

وزارة التعليم العالي والبحث العلمي
جهاز الإشراف والتقويم العلمي
دائرة ضمان الجودة والاعتماد الأكاديمي
قسم الاعتماد الدولي

استمارة وصف البرنامج الأكاديمي للكليات للعام الدراسي 2023 - 2024

اسم الجامعة:

اسم الكلية: كلية العراق الجامعة

عدد الأقسام والفروع العلمية في الكلية: 8

تاريخ ملء الملف: 2024/4/1

مدير وحدة ضمان الجودة والأداء الجامعي

م.م احمد حسن محمد اللامي

التاريخ 2024/4/1

التوقيع

معاون العميد للشؤون العلمية

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التاريخ 2024/4/1

التوقيع

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التاريخ 2024/4/1

التوقيع

ممثل وحدة ضمان الجودة لقط

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التاريخ 2024/4/1

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توقيع

نموذج وصف البرنامج الأكاديمي

مراجعة أداء مؤسسات التعليم العالي ((مراجعة البرنامج الأكاديمي))

وصف البرنامج الأكاديمي

يوفر وصف البرنامج الأكاديمي هذا إيجازاً مقتضياً لأهم خصائص البرنامج ومخرجات التعلم المتوقعة من الطالب تحقيقها مبرهنًا عما إذا كان قد حقق الاستفادة القصوى من الفرص المتاحة . ويصاحبه وصف لكل مقرر ضمن البرنامج

1. المؤسسة التعليمية	كلية العراق الجامعة
2. القسم الجامعي / المركز	هندسة طاقة
3. اسم البرنامج الأكاديمي	
4. اسم الشهادة النهائية	بكالوريوس
5. النظام الدراسي	كورسات
6. برنامج الاعتماد المعتمد	
7. المؤثرات الخارجية الأخرى	دورات تطويرية وتنموية للطلاب/ التدريب الصيفي
8. تاريخ إعداد الوصف	2024/4/1
9. أهداف البرنامج الأكاديمي	
	الارتقاء بالواقع التعليمي بما يتماشى مع الوضع الحالي
	تحسين الاداء الجامعي من خلال استخدام البرامج التعليمية الالكترونية الحديثة
	تطوير مناهج التعليم سنويا بما يتوافق مع التعليمات الوزارية
	تطبيق تعليمات الكلية من ناحية توفير افضل سبل تعليمية للطلبة
	القاء المحاضرات النظرية العملية بجودة وتقنيات عالية
	تحديث ملفات القسم ورقيا والكترونيا بشكل مستمر.

10. مخرجات التعلم المطلوبة وطرائق التعليم والتعلم والتقييم

أ- المعرفة والفهم

- 1- تنمية المعرفة لدى الطالب من خلال استخدام طرق التدريس الأكثر فاعلية.
- 2- استخدام طرائق متعددة ومتنوعة لغرض تحفيز الابداع والاداء المعرفي للطلاب.
- 3- مراجعة وتطوير المناهج لكل عام دراسي لمواكبة المعارف الجديدة.
- 4- تهيئة القاعات الدراسية بجميع الادوات والوسائل التعليمية المتطورة.

ب- المهارات الخاصة بالموضوع

- 1 – تقييم الطلبة من خلال عمل امتحانات يومية.
- 2 – تحفيز وتشجيع الطلبة للحصول على فهم كامل وواسع للمواضيع.
- 3 – اضفاء روح التعاون والعلاقة الايجابية بين التدريسي والطالب خدمة للعملية التعليمية.
- 4 – التنوع بالوسائل التعليمية لضمان فاعلية العملية التعليمية لانماط جميع الطلاب.

طرائق التعليم والتعلم

- 1- طريقة القاء المحاضرات
- 2- المجاميع الطلابية
- 3- ورش العمل
- 4- التقارير والدراسات
- 5- دراسات الحالة والمناقشات
- 6- استخدام وسائل الايضاح و أجهزة العرض الرقمية

طرائق التقييم

- 1- الامتحانات بمختلف أنواعها
- 2- التغذية المرتجعة من الطلاب (CAT)
- 3- طريقة التعبير بالوجوه
- 4- مصفوفة التعلم (Learning Matrix)
- 5- التقارير والدراسات

ج-مهارات التفكير

- ج 1- ابتكار طرق متطورة في حل المشاكل الادارية الواقعية والافتراضية من قبل الطلبة.
- ج 2- انشاء مجاميع طلابية والطلب منهم حل حالات ومشاكل بشكل عملي.
- ج 3- ايجاد افضل السبل في اصال المعلومة للطلبة .
- ج 4- الشرح المفصل والبسيط لكل موضوع مع اعطاء فرصة للطلبة للمناقشة.

طرائق التعليم والتعلم

- 1- طريقة القاء المحاضرات
- 2- المجاميع الطلابية
- 3- ورش العمل
- 4- التقارير والدراسات

- 5- دراسات الحالة والمناقشات
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- 1- الامتحانات بمختلف أنواعها
2- التغذية المرتجة من الطلاب (CAT)
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د- المهارات العامة والمنقولة (المهارات الأخرى المتعلقة بقابلية التوظيف والتطور الشخصي).

- د1- التواصل اللفظي والتواصل الكتابي
د2- العمل الجماعي والتحليل والتحقق
د3- المرونة والمبادرة والدافعية في العمل
د4- التخطيط والتنظيم وإدارة الوقت

طرائق التعليم والتعلم

- 1- طريقةلقاء المحاضرات
2- المجاميع الطلابية
3- ورش العمل
4- التقارير والدراسات
5- دراسات الحالة والمناقشات
6- استخدام وسائل الايضاح و أجهزة العرض الرقمية

طرائق التقييم

- 1- الامتحانات بمختلف أنواعها
2- التغذية المرتجة من الطلاب (CAT)
3- طريقة التعبير بالوجوه
4- مصفوفة التعلم (Learning Matrix)
5- التقارير والدراسات

11. بنية البرنامج

12. الشهادات والساعات المعتمدة

المستوى / السنة	رمز المقرر أو المساق	اسم المقرر أو المساق	الساعات والوحدات المعتمدة
الأولى / الكورس الاول		الفيزياء	125/5 ساعة
		الرسم الهندسي & اوتوكاد 1	150/6 ساعة
		الرياضيات	150/6 ساعة
		دوائر كهربائية	150/6 ساعة
		مبادئ الحاسوب	100/4 ساعة

	75/3 ساعة	اللغة الانكليزية		
	125/5 ساعة	الفيزياء		
	150/6 ساعة	الكيمياء		الكورس الثاني/الأولى
	150/6 ساعة	الرسم الهندسي & اوتوكاد 11		
	150/6 ساعة	رياضيات		
	25/1 ساعة	اللغة العربية		
	100/4 ساعة	الميكانيك الهندسي		
	100/4 ساعة	الورش الهندسية		
	75/3 ساعة	حقوق الانسان والديمقراطية		
	لا يوجد			الثانية/ الكورس الأول
	لا يوجد			الثانية/ الكورس الثاني
	لا يوجد			الثالثة/ الكورس الأول
	لا يوجد			الثالثة/ الكورس الثاني
	لا يوجد			الرابعة/ الكورس الأول
	لا يوجد			الرابعة/ الكورس الثاني

13. التخطيط للتطور الشخصي

- حضور الورشات الالكترونية ضمن التخصص لغرض تطوير الكوادر التعليمية.
- المشاركة في الدورات التدريبية النظرية والعملية لمواكبة الكادر التعليمي التطورات الجارية.
- الحضور والمشاركة الندوات والمناقشات العلمية لغرض الاستفادة من الخبرات المتنوعة.
- تطوير المناهج العلمية بما يلائم مع سوق العمل.
- الارتقاء العلمي من خلال استغلال التكنولوجيا الحديثة في الجانب التعليمي.

14. معيار القبول (وضع الأنظمة المتعلقة بالالتحاق بالكلية أو المعهد)

- ان لا يقل معدل قبول الطلبة عن 50 بالنسبة للدراسة الصباحية.
- ان لا يقل معدل قبول الطلبة عن 50 بالنسبة للدراسة المسائية.
- تخفيض الاجور الدراسية للأوائل والذين لديهم معدل عالي (المنحة المجانية).
- ان يكون متخرج من الاعدادية من الفرع العلمي (احيائي/تطبيقي) او الادبي او التجارة (إدارة/عام).

15. أهم مصادر المعلومات عن البرنامج

- قانون التعليم الجامعي.
- التعليمات الوزارية التي تصدر من وزير التعليم العالي والبحث العلمي.

مخطط مهارات المنهج

يرجى وضع اشارة في المربعات المقابلة لمخرجات التعلم الفردية من البرنامج الخاضعة للتقييم

مخرجات التعلم المطلوبة من البرنامج

المهارات العامة والمنقولة (أو) المهارات الأخرى المتعلقة بقابلية التوظيف والتطور الشخصي				مهارات التفكير				المهارات الخاصة بالموضوع				المعرفة والفهم				أساسي أم اختياري	اسم المقرر	رمز المقرر	السنة / المستوى
د4	د3	د2	د1	ج4	ج3	ج2	ج1	ب4	ب3	ب2	ب1	أ4	أ3	أ2	أ1				
√	√		√	√	√	√	√	√	√	√	√	√	√		√	اساسي	الفيزياء		السنة الاولى
√		√	√	√	√	√		√	√	√	√		√	√	√	اساسي	الرسم الهندسي & اوتوكاد 1		
√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	اساسي	الرياضيات 1		
√	√	√	√	√		√	√	√	√		√	√	√	√	√	اساسي	دوائر كهربائية		
	√	√	√	√		√	√	√	√	√	√		√	√	√	اساسي	مبادئ الحاسوب		
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	اساسي	اللغة الانكليزية		
√	√	√		√	√	√	√	√	√		√	√	√	√	√	اساسي	الكيمياء		
√	√	√		√	√	√	√	√	√		√	√	√	√	√	اساسي	الرسم الهندسي & اوتوكاد 11		
√	√	√	√	√	√		√	√	√	√	√	√		√	√	اساسي	رياضيات 11		
√	√		√	√	√	√	√	√	√	√	√	√	√	√	√	اساسي	اللغة العربية		
√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	اساسي	الميكانيك الهندسي		

√	√	√	√		√	√	√	√	√	√	√	√	√	√	√	اساسي	الورش الهندسية		
√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	اساسي	حقوق الانسان والديمقراطية		
لا يوجد																			
لا يوجد																			
لا يوجد																			

السنة الثانية

السنة الثالثة

السنة الرابعة

لا يوجد

وصف البرنامج الأكاديمي

جدول المحتويات Contents of Table

المرحلة الأولى

First semester

S. N	in English Module Name	in Arabic Module Name
1	Engineering Drawing and Auto-CAD I	الرسم الهندسي والأوتوكاد
2	Electrical Circuits	دوائر كهربائية
3	Mathematics I	الرياضيات
4	Fundamental of Computer	اساسيات الحاسوب
5	Physics	الفيزياء
6	Arabic language	اللغة العربية

Second semester

S. N	in English Module Name	in Arabic Module Name
1	Engineering Drawing and Auto-CAD	الرسم الهندسي والأوتوكاد
2	Engineering Mechanics	الميكانيك الهندسي
3	Mathematics	الرياضيات
4	Manufacturing Processes & Engineering Workshop	عمليات التصنيع والأعمال الهندسية
5	Chemistry	الكيمياء
6	English language	اللغة الإنكليزية

FORM DESCRIPTION MODULE

- **First semester**

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	none	Semester	
Co-requisites module	معلومات المادة الدراسية none	Semester	
Module Title	Engineering Drawing and Auto-CAD I		Module Delivery
Module Type Core	Core		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture
Module Code	UOBAB0301011		<input checked="" type="checkbox"/> Lab
ECTS Credits 6	6		<input type="checkbox"/> Tutorial
SWL (hr/sem)	051		<input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Level	First	Semester of Delivery	one
Administering Department	Energy Engineering	College	Iraq University College
Module Leader	Dr. Kamel El Shamaa	e-mail	Shamaa@iuc.edu.iq.Kamel
Module Leader's Acad. Title	Assistant Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor	Leica Nabeel	e-mail	nabeel@iuc.edu.iq.Leica
Peer Reviewer Name	Hussain alaa	e-mail	Hussain.alaa@iuc.edu.iq
Scientific Committee Approval Date	401/06/202	Version Number	0.1

	Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادي
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Module Objectives أهداف المادة الدراسية	<ol style="list-style-type: none"> 1. Develop proficiency in <i>technical communication</i> and production of mechanical engineering drawings. 2. Develop skills in the preparation of working and assembly mechanical drawings. 3. <i>Develop an understanding of the properties, uses and production of materials used in the manufacture of engineering components.</i> 4. Provide knowledge of the different methods of production of engineering components. 5. <i>Develop skills in communicating technical information using illustrations, scaled models and working drawings to solve engineering design problems.</i> 6. Develop skills in applying and drawing principles to facilitate product development and manufacture. 7. Develop <i>proficiency</i> in the use of Computer-Aided Drafting (CAD) software, <i>instruments, media and reference materials</i> to produce engineering drawings. 8. Develop an interest in mechanical engineering as disciplines and careers. 9. <i>Develop the capacity for critical and creative thinking, problem-solving, leadership and cooperative behaviors through authentic learning experiences.</i>
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Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> 1. Know the principles of Lettering and Dimensioning. 2. Know how to construct standard engineering curves. 3. Know how to construct a number of different geometrical constructions. 4. Know how to project solids in orthographic projection. 5. Know how to use Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures “different lines”). 6. Know how to use Computer-Aided Drafting software to produce drawings (different two-dimensional figures “surfaces”).
Indicative Contents المحتويات الإرشادية	<p>Indicative content includes the following.[150]</p> <ul style="list-style-type: none"> • Drawing Instruments and Accessories. [12 hrs.] • Lettering and Dimensioning Practices. [12 hrs.] <ul style="list-style-type: none"> • Geometrical Constructions. [46 hrs.] • Orthographic Projections. [40 hrs.] • Computer-Aided Drafting software (two-dimensional figures). [40 hrs.]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<p>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</p>

Student Workload (SWL) الحمل الدراسي للطالب محسوب ل ٥١ سبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	95	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير منتظم للطالب خلال الفصل	55	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
Total SWL (h/sem) إجمالي الحمل الدراسي لك لي للطالب خلال الفصل	150		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	4	5% (20)	5 and 10	LO #3, #4, #5, and #6
	Class Assignment	15	1.5% (22.5)	Continuous	All
	Home work	15	0.5% (7.5)	Continuous	LO #3, #5 and #6
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #4
	Final Exam	3hr	40% (40)	16	All
Total assessment			100%		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	4	5% (20)	5 and 10	LO #3, #4, #5, and #6
	Class Assignment	15	1.5% (22.5)	Continuous	All
	Home work	15	0.5% (7.5)	Continuous	LO #3, #5 and #6
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #4
	Final Exam	3hr	40% (40)	16	All
Total assessment			100%		

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Drawing instruments and accessories, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 2	Lettering and dimensioning practices, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 3	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 4	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 5	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 6	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 7	Geometrical constructions, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 8	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 9	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 10	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 11	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 12	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 13	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 14	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 15	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)	
المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Drawing instruments and accessories, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 2	Lettering and dimensioning practices, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 3	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 4	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 5	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 6	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").

Week 7	Geometrical constructions, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 8	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 9	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 10	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 11	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 12	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 13	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 14	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 15	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Engineering drawing, Abdul Rasoul Al Khafaf, University of Technology, Baghdad, Iraq, 1990.	Yes
Recommended Texts	Handbook of engineering drawing and AutoCAD, Mohammad Abid Muslim Altufaily, University of Babylon, Iraq, 2007	Yes
Websites	https://youtu.be/zL1BA-mcjcc	

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.

- Electrical Circuits

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	none	Semester	
Co-requisites module	معلومات المادة الدراسية none	Semester	
Module Title	Electrical Circuits		Module Delivery
Module Type Core	Core		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	UOBAB0301012		
ECTS Credits 6	6		
SWL (hr/sem)	051		
Module Level	First	Semester of Delivery	one
Administering Department	Energy Engineering	College	Iraq University College
Module Leader	Dr. Kamel El Shamaa	e-mail	Shamaa@iuc.edu.iq.Kamel
Module Leader's Acad. Title	Assistant Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor	Dr. Majeed Abdul Hussein	e-mail	Majeed.AbdulHussein@iuc.edu.iq
Peer Reviewer Name	Hussain alaa	e-mail	Hussain.alaa@iuc.edu.iq
Scientific Committee Approval Date	401/06/202	Version Number	0.1

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادي	
Module Objectives أهداف المادة الدراسية	<ol style="list-style-type: none"> 1. To study Ohm's law 2. To study electrical circuits; series, parallel, and series-parallel in d.c. 3. To apply a method of analysis on d.c. circuits 4. To apply electrical theorems on d.c. circuits 5. To understand the sinusoidal waveforms in electrical circuits. 6. To understand the response of Capacitor, Inductor, and resistor. 7. To understand the complex numbers. 8. To perform conversion between time domain and phasor domain and vice versa. 9. To apply the methods of analysis in ac circuits 10. To apply the circuit theorems in ac circuits 11. To understand power in ac circuits

<p>Module Learning Outcomes</p> <p>مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1. Studying ohm's law 2. Studying types of circuits in d.c. and methods to analyze them. 3. Recognize ac components and their response; capacitor, inductor, and resistor. 4. List the various terms associated with ac electrical circuits. 5. Understand complex numbers in order to apply them in ac circuits 6. Discuss the average and the rms values. 7. Apply Kirchoff's laws on ac circuits 8. Understand methods of analysis in ac circuits 9. Apply electrical theorems in ac circuits.
<p>Indicative Contents</p> <p>المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <p>Part A - Circuit Theory</p> <ul style="list-style-type: none"> • studying d.c. electrical circuits. [12 hrs] • analyzing d.c. electrical circuits.[13 hrs] • Sinusoidal waveforms, average (dc) value, effective (rms) value [8 hrs] • Time domain and phasor domain. [8 hrs] • Complex numbers: rectangular and polar phorm [8 hrs] • Methods of circuit analysis and their applications on ac circuits; mesh and nodal methods. [12 hrs] • Electrical circuit theorems and their application on ac circuits: Superposition , Thevenin, And Norton. [12 hrs] • Power in ac circuits: power triangle, real power, reactive power, and apparent power; impedance triangle. [12 hrs]

<p>Learning and Teaching Strategies</p> <p>استراتيجيات التعلم والتعليم</p>	
Strategies	<p>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.</p>

<p>Student Workload (SWL)</p> <p>الحمل الدراسي للطالب محسوب ل ٥١ سبوعا</p>			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير لمنتظم للطالب خلال الفصل	75	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	5
Total SWL (h/sem) إجمالي الحمل الدراسي لك لي للطالب خلال الفصل	150		

<p>Module Evaluation</p> <p>تقييم المادة الدراسية</p>					
		Time/Number	Week Due		
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

Delivery Plan (Weekly Syllabus)				and #10
المنهج الأسبوعي النظري				
			Material Covered	D #1 - #7
Week1	Final Exam	2hr	DC circuits; series, parallel, series-parