

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Forensic sciences		Module Delivery
Module Type	C		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	For-1101		
ECTS Credits	8.00		
SWL (hr/sem)	200		
Module Level	1	Semester of Delivery	
Administering Department	Forensic Evidence	College	Science
Module Leader	Dr. Siba Muhammad Musa Al-Taie	e-mail	
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor		e-mail	sibaaltaie@uomosul.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date		Version Number	

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

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p>Module Objectives أهداف المادة الدراسية</p>	<p>Preparing qualified technical personnel in the field of business in government scientific institutions. Introducing educational methods For his modern and advanced technologies in teaching methods, preparing high-level educational programs, and employing Scientific research in the service of the country's health, social and development issues.</p> <p>Activating participation, coordination, and integration between the college and the community by holding seminars, conferences, and seminars to discuss health and scientific issues in the country.</p> <p>Contributing to the transfer and production of knowledge and the requirements of building the national system of science and technology through active participation in local, Arab, international or international seminars and conferences.</p> <p>Establishing cultural exchange relations and bilateral or collective agreements with Arab and international universities and professional organizations, taking into account the specificity of our society and its inherent values</p>
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<p>its signs</p> <ul style="list-style-type: none">– Knows how to deal with corpses sent to forensic medicine–He knows examinations on living things, such as examining paternity and sexual matters.
<p>Indicative Contents المحتويات الإرشادية</p>	<p>Scientific professional rules must be followed in the work of forensic medical personnel and not respond to external influences in order to change or distort some facts for the benefit of any of the parties to the criminal case.</p> <p>Maintaining the confidentiality of the information that forensic medicine specialists obtain or learn during their professional work and not revealing it to public opinion, but rather sending the results to the court in complete confidentiality because disclosing this information constitutes a violation of the privacy of the parties to the case and this is considered a crime according to the Iraqi Penal Code.</p> <p>Respect the dead body. Respect for human rights is not limited to the period .of his life, but extends to after his death</p>

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	. Lecture accompanied by explanation and analysis. Discussion panel. Reports and research. Questions and answers.	Class participation
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	107	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	200		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	1hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الأسبوعي النظري

	Material Covered
Week 1	Introducing forensic medicine and the procedures of judicial and investigative personnel when presenting the facts to the forensic docto
Week 2	Forensic medical groups and inspection of the accident scene

Week 3	Death and its signs. Wounds and their types
Week 4	Gun wounds
Week 5	Damage from natural phenomena, burns and their degrees
Week 6	Choking Sexual crimes
Week 7	The duty of the investigator and doctor in the incidents of human crimes Miscarriage
Week 8	The newborn was killed And toxicology
Week 9	Duties of the investigator in food poisoning incidents
Week 10	Identifying the body and estimating the age
Week 11	Identifying the body And laboratory tests
Week 12	The extent of medical and forensic benefit from blood collections And blood spots
Week 13	Blood groups and their inheritance
Week 14	Blood stains origin and age Seminal spots, their manifestations and examination
Week 15	Poetry is sourced and examined

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

Nothing

Week 1	
Week 2	
Week 3	
Week 4	

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
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Required Texts	Al-Wajeez in Forensic Medicine / Dr. Wasfi Muhammad	Yes
	Ali – Legal Library – Baghdad	Yes
Recommended Texts	Dr. Ahmed Azza Al-Qaisi - Forensic Medicine - General	Yes
	.Institution for Press and Printing 1970	Yes
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
<p>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.</p>				

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	General Biology		Module Delivery
Module Type	S		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	FOR-1102		
ECTS Credits	8.00		
SWL (hr/sem)	200		
Module Level	1	Semester of Delivery	
Administering Department	Forensic Evidence	College	Science
Module Leader	Dr. Mowafak Khalil Hasan	e-mail	
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor		e-mail	Mufsbio62@uomosul.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date		Version Number	

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Prerequisite module	Semester	1 and 2
Co-requisites module		Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p>Module Objectives أهداف المادة الدراسية</p>	<p>Introducing students to the basics of biology and its relationship to other sciences, and introducing students to the departments of biology. Introducing students to prokaryotic and eukaryotic organisms, as well as cell properties, studying the components of the cell and tissues that arise from a group of cells, and clarifying the properties, types, and characteristics of cells. Introducing the student to the science of the function of organs composed of groups of various tissues. It also introduces the student to the animal groups within the animal kingdom and its people. Learn .about nutrition, its types, and ways to release energy from it</p>
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none">1–Building a generation knowledgeable about biology and its role in detecting crimes and creating full awareness of the correct use of these sciences in detecting evidence left by the perpetrator at the crime scene.2– Realizing the importance of DNA as one of the most important means of criminal detection.3– Identify bodily fluids such as blood and saliva and their role in forensic medicine.4– Students will review cellular and tissue shapes using an optical microscope.5– Students will enhance their ability to write reports and scientific research in the future.
<p>Indicative Contents المحتويات الإرشادية</p>	<p>It is necessary to follow instructions related to laboratory safety and proper methods for dealing with chemicals and to protect samples from the risk of .damage, as they are the most important evidence left at the crime scene</p> <p>Recognizing the correct use of laboratory equipment and the necessity of learning how to operate and maintain it periodically.</p>

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	Lecture accompanied by explanation and analysis. Reports and research. Presentation of the material via PowerPoint slides. Questions and answers. Class participation.
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Student Workload (SWL)

