are free, including registration, learning, testing, and a certificate of completion. The course in Biostatistics is intended for students of public health, clinical medicine, biology, and other health sciences. Health professionals are confronted with statistics on a daily basis. Examples include interpreting clinical values measured on a patient, understanding clinical guidelines or departmental reports, and importantly, reading scientific papers in order to assess the evidence for treatment. Having an understanding of statistics will empower health professionals and provide them with key tools in both understanding and applying evidence in their practice. To teach students how to provide guidance on appropriate methods and techniques for collecting data in a scientific and accurate manner. . To determine sample sizes.⁴³. For the design of surveys or experiments . To understand the guarantee, quality and accuracy of data . How to make conclusions and draw conclusions about a population based on sample data. . To conduct tests on hypotheses and estimate parameters includes testing hypotheses, estimating parameters . To teach students how to predict and model statistical models
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Important: Write at least 6 Learning Outcomes, better to be equal to the number of study weeks. • Understand the basic types of data, the main ways in which data are used, and important considerations when using data in analysis. • Identify the design of a study and explain how this impacts interpretation. • Apply knowledge and skills in working with different data types in a chosen public health setting. Relate the probability of an event to the likelihood of this event occurring. Understand how to interpret and generate proportions from data. Explain how relative frequency can be used to estimate the probability of an event. Understand the concepts of probability, conditional probability, and independence. 1. Understanding of Basic Statistical Concepts: Gain a solid understanding of 56 fundamental statistical concepts, such as probability, hypothesis testing,

	confidence intervals, sampling, and measures of central tendency and variability. 2. Learn how to design studies and experiments, including determining appropriate sample sizes, randomization, and selection of study designs for different research questions.
Indicative Contents المحتويات الإرشادية	Students who successfully complete this course will be able to (1) To discuss and critic reports and articles applying biostatistics to epidemiology (2) To conductor luminary/simple statistical analysis and to plan more sophisticated future statistical analyses (3) To work with scientific experts including biostatisticians, epidemic biologists and public health professionals The learning objectives are: Extract the most useful/important information from scientific articles Interpret graphical summaries and statistical tables Criticize the statistics of simple epidemiological studies Describe the study population using the appropriate indicators Formulate statistical hypothesis according to the objective aimed by the study Apply the statistical test using the R or STATA software and to interpret the results Measure the strength of the association between two quantitative or qualitative variables and interpret it Summarize statistical results and to write the material, methods and result sections of a report/article Follow the step by step procedure to obtain a informative linear model and interpret it Indicative content includes the following. Part (1) Introduction Introduction for Biostatistics (what is statistics, Major concepts of statistics, Level of measurement) [4h] Part (2) Describing statistics Describing the statistical Data (frequency Distribution, Graphic presentation of frequency distribution), Measures of Central tendency (mean, median, mode, quartiles, defiles and percentiles), Measures of Dispersion

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

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	27	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	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	1	10% (10)		
Summative assessment	Midterm Exam	2hr	30%(30)	4	LO # 1-3
	Final Exam	3hr	50%(50)		All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Data Analysis and Study Design
Week 2	Probability and Sampling Distributions
Week 3	Probability, Frequency, and the Concepts of Probability
Week 4	Variables, Sampling, and Distribution
Week 5	Confidence Intervals
Week 6	Competencies covered in this module
Week 7	Point and Confidence Interval Estimation
Week 8	Effect of Sample Size on Confidence Interval
Week 9	Effect of Sample Size on Confidence Interval
Week 10	Principles of Hypothesis Testing
Week 11	Applications of Hypothesis Testing
Week 12	Forensic application
Week 13	Forensic application
Week 14	Review
Week 15	FINAL EXAM

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Biostatistics for oral health care, By Jay S. kim and Ronald J. daliey, 2008, Blackwell Munksgaard, a Blackwell Publishing Company, USA	
Recommended Texts		

