Republic of Iraq - Ministry of Higher Education and Scientific Research
University of Misan
Bachelor's degree in Agriculture scince\ Pant Protection
Four years (Eight semesters) - 240 ECTS credits - 1 ECTS = 25 hr
Program Curriculum (2024 - 2025)

جمهورية العراق - وزارة التعليم العالي والبحث العلمي
جامعة ميسان
بكالوريوس علوم زراعة \ وقاية نبات
أربع سنوات (ثمانية فصول دراسية) - ٢٤٠ وحدة اوربية - كل وحدة اوربية = ٢٥ ساعة
المنهاج الدراسي للعام ٢٠٢٤-٢٠٢٥

Level	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)						Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS			Module Type	Prerequisite Module(s) Code
							CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)									
UGI	One	1	ENTO101	Entomology	علم الحشرات	Arabic	2		3	1	1		3	108	67	175	7			C	
		2	PRHO102	Principles of Horticulture	مبادئ علم البستنة	Arabic	2		3				3	78	97	175	7			B	
		3	GACH103	General chemistry	كيمياء عامة	Arabic	2		3		1		3	93	82	175	7			B	
		4	MATH104	Mathematics	رياضيات	Arabic	1		2				2	47	78	125	5			S	
		5	UOM120	English Language	اللغة الانكليزية	English	2						2	32	18	50	2			S	
		6	UOM121	Human rights and public freedoms	حقوق الانسان والحريات العامة	Arabic	2						2	32	18	50	2			S	
				مجموع الساعات الأسبوعية	25	Total	11	0	11	1	2	0	15	390	360	750	30				

Level	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)						Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS			Module Type	Prerequisite Module(s) Code
							CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)									
UGI	Two	1	GBOT107	General Botany	نبات عام	Arabic	2		3	1		1	3	108	67	175	7			C	
		2	PLPB108	Plant protection basics	اساسيات وقاية نبات	Arabic	2		3		1		3	93	82	175	7			C	
		3	SOIL109	Soil Science	علم التربة	Arabic	2		3				3	78	72	150	6			B	
		4	AGEC110	Agricultural Economy	مبادئ اقتصاد زراعي	Arabic	2						3	33	92	125	5			B	
		5	UOM122	Computer Application	تطبيقات حاسوب	Arabic	1		2				3	48	27	75	3			S	
		6	UOM123	Arabic Language	اللغة العربية	Arabic	2						2	32	18	50	2			S	
				مجموع الساعات الأسبوعية	25	Total	11	0	11	1	1	1	17	392	358	750	30				

Level	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)						Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS			Module Type	Prerequisite Module(s) Code
							CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)									
UGII	Three	1	PLPH213	Plant Physiology	فسلجة نبات	Arabic	2		3	1	1		3	108	67	175	7			C	
		2	PMIC214	Principles of Microbiology	مبادئ احياء مجهرية	Arabic	2		3				3	78	97	175	7			C	
		3	PSTA215	Principles of Statistics	مبادئ احصاء	Arabic	2						3	33	67	100	4			B	
		4	MVIN216	Medical and Verternary Insects	حشرات طبية وبيطرية	Arabic	2		3	1			3	93	82	175	7			C	
		5	UOM222	Computer Application	تطبيقات في الحاسوب ٢	Arabic	1		2				2	47	28	75	3			S	
		6	UOM220	English Language	اللغة الانكليزية ٢	English	2		0				2	32	18	50	2			S	
				مجموع الساعات الأسبوعية	25	Total	11	0	11	2	1	0	16	391	359	750	30				

Level	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)						Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS			Module Type	Prerequisite Module(s) Code
							CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)									
UGII	Four	1	PLNU219	Plant Nutrition	تغذية نبات	Arabic	2		3				3	93	82	175	7			C	
		2	INCL220	Insects Classification	تصانيف حشرات	Arabic	2		3	1			3	93	82	175	7			C	
		3	PRFC221	Principles of Field Crops	مبادئ محاصيل حقلية	Arabic	2		3				3	78	72	150	6			C	
		4	MAAI222	Machinary and AI in Plant Protection	المكننة والذكاء الاصطناعي في وقاية النبات	Arabic	2		3				3	78	72	150	6			C	
		5		Crimes of the Baath Regime in Iraq	جرائم نظام البعث في العراق	Arabic	2						2	32	18	50	2			S	
		6	UOM223	Arabic Language	اللغة العربية ٢	Arabic	2						2	32	18	50	2			S	
				مجموع الساعات الأسبوعية	25	Total	12	0	12	1	0	0	16	406	344	750	30				

Level	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)						Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS			Module Type	Prerequisite Module(s) Code
							CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)									
	Five	1	GEBI325	Genetic and Biotechnology	الوراثة والتقانات الحيوية	Arabic	2		3				3	48	52	100	4			B	
		2	EXDA326	Experiments Design and Analysis	تصميم وتحليل تجارب	Arabic	2		2				3	63	37	100	4			B	
		3	MYCO327	Mycology	فطريات	Arabic	2		3				3	78	97	175	7			C	
		4	INPH328	Insects Physiology	فسلجة حشرات	Arabic	2		3				3	78	97	175	7			C	
		5	ECSA329	Ecology and Sustainable Agriculture	علم البيئة والزراعة المستدامة	Arabic	2		1	1			3	63	37	100	4			C	
		6	PAEX330	Principles of Agriculture Extension	مبادئ الارشاد الزراعي	Arabic	2						2	32	18	50	2			B	
		7	QSAP331	Quality and Safety of Agriculture Projects	جودة وسلامة المشاريع الزراعية	Arabic	2						2	32	18	50	2			S	
				مجموع الساعات الأسبوعية	25	Total	14	0	12	1	0	0	19	394	356	750	30				

UGIII	eme+B39:V40ste	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)						Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS			Module Type	Prerequisite Module(s) Code
							CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)									
	Six	1	WECO332	Weeds and Control methods	ادغال وطرق مكافحتها	Arabic	2		2				3			125	5			C	
		2	PLPA333	Plant Pathology	امراض نبات	Arabic	2		3				3			125	5			C	
		3	APIC334	Apiculture	تربية نحل	Arabic	2		2				3			125	5			C	
		4	NEMA335	Nematode	نيماتودا	Arabic	2		2				3			125	5			C	
		5	INEC336	Insects Ecology	بيئة حشرات	Arabic	2		3				3			125	5			C	
		6	AGMI337	Agricultural Mites	حلم زراعي	Arabic	2		1				3			125	5			C	
				مجموع الساعات الأسبوعية	25	Total	12	0	13	0	0	0	18				30				

Level	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)						Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS			Module Type	Prerequisite Module(s) Code
							CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)									
	Seven	1	ORIN438	Orchard Insects	حشرات بساتين	Arabic	2		3				3				6			C	
		2	PEST439	Pesticides	مبيدات	Arabic	2		2				3				5			C	
		3	STPE440	Storage Pests	افات مخازن	Arabic	2		3				3				6			C	
		4	VEGD441	Vegetable Diseaese and protected agriculture	امراض خضر وزراعة محمية	Arabic	2		3				3				6			C	
		5	BIOC442	Biological Control	مقاومة حيوية	Arabic	2		2				3				5			C	
		6	REPR443	Research Projects	مشروع بحث تخرج	Arabic	1		1								2			C	
				مجموع الساعات الأسبوعية	25	Total	11		14				15	0	0	0	30				

UGIII	eme+B39:V40ste	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)						Exam hr/sem	SSWL hr/sem	USSWL hr/sem	SWL hr/sem	ECTS			Module Type	Prerequisite Module(s) Code
							CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)									
	Eight	1	FRDI444	Fruit Diseaese	امراض فاكهة	Arabic	2	3					3	78	47	125	5			C	
		2	PLVI445	Plant Virology	فايروسات نبات	Arabic	2	2					3	63	37	100	4			C	
		3	CRIN446	Crops Insects	حشرات محاصيل حقلية	Arabic	2	3					3	78	97	175	7			C	
		4	CRDI447	Crops Diseaese	امراض محاصيل	Arabic	2	3					3	78	97	175	7			C	
		5	IPMA448	Integcated Pest Management	الادارة المتكاملة للافات	Arabic	2	2					3	63	62	125	5			C	
		6	REPR449	Research Projects	مشروع بحث تخرج	Arabic	2							30	20	50	2			C	
				مجموع الساعات الأسبوعية	25	Total	12	13					15	390	360	750	30				

دليل البرنامج الدراسي

2025 – 2024

اسم الجامعة: جامعة ميسان

الكلية/ المعهد: كلية الزراعة

القسم العلمي: قسم وقاية النبات

اسم البرنامج الأكاديمي أو المهني: بكالوريوس وقاية النبات

اسم الشهادة النهائية: بكالوريوس في العلوم الزراعية / وقاية النبات

١. رؤية البرنامج

السيطرة على الآفات مع بيئة صحية آمنة.

٢. رسالة البرنامج

يسعى القسم من خلال التدريسيين ذوو الكفاءات العلمية إلى نشر المعرفة وتطبيقاتها وتطوير المهارات ذات العلاقة بإدارة الآفات ومكافحتها لتحقيق بيئة زراعية متوازنة تؤمن الأمن الغذائي للمجتمع واستدامتها بإعداد مهندسين زراعيين مؤهلين في مجال وقاية النبات فضلا عن البحوث العلمية والدراسات ذات العلاقة لتعزيز تطبيقات وقاية النبات.

٣. أهداف البرنامج

يهدف قسم وقاية النبات إلى:

١- إعداد خريجين مؤهلين من خلال تقديم المقررات الدراسية العلمية والعملية وتطويرها بشكل مستمر لتلبية احتياجات المجتمع وسوق العمل من حيث كيفية استعمال المبيدات في مكافحة الآفات الزراعية في الإدارة المتكاملة بإدخال التطبيقات الحديثة واستعمال الكائنات الحية للحد من الخسائر الاقتصادية التي تحدثها.