The course at 15 weeks

Structured SWL (h/sem) The student's regular academic load during the semester.	108	Structured SWL (h/w) The student's regular academic load per week.	7
Unstructured SWL (h/sem) Irregular study load for the student during the semester.	92	Unstructured SWL (h/w) The student's irregular academic load per week.	
Total SWL (h/sem) The student's total academic load during the semester.	200		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	1hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الأسبوعي النظري

	Material Covered
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Week 1	Introduction to zoology and other biological science As well as classification of living organisms
Week 2	Introduction to zoology and other biological science As well as classification of living organisms
Week 3	Structure and Function of Cells
Week 4	Structure and Function of Cells
Week 5	Basics nutrition, Classification of proteins
Week 6	Basics nutrition, Classification of proteins
Week 7	Muscular tissues and Nervous tissues
Week 8	Muscular tissues and Nervous tissues
Week 9	Classification of Lipids and carbohydrates
Week 10	Classification of Lipids and carbohydrates
Week 11	Introduction to animal tissues
Week 12	Introduction to animal tissues
Week 13	Nutrition
Week 14	Nutrition
Week 15	Course Final Term Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

لا يوجد

Week 1	
Week 2	
Week 3	
Week 4	

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	FReece J, Urry L, Cain M, Wasserman S, Minorsky P, Jackson, R. (Eds) 9th Global Edition, 2011, Campbell Biology, Pearson Benjamin Cummings.	Yes
Recommended Texts	Butler, J. (2005) Forensic DNA Typing 2nd Ed. Elsevier (MA) ISBN: 9780121479527 Forensic Science – Jackson A.R. & Jackson J., Prentice Hall, ISBN: 130432512	No

Websites	https://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402/subject-content
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Grading Scheme مخطط الدرجات				
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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	الكيمياء العامة General chemistry		Module Delivery
Module Type	S		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	8.00		
ECTS Credits	FOR-1103		
SWL (hr/sem)	200		
Module Level	1	Semester of Delivery	
Administering Department	Forensic Evidence	College	Science
Module Leader	D.Ahmed Salem Mahmoud		e-mail
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor		e-mail	ahmedsalim@uomosul.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date		Version Number	

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

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p>Module Objectives أهداف المادة الدراسية</p>	<p>1 Objective of the study subject</p> <p>Introducing analytical chemistry, its sections, the important role of analytical chemistry and its applications in the fields</p> <p>Agricultural, clinical, environmental, and pollution, in addition to the fields of food pharmaceuticals, and most importantly, forensic evidence or forensic chemistry</p>
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<ul style="list-style-type: none">- Learn about general/analytical chemistry- Identify the acid and base theories- Identify chemical balance- Using analytical methods in analysis- The end point, the equivalence point (tie), and the corrective error- Back-titration- Identify primary standard materials, secondary standard materials and their requirements-How to calculate the acid function pH (Identifying buffer solutions (Puffer solutions -
<p>Indicative Contents المحتويات الإرشادية</p>	<p>The process of chemical analysis includes the use of chemical analytical methods to analyze the mystery of many crimes, whether murder, explosions, theft, or any type of accident. Analytical chemistry in many sciences plays an important role, as it is essentially indispensable in life science, as it is used to</p> <p>Analytical technology studies living materials, metabolic processes, etc., and doctors cannot diagnose diseases without relying on the results of the</p> <p>role, as it is essentially indispensable in life analyzes necessary for that</p> <p>science, as it is used to Analytical technology studies living materials, metabolic processes, etc., and doctors cannot diagnose diseases without</p> <p>relying on the results of the analyzes necessary for that</p>

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	. Lecture accompanied by explanation and analysis. Discussion panel. Reports and research. Questions and answers.	Class participation
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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	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	92	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	200		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	
	Assignments	2	10% (10)	2 and 12	
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	10% (10)	13	
Summative assessment	Midterm Exam	1hr	10% (10)	7	
	Final Exam	3hr	50% (50)	16	
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الأسبوعي النظري

	Material Covered
Week 1	Qualitative and quantitative analysis
Week 2	Strong and weak electrolytes.
Week 3	Acid and base theories

Week 4	Ways to express focus .
Week 5	Concentration percentages
Week 6	Parts per thousand, parts per million, parts per billion
Week 7	Molarity
Week 8	Molarity
Week 9	Standard
Week 10	n molar fraction.
Week 11	percentage.
Week 12	Weight ratio
Week 13	Volumetric ratio
Week 14	Volumetric weight ratio
Week 15	Issues and solutions

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

Week 1	
Week 2	
Week 3	
Week 4	

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	1. Vogel's text book of quantitative chemical analysis ..5 th .ed. 1989 .	Yes
	2. Basics of titration . 3. http://byjus.com/chemistry/typesof titration . 4. General chemistry. 5. Principles of chemistry 6. Cambridge IGCSE by Doug Wilford ,Bryan Earl.	Yes
	Course Outcomes: To enable students to learn <u>theoretical and practical volumetric analysis</u> .	