Websites	1- https://www.noor-book.com 2- www.efaidnbmnnnibpcajpcglclefindmkaj/https://onlinestatbook.com/Online_Statistics_Education.pdf
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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	Statistic of Forensic and Application		Module Delivery
Module Type	Basic		☒ Theory ☒ Lecture ☐ Lab ☒ Tutorial ☐ Practical ☒ Seminar
Module Code	For23017		
ECTS Credits	3		
SWL (hr/sem)	75		
Module Level	UGI	Semester of Delivery	2
Administering Department	F0r	College	Science
Module Leader	Dr. Esam A. Ahmed Alnussairy	e-mail	eahmed@uowasit.edu.iq
Module Leader's Acad. Title	Assist. Prof.	Module Leader's Qualification	Ph.D.
Module Tutor	Dr. Esam A. Ahmed Alnussairy	e-mail	eahmed@uowasit.edu.iq
Peer Reviewer Name	None	e-mail	
Scientific Committee Approval Date	9/9/2024	Version Number	

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Yes	Semester	1
Co-requisites module	yes	Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims أهداف المادة الدراسية	provides foundational skills and knowledge in biostatistics and students will gain a deeper understanding of its relevance and application to public health, health policy, clinical medicine, and health economics. All parts of this training are free, including registration, learning, testing, and a certificate of completion. The course in Biostatistics is intended for students of public health, clinical medicine, biology, and other health sciences. Health professionals are confronted with statistics on a daily basis. Examples include interpreting clinical values measured on a patient, understanding clinical guidelines or departmental reports, and importantly, reading scientific papers in order to assess the evidence for treatment. Having an understanding of statistics will empower health professionals and provide them with key tools in both understanding and applying evidence in their practice. To teach students how to provide guidance on appropriate methods and techniques for collecting data in a scientific and accurate manner. . To determine sample sizes.⁴³. For the design of surveys or experiments . To understand the guarantee, quality and accuracy of data . How to make conclusions and draw conclusions about a population based on sample data. . To conduct tests on hypotheses and estimate parameters includes testing hypotheses, estimating parameters . To teach students how to predict and model statistical models
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Important: Write at least 6 Learning Outcomes, better to be equal to the number of study weeks. • Understand the basic types of data, the main ways in which data are used, and important considerations when using data in analysis. • Identify the design of a study and explain how this impacts interpretation. • Apply knowledge and skills in working with different data types in a chosen public health setting. Relate the probability of an event to the likelihood of this event occurring. Understand how to interpret and generate proportions from data. Explain how relative frequency can be used to estimate the probability of an event. Understand the concepts of probability, conditional probability, and independence. 1. Understanding of Basic Statistical Concepts: Gain a solid understanding of 56 fundamental statistical concepts, such as probability, hypothesis testing,

	confidence intervals, sampling, and measures of central tendency and variability. 2. Learn how to design studies and experiments, including determining appropriate sample sizes, randomization, and selection of study designs for different research questions.
Indicative Contents المحتويات الإرشادية	Students who successfully complete this course will be able to (1) To discuss and critic reports and articles applying biostatistics to epidemiology (2) To conductor luminary/simple statistical analysis and to plan more sophisticated future statistical analyses (3) To work with scientific experts including biostatisticians, epidemic biologists and public health professionals The learning objectives are: Extract the most useful/important information from scientific articles Interpret graphical summaries and statistical tables Criticize the statistics of simple epidemiological studies Describe the study population using the appropriate indicators Formulate statistical hypothesis according to the objective aimed by the study Apply the statistical test using the R or STATA software and to interpret the results Measure the strength of the association between two quantitative or qualitative variables and interpret it Summarize statistical results and to write the material, methods and result sections of a report/article Follow the step by step procedure to obtain a informative linear model and interpret it Indicative content includes the following. Part (1) Introduction Introduction for Biostatistics (what is statistics, Major concepts of statistics, Level of measurement) [4h] Part (2) Describing statistics Describing the statistical Data (frequency Distribution, Graphic presentation of frequency distribution), Measures of Central tendency (mean, median, mode, quartiles, defiles and percentiles), Measures of Dispersion

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

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	27	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	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	1	10% (10)		
Summative assessment	Midterm Exam	2hr	30%(30)	4	LO # 1-3
	Final Exam	3hr	50%(50)		All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Data Analysis and Study Design
Week 2	Probability and Sampling Distributions
Week 3	Probability, Frequency, and the Concepts of Probability
Week 4	Variables, Sampling, and Distribution
Week 5	Confidence Intervals
Week 6	Competencies covered in this module
Week 7	Point and Confidence Interval Estimation
Week 8	Effect of Sample Size on Confidence Interval
Week 9	Effect of Sample Size on Confidence Interval
Week 10	Principles of Hypothesis Testing
Week 11	Applications of Hypothesis Testing
Week 12	Forensic application
Week 13	Forensic application
Week 14	Review
Week 15	FINAL EXAM

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Biostatistics for oral health care, By Jay S. kim and Ronald J. daliey, 2008, Blackwell Munksgaard, a Blackwell Publishing Company, USA	
Recommended Texts		

Websites	1- https://www.noor-book.com 2- www.efaidnbmnnnibpcajpcglclefindmkaj/https://onlinestatbook.com/Online_Statistics_Education.pdf
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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.
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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	Hussein313@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)	1
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			
العلاقة مع المواد الدراسية الأخرى			
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 المادة الدراسية	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
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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					
تقديم 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 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 organisms^١
Week ٢	Introduction to zoology and other biological science As well as classification of living organisms^٢
Week ٣	Structure and Function of Cells^١
Week ٤	Structure and Function of Cells^٢
Week ٥	Basics nutrition, Classification of proteins^١
Week ٦	Basics nutrition, Classification of proteins^٢
Week ٧	Muscular tissues and Nervous tissues^١
Week ٨	Muscular tissues and Nervous tissues^٢
Week ٩	Classification of Lipids and carbohydrates^١
Week ١٠	Classification of Lipids and carbohydrates^٢
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 4 th 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 http://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 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	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 الإرشادية	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
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	students
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Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال 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

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Principles of Forensic Science		Module Delivery
Module Type	B		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code	FOR1106		
ECTS Credits	5		
SWL (hr/sem)	١٢٥		
Module Level	UGI	Semester of Delivery	
Administering Department	FOR	College	Science
Module Leader	Rafed Abbas Kadhum	e-mail	Rafedabbass@uowasit.edu.iq
Module Leader's Acad. Title	Asst.prof	Module Leader's Qualification	Ph.D
Module Tutor	None	e-mail	
Peer Reviewer Name	None	e-mail	
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 الإرشادية	
Module Aims أهداف المادة الدراسية	1-It aims to provide the student with practical experience in collecting forensic evidence, investigating criminal investigations, and raising publications and antiquities. 2-Teaching the student how to deal with a crime scene and how to preserve it. 3-The student will be able to deal with physical and moral evidence at the crime scene.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1-The students will able to observe, analyze and study all the events at the crime scene. 2-The student's ability to study the biological, chemical, physical and legal evidence of crimes and the ability to deal with them in a scientific manner. 3-The student's knowledge of how to collect various crime traces and how to preserve and transport them from the crime scene. 4-The student's knowledge of how to analyze different crime evidences. 5- Ability to handle crime scenes professionally. 6-Knowing the types of fingerprints. 7-The ability to remove fingerprints in different ways depending on their presence at the crime scene. 8-The ability to collect and raise blood samples at crime scenes. 9-The student's knowledge of safety procedures inside the crime scene. 10-The ability to differentiate between types of criminal duels and knowledge of physical, biological, chemical and moral evidence.
Indicative Contents المحتويات الإرشادية	1-Understanding 2-Creativity and scientific thinking 3-Analysis of accident and crime scene data

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1- Collect the crime records and analyze the results based on the laboratory test results. 2- Focus on the practical aspect equally with the theoretical aspect. 3- Holding courses in cooperation with the Wasit Police Directorate/Forensic Evidence Department to enhance the student's knowledge of the crime scene and how to deal with it closely. 4- Organizing classroom and extracurricular activities. 5- Organizing field trips. 6- Encouraging team work by creating student groups. 7- Encouraging the preparation of scientific reports to enhance students' culture and familiarity with the subject.