٢- العمل مع القطاعين العام والخاص والمزارعين والمنظمات المختلفة والإفراد لتطوير التطبيقات المستخدمة في مجال وقاية النبات.

٣- تنظيم وإقامة المؤتمرات والندوات والدورات وورش العمل والحلقات الدراسية والزيارات الحقلية التي تعزز من إعداد وتنفيذ برامج الإدارة المتكاملة للآفات في مجال وقاية النبات.

٤- المشاركة مع الأقسام العلمية ذات العلاقة في الكلية والجامعة والجامعات العراقية والعربية والعالمية لإعداد نظام معرفي متكامل في مجال وقاية النبات من اجل البيئة والتنمية المستدامة وتحقيق الأمن الغذائي.

٥- تحديد الاهداف والمتطلبات وتطوير الخريجين لزجهم في مجال تخصصهم مع تقديم الاستشارات العلمية ووضع الحلول لاي عوائق محتملة.

٤. مواصفات البرنامج

Program Cod	B.Sc. Plant Protection	ECTS	240
Duration	4 levels 8 semesters	Method of Attendance	Full Time

٥. مخرجات التعلم المتوقعة للبرنامج

مخرجات التعلم (المواصفات المرجوة)	ناتج التعلم

المعرفة		
ع١	فهم وقاية النبات.	تمكين الطلبة من تعريف وتشخيص الآفات الزراعية وطرق التقليل من ضررها.
ع٢	فهم الحالة المرضية للنبات وقدرة الطالب على تطبيق مفاهيم المكافحة على أمثلة عملية.	معرفة الطلبة بالمسببات المرضية، وتطوير الاستراتيجيات والطرق الفعالة للمحافظة على النباتات.
ع٣	معرفة اهم الآفات الحشرية التي تصيب النباتات.	معرفة الطلبة بالآفات الحشرية. وتطوير الاستراتيجيات والطرق الفعالة للمحافظة على النباتات
ع٤	معرفة علاقة العوامل المناخية مع صحة النبات.	معرفة الطلبة في كيفية تأثير العوامل المناخية على صحة النبات ودورها في نشر المسببات المرضية والآفات.
المهارة		
م١	قدرة الطلاب على تطبيق التقنيات الزراعية المستدامة في العمل العملي.	تطبيق استدامة الزراعة واستخدام الموارد المائية بكفاءة وتقليل الضائعات.
م٢	إدراك تأثير الانسان في نشر المسببات المرضية والآفات، وتداخلات البيئة الطبيعية.	سيقوم الطلاب بتحليل تأثير الأعمال البشرية على تدهور النبات، ودراسة العلاقات بين الانسان والمسببات المرضية والآفات والنبات.
م٣	قدرة الطلاب على تطبيق مهارات التخطيط والتنظيم في مشاريع وقاية النبات	تطوير خطط فعالة لوقاية النبات.
م٤	قدرة الطلاب على تطبيق مهارات البحث العلمي للعثور على حلول جديدة.	تطوير حلول جديدة وفعالة لوقاية النبات.
القيم		
ق١	قدرة الطلاب على تطبيق مفاهيم الاستدامة في حياتهم اليومية.	تحقيق التوازن بين احتياجات الحاضر واحتياجات المستقبل.
ق٢	تعلم كيفية رفع مستوى الوعي ومكافحة المسببات المرضية والآفات الحشرية.	استكشاف الطلاب أساليب منع الامراض والآفات وإشراك الآخرين في معالجة المشكلة.
ق٣	قدرة الطلاب على تطبيق أساليب دعم سبل العيش في مشاريع عملية.	تحسين سبل العيش والاستدامة للمجتمعات المتضررة من الآفات والامراض النباتية مع المحافظة على الانتاج السليم للنبات نوعا وكما.
ق٤	قدرة الطلاب على التفاعل بشكل فعّال مع الآخرين والمشاركة في مشاريع جماعية.	تحقيق الأهداف المشتركة من خلال التعاون والتضامن.

٦. استراتيجيات التعليم والتعلم

في المعرفة

الإلقاء والمشاهدات الحقلية والصورية والتدريب والبحث والعصف الذهني والمناقشة والعمل ضمن مجموعات.

في المهارة

تشخيص المسببات المرضية والآفات الحشرية والتدريب والتكليفات الدورية والبحث وعروض تقديمية والمناقشة.

في القيم

التدريب والتحليل والبحث وكتابة التقارير والمقالات العلمية والعمل الفردي والجماعي والعصف الذهني.

٧. طرائق التقييم

في المعرفة

الامتحانات والتكليفات والمناقشة.

في المهارة

الامتحانات والتكليفات والمناقشة وأوراق العمل.

في القيم

كتابة بحث علمي فردي وجماعي والامتحانات والملاحظة وتقييم Rubric.

٨. الهيئة التدريسية

الرتبة العلمية	التخصص		المتطلبات/ المهارات الخاصة (ان وجدت)	أعداد الهيئة التدريسية	
	عام	خاص		ملاك	محاضر
أ. د. غسان مهدي داغر	وقاية النبات	امراض نبات	-	٢٠	لا يوجد
أ. م. د. طلال حسين صالح	فطريات	فطريات طبية	-		
أ. م. د. ضرغام صبيح كريم	محاصيل حقلية	انتاج محاصيل	-		
أ. م. د. عبد الكريم قاسم جبر	وقاية النبات	امراض نبات	-		
أ. م. د. علي حسن حرفش	وقاية النبات	حشرات	-		
أ.د. علي عذافة طعمة	وقاية النبات	امراض نبات	-		
م. د. فرحان جاسم محمد	وقاية النبات	حشرات	-		
أ.م. د. علي عباس هاشم	مكائن ومعدات	ساحبات وقوى	-		
م. د. علاء كاظم فرحان	علوم زراعية	اقتصاد زراعي	-		
م. د. حيدر خلف محمد	التربة والموارد المائية	خصوبة تربة	-		
أ.م.د. أحمد مالك جمعة	وقاية النبات	امراض نبات	-		
م. كرار أكرم كامل	علوم حياة	نبات	-		
م.م. ورود جبار عيدان	محاصيل حقلية	وراثة نبات	-		
م.م. صلاح عبد الحسن غيلان	بستنة وهندسة حدائق	فسلجه فاكهة	-		
م.م. علي حسين علي نعمة	وقاية النبات	حشرات	-		
م.م. محمد عبد الحسن بريسم	وقاية النبات	امراض نبات	-		
م.م. نجلاء زكي منور	محاصيل حقلية	محاصيل حقلية	-		
م.م. محمد حمدان غضبان	وقاية النبات	امراض نبات	-		
م.م. نورين عبدالزهرة حسن	وقاية النبات	امراض نبات	-		
م.م. وداد مارد حمود	وقاية النبات	حشرات	-		

9.الاعتمادات والدرجات والمعدل التراكمي

يتم تجميع الدرجات في الفصل من خلال التقييم التكويني الذي يشمل ٤٠ درجة والتقييم التحصيلي الذي يشمل ٦٠ درجة يقسم ١٠ درجات على امتحان نصف الفصل و٥٠ درجة للامتحان النهائي وتكون درجة النجاح الصغرى ٥٠ لكل مادة دراسية. وتكون التقديرات حسب الجدول التالي:

Grade	Description	الدرجة / الوصف	التقدير
A - Excellent	Outstanding Performance	٩٠-١٠٠	امتياز
B - Very Good	Above average with some errors	٨٠- اقل من ٩٠	جيد جدا
C – Good	Sound work with notable errors	٧٠- اقل من ٨٠	جيد
D – Satisfactory	Fair but with major shortcomings	٦٠- اقل من ٧٠	متوسط
E – Sufficient	Work meets minimum criteria	٥٠- اقل من ٦٠	مقبول
FX – Fail (Conditional pass)	Credit awarded after submitting extra work	٥٠ بعد معالجة حالة الطالب الحاصل على درجة من ٤٥-٤٩ من قبل استاذ المادة.	مقبول بقرار
F – Fail	Considerable amount of work required	اقل من ٥٠ (راسب)	ضعيف

***ملاحظة: يجبر كسر الدرجة النهائية للمادة الدراسية الى أقرب درجة صحيحة.**

اما معدل التخرج فيحسب من خلال: -

١- يحسب معدل التخرج (CGPA) للطالب بجمع ناتج ضرب درجة كل مادة دراسية بوزنها من عدد الوحدات (ECTS) لكل المستويات الدراسية ، ثم يقسم الناتج على عدد الوحدات المطلوبة لكامل برنامج الدراسة الواردة في الفقرة (١) من البند أولا من هذا الفصل و كما هو مبين في المعادلة ادناه:

$$\text{معدل الطالب} = \frac{\text{مجموع ضرب}(\text{عدد وحدات المادة الدراسية} \times \text{درجة المادة})}{\text{عدد الوحدات الكلي}}$$

اذا ما كان الطالب قد اكمل البرنامج الدراسي للبكالوريوس ذي الاربع سنوات تصبح المعادلة:

$$\text{معدل التخرج} = \frac{\text{مجموع ضرب}(\text{عدد وحدات المادة الدراسية} \times \text{درجة المادة})}{٢٤٠}$$

***ملاحظة: لا يجوز جبر كسور الدرجة إلى درجة صحيحة عند حساب المعدل**

10.المواد الدراسية Modules

Semester1/ 30ECTS/ 1ECTS=25H

Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL	USSWL	ECTS	Module Type	Prerequisite Module(s) Code
ENTO101	**Entomology**	**علم الحشرات**	Arabic	108	67	7	C	
PRHO102	**Principles of Horticulture**	**مبادي علم البستنة**	Arabic	78	97	7	B	
GACH103	**General chemistry**	**كيمياء عامه**	Arabic	93	82	7	B	
MATH104	**Mathematics**	**رياضيات**	Arabic	47	78	5	S	
UOM120	**English Language**	**اللغة الانكليزية**	Arabic	32	18	2	S	
UOB121	**Human rights and public freedoms**	**حقوق الانسان والحريات العامة**	English	32	18	2	S	