Recommended Texts		Yes
Websites		Yes

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information				
معلومات المادة الدراسية				
Module Title	Democracy and human rights		Module Delivery	
Module Type	B		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar	
Module Code	Uom104			
ECTS Credits	2.00			
SWL (hr/sem)	50			
Module Level	1	Semester of Delivery		1
Administering Department	Forensic	College	Science	
Module Leader	millimeter. Ghufraan Younis Hussein		e-mail	GufraanYounus.Hussien@uomosul.edu.iq
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	M.A	
Module Tutor		e-mail		
Peer Reviewer Name		e-mail		
Scientific Committee Approval Date		Version Number		

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

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p>Module Objectives أهداف المادة الدراسية</p>	<ul style="list-style-type: none">❖ The course aims for the student to be familiar with the concepts of political science and to become familiar with the principles of political science.❖ To seek to crystallize the student's creative thinking, which focuses on the ability to recall information or experiences stored in his mind and to propose quick alternatives, as well as to seek to crystallize his cognitive thinking.❖ To be able to diagnose every scientific word or subject and use it in his study or field of work in the futur.❖ Developing student skills in social and political analysis.❖ Bringing the theoretical study closer to reality❖ Providing a balanced scientific understanding of the foundations of human rights in a simplified and understandable way for most of the vocabulary and topics that are of interest to the student and that fall within the specializations of the undergraduate stage in political science, seeking a better understanding and awareness of the components and initial principles of political studies within the framework of political theory.❖ Expanding the understanding of political science students in differentiating between political concepts.
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<p>A- Knowledge and understanding</p> <ol style="list-style-type: none">1- The student must be familiar with the concepts and terminology of political science.2- To be able to analyze political science vocabulary using specialized methods.3-To be able to distinguish the factors that influence the state's policies internally and externally4- To be able to determine the nature of political concepts and terminology and know the interconnected relationship between human rights and the rest of the sciences.5- To be able to diagnose every scientific word or subject and use it in his study or field of work in the future.6- To be able to understand the foundations of human rights. <p>B - Subject-specific skills</p> <ol style="list-style-type: none">1- The student will acquire the skills and abilities of logical analysis of internal political and social interactions and variables and their impact on state policy.

	<p>2-The student's acquisition of scientific analysis skills</p> <p>3- The ability to combine intelligence, study, and practice in order to reach the academic level specializes in those who possess knowledge in political science, along with knowledge of the social, economic, and cultural influences that affect the trends and positions of the state and For a community</p>
<p>Indicative Contents المحتويات الإرشادية</p>	<p>– Make students aware of the relationship between learning styles and teaching methods.</p> <p>–Encouraging students to “expand” their methods</p>

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<p>1-Lectures accompanied by explanation and clarification.</p> <p>2. Discussion and brainstorming.</p> <p>3. Video lectures.</p> <p>4. Using illustrative and applied examples to enrich the scientific material.</p> <p>5. Discussions and research groups.</p> <p>6. Scientific competitions.</p> <p>7. Theoretical and analytical research and reports, discussed and evaluated.</p> <p>8. Presentation of the PowerPoint article.</p> <p>Using in-person + blended learning via Google Classroom</p>

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	
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
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	Report	1	10% (10)	13	LO #5, #8 and #10
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	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
المنهاج الأسبوعي النظري	
	Material Covered
Week 1	Human rights and their development in human history
Week 2	Human rights in ancient and medieval times
Week 3	Human rights in modern history
Week 4	Human rights (definition, definition and guarantees)
Week 5	The relationship between human rights and public freedoms
Week 6	Characteristics of human rights
Week 7	Restrictions on human rights
Week 8	Human rights departments
Week 9	Human rights resources
Week 10	Human rights in Islamic law
Week 11	A historical overview of democracy
Week 12	The concept of democracy
Week 13	Characteristics of democracy
Week 14	Democratic governance systems
Week 15	

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Nothing
Week 1	
Week 2	
Week 3	
Week 4	

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Human Rights, Dr. Hafez Alwan Al-Dulaim	Yes Yes
Recommended Texts	Human rights, their development, their contents and their protection, Riyad Aziz Hadi	Yes Yes
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	Legal regulation of the forensic expert		Module Delivery
Module Type	C		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	For-1205		
ECTS Credits	6.00		
SWL (hr/sem)	150		
Module Level	1	Semester of Delivery	
Administering Department	Forensic	College	Medicine
Module Leader	M.M. meeting with Khalil Othman Al-Hayal	e-mail	
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Master's
Module Tutor		e-mail	liqqakhalelalyali@uomosul.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date		Version Number	1

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

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	Introducing students to the science of forensics, who is a forensic expert, the most important laws related to the nature of their work, the most important general conditions and special conditions that must be met by a forensic expert in order to obtain this title, as well as introducing them to the sections of forensic evidence, the most important criminal investigation techniques, the scientific methods used in analyzing evidence, and the role of the forensic expert in proving Internet crimes and the most important methods of work in this field
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Providing students with the skill of working in the criminal field as criminal . experts who have the ability to assist judicial authorities in uncovering the circumstances and dilemmas that obstruct the work of judicial authorities in .revealing the facts of crimes
Indicative Contents المحتويات الإرشادية	An introduction to the definition of a criminal expert, the most important . laws, rights and duties related to him, and the fields in which he can work .after studying this field

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	Lecture accompanied by explanation and analysis. Discussion panel. Reports and research. Presentation of the material via PowerPoint slides. Questions and answers. Class participation
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Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	57	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	1hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الأسبوعي النظري	
	Material Covered
Week 1	Criminal evidence, judicial expert, and mother of laws related to the nature of his work
Week 2	Legal adaptation of the task of the forensic expert
Week 3	Criminal evidence departments
Week 4	Criminal investigation techniques and scientific methods used in analyzing evidence
Week 5	Genetic fingerprinting
Week 6	Fingerprints
Week 7	Voice fingerprint
Week 8	Image fingerprint (eye)
Week 9	Brain fingerprint

Week 10	The role of invisible rays in criminal proof
Week 11	Ultraviolet rays and their role in criminal proof
Week 12	Infrared radiation and its role in criminal proof
Week 13	X-rays and their role in criminal evidence
Week 14	Gamma rays and their role in criminal proof
Week 15	The role of the criminal expert in proving cybercrimes