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	108	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	2
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)		L# 1,2,3.4.5 L# 6,7,8.9.10
	Assignments				ALL
	Projects / Lab.	3	10%(10)		ALL
	Report	1	10%(10)		ALL
Summative assessment	Midterm Exam	2hr	20%(20)		ALL
	Final Exam	3hr	50% (50)		ALL
Total assessment			100%		

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	مفهوم واهمية علم الادلة الجنائية
Week 2	التطور التاريخي للادلة الجنائية
Week 3	انواع الادلة الجنائية
Week 4	الادلة الجنائية والاثار المادية

Week 5	اهمية البصمة الوراثية في تحقيق الشخصية
Week 6	البصمات واستخدام تقنية النانو في الكشف عنها
Week 7	الطب العدلي الشرعي
Week 8	الكيمياء الجنائية
Week 9	السموم الجنائية
Week 10	تزوير الجوازات وتزييف الاوراق النقدية
Week 11	فحص اثار الاسلحة والادوات
Week 12	مسرح الجريمة واجراءات المحافظة عليه
Week 13	الاداة الجنائية الالكترونية
Week 14	الهندسة الجنائية
Week 15	مراجعة قبل الامتحان النهائي
Week 16	الامتحان النهائي

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	الادلة الجنائية والاثار المادية
Week 2	اهمية البصمة الوراثية في تحقيق الشخصية
Week 3	البصمات واستخدام تقنية النانو في الكشف عنها
Week 4	الطب العدلي الشرعي
Week 5	الكيمياء الجنائية
Week 6	السموم الجنائية
Week 7	تزوير الجوازات وتزييف الاوراق النقدية

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Forensic science	Yes
Recommended Texts		
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
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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	Hussein313@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)	1
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	Fundamentals of Computer Science		Module Delivery
Module Type	Core		☒ Theory ☒ Lecture ☐ Lab ☒ Tutorial ☐ Practical ☐ Seminar
Module Code	1105		
ECTS Credits	2		
SWL (hr/sem)	60		
Module Level		Semester of Delivery	1
Administering Department		College	Science
Module Leader	Ilyas Khudhair Yalwi	e-mail	ilyas@uowasit.edu.iq
Module Leader's Acad. Title	Asst. teacher	Module Leader's Qualification	M.S.C
Module Tutor	Ilyas Khudhair Yalwi	e-mail	ilyas@uowasit.edu.iq
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	NONE	Semester	
Co-requisites module	NONE	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	This course aims to equip students with basic knowledge about computers and their various applications, with a focus on digital forensics. The curriculum consists of four main chapters covering different aspects related to computers.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Understand the basics and fundamental concepts of computers. 2. Learn about the historical development of computer generations. 3. Know the hardware and software components of a computer. 4. Learn the basics of computer security and software licenses. 5. Understand operating systems, with a focus on Windows 7.
Indicative Contents المحتويات الإرشادية	

Learning and Teaching Strategies	
استراتيجيات التعلم والتعليم	
Strategies	• -Theoretical lectures. • -Practical sessions in computer labs. • -Assignments and small projects. • -Quizzes and mid-term exams.

Student Workload (SWL)			
الحمل الدراسي للطلاب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	30	Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	30	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب 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	Basics of Computers and a Historical Overview of Computer Generations**
Week 2	Definition of computers.
Week 3	History of computer development and its generations.
Week 4	Applications of computers in various fields.
Week 5	Applications of computers in various fields
Week 6	Chapter 2: Hardware and Software Components of Computers**
Week 7	Hardware components: CPU, memory, storage devices, etc.
Week 8	Software components: operating systems, application software, utility programs.
Week 9	Chapter 3: Computer Security and Software Licenses
Week 10	Concepts of computer security.
Week 11	Types of viruses and malware and how to protect against them.
Week 12	Exam
Week 13	Chapter 4: Operating Systems**
Week 14	- Definition and functions of operating systems.
Week 15	- Overview of different operating systems.
Week 16	- Focus on Windows 7: features, uses, and basic settings

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 14 th 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	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 الإرشادية

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 الإرشادية	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 خلال الفصل	30	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعياً	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	30	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً	٢
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, 11 and 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) المناهج الاسبوعي النظري	
	Material Covered
Week 1	Functions: Domain and Range, Functions and their graphs, Trigonometric Functions.
Week 2	Limits and Continuity: Limit of a Function and Limit Laws, One-Sided Limits Continuity, Limits Involving Infinity, Asymptotes of Graphs.
Week 3	
Week 4	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 5	
Week 6	
Week 7	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 8	
Week 9	
Week 10	Integrals: The Definite Integral, The Fundamental Theorem of Calculus, Indefinite Integrals and the Substitution Method, Definite Integral Substitutions and the Area Between Curves.
Week 11	
Week 12	
Week 13	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 14	
Week 15	
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", 14 th Edition.	Yes
Recommended Texts	1. Erwin Kreyszig, "Advanced Sciences Mathematics", 11 th 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 (فقد 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 الأخرى				
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 للطلاب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	58	Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	17	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب خلال 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	(فقد 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