Semester2/ 30ECTS/ 1ECTS=25H

Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL	USSWL	ECTS	Module Type	Prerequisite Module(s) Code
GBOT107	**General Botany**	**نبات عام**	Arabic	108	67	7	C	
PLPB108	**Plant protection basics**	**اساسيات وقاية نبات**	Arabic	93	82	7	C	
SOIL109	**Soil Science**	**علم التربة**	Arabic	78	72	6	B	
AGEC110	**Agricultural Economy**	**مبادي اقتصاد زراعي**	Arabic	33	22	5	B	
UOM122	**Computer Application**	**تطبيقات حاسوب**	Arabic	48	27	3	S	
UOM123	**Arabic Language**	**اللغة العربية**	Arabic	32	18	2	S	

Module type	*B*	*Basic learning activities*
	C	Core learning activity
	S	Support or related learning activity
	E	Elective learning activity

11. اتصال Contact

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University of Misan
جامعة ميسان

First Cycle – Bachelor's Degree (B.Sc.) – in

Agricultural Sciences/ Plant Protection

بكالوريوس في العلوم الزراعية / وقاية النبات

Table of Contents

1. Overview

This catalogue is about the courses (modules) given by the program of Agricultural Sciences/ Plant Protection to gain the Bachelor of Agricultural Sciences/ Plant Protection. The program delivers (49) Modules with (6000) total student workload hours and 240 total ECTS. The module delivery is based on the Bologna Process.

نظرة عامة

يتناول هذا الدليل المواد الدراسية التي يقدمها برنامج وقاية النبات للحصول على درجة بكالوريوس في العلوم الزراعية . يقدم البرنامج (49) مادة دراسية، على سبيل المثال، مع (٦٠٠٠) إجمالي ساعات حمل الطالب و٢٤٠ إجمالي وحدات أوروبية. يعتمد تقديم البرنامج الدراسي على عملية بولونيا.

Module 1

Code	Course/Module Title	ECTS	Semester
ENTO101	Entomology	7	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/sem)**
2	5	108	67
Description			
Introducing the student to Entomology. Introducing the student to the insects characteristics. Introducing the student to benefits and harms of insects. Dealing with insects using scientific methods.			

Module 2

Code	Course/Module Title	ECTS	Semester
PRHO102	Principles of Horticulture	7	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/sem)**
2	3	78	97
Description			
the subject aims to identify fruit trees, vegetables and ornamental plants. Identify their parts, shapes and methods of reproduction. Introduce the student to the different agricultural processes carried out on plant species before and after planting. Introduce the student to modern agricultural techniques and identify their advantages and disadvantages. Introduce the student to the different service processes provided to the plant such as irrigation, fertilization and pest control processes.			

Module 3

Code	Course/Module Title	ECTS	Semester
GACH103	General chemistry	7	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/sem)**
2	4	93	82
Description			
The Module includes Definition the student to Analytical chemistry. Definition the student to Chemicals used in the analysis. Definition the student to Quantitative and qualitative estimation of the elements or compounds. Definition the student to Organic chemistry. Definition the student to biochemical molecules			

Module 4

Code	Course/Module Title	ECTS	Semester
MATH104	Mathematics	5	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
1	2	47	78
Description			
To enable the student to solve the mathematical problems. To provide a suitable type of discipline in the mind of the learners. To prepare the student for various technical profession. To prepare the student for economic purposeful, productive, creative, and constructive living. To develop in the power of thinking and reasoning.			

Module 5

Code	Course/Module Title	ECTS	Semester
UOM120	English Language	2	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/sem)**
2		32	18
Description			
The aim of this course is to provide English learners with integrated language skills such as reading, listening and writing resulting in a level of basic language knowledge. This course will focus on grammar rules, basic word knowledge and usage, reading comprehension, reading out of the lesson, and Paragraph writing. A student may be able to listen to native speakers and speak English Language. A student may be able to write and have creativity in his writing.			

Module 6

Code	Course/Module Title	ECTS	Semester
UOM121	Human rights and public freedoms	2	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/sem)**
2	0	32	18
Description			
Introducing students to the concept of freedom and democracy and their origins. Introducing students to human rights and democracy in ancient civilizations. Introducing students to human rights in divine laws and religions. Emphasizing the features and characteristics of human rights and the extent of their application in power. Emphasizing the application of freedom and democracy in their correct concept according to the societal perspective.			

Module 7

Code	Course/Module Title	ECTS	Semester
GBOT107	General Botany	**7**	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/sem)**
2	5	108	67
Description			
The module aims to Introduce the student to the concept of botany & the branches of botany. Understanding the relationship of Botany and other agriculture applied sciences and agriculture technologies. Recognizing the plant cell and its living and non-living components. Studying the plant tissues. Identify the principles of plant morphology. Studying this course is very important to provide the main principles for acquiring the skills and knowledge necessary for the graduate to succeed in competing in the labor market. Protecting plants from pests and environmental damage, agricultural production, caring for gardens and fruit orchards, as well as cultivation in greenhouses is based on a correct understanding of botany.			

Module 8

Code	Course/Module Title	ECTS	Semester
PLPB108	Plant Protection Basics	7	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/sem)**

2	4	93	82
Description			
Learn about the most important pests and diseases spread in Iraq and the world and the types of their causes. It classifies the types of pests and diseases according to their causes, their cycle of life, or the nature of their reproduction. The student separates the types of pests and diseases and the most important methods used to reduce their impact on crop productivity. Knows the scientific methods used to reduce the damage of pests and diseases by first adopting preventive methods.The student evaluates the cost of chemical control, the type of pesticides used, the method of control, additions, and devices.			

Module 9

Code	Course/Module Title	ECTS	Semester
SOIL109	soil science	6	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/sem)**
2	3	78	72
Description			
The study of soil science as a branch of agricultural sciences represents the basic part in the cultivation and productivity of crops, as well as in terms of interaction with other agricultural sciences in terms of the activity of organisms living in the soil or the chemical reactions occurring in it, and addressing the most important physical properties resulting from natural or chemical weathering processes during the stages of soil formation. Soil science is in fact a group of separate sciences that are interdependent. The term soil refers to the materials exposed to the weathering process that are located within the outer crust of the Earth's surface and are initially formed from the decomposition and breakdown of rocks by physical and chemical processes.			

Module 10

Code	Course/Module Title	ECTS	Semester
AGEC110	Agricultural Economy	5	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/sem)**
2		33	92
Description			
Introduce students to the importance of agricultural economics Introducing students to the agricultural economic problem and its most important causes. Definition of economic and non-economic resources and their uses among alternatives. Definition of the productive function and the first principles of selection. Introducing students to the nature of production costs. Introducing students to the importance of farm planning and its most important objectives. Definition of the laws of decreasing yields and successive stages			

Module 11

Code	Course/Module Title	ECTS	Semester
UOM122	Computer Application 1	3	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/sem)**
2	1	48	27
Description			
Introducing the student to the basics of computers and types of computers Its classification, operating systems and objectives. As for the goals of the practical side It is to provide the student with skills in using operating and application programs and how to maintain computer security.			

Module 12

Code	Course/Module Title	ECTS	Semester
UOM123	Arabic Language 1	2	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/sem)**
2	0	32	18
Description			
The importance of the Arabic language for scientific specializations and its advantage among living languages Avoiding common mistakes and correct pronunciation.			

Contact

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MODULES DESCRIPTION

وصف المواد الدراسية

قسم وقاية نبات

2024 - 2025

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information:

Module Information معلومات المادة الدراسية					
Module Title	**Entomology**			**Module Delivery**	
Module Type	**Core**			☒ **Theory**	
Module Code	**ENTO101**			☐ **Lecture**	
ECTS Credits	**7**			☒ **Lab**	
SWL (hr/sem)	**175**			☒ **Tutorial** ☒ **Practical** ☐ **Seminar**	
Module Level			**Semester of Delivery**		
Administering Department	**plant Protection**		**College**	**College of Agriculture**	
Module Leader	**Ali Hussein Ali**		**e-mail**	**Ali_hussain@uomisan.edu.iq**	
Module Leader's Acad. Title	**Assistant Lecturer**		**Module Leader's Qualification**	**MS.C**	
Module Tutor	**N.A**		**e-mail**	**N.A**	
Peer Reviewer Name	**N.A**		**e-mail**	**N.A**	
Scientific Committee Approval Date	1 / 10 /2024		**Version Number**		

Relation with other Modules

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 Objectives أهداف المادة الدراسية	**1.Definition the student to Insects.** **2.Definition the student to the insects characteristics.** **3.Definition the student to benefits and harms of insects.** **4.Dealing with insects using scientific methods.**
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**Students will learn:** **1.Knowledge of terms using in entomology.** **2.The possibility of classifying insects in a scientific way.** **3. He can distinguish different species and learn about their environments.** **4. Identify the internal parts of insect bodies.** **٥. Raising insects in the laboratory and studying their life.** **6. Characterize damage caused by insects.** **7. How to deal with insects.** **8. Identify insect collecting areas.** **9. Methods of hardening and collecting insects.** **10. Conveying information about insects to society in a scientific manne.**
Indicative Contents المحتويات الإرشادية	**1.It can distinguish damage caused by insects.** **2.How to deal with insects.** **3.Methods of collecting insects.** **4.The relationsihip of insects with other organisms.** **5.Distinguishing between hamful and beneficial insects.**

Learning and Teaching Strategies:

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	**1.Using the method of delivering information through lecture** **2. Students participate in obtaining information by asking them to submit scientific reports.** **3. Training students on the method of logical discussion to reach results.** **4. Learning through applied field practices.**

Student Workload (SWL):

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	108	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	67	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	4.47
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل			

Module Evaluation:

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative	**Quizzes**	2	10% (10)	6 and 13	LO #1, #2 and #8, #9

assessment	**Assignments**	2	10% (10)	5 and 11	LO #5, #6 and #9, #10
	Projects / Lab.	2	10% (10)	Continuous	All
	Report	2	10% (10)	11	LO #5, #6 and #7, #8
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	**The taxonomic position of insects, their relationships , and their relationship to the arthropod phylum , The importance of insects, their spread, benefits, and harms.**
Week 2	**External appearance, body wall, body protrusions, insect colors.**
Week 3	**Areas of the body, . Structure of the head and its appendages, Structure of the antennae, Structure of the mouth parts.**
Week 4	**Structure of the thorax and its appendages and appendages. Structure and growth of the wings. The process of flight. Structure of the legs.**
Week 5	**Structure of the abdomen and its related appendages, reproductive appendages and non-reproductive appendages.**
Week 6	**Internal anatomy of the digestive system, Circulatory device**
Week 7	**examination**
Week 8	**Internal anatomy, nervous system, excretory system.**
Week 9	**. Internal anatomy The respiratory system The muscular system.**
Week 10	**Internal anatomy of the reproductive system, types of reproduction in insects.**
Week 11	**Insect behavior.**
Week 12	**Metamorphosis in insects, types of metamorphosis, embryonic development.**
Week 13	**Insect communities and parental care of young.**

Week 14	**Insect division and division table.**
Week 15	**A field tour to learn about insects in their environment.**
Week 16	**Final exam.**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	**Tools for collecting, carrying and preserving insects and types of insect groups.**
Week 2	**Location of insects from the animal world and the arthropod phylum, the external appearance of the insect, body regions.**
Week 3	**The head and its appendages, types of antennae.**
Week 4	**Types of mouth parts in adult insects.**
Week 5	**Chest rings and their structure, types of wings and their modifications, types of legs and their modifications.**
Week 6	**Abdominal rings and appendages. Mating appendages, such as reproductive organs. Non-mating appendages, such as anal horns and pens**.

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	**Entomology/ Professor Dr. Osama Baharith.** **Entomology /Translated by Dr. Ali Shaalan and Dr. Saadi Muhammad Hilal.**	NO 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
	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	**Principles of Horticulture**			**Module Delivery**	
Module Type	**Basic**			☒ **Theory** ☒ **Lecture** ☒ **Lab** ☐**Tutorial** ☒ **Practical** ☐**Seminar**	
Module Code	**PRHO102**				
ECTS Credits	**7**				
SWL (hr/sem)	**175**				
Module Level		1	**Semester of Delivery**		**1**
Administering Department		**Plant Protection**	**College**	**Agriculture**	
Module Leader	**Salah Abdulhasan Ghailan**		**e-mail**	**salah.ghilan@uomisan.edu.iq**	
Module Leader's Acad. Title		**Assistant Lecture**	**Module Leader's Qualification**		**M.SC**
Module Tutor	**N.A**		**e-mail**	N.A	
Peer Reviewer Name		**N.A**	**e-mail**	N.A	
Scientific Committee Approval Date		10/10/2024	**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1. Identify fruit trees, vegetables and ornamental plants. 2. Identify their parts, shapes and methods of reproduction. 3. Introduce the student to the different agricultural processes carried out on plant species before and after planting. 4. Introduce the student to modern agricultural techniques and identify their advantages and disadvantages. 5. Introduce the student to the different service processes provided to the plant such as irrigation, fertilization and pest control processes.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Students will learn: 1. Urging students to obtain information about horticultural crops from some scientific sites via the Internet. 2. Using modern means in giving lessons, such as a data display device, to learn about appearance and parts of horticultural plants. 3. Using modern agricultural techniques in the production and propagation of fruit trees, vegetable crops and ornamental plants. 4. Using adaptive environments to produce different horticultural plants out of season.
Indicative Contents المحتويات الإرشادية	Horticultural crops are among the most important food basket crops. The main objective of this course is to teach students how to increase production and improve quality by introducing modern agricultural techniques such as tissue culture and soilless cultivation, choosing the appropriate variety and the appropriate cultivation method at the appropriate time, in addition to carrying out appropriate agricultural service operations and controlling the specific environmental conditions for production by providing adapted agricultural environments that suit the requirements of the cultivated crop.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1. Lectures and tutorials are presented through a PowerPoint presentation that includes information, pictures, diagrams and videos. 2. Raise questions about the lecture topic in order to open discussion with students. 3. At the end of each lecture, a quick quiz on the lecture topic is conducted.
Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا	

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	97	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3.33
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**	3	10% (10)	3, and 6 and 9	LO #1, #2 and #3 , #4 and #5 , #6
	Assignments	3	10% (10)	5,10 and 15	LO #8 and #9 and #14
	Projects: Practical	1	10% (10)	Continuous	All
	Report	2	10% (10)	12	LO #10, #11 and #12
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introducing the student to the axes of horticulture, history and stages of development of

	horticulture.
Week 2	The student will learn about the classification of horticultural plants.
Week 3	The student will learn about the role of environmental factors and their impact on the production of horticultural crops.
Week 4	The student will learn about the methods of reproduction of horticultural plants (sexual and vegetative reproduction) including organic farming.
Week 5	The student will learn about nurseries, field cultivation patterns, landscape ,ornamental and medicinal plants.
Week 6	The student should learn about the different agricultural operations that are carried out before and after planting.
Week 7	The student will learn about agriculture under air-conditioned environments.
Week 8	The student should learn with the dates and methods of harvesting, picking, and marketing.
Week 9	The student should learn about the post-harvest processes such as storage and preservation.
Week 10	The student will learn with an overview of the horticultural plant breeding and improvement programs.
Week 11	The student will identify examples of fruit trees (deciduous, perennial).
Week 12	The student will be able to identify examples of vegetable plants (strategic crops).
Week 13	The student will be introduced to examples of trees, shrubs, ornamental plants and landscape.
Week 14	The student will learn about examples of medicinal and aromatic plants.
Week 15	The student will become learnt with orchards, fields and various garden facilities (greenhouses, plastic houses, wooden shades, etc.)
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Practical Syllabus) المنهاج الاسبوعي التطبيقي في الحقل	
	Material Covered
Week 1	Preparing the soil suitable for growing horticultural crops.
Week 2	Determine the appropriate methods for planting horticultural crops by choosing the appropriate distances and lines between plants, as well as choosing the appropriate variety

	and timing.
Week 3	Applying the process of planting seeds or seedlings in the open field and identifying the appropriate depth of digging and planting for each type.
Week 4	A field visit to the horticultural facilities to learn about their components, dimensions, and differences, as well as their uses.
Week 5	Introducing students to the types of pollination between horticultural crops through field practices on some plant species.
Week 6	Applying a number of important agricultural operations in the open field, such as irrigation, fertilization, pest control, etc.
Week 7	Enabling students to distinguish between different plant species and geniuses outwardly by distinguishing between their parts such as leaves, flowers, fruits, etc.
Week 8	Introducing the student to modern agricultural technologies such as hydroponics and learning about its systems and working principle through actual field observations.
Week 9	Introducing the students to a number of agricultural operations carried out on fruits after harvest such as sorting, storage, preservation, packaging, etc.
Week 10	Providing students with a brief overview of the breeding and improvement programs conducted in the field on some horticultural species with the aim of improving some fruiting and other properties in horticultural plants.
Week 11	Introducing the student to some available fruit trees such as date palms, jujubes, and others to view their various plant parts.
Week 12	Introducing the student to some of the different vegetable crops grown such as legumes, cucurbits, etc. to identify them and distinguish their shoot system.
Week 13	Introducing the student to some different seasonal and perennial flowering plants and others to learn about them and their environmental requirements.
Week 14	Introducing the student to some elements of garden engineering and its infrastructure, in addition to viewing models of modern garden designs.
Week 15	Introducing students to some models of organic farming and identifying its conditions and advantages compared to conventional farming.

Learning and Teaching Resources

مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Peter, K. V. (2009). *Basics of horticulture*. New India Publishing.	yes
Recommended Texts	Maldonado, A. I. L. (Ed.). (2012). *Horticulture*. BoD–Books on Demand.	yes
Websites	https://camosun.libguides.com/horticulture/websites https://horticulture.ap.nic.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	**General Chemistry**			**Module Delivery**	
Module Type	**Basic**			☒ **Theory**	
Module Code	**GACH103**			☐ **Lecture**	
ECTS Credits	**7**			☒ **Lab**	
SWL (hr/sem)	**175**			☒ **Tutorial** ☒ **Practical** ☐ **Seminar**	
Module Level			**Semester of Delivery**		
Administering Department	**Plant Protection**		**College**	**College of Agriculture**	
Module Leader	**Ayat Jawdat Kadhim**		**e-mail**	**ayat.jawdat@uobasrah.edu.iq**	
Module Leader's Acad. Title	**Assistant Lecturer**		**Module Leader's Qualification**	**MS.C**	
Module Tutor	**N.A**		**e-mail**	**N.A**	
Peer Reviewer Name	**N.A**		**e-mail**	**N.A**	
Scientific Committee Approval Date	/ /2024		**Version Number**	1	