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Nothing
Week 1	
Week 2	
Week 3	
Week 4	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	.Hanna, Mounir Riyad (2011), Forensic Medicine and Scientific and Police Methods Used in Detecting Crimes and Tracking Offenders, Alexandria, Dar Al-Fikr Al-Jama'i.	Yes
		Yes
Recommended Texts	Abdel Dayem, Hosni Mahmoud, (2009), Genetic fingerprinting and its validity in proof, Alexandria, Dar Al-Fikr Al-Jami'i	Yes
		Yes
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			
Module Title	Fuel and fire accelerators		Module Delivery
Module Type	C		<input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	For-1204		
ECTS Credits	7.00		
SWL (hr/sem)	175		
Module Level		Semester of Delivery	
Administering Department	Forensic Evidence	College	Science
Module Leader	Hamid Abdulla Salih	e-mail	hamid.abdulla@uomosul.edu.iq
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	PHD
Module Tutor		e-mail	
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	3/3/2024	Version Number	1.0

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

Module Aims, Learning Outcomes and Indicative Contents

Module Objectives	The study aims to introduce the student to the basic types of fuel according to the solid, liquid and gaseous phases, which are considered one of the main causes of fires.
Module Learning Outcomes	<ul style="list-style-type: none"> - Definition of fire - Learn commonly used terminology in the field of fires. - Understand specific written or spoken phrases and expressions. - Increase learners' confidence in identifying the types of fire causes - Stimulate students' strategies in understanding the different types of fuels. - Evaluate their technical skills in detecting and identifying the causes of fires.
Indicative Contents	A simple introduction to fire, the meaning of fire and the basic elements of the occurrence of fire. Then we deal with solid fuels with their specifications, types and treatments, the types of liquid fuels extracted from fossil fuels and ways to obtain them are also addressed, and then we learn about gaseous fuels.

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	Involving students in the learning process is essential. Modern learning processes rely heavily on collaborative work by students among themselves and by students with the teacher. Also, focusing on some quick tests is seen as a successful strategy. Homework is also known to play important roles in improving learners' academic records. Pay attention to the fact that each class has learners with mixed abilities.
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	82	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	
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	4	20% (20)	2,3,5 and 6	LO #1, #2 and #5 and #6
	Assignments	4	10% (10)	2,4,7 and 8	LO #2, #3, #5 and #6
	Projects / Lab.				
	Report	4	10% (10)	3,4,6 and 8	LO #3, #4, #5 and #6
Summative assessment	Midterm Exam	1hr	10% (10)		
	Final Exam	3hr	50% (50)		
Total assessment					100% (100 Marks)

ملاحظة: في حالة كون المادة لا تحتوي على جانب عملي تضاف الدرجة الخاصة بها إلى أي محور آخر يختاره استاذ المادة من تفصيلات الدرجة اعلاه

Delivery Plan (Weekly Syllabus)

المنهاج الأسبوعي النظري

	Material Covered
Week 1	Fire and History of solid fuel.
Week 2	Protection, present scenario and consumption pattern of fuels
Week 3	Coal classification, composition and basis.
Week 4	Fundamental definition, properties and various measurements.
Week 5	Different types of coal combustion techniques. Coal gasification.
Week 6	Teaching some skills required to increase and improve learners' vocabulary in the course.
Week 7	Exploration of crude petroleum. Refinery equipment's.
Week 8	Gaseous fuel.
Week 9	exam .
Week 10	Acetylene, other fuel gas.
Week 11	Combustion technology, fundamentals of thermochemistry.
Week 12	Tutorial
Week 13	Mechanism and kinetics of combustion, combustion furnaces, internal combustion engine.
Week 14	and seminars
Week 15	Final exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	
Week 9	
Week10	
Week 11	
Week 12	

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	<p><i>Edward, S. (2011). English Grammar for ESL Learners.</i></p> <p><i>Mc.Graw.Hill</i></p>	no
Recommended Texts	<p>Coal references</p> <ol style="list-style-type: none"> 1. Blander, M. "Calculations of the Influence of Additives on Coal Combustion Deposits" (PDF). Argonne National Laboratory. p. 315. Archived from the original (PDF) on 28 May 2010. Retrieved 17 December 2011. 2. ^ Jump up to:a b "Coal Explained". Energy Explained. US Energy Information Administration. 21 April 2017. Archived from the original on 8 December 2017. Retrieved 13 November 2017. 3. ^ Cleal, C. J.; Thomas, B. A. (2005). "Palaeozoic tropical rainforests and their effect on global climates: is the past the key to the present?". <i>Geobiology</i>. 3 (1): 13–31. Bibcode:2005Gbio....3...13C. doi:10.1111/j.1472-4669.2005.00043.x. S2CID 129219852. 4. ^ Sahney, S.; Benton, M.J.; Falcon-Lang, H.J. (2010). "Rainforest collapse triggered Pennsylvanian tetrapod 	Online