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.
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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		
Administering Department	FOR	College	College of Science/ Wasit University	
Module Leader	Saja Jawad Mahdi		e-mail	sjaaltaee77@gmail.com
Module Leader's Acad. Title	Assist. Lecturer	Module Leader's Qualification	M.S.c	
Module Tutor	Saja Jawad Mahdi		e-mail	sjaaltaee77@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
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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)
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	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

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Baath Party crimes		Module Delivery
Module Type	S		☒ Theory ☒ Lecture ☒ Lab ☒ Tutorial ☐ Practical ☐ Seminar
Module Code	WOU23019		
ECTS Credits	٢		
SWL (hr/sem)	50		
Module Level	UGI	Semester of Delivery	One
Administering Department	FOR	College	Science
Module Leader	Wagnaa Razaq Abd	e-mail	wagna@uowasit.edu.iq
Module Leader's Acad. Title	Teacher	Module Leader's Qualification	Master's
Module Tutor	Wagnaa Razaq Abd	e-mail	E-mail wagna@uowasit.edu.iq
Peer Reviewer Name	None	e-mail	None
Scientific Committee Approval Date	9/9/2024	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	Semester	One
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- Teaching students and increasing their awareness by learning about all types of crimes committed by the former regime's party and becoming familiar with all its topics in terms of identifying the concept of crimes and their types. 2- - Identifying the most prominent psychological and physical violations to which the Iraqi people were exposed 3- - Identifying the psychological and social effects of these crimes and providing the student with special knowledge and skills in defending these rights and demanding all their civil and political rights. 4- Providing the student with general knowledge about the basics of the former regime and all the crimes it committed against the Iraqi people of various components and sects, and establishing a conscious generation that rejects all types of injustice, tyranny, and tyranny, and the extent of its demands for all its rights.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- The ability to collect and consolidate information 2- Receiving information correctly 3- The student can distinguish between the concept of crime linguistically, the concept of crime terminologically, and its

	concept in all other human sciences. 4- The student's reception and acceptance of the subject 5- The student can distinguish between the types of Baath Party crimes
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. -Methods of teaching and learning • Lectures • Using recitation, discussion and problem solving • Assignments -Evaluation • Daily and monthly exam • In-class exercises

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Teaching and learning strategies and methods adopted in implementing the program in general. Interactive lectures between the professor and students, exchange of ideas, questions, and group discussions on all topics of Baath Party crimes. Daily and monthly tests. Research reports in order to increase students' ability to understand and understand the crimes of the Baath Party

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.				
	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 الأسبوعي النظري	
	Material Covered
Week 1	Introduction to the concept of crimes linguistically and terminologically

Week 2	Crime departments
Week 3	Baath Party crimes according to the Supreme Criminal Court Law
Week 4	Identify international crimes
Week 5	Learn about the decisions issued by the Supreme Criminal Court
Week 6	Identifying psychological crimes and their most prominent effects
Week 7	Identify the mechanisms of psychological crimes
Week 8	Identify social crimes
Week 9	The Baath Party's position on religion
Week 10	Militarizing society.
Week 11	Identify environmental crimes
Week 12	Identifying mass graves ✓
Week 13	Identifying military pollution and the leveling of orchards
Week 14	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Baath Party crimes approach	Yes
Recommended Texts	Archives of the Political Prisoners Foundation	
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
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	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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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		
Administering Department	FOR	College	College of Science/ Wasit University	
Module Leader	Saja Jawad Mahdi		e-mail	sjaaltaee77@gmail.com
Module Leader's Acad. Title	Assist. Lecturer		Module Leader's Qualification	M.S.c
Module Tutor	Saja Jawad Mahdi		e-mail	sjaaltaee77@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
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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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