Relation with other Modules

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 Objectives أهداف المادة الدراسية	1) **Definition the student to Analytical chemistry.** 2) **Definition the student to Chemicals used in the analysis.** 3) **Definition the student to Quantitative and qualitative estimation of the elements or compounds.** 4) **Definition the student to Organic chemistry.** 5) **Definition the student to biochemical molecules**
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**Students will learn:** 5. **The basics, ideas and basic concepts of soil general Chemistry.** 6. **The importance of the chemical elements in the composition of the plant.** 7. **Methods of pH for buffer solution .** 8. **Acids and bases indicator .** 9. **Titration and it is importance in find the concentration of solution.** 10. **Types of chemical bonds.** 11. **Types of hybridization between chemical molecules** 12. **Distinguish between hydrocarbons and hydrocarbon derivatives.** 13. **Distinguish between aliphatic and aromatic hydrocarbons.** 14. **Alkanes, alkenes and alkynes.** 15. **Distinguish between animal and plant cells.** 16. **Life molecules that make up the body of a living organism.** 17. **Carbohydrates, proteins, Lipids, DNA, and enzymes**
Indicative Contents المحتويات الإرشادية	**Introduction about the quantum chemistry** **Solutions and methods for calculation concentration** **Ionic balance** **Indicator** **Solubility** **Introduction about the organic chemistry** **Alkanes, alkenes and alkynes** **Aromatic hydrocarbons** **Cells** **Water**

	Carbohydrates **proteins** **Lipids** **DNA** **Enzymes**

Learning and Teaching Strategies:

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 types of simple experiments involving some sampling activities that are interesting to the students.**

Student Workload (SWL):

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	6.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	82	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	5.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**175**		

Module Evaluation:

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	6 and 13	LO #1, #2 and #8, #9
	Assignments	2	10% (10)	5 and 11	LO #5, #6 and #9, #10
	Projects / Lab.	2	10% (10)	Continuous	All
	Report	2	10% (10)	11	LO #5, #6 and #7, #8
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction about the quantum chemistry
Week 2	Ionic balance
Week 3	Acid and Base, pH of the solution & Indicator
Week 4	Solubility and dissolution constant
Week 5	Introduction of Organic Chemistry
Week 6	Saturated Hydrocarbons 'AlKanes'
Week 7	unSaturated Hydrocarbons 'AlKenes'
Week 8	unSaturated Hydrocarbons 'AlKynes'
Week 9	Aromatic Comopounds

Week 10	**Cell**
Week 11	**Carbohydrates**
Week 12	**Amino acid & proteins**
Week 13	**Lipids**
Week 14	**DNA**
Week 15	**Enzymes**
Week 16	**Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Titration of sodium carbonate solution with a prepared solution of unknown concentration of hydrochloric acid
Week 2	Titration of sodium hydroxide solution with hydrochloric acid solution
Week 3	Measurement of the melting point
Week 4	Measurement of the boiling point
Week 5	Recrystallization
Week 6	Distillation

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	*Fundamental of analytical chemistry, Dr. Karrem Al Shallal . *Organic Chemistry Principles of Biochemistry, Prof.Basil k. Dalaly, 1986	NO yes 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
	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**			**Module Delivery**	
Module Type	**Basic**			☒ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☒ **Seminar**	
Module Code	**MATH 104**				
ECTS Credits	**5**				
SWL (hr/sem)	**125**				
Module Level	1		**Semester of Delivery**		**One**
Administering Department	Plant Protection		**College**	Agriculture	
Module Leader	ALI ABBAS HASHIM		**e-mail**	ali_abbas@uomisan.edu.iq	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**		Ph. D.
Module Tutor			**e-mail**		
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	1/10/2024		**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	• تمكين الطالب من حل المسائل الرياضية. • توفير نوع مناسب من الانضباط في ذهن المتعلمين. • إعداد الطالب لمختلف المهن الفنية.

	• إعداد الطالب لحياة اقتصادية هادفة ومنتجة وإبداعية وبناءة. • تنمية قوة التفكير والاستدلال.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	• أن يكتسب الطالب وضوح بشأن المفاهيم والعمليات الأساسية للرياضيات. • أن ينمي الطالب الدقة والكفاءة في العمليات الرياضية الأساسية. • تنمية قوة التفكير والاستدلال. • أن يتعرف الطالب على علاقة الرياضيات بحياته الحالية والمستقبلية.
Indicative Contents المحتويات الإرشادية	تعريف الطلبة بالدالة. تعريف الطلبة بطرق إيجاد مجال الدوال. تعريف الطلبة بطرق إيجاد مدى الدوال. تعريف الطلبة بطرق إيجاد الغاية للدوال. شرح خواص الغاية وطرق ايجادها عند اللانهاية. تعريف الطلبة بطريقة رسم الدوال. تعريف الطلبة بطرق اشتقاق الدوال باستخدام التعريف وطرق الاشتقاق. شرح للطلبة طريقة إيجاد معادلة المماس للدوال شرح تعريف التكامل الغير محدد وخصائصه شرح طريقة حساب التكامل المحدد وخصائصه شرح وتعريف الطلبة بمشتقة وتكامل الدوال المثلثية وخواصها

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	- تزويد الطلبة بالاساسيات الاضافية المتعلقة بمخرجات التفكير والتحليل - تكوين مجموعة نقاشية لمناقشة مختلف المواضيع الزراعية - طرح الاسئلة التفكيرية خلال المحاضرات تتضمن مثل(ماذا و كيف ومتى ولماذا) - اعداد الطلبة واجبات بيتية تتطلب تفسيرات ذاتية بطرق سببية

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	47	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	3

Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	78	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**125**		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	3	12% (10)	3, 5 and 10	LO #1, #2 , # 3 and #4, #5
	Assignments	3	12% (15)	3, 6 and 12	LO #2, #3 and #4, #5
	Projects / Lab.				
	Report	1	12% (10)	13	LO #2, #3 and #4
Summative assessment	**Midterm Exam**	2hr	14% (15)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	المصفوفات المتعامدة
Week 2	المصفوفات المربعة
Week 3	المصفوفة المرافقة
Week 4	المحددات
Week 5	قاعدة كرامر

Week 6	امتحان فصلي
Week 7	المشتقات
Week 8	الدوال المثلثية
Week 9	الدوال الاسية
Week 10	الدوال اللوغاريتمية
Week 11	التكامل
Week 12	تكامل الدوال المثلثية
Week 13	تكامل الدوال الاسية
Week 14	تكامل الدوال اللوغاريتمية
Week 15	امتحان

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

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**English language**			**Module Delivery**	
Module Type	**Support**			☒ **Theory**	
Module Code	**UOM120**			☒ **Lecture**	
ECTS Credits	**2**			☐ **Lab**	
SWL (hr/sem)	**50**			☒ **Tutorial** ☒ **Practical** ☐ **Seminar**	
Module Level	1		**Semester of Delivery**	**One**	
Administering Department	Plant Protection		**College**	**Agriculture**	
Module Leader	Name: Dr. Farhan Jasim Mohammed		**e-mail**	farhanalhakim@uomisan.edu.iq	
Module Leader's Acad. Title	lecturer		**Module Leader's Qualification**	Ph.D.	
Module Tutor			**e-mail**		
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	1/10/2024		**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1-The aim of this course is to provide English learners with integrated language skills such as reading, listening and writing resulting in a level of basic language knowledge. 2-This course will focus on grammar rules, basic word knowledge and usage, reading comprehension, reading out of the lesson, and Paragraph writing. 3- A student may be able to listen to native speakers and speak English Language. 4- A student may be able to write and have creativity in his writing.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	.1 - Uses expressions of Quantity in elementary level of English. 2- Constructs sentences in Present Perfect Tense, Simple Future Tense and Going to Future Tense both in an oral and written task. 3- Defines basic Modals and employ them in elementary level of communication and writing skills. 4- Translates sentences in elementary level from English to another language. 5- Interprets the texts written in elementary level of English.
Indicative Contents المحتويات الإرشادية	Language is a rule-governed behavior. It is defined as the comprehension and/or use of a spoken (i.e., listening and speaking), written (i.e., reading and writing), and/or other communication symbol system (e.g., American Sign Language). Spoken and written language are composed of receptive (i.e., listening and reading) and expressive (i.e., speaking and writing) components. Spoken language, written language, and their associated components (i.e., receptive and expressive) are each a synergistic system comprised of individual language domains (i.e., phonology, morphology, syntax, semantics, pragmatics) that form a dynamic integrative whole Phonology study of the speech sound (i.e., phoneme) system of a language, including the rules for combining and using phonemes. Morphology study of the rules that govern how morphemes, the minimal meaningful units of language, are used in a language. Syntax the rules that pertain to the ways in which words can be combined to form sentences in a language. Semantics the meaning of words and combinations of words in a language.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Enable students to recognize: 1 - Enabling students to communicate effectively and appropriately in real-life situations. 2 - Enabling students to use the English language effectively for the purpose of study across the curriculum. 3 - Enabling students to develop and integrate the use of the four language skills: reading, listening, speaking and writing. 4 - Enabling students to develop interest in and learn about literature. 5- Enable students to review and reinforce the structure that has already been learned

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	32	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	18	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
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
	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**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	**English preposition**
Week 2	**Passive voice**
Week 3	**Negative**
Week 4	**If clause (conditional) sentences**
Week 5	**Kinds of sentences**
Week 6	**A- Simple tense**
Week 7	**B-compound tense**
Week 8	**c- complex tense**
Week 9	**The use of so 'and neither'**
Week 10	**Singular + plural**
Week 11	**How to answer causations**
Week 12	**Number + Roman Numerals**
Week 13	**Every day sentences**
Week 14	**The verb to be**
Week 15	**How to write a composition**

	Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Yule, G. (2015). Oxford practice grammar advanced. Oxford University Press. Alexander, L. G. (2019). Longman English grammar practice. Addison Wesley.-	Yes
Recommended Texts	Various university research and dissertations in the English language related to animal productio	
Websites	https://agendaweb.org/listening/dictations.html	

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	**Human rights and public freedoms**			**Module Delivery**	
Module Type	**Basic**			☒ **Theory**	
Module Code	**UOM121**			☐**Lecture**	
ECTS Credits	**2**			☐ **Lab**	
SWL (hr/sem)	**50**			☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Level	1		**Semester of Delivery**	**One**	
Administering Department	Plant Protection		**College**	**Agriculture**	
Module Leader	Name: Ali Aziz Dawood		**e-mail**	ali_izaz@uomisan.edu.iq	
Module Leader's Acad. Title	Assist. Prof.		**Module Leader's Qualification**	Ph.D.	
Module Tutor			**e-mail**		
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/10/2024		**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1.تعريف الطلبة بمفهوم الحرية والديمقراطية ونشأتها. ٢.تعريف الطلبة بحقوق الأنسان والديمقراطية في الحضارات القديمة. 3.تعريف الطلبة بحقوق الانسان في الشرائع والأديان السماوية. 4.التأكيد على مميزات وخصائص حقوق الأنسان ومدى تطبيقها في السلطة. ٥.التأكيد على تطبيق الحرية والديمقراطية بمفهومها الصحيح وفق المنظور المجتمعي.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1-أن يعرف الطالب مفهوم الحقوق وقوانينها وتطبيقاتها. 2-أن يعرف الطالب كيفية المشاركة ف ي نشر الحقوق وتطبيقها بالعمل الواقعي الحقيقي. 3-القدرة على استخدام الحقوق وسيلة من أجل التعايش السلمي بين مكونات المجتمع وجميع المخلوقات. 4-القدرة على مشاركة الآخرين في نشر هذه الحقوق. 5-القدرة على تحليل وتعريف مفهوم الحرية والتمييز بين أنواع مختلفة من الحريات. 6-التفاعل مع قضايا الحريات على الصعيدين الوطني والدولي والتأثير في تشكيل الرأي العام.
Indicative Contents المحتويات الإرشادية	الحقوق والحريات الأساسية وغير الأساسية الحقوق والحريات المدنية الحقوق السياسية حقو ق الانسان والقانون الدولي الإنساني

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	١-المشاركة بالتحضير في قاعة الدرس 2-طريقة الأسئلة والأجوبة في قاعة الدرس 3-الواجبات ت 4-التقارير

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	32	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	18	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
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
	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**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	**تعريف الحرية ومعانيها**
Week 2	**التمييز بين الحرية والفوضوية**

Week 3	**دراسة في أهم الحريات المدنية**
Week 4	**دراسة في أهم الحريات السياسية**
Week 5	**المقصود بالديموقراطية، البعد التأريخي**
Week 6	**أشكال الديموقراطية**
Week 7	**معايير الدولة الديموقراطية**
Week 8	**الدستور الديموقراطي**
Week 9	**الدولة وأشكالها**
Week 10	**المؤسسات التي تحتاجها الدول الديمقراطية**
Week 11	**الأنتخابات الديموقراطية (المفهوم – الشروط – المتطلبات – المقاصد)**
Week 12	**الاحزاب والنظم الانتخابية**
Week 13	**جماعات الضغط (ماهية ، وانواعها ، ووسائلها)**
Week 14	**تمثيل الاقليات في الحكم الديموقراطي**
Week 15	**امتحان**

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Diamond L. & M. F. Plattner, eds., (2009), Democracy. A Reader, Baltimore, Johns Hopkins University Press.	Yes
Recommended Texts	مفهوم الحريات العامة وحقوق الانسان، اطارها التاريخي والفكري والفلسفي، وضماناتها الأساسية	
Websites	http://ghrorg-learning.blogspot.com	

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

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**General Botany**			**Module Delivery**	
Module Type	**Basic**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☒ **Practical** ☒ **Seminar**	
Module Code	**GBOT107**				
ECTS Credits	**7**				
SWL (hr/sem)	**175**				
Module Level	1		**Semester of Delivery**	2	
Administering Department	Plant Protetion		**College**	**College of Agriculture**	
Module Leader	Karrar Akram Kamil		**e-mail**	karar.akram@uomisan.edu.iq	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	M.Sc.	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	N. A.		**e-mail**	E-mail	
Scientific Committee Approval Date	10/10/2024		**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1. Introducing the student to the concept of botany & the branches of botany. 2. Understanding the relationship of Botany and other agriculture applied sciences and agriculture technologies. 3. Study of the plant cell and its living and non-living components. 4. Study of plant tissues. 5. Identify the principles of plant morphology.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Recognize the location of plants during the history of the evolution of life, and introduction to botany and its most important branches. 2. Recognize the cell: Prokaryotes and Eukaryotes 3. Describe learned about: The living components of the plant cell. 4. Discuss Non-living components of a plant cell. Learn to use an optical microscope and prepare a microscope slide. 5. Understand types of cell division. Describe of normal and meiotic division. 6. Describe the morphology of flowering plants. 7. Discuss components of a flower and the flower rings. 8. Identify types of flowering inflorescences. 9. identifying differences between monocotyledonous and dicotyledonous. 10. Identify types of plant tissues. 11. Recognize plant Taxonomy and the Families of Angiospermae. 12. Providing students with the skills of preparing presentations and speaking in front of an audience.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: Part A – Importance of Botany theories of the emergence of life on Earth and the location of plants during the history of the evolution of life. The cell: Prokaryotes and Eukaryotes [SSWL=35 hrs] Part B – Plant Morphology The components of the seed and seed germination. Types of plant roots, ground and aerial stems. Types of plant leaves and leaf modifications. The components of a flower and the flower rings. Types of flowering inflorescences. Monocotyledonous and dicotyledonous plants. [42 hrs] Part C – Plant Tissue Plant tissues - meristematic tissue & permanent tissues. [SSWL=14 hrs]

	Part D – Plant Taxonomy Fundamental of Plant Taxonomy. Characteristics of Angiospermae Families. Using classification keys to identify unknown plant species. [SSWL=7 hrs] Part E – Seminar Providing presentations by students for botany topics. Student discussion after presenting the presentation. [SSWL=7 hrs] Total hrs = 105 = SSWL - (Exam hrs) = 108 - 3 = 105 hr (Time table hrs x 15 weeks)

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1. Theoretical lectures, and the use of textbooks book and PowerPoint. 2. Assigning students to prepare presentations on topics related to the curriculum. 3. Field visits and scientific trips.

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	67	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	4.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**175**		

Module Evaluation

تقييم المادة الدراسية

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

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction - theories of the emergence of life on Earth and the location of plants during the history of the evolution of life. Introduction to botany and its most important branches.
Week 2	The cell: Prokaryotes and Eukaryotes.
Week 3	The living components of the plant cell.
Week 4	Non-living components of a plant cell.
Week 5	Types of cell division. Stages of normal and meiotic division.
Week 6	The components of the seed. The process of germination and aerial and ground germination.
Week 7	Mid-term Exam + types of plant roots, ground and aerial stems.
Week 8	Identifying types of plant leaves and leaf modifications.
Week 9	The components of a flower and the flower rings.

Week 10	Types of flowering inflorescences.
Week 11	Monocotyledonous and dicotyledonous plants.
Week 12	Plant tissues - meristematic tissue.
Week 13	Plant tissues - permanent tissues.
Week 14	Introduction to Plant Taxonomy – Angiospermae Families.
Week 15	Seminars for botanical topics.

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab1: Recognizing types of Microscopes, parts of Light microscope and how to use it.
Week 2	Lab2: Examine the plant cell and animal cell under microscope.
Week 3	Lab3: Learn to use an optical microscope and prepare a microscope slide of onion leave.
Week 4	Lab4: Preparing a slide of upper and lower Epidermis of plant leave and identifying stomata.
Week 5	Lab5: Make a seed germination experiment and identifying the part of seed embryo.
Week 6	Lab6: Observing and identifying the difference between Epigeal and Hypogeal germination.
Week 7	Lab7: Mid-term Exam + Identifying types of plant roots, ground and aerial stems.
Week 8	Lab8: Identifying types of plant leaves and leaf modifications.
Week 9	Lab9: The components of a flower and the flower rings.
Week 10	Lab10: Types of flowering inflorescences.
Week 11	Lab11: Monocotyledonous and dicotyledonous plants.
Week 12	Lab12: Examine Plant tissues - meristematic tissue under microscope.
Week 13	Lab13: Examine Plant tissues - permanent tissues under microscope.
Week 14	Lab14: study the application of morphological differences in plant identification.

Week 15	Lab15: making a Classification Key of provided plant samples.

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Fundamentals of Botany, Dr. Mahmoud Muhammad Jabr et al. 2009	No
Recommended Texts	1- Fundamentals of Botany, Dr. Mahmoud Muhammad Jabr et al. 2009. 2- Practical Botany - published by the Ministry of Technical Education and Vocational Training - Republic of Yemen.	No
Websites	https://www.youtube.com/watch?v=SI418f2RonU https://www.youtube.com/watch?v=ilHgNugsyak https://www.youtube.com/watch?v=CHEvrUA7ky4 https://www.youtube.com/watch?v=s6vg0ZCVPIk https://youtu.be/C6hn3sA0ip0?si=9l9yRMYxOjA8t-hB	

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.

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	**Plant Protection basics**			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☒ **Tutorial** ☒ **Practical** ☐ **Seminar**	
Module Code	**PLPB108**				
ECTS Credits	**7**				
SWL (hr/sem)	175				
Module Level	1		**Semester of Delivery**	**2**	
Administering Department	Pant Protection		**College**	Agriculture	
Module Leader	Qusai Hattab Madhi		**e-mail**	qusay.hattab@uomisan.edu.iq	
Module Leader's Acad. Title	Assistant professor		**Module Leader's Qualification**	Ph.D.	
Module Tutor			**e-mail**		
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	1/10/2024		**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1- Learn about the most important pests and diseases spread in Iraq and the world and the types of their causes. - 2- It classifies the types of pests and diseases according to their causes, their cycle of life, or the nature of their reproduction. - 3- The student separates the types of pests and diseases and the most important methods used to reduce their impact on crop productivity - 4- Knows the scientific methods used to reduce the damage of pests and diseases by first adopting preventive methods. - 5- The student evaluates the cost of chemical control, the type of pesticides used, the method of control, additions, and devices.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	The student should know the basics of plant protection, how to get rid of insect pests, diseases, and fungi that infect plants, and the best ways to protect and protect them.
Indicative Contents المحتويات الإرشادية	1- Identify the types of insects 2- Identify the conditions and mutations that help insects in the environment 3- Identify the positive and negative circumstances affecting the life of insects

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Use presentations/images/brochures/books/surveys to research the shop

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	6.2

Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	82	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	5.46
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**175**		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5 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**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	مقدمة عن علم الحشرات
Week 2	اساليب تغذية الحشرات والعوامل التي ساعدت على البقاء
Week 3	أ- طرق تكاثر الحشرات
Week 4	ب- العوامل البيئية المؤثرة في حياة ونشاط الحشرات

Week 5	طرق مقاومة الحشرات
Week 6	الحكم الأقتصادي والعوامل المهمة في العراق
Week 7	طبيعة حياة واضرار القوارض الزراعية
Week 8	الأهمية الاقتصادية للآفات
Week 9	تعاريف لمصطلحات الأمراض
Week 10	مسببات امراض النباتات الطفيلية
Week 11	مسببات الأمراض غير الطفيلية
Week 12	مراحل تطور المرض وطرق انتشاره
Week 13	طرق مقاومة امراض النبات
Week 14	
Week 15	

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	الصفات العامة لشعبة مفصلية الأرجل وصنف الحشرات
Week 2	تركيب جسم الحشرة / ملحقات الراس / انواع الفم / انواع اللوامس
Week 3	ملحقات الصدر / انواع الأرجل / انواع الأجنحة / ملحقات البطن
Week 4	التشكل في الحشرات وتقسيم الحشرات الى رتب
Week 5	حشرات الحنطة والشعير + الذرة الصفراء + القطن
Week 6	حشرات النخيل / الفاكهة والقرعيات
Week 7	التعرف على اهم الأعراض المرضية
Week 8	دراسة اعراض امراض المحاصيل الحقلية واساليب مقاومتها
Week 9	دراسة اعراض امراض المحاصيل البستنية واساليب مقاومتها

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	1- Principles of plant protection (insects part) 2- Insect pests	Yes
Recommended Texts	Principles of plant protection (plant diseases part)	No
Websites	https://www.agro-lib.site/2022/04/blog-post_497.html	

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 معلومات المادة الدراسية					
Module Title	Principles of Soil Science			**Module Delivery**	
Module Type	**Basic**			☒**Theory** ☐**Lecture** ☒ **Lab** ☒ **Tutorial** ☐**Practical** ☒ **Seminar**	
Module Code	**SOIL109**				
ECTS Credits	**6**				
SWL (hr/sem)	**150**				
Module Level		**1**	**Semester of Delivery**		2
Administering Department		**Plant Protection**	**College**	**Agriculture**	
Module Leader	**Hayder Khalaf Mohammed**		**e-mail**	hayder.khalaf@uomisan.edu.iq	
Module Leader's Acad. Title		**Ph.D.**	**Module Leader's Qualification**		**Ph.D.**
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date		01/10/2024	**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	• Giving the student a basic idea of soil science concepts. • Understanding soil and getting to the basics by looking at the geophysical system of the Earth's crust with all its relationships and the role of processes in nature such as the water cycle and energy exchange. • Clarifying the rel ationships between soil science and other basic sciences. • Understanding the purpose of studying the course: familiarizing yourself with most laboratory equipment and knowing how they work.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Students will learn: 1- Giving the student a basic idea about the concepts of soil science. 2- Understanding the soil and reaching the basics by looking at the biophysical system of the earth's crust with all its relationships and the role of processes in nature such as the water cycle and energy exchange. 3- Clarifying the relationships between soil science and other basic sciences 4- Reviewing laboratory equipment and knowing how it works 5- Giving a description of most of the environmental problems resulting from neglecting agricultural lands such as pollution and global warming
Indicative Contents المحتويات الإرشادية	1- Using the display screen in the classrooms. 2- Enabling students to visit the library and websites. 3- Displaying illustrative images of different types of devices and how they work. 4- Putting thoughtful questions during lectures including (what, how, when and why) 5- Students participating in preparing seminars and scientific reports 6- Finding solutions to problems and obstacles that students 7- encounter in the practical part 8- Forming a discussion group to discuss various agricultural topics 9- Writing a report on the experiments carried out in the field and laboratory.

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 types of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
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	1.1
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 #7, #6
	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, #7 and #8
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction, and general definitions and concepts of soil
Week 2	Soil sciences
Week 3	Origin and development of soil
Week 4	Soil Physical Properties
Week 5	Soil Water
Week 6	Colloids and soil chemical properties
Week 7	Soil salinity and Alkalinity
Week 8	**Exam 1**
Week 9	Reclamation of lands affected by salts and management of reclaimed soils
Week 10	Biological and Biochemical properties of soil
Week 11	Soil fertility
Week 12	Plant nutrition
Week 13	Desertification
Week 14	Desertification in Iraq
Week 15	Classification and management of soils in Iraq
Week 16	**Exam 2**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Collect soil samples and transport them to the laboratory
Week 2	Soil moisture content Determination
Week 3	Determination of some physical properties of the laboratory: Bulk density, true density
Week 4	Volumetric analysis of soil particles

Week 5	Determination, pH and Ec
Week 6	Determination of Organic Matter Percentage of Soil
Week 7	Determination of some available nutrients, NPK

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	1. مبادئ علم التربة / د. عبد الله نجم العاني (1980). 2 .مبادئ التربة العملي / م.م. منذر ماجد تاج الدين , م.م. عماد بشير يعقوب (1988). 3. التسميد وخصوبة التربة / د. كاظم مشحوت عواد (1987). 4. اساسيات علم التربة / د. عبد الفتاح العاني (1984). 5. استصلاح الأراضي / د. احمد حيدر الزبيدي (1993). 6. ادارة التربة في تخطيط واستعمال الا ا رضي / د . محمد خضير عباس (1999). 7 . التصحر / ا.م.د. ماجد خضير عباس ، ا.م.د. عبد الامير ثجيل صالح (2013).	yes
Recommended Texts	مجلة الزراعة العراقية – علوم التربة والمكننة	
Websites	**Googal**	

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	**FX –** Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
(0 – 49)	**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 Agricultural Economics**			**Module Delivery**	
Module Type	**Core**			☒Theory ☒Lecture ☒Tutorial ☒ Seminar	
Module Code	**AGEC110**				
ECTS Credits	**5**				
SWL (hr/sem)	**125**				
Module Level			**Semester of Delivery**	**2**	
Administering Department	Plant Protection		**College**	**College of Agriculture**	
Module Leader	**Dr. Alaa Kazem Farhan**		**e-mail**		
Module Leader's Acad. Title	**Lecturer**		**Module Leader's Qualification**		
Module Tutor			**e-mail**	**alaa.k.f@uomisan.edu.iq**	
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	**04/10/2024**		**Version Number**		

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

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

Module Objectives أهداف المادة الدراسية	1. Introduce students to the importance of agricultural economics 2. Introducing students to the agricultural economic problem and its most important causes. 3. Definition of economic and non-economic resources and their uses among alternatives. 4. Definition of the productive function and the first principles of selection. 5. Introducing students to the nature of production costs. 6. Introducing students to the importance of farm planning and its most important objectives. 7. Definition of the laws of decreasing yields and successive stages
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Students will learn: 1. Clarify the basic ideas and concepts of agricultural economics. 2. Address possible problems that arise in how economic resources are used in the production process.How to plan the production process. 3. Explain the substitutionary relationships through the total production function.
Indicative Contents المحتويات الإرشادية	• Introduction, main principles of production, key definitions of the science of agricultural economics. • Introducing the agricultural economic problem and its causes, and introducing the factors of production and their prices. • Examine the relationships between productive resources and their mutual potential. • Study the relationships between productive resources and their interchangeable potential. • Identify agricultural productivity costs and factor returns

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The main strategy that will be adopted in offering this module is to encourage students' participation in discussion and lectures, while at the same time improving and expanding their critical thinking skills. This will be achieved through classrooms where learning takes place through classroom lectures, participation in lecturing, and snap, semester and final exams.

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	92	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6.13
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	20% (20)	5 and 10	LO #1, #2 and #7, #6
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.				
	Report	2	10% (10)	13	LO #5, #7 and #8
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Economics and its branches

Week 2	Definition of agricultural economics and its importance
Week 3	Agriculture and its characteristics
Week 4	Objectives of studying farm business
Week 5	The basic pillars of economic activity الزراعي
Week 6	**Definition of farm ,Farm manager jobs**
Week 7	**examination**
Week 8	Introduction to the economics of agricultural production
Week 9	Introducing economic resources and human needs
Week 10	Definition of price elasticity of demand
Week 11	Definition of income elasticity of demand
Week 12	Definition of cross elasticity of demand
Week 13	Definition: Law of diminishing returns
Week 14	**Estimating the Simple Regression Line Equation for the Farm Production Function**
Week 15	Preparatory week before the final Exam
Week 16	**examination**

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	**- Economics of Agricultural Resources, Dr. Hamed Abdel .Shafi / Faculty of Agriculture - Mansoura University .**	
Recommended Texts	**- Principles of Agricultural Economics, Dr. Mohamed Shata / Faculty of Agriculture - Mansoura University**	
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	**Computer applications/1**			**Module Delivery**	
Module Type	**B**			☒ **Theory**	
Module Code	**UOM** 122			☐ **Lecture**	
ECTS Credits	**3**			☒ **Lab**	
SWL (hr/sem)	**75**			☒ **Tutorial** ☒ **Practical** ☐ **Seminar**	
Module Level	1		**Semester of Delivery**	2	
Administering Department	Plant Protection		**College**	**Agriculture**	
Module Leader	Abbas luaibi obaid		**e-mail**	abbas.alrajhe@uomisan.edu.iq	
Module Leader's Acad. Title	Asst.Lecturer		**Module Leader's Qualification**	Msc	
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	1/10/2024		**Version Number**	1.0	

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

Module Objectives	Introducing the student to the basics of computers and types of computers Its classification, operating systems and objectives. As for the goals of the practical side It is to provide the student with skills in using operating and application programs and

أهداف المادة الدراسية	how to maintain computer security.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Students will learn: 1. The basics, basic ideas and concepts necessary to understand the structure of the computer. 2. Explain the basic components of the computer and learn about them in detail. 3. Explain computer security and explain malware and how to prevent it. 4. Understand how to deal with programs safely. 5. Explain operating systems and learn about them. 6. Explain how to deal with the Windows system and how to install it on computers. 7. Learn about keyboard shortcuts and how to use them.
Indicative Contents المحتويات الإرشادية	Here's a detailed outline of indicative contents for an OOP course. The indicative contents typically cover the following key topics: 1. **Computer Basics** 1. The development of computer generations 2. Electronic computer 3. Data and information 4. Computer features 5. Areas of computer use 6. Computer components 7. Types of computers 8. Classification of computers **2. Computer components** 1. Computer components 2. The physical parts of the computer 3. Input devices 4. Output devices 5. Computer box1.Software entity 6. Number systems 7. Your personal computer

	8. Computer platform 9. Factors that must Take this into consideration when purchasing a computer **3.(Computer security and licensing programs)** 1. Ethics of the electronic world 2. Forms of abuses in the world Electronic 3. Computer security 4. Computer privacy 5. Computer software licenses 6. Types of licenses 7. Intellectual property 8. Electronic hacking 9. Types of electronic hacking 10. Sources of hacking Electronic 11. The most security risks widespread 12. Malicious software 13. Computer viruses 14. Damages resulting from Viruses 15. Components of viruses 16. Types of viruses 17. Necessary steps for protection From viruses 18. Computer damage On human health **4.Operating Systems** 1. Definition of the operating system 2. Operating system functions 3. Objectives of the operating system 4. Operating system classification 5. Examples of some operating systems 6.Windows 7 operating system 7.Windows 7 installation requirements

	8.Windows 7 features 9. Surface components

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	**1- Explanation, clarification, and honing general and qualifying skills** **2- Urging the student to write simple research using the lecture method to create a state of balance between methodological information and source information.** **3- Urging the student to work on practical projects on the calculator and hold discussion circles among the students on the methodology of the subject and distribute the students into groups.** **4-Practical lessons in the laboratory** **5- The method of self-learning and writing scientific reports, and urging the student to evaluate the answers of his fellow students to develop self-development.** .

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	2
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**75**		

Module Evaluation تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5 and 10	To be selected by the module leader
	Class group assignments	1	5% (5)	Continuous	
	Report	1	10% (10)	12	
Summative assessment	**Midterm Exam**	1hr	25% (25)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Chapter One: Computer Basics 1. The development of computer generations 2. Electronic computer 3. Data and information
Week 2	4. Computer features 5. Areas of computer use
Week 3	1. Computer components 2. Types of computers 3. Classification of computers
Week 4	Chapter Two: Computer components 1. Computer components 2. The physical parts of the computer 3. Input devices
Week 5	4. Output devices

	5. Computer box
Week 6	1.Software entity 2. Number systems 3. Your personal computer 4. Computer platform 5. Factors that must Take this into consideration when purchasing a computer
Week 7	**Mid-term Exam**
Week 8	(Computer security and licensing programs) 1. Ethics of the electronic world 2. Forms of abuses in the world Electronic 3. Computer security 4. Computer privacy
Week 9	5. Computer software licenses 6. Types of licenses 7. Intellectual property
Week 10	1. Electronic hacking 2. Types of electronic hacking 3. Sources of hacking Electronic
Week 11	4. The most security risks widespread 5. Malicious software 6. Computer viruses
Week 12	7. Damages resulting from Viruses 8. Components of viruses 9. Types of viruses
Week 13	10. Necessary steps for protection From viruses 11. Computer damage On human health

Week 14	the fourth chapter Operating Systems 1. Definition of the operating system 2. Operating system functions 3. Objectives of the operating system 4. Operating system classification 5. Examples of some operating systems
Week 15	1.Windows 7 operating system 2.Windows 7 installation requirements 3.Windows 7 features 4. Surface components
Week 16	**Final examination**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Showing the components of the computer to the students and what the parts of the computer consist of in detail
Week 2	Introducing students to the input and output parts and explaining the operation of each device.
Week 3	Opening the computer case, explaining the internal parts and explaining the function of each part
Week 4	Show programming examples inside the lab using one of the programming languages to familiarize students
Week 5	Introducing students to personal computers, explaining their components and parts, how to choose them, and
Week 6	what are the most important factors to consider when purchasing a computer.
Week 7	**Mid-term Exam**
Week 8	Practical implementation of computer security, privacy protection and computer software licenses and identifying types of licenses, intellectual property statement, examples of hacking and types of hacking
Week 9	Practical implementation of Introducing students to the sources of hacking, its risks, the most important malware, and examples of it in the form of a presentation. Introducing students

	practically to computer viruses and the damages resulting from them, what are the types of viruses, and the most important steps necessary to protect against hacking
Week 10	Practical implementation of The harms of computers on human health, introducing students to using computers for prevention and , Introducing students to the operating system, what are the requirements for installing the operating system, and how to install the operating system.
Week 11	Practical implementation of Explain the components of the desktop, the Start menu, and the taskbar.
Week 12	Practical implementation of Folders and files. Explaining the types of files. Introducing the student to the main icons.
Week 13, 14	Practical implementation of Perform operations on windows, how to change the desktop,
Week 15	Practical implementation of To explain the control panel in detail, and to show the control button, and how to install programs

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	**Written by:** **1- Professor Dr. Ghassan Hamid Abdel Majeed** **2-Professor Dr. Ziad Muhammad Abboud** **3-Professor Dr. Muhammad Nasser Al-Tarfi** **4-Professor Dr. Safaa Abbas Al-Mamouri** **2- International Information Network, the Internet** **1- Internet Ethics - A. M. Alawi Hind - Al-Shabsi Arab University Center** **2- Ethics of dealing with technical and communication resources - Dr. Hussein bin Saeed bin Saif** **3- Ethics of the virtual world - Dr. Louay Al-Zoubi 2013**	yes
Websites	**websites:** **-History of the development of computer networks, objective website: http://mawdoo3.com** **http://youstaff.blogspot.com: Information and Internet security** **http://geeklesstech.com : Internet Law Laws for using the Internet-** **-Real-time communication protocols in the Internet (RTP SIP), World of Technology website.** **ARPANET logical map, http://russbellew.com/Documents/Arpanet_sep_1974.**	

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Arabic language**			**Module Delivery**	
Module Type	**Basic**			☒ **Theory** ☒ **Lecture** ☐ **Lab** ☒ **Tutorial** ☐ **Practical** ☒ **Seminar**	
Module Code	**UOM 123**				
ECTS Credits	**2**				
SWL (hr/sem)	**50**				
Module Level	1		**Semester of Delivery**	**Two**	
Administering Department	Plant Protection		**College**	Agriculture	
Module Leader	Asmaa Salam Khalil		**e-mail**	Asmaa_aljbori@uomisan.edu.iq	
Module Leader's Acad. Title			**Module Leader's Qualification**	M.Sc.	
Module Tutor			**e-mail**		
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/10/2024		**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	أهمية اللغة العربية للاختصاصات العلمية وميزتها بين اللغات الحية تجنب الاخطاء الشائعة وسلامة النطق
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	أن يتعرف الطالب على قواعد اللغة العربية أن يعرف الطالب كيفية بناء الجمل واستخراجها للعنوان المطلوب.
Indicative Contents المحتويات الإرشادية	تدرس اللغة العربية على عدة مستويات: المستوى النحوي: وهو المستوى الذي من خلاله يمكن معرفة المعنى التركيبي للنص. المستوى الصرفي وهو المستوى الذي يمكن من خلاله معرفة المعنى المتفرع على المعنى المعجمي، المستوى الدلالي: وهو المستوى الذي من خلاله يمكن معرفة دلالة الألفاظ (الجذر). المستوى الصوتي: وهو المستوى الذي يدرس الحروف والحركات والمقاطع الصوتية سواء كانت لفظا أو جزءا من لفظ.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	32	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	18	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
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
	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**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	**القران الكريم/الإعجاز البلاغي**
Week 2	**سورة الكهف أسباب النزول**
Week 3	**تفسير عشرون آية مع الحفظ**

Week 4	**قواعد اللغة العربية/قواعد في الإعراب**
Week 5	**المبتدأ والخبر**
Week 6	**النواسخ**
Week 7	**الأفعال الناقصة**
Week 8	**المفاعيل**
Week 9	**الأعداد**
Week 10	**الإملاء/قواعد كتابة الهمزة**
Week 11	**قواعد كتابة التاء**
Week 12	**الأدب العربي/مقدمة في عصور الأدب العربي ومميزات كل عصر وأصوله الفنية**
Week 13	**دراسة ونقد لنص شعري قديم/قصيدة الحمامة النائحة لأبي فراس الحمداني**
Week 14	**الأخطاء الشائعة في الكتابة**
Week 15	

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	كتاب منهجي	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

	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	**FX –** Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
(0 – 49)	**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.