	<p>diversification in Euramerica". <i>Geology</i>. 38 (12): 1079–1082. Bibcode:2010Geo....38.1079S. doi:10.1130/G31182.1.</p> <p>5. ^ "Global energy data". International Energy Agency.</p> <p>6. ^ Jump up to:a b "Lignite coal – health effects and recommendations from the health sector" (PDF). Health and Environment Alliance. December 2018. Archived from the original (PDF) on 11 December 2018. Retrieved 12 February 2024.</p> <p>7. ^ Jump up to:a b Ritchie, Hannah; Roser, Max (11 May 2020). "CO2 emissions by fuel". Our World in Data. Retrieved 22 January 2021.</p> <p>8. ^ Jump up to:a b "China's unbridled export of coal power imperils climate goals". Retrieved 7 December 2018.</p> <p>9. ^ "Dethroning King Coal – How a Once Dominant Fuel Source is Falling Rapidly from Favour". Resilience. 24 January 2020. Retrieved 8 February 2020.</p> <p>10. ^ "Analysis: The global coal fleet shrank for first time on record in 2020". Carbon Brief. 3 August 2020. Retrieved 9 November 2021.</p> <p>11. ^ Simon, Frédéric (21 April 2020). "Sweden adds name to growing list of coal-free states in Europe". www.euractiv.com. Retrieved 9 November 2021.</p> <p>12. ^ "Tax carbon, not people: UN chief issues climate plea from Pacific 'frontline'". The Guardian. 15 May 2019.</p> <p>13. ^ Ulbrich, Markus; Preßl, Dieter; Fendt, Sebastian; Gaderer, Matthias; Spliethoff, Hartmut (December 2017). "Impact of HTC reaction conditions on the hydrochar properties and CO2 gasification properties of spent grains". <i>Fuel Processing Technology</i>. 167: 663–669. doi:10.1016/j.fuproc.2017.08.010.</p> <p>14. ^ "Coal Types, Formation and Methods of Mining". Eastern Pennsylvania Coalition for Abandoned Mine Reclamation. Retrieved 29 November 2020.</p> <p>15. ^ Jump up to:a b Smith, A.H.V. (1997). "Provenance of Coals from Roman Sites in England and Wales". <i>Britannia</i>. 28: 297–324 (322–24). doi:10.2307/526770. JSTOR 526770. S2CID 164153278.</p> <p>.</p> <p>16. ^ "Anthracitic Coal". Kentucky Geological Survey. University of Kentucky. Retrieved 29 November 2020.</p> <p>17. ^ "Standards catalogue 73.040 – Coals". ISO.</p>	
<p>Websites</p>	<p>1. "EIA Energy Kids – Oil (petroleum)". www.eia.gov. Archived from the original on July 7, 2017. Retrieved March 18, 2018.</p> <p>2. ^ Krauss, Clifford; Mouawad, Jad (March 1, 2011). "Libyan tremors threaten to rattle the oil world". The Hindu. Chennai, India. Archived from the original on March 6, 2011.</p>	

3. ^ Bullard, Nathaniel (December 9, 2021). "Peak Oil Demand Is Coming But Not So Soon". BNN, Bloomberg News. Retrieved December 11, 2021.
4. ^ R, Tom; all; Warren, Hayley. "Peak Oil Is Already Here". Bloomberg.com. Archived from the original on December 18, 2020. Retrieved December 31, 2020.
5. ^ "petroleum" Archived May 16, 2020, at the Wayback Machine, in the American Heritage Dictionary
15. ^ "Greek fire | Byzantine, Naval Warfare, Incendiary | Britannica". Encyclopædia Britannica. Retrieved October 1, 2023.
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20. ^ Keoke, Emory Dean; Porterfield, Kay Marie (2003). *American Indian Contributions to the World: 15,000 Years of Inventions and Innovations*. Facts on File. p. 199. ISBN 978-0-8160-5367-4.
21. ^ Longmuir, Marilyn V. (2001). *Oil in Burma: the extraction of "earth-oil" to 1914*. Bangkok: White Lotus Press. p. 329. ISBN 978-974-7534-60-3. OCLC 48517638.
22. ^ "The oil wells of Alsace; a discovery made more than a century ago. What a Pennsylvania operator saw abroad – primitive methods of obtaining oil – the process similar to that used in coal mining" (PDF). *The New York Times*. February 23, 1880. Archived (PDF) from the original on December 18, 2019. Retrieved June 15, 2018.
23. ^ Lucius, Robert von (June 23, 2009). "Deutsche Erdölförderung: Klein-Texas in der Lüneburger Heide". *FAZ.NET* (in German). ISSN 0174-4909. Archived from the original on January 26, 2017. Retrieved March 18, 2018.
24. ^ "Deutsches Erdölmuseum Wietze". *www.erdoelmuseum.de*. Archived from the original on October 14, 2017. Retrieved March 18, 2018.
25. ^ Vassiliou, Marius S. (2018). *Historical dictionary of the petroleum industry*, 2nd .
26. ^ Times, Christopher S. Wren Special to The New York (November 13, 1974). "Soviet Moves Ahead of U.S. in oil output". *The New York Times*. ISSN 0362-4331. Archived from the original on May 31, 2020. Retrieved April 4, 2020.

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	Organic Chemistry		Module Delivery
Module Type	B		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	For-1206		
ECTS Credits	6.00		
SWL (hr/sem)	150		
Module Level		Semester of Delivery	
Administering Department	Forensic	College	Science
Module Leader	Dr.Ameera Mohammad Farage	e-mail	Amerra-mohammad@uomosul.edu.iq
Module Leader's Acad. Title	Lecture	Module Leader's Qualification	Ph.D.
Module Tutor	Dr.Ameera Mohammad Farage	e-mail	Amerra-mohammad@uomosul.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date		Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Fundamental of Organic Compounds(I)	Semester	4
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

DESCRIPTION

The Systematic Identification of Organic Compounds

A comprehensive introduction to the identification of unknown organic compounds, Identifying unknown compounds is one of the most important parts of the study of chemistry. From basic characteristics such as melting and/or boiling point to more complex data generated through cutting-edge techniques, the range of possible methods for identifying unknown organic compounds is substantial. The utility of a research reference which compiles known techniques and characteristics of possible compounds is clear. The Systematic Identification of Organic Compounds provides such a reference, designed to teach a hands-on approach in the chemistry lab. It takes readers step-by-step through the process of identifying an unknown compound and elucidating its structure from infrared, nuclear magnetic resonance, and mass spectra in addition to solubility characteristics, melting point, boiling point, and classification tests. The result is an essential overview for advanced chemistry students looking to understand this exciting area of laboratory work. Readers of the ninth edition of The Systematic Identification of Organic Compounds will also find:

- A detailed chapter on safety, personal protection equipment, chemical storage, safety data sheets, and other safety concerns
- Questions at the end of each chapter designed to facilitate and reinforce progression, keyed to a companion website for instructors
- Tables of known compounds including data relevant for identification

- Companion website with structural problems from experimental data for students to practice how to reason and solve, The Systematic Identification of Organic Compounds is a useful reference for advanced undergraduates and graduate students studying organic chemistry, organic spectroscopy, and related subjects **Chemical properties:** Structural isomers would have the **same chemical property** if they have the **same functional group(s)** in their structural formula. *, This effectively means that only **functional group isomers** would have different chemical properties., As you have learnt in Preliminary HSC Chemistry, a different functional group provides a **distinctive** chemical property to the molecule to undergo certain chemical reactions.

Physical properties The following guidelines will help you compare the melting and boiling points between different isomer molecules. As you will explore with polymers which is part of the last Inquiry Question in Module 7, you learn that molecules (e.g. isomers) that exhibit a **less branched** (or linear) structural formula have a **higher** melting and boiling point. Therefore, you would expect the more chain branching that a molecule exhibits, the lower its melting and boiling point will be.

This is because chain branching prevents the isomers from packing their carbon chains closely together and, thus, the intermolecular forces (e.g. dispersion forces) between them would be weaker. As we have explored in Preliminary HSC Chemistry, intermolecular forces play an important role in governing the melting and boiling point of molecules. As for functional group isomers, the

Module Objectives

أهداف المادة الدراسية

يتم كتابة اهم الأهداف التي
تغطيها هذه المادة الدراسية
بشكل جمل او فقرات توضح
المواضيع التي سيتم التطرق
اليها و دراستها و معالجتها (

	<p>isomers have different functional groups allowed differing extent of chain branching (thus affecting dispersion forces) and maybe different degree of dipole-dipole and hydrogen bonding. Therefore, their melting and boiling point (physical property) may vary. Example: Alcohols (- OH) and carboxylic acids (- COOH) have different melting and boiling points due to different functional groups.</p>
<p>Module Learning Outcomes</p> <p>مخرجات التعلم للمادة الدراسية</p> <p>يتم كتابة اهم المخرجات او الناتج و الكم العلمي الذي يتم استخدامه للتدريس في هذه المادة على شكل أسئلة أساسية تخص منهاج المادة بأكمله و يجب ان لا تقل هذه المخرجات من ناحية العدد عن 6 مخرجات و يفضل ان تكون بعدد أسابيع الدراسة.</p>	<p>• Module content:, • Some organic chemistry fundamentals, basic concepts and terminology, Naming and classification of organic compounds, Basic reactions of alcohols, ethers and carbohydrates, Natural polysaccharides: modification and utilization in various applications, Group work (including presentation and evaluation of the other group works): Preparation of biofuels from biomass, Preparation of adsorbents from starch, Novel method for preparation of 5-hydroxymethylfurfural from biomass or Preparation of bio-plastics from biomass, Learning outcomes: After completing organic chemistry module student should be able to: identify and draw organic compound, provide the IUPAC name for some organic compounds, classify alcohols, explain the properties of alcohols and ethers discuss the reactions of alcohols and ether, recognize functional groups that are present in monosaccharides, classify carbohydrates to mono- di, oligo- and polysaccharides</p> <p>identify the structural difference between following polymers: amylose, amylopectin, cellulose and glycogen, • discuss the basic reactions of monosaccharides • discuss the reactions of starch and cellulose such as hydrolysis, esterification and, etherification • know how and why to use biomass in different applications • In addition to comprehend to the theory, the idea of the project work is to enhance group-working skills, social skills, planning skills, the ability to explore information and interpret found information, presentation and reporting skills, responsibility taking and knowledge about the biomaterial applications., Learning activities and teaching methods:</p> <ul style="list-style-type: none"> • 30 hours on-line working / independent self-study. Teacher and student contact will be mainly through distance-learning tools (E.g. Adobe Connect meetings and discussion forums). Dail, Remarks: • • An intensive study period that will be carried out where an in-depth study of one of the goals of the course will be done including workshops and hands-on applications of theory. • learning objectives, tasks and pace guide are given on Canvas learning platform: Learning can be • tested by doing daily exercises.
<p>Indicative Contents</p> <p>المحتويات الإرشادية</p> <p>يتم كتابة اهم العناوين الرئيسية للمواضيع بشكل متسلسل و التي تشمل كافة الفقرات التي تحتويها مع إدراج عدد الساعات المطلوبة لتنفيذ كل فقرة.</p>	<p>Indicative content includes the following.</p> <p><u>Part A – Theoretical lectures</u></p> <p>Second Course: Introduction, bonds, hybridization, physical properties and molecular structure , alkanes and cycloalkanes- nomenclature, stereochemistry, conformational analysis, and an introduction to synthesis- hydrogenation of alkenes and alkynes, reduction of alkyl halides, reduction of carbonyl compounds, decarboxylation, [10 hrs]</p> <p>Melting point and boiling point of organic compound</p> <p>Revising of Systematic identification of organic compounds</p> <p>Studying the element test and classification of organic compounds [8 hrs]</p> <p>Assorting the compounds on groups of solubility and detect the suitable solvent</p>

	<p>Studying the Functional groups tests Grignard reagents, Wurtz reaction, Corey-House synthesis. Alkene, Alkadiene, Alkyne- nomenclature, Reactions and synthesis- elimination, dehydrohalogenation, Zaitsev's and Hofmann's rules, dehydration of alcohols, E1-E2 reaction, rearrangements, debromination, syn addition, anti addition, Markovnikov's rules, mechanism, oxidation-<i>Hydroboration-oxidation</i>, epoxidation of alkenes.[3 hrs]</p> <p><u>Part B – Practical labs</u></p> <p>. Physical constant, A group of 4 students measured melting and boiling points of some unknown compounds using lab apparatus.</p> <p>Element test presentation and lab work, A group of 4 students identify presence or absence elements in some unknown compounds using organic solvents and reagents. [18 hrs], Solubility test presentation and lab work, A group of 4 students identify solubility of some unknown compounds using organic solvents., First Quiz , Functional groups tests presentation and lab work, Week 5&6 a group of 4 students identify presence or absence of functional groups of some unknown compounds using chemical solvents and reagents. Second Quiz, Each student individually identifying an unknown based on the information and experience gained in the 1, 2, 3, 4, 5&6 training weeks. 6 weeks are specified to complete identifying with using organic chemistry literature.[18 hrs]</p>
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Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

<p>Strategies</p> <p style="color: red; text-align: center;">يتم كتابة ملخص الاستراتيجية الرئيسية التي سيتم تبنيها في تقديم هذه المادة</p>	<p>Course Outcomes: The student will learn how to identify an organic compound systematically.</p> <p>Weekly Teaching Plan: In the first week there will be a general presentation about the course and how to behave in the lab. Except for the first 4 weeks all the remaining weeks involve lab. work only.</p> <p>Students Behaviour in Class: Keen to learn, friendly and cooperative</p> <p>Computer Usage: search for compounds in dictionary.</p> <p>Teaching Techniques: Student learn how to use test tube reactions techniques.</p> <p>Suggestions: An attempt to combine the two methods used to identification of organic compounds, which is the chemical method and the spectroscopic method</p>
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	78	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	72	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	1hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الأسبوعي النظري

	Material Covered
Week 1	Introduction of fundamental of organic compound and the study references.
Week 2	An authentic of identification, its definition, taxonomic status and importance.
Week 3	The physical and chemical properties can affected on organic compounds
Week 4	Features and structures used in directing shields and shells.
Week 5	Melting point and boiling point of organic compound
Week 6	Revising of Systematic identification of organic compounds
Week 7	Studying the element test and classification of organic compounds
Week 8	Classification the organic compounds according the solubility
Week 9	Assorting the compounds on groups alkane, alkene and alkyne
Week 10	Numen culture of hydrocarbons, alkane, alkene and alkyne
Week 11	Synthesis of alkanes.
Week 12	The reaction of alkanes
Week 13	Mid examination and quiz1
Week 14	Synthesis of alkenes and alkynes
Week 15	The reaction of alkenes and alkynes

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Lab 1: General Lecture
Week 2	Lab 2: Physical constant A group of 4 students measured melting and boiling points of some unknown compounds using lab apparatus.
Week 3	Lab 3:: laboratory safety
Week 4	Lab 4: Glass ware, A group of 4 students identify presence or absence elements in some unknown compounds using organic solvents and reagents.
Week 5	Lab 5: Melting point
Week 6	Lab 6: Boiling point: A group of 4 students identify solubility of some unknown compounds using different organic compounds
Week 7	Lab 7: Simple distillation
Week 8	Lab 8: Fractional distillation, a group of 4 students identify presence or absence of functional groups of some unknown compounds using chemical solvents and reagents.
Week 9	Lab9: Steam distillation
Week10	Lab 10: Recrystallization
Week 11	Lab 11: Sublimation, Comparative between the Unknown and the theoretical organic compound in adiabatic literature
Week 12	Lab 12: Each student individually identifying an unknown based on the information and experience gained in the 1, 2, 3, 4, 5&6 training weeks. 6 weeks are specified to complete identifying with using organic chemistry literature.

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	1) Organic Chemistry by <u>Morrison and Boyd</u> 2016 2) Organic Chemistry by 4th ed by Paula Bruice 2017., 3) Essential Organic Chemistry 3 rd ed by Paula Yurkanis Bruice 2018	Yes Yes
Recommended Texts	Fundamentals of organic chemistry Dr. Raad Al-Hamdani	Yes
Websites	https://shop.elsevier.com/books/introduction-to-organic-chemistry/hag/978-0-444-82672-5	

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	Computer Concept	Module Delivery	
Module Type	B	<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar	
Module Code	UOM103		
ECTS Credits	3		
SWL (hr/sem)	75		
Module Level	1		
Administering Department	Forensic Evidence	College	Science
Module Leader	Dr. Mahmood Subhy Mahmood	e-mail	
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor		e-mail	Mahmoodsubhy1981@uomosul.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date		Version Number	

Relation with other Modules			
Prerequisite module		Semester	
Co-requisites module		Semester	

Module Aims, Learning Outcomes and Indicative Contents

Module Objectives	Introducing students to computer basics. What are the hardware and software components of a computer? There is a great opportunity to involve them in working on the computer. In addition to the above, the course will improve students' skills in using computers and the Internet and avoid common mistakes that computer users make through practical application.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- Introduction to Computer 2- Computer portions 3- operate on window 4- windows components 5- Windows Setting 6- Windows Accessories 7- operate on Microsoft office 8- introduction to Networks 9- Introduction to Internet 10 - Internet services 11- Introduction to AI 12- Introduction to Cyber Security 13- Cyber Security Rules
Indicative Contents	To Guide the students to using computer and windows in their fields.

Learning and Teaching Strategies

Strategies	discussion with students and makes exams, in addition to reports.
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Student Workload (SWL)

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	12	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	1hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction to Computer
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	Introduction to Windows
Week 8	Introduction to Computer Network
Week 9	Introduction to the Internet
Week 10	Introduction to the Internet
Week 11	Microsoft Word
Week 12	Microsoft Word
Week 13	Introduction to the AI
Week 14	Cyber Security
Week 15	Test

Delivery Plan (Weekly Lab. Syllabus)

Week 1	Windows
Week 2	Windows
Week 3	Windows
Week 4	Windows
Week 5	Windows
Week 6	Windows
Week 7	Windows
Week 8	Microsoft Word
Week 9	Microsoft Word
Week 10	Microsoft Word
Week 11	Microsoft Word
Week 12	Microsoft Word
Week 13	Microsoft Word
Week 14	Microsoft Word

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	introduction to the windows operating system	Yes
Recommended Texts	Microsoft office concepts	Yes
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

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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
Module Title	English Language		Module Delivery
Module Type	B		<input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	UOM102		
ECTS Credits	2		
SWL (hr/sem)	50		
Module Level	1	Semester of Delivery	
Administering Department	Forensic Evidence	College	Science
Module Leader	Thaer Sultan Darweesh	e-mail	talramli@uomosul.edu.iq
Module Leader's Acad. Title	Teaching Instructor	Module Leader's Qualification	MA
Module Tutor		e-mail	
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	3/3/2024	Version Number	1.0

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

Module Aims, Learning Outcomes and Indicative Contents

Module Objectives	This course is aimed to increase students' knowledge in terms of different vocabulary, phrases, clauses and Forensic Evidence -related terminology. It enables the learners to express what they would like to communicate while they are still studying at college or even when they get their potential jobs. Also, this course encourages the learners to read books, articles and browse department-related websites to search for information needed.
Module Learning Outcomes	<ul style="list-style-type: none"> - Differentiating between general English communications and scientific English communication - Learning commonly-used terminology in the field of Forensic Evidence. - Understanding specific phrases & expressions written or spoken. - Increasing learners' confidence in reading books and research conducted by scholars around the world. - Motivating learning strategies for learners and improving their autonomous skills. - Evaluating their language skills and benefitting from feedback given throughout the course.
Indicative Contents	Introduction about communication in English language, followed by general English information. Also, explaining some strategies to follow by earners to progress in the subject [8hrs]. Clarifying the English language skills in general and moved to vocabulary and its importance in English language [6]. Differentiating between parts of speech and showing the difference between general English and scientific English [3]. Detailing the main skills; writing, licensing, reading and speaking and doing some practice sessions with feedback sessions where needed [9]. Feedback and error corrections practices with some review over the whole course [4hrs].

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	Engaging learners in the learning process is essential . Modern learning processes depend hugely on collaborative work by students. Also, focusing on some quick quizzes is seen as successful strategy though. Also, it is known that homework plays important roles in improving learners' academic records. Paying attention to the point that every class has mixed-ability learners.
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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	
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	4	20% (20)	2,3,5 and 6	LO #1, #2 and #5 and #6
	Assignments	4	10% (10)	2,4,7 and 8	LO #2, #3, #5 and #6
	Projects / Lab.				
	Report	4	10% (10)	3,4,6 and 8	LO #3, #4, #5 and #6
Summative assessment	Midterm Exam	1hr	10% (10)		
	Final Exam	3hr	50% (50)		
Total assessment					100% (100 Marks)

ملاحظة: في حالة كون المادة لا تحتوي على جانب عملي تضاف الدرجة الخاصة بها إلى أي محور آخر يختاره استاذ المادة من تفصيلات الدرجة أعلاه

Delivery Plan (Weekly Syllabus)

المنهاج الأسبوعي النظري

	Material Covered
Week 1	An introduction on general English language
Week 2	Understanding communication in English language
Week 3	Delivering study strategies for learners throughout the whole course
Week 4	Methods of improving English language skills
Week 5	An introduction about vocabulary in English language in general
Week 6	Teaching some skills required to increase and improve learners' vocabulary in the course.
Week 7	Teaching learners different phrases, clauses and expressions commonly-used in the field.
Week 8	Doing useful class activity in order to encourage collaborative work between students.
Week 9	Teaching writing skills and focusing on writing short paragraphs correctly.
Week 10	Doing feedback sessions and focusing on error corrections
Week 11	Teaching listening skills and assigning homework individually and collaboratively.
Week 12	Teaching reading skills in general and focusing on necessary strategies required.
Week 13	Doing some reading practice inside classroom and giving some feedback and error correction.
Week 14	Teaching speaking skills and encouraging group sessions and course-related discussions
Week 15	Reviewing some main topics from the past weeks and doing quick re-capping for the course.

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	
Week 9	
Week10	
Week 11	
Week 12	

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	<i>Edward, S. (2011). English Grammar for ESL Learners.</i> <i>Mc.Graw.Hill</i>	YES
Recommended Texts	https://study.com/academy/lesson/forensic-evidence-types-definition-cases.html	Online
Websites	https://www.pdfdrive.com/english-grammar-for-esl-learners-e1692453.html https://englishbiology.wordpress.com/	

Grading Scheme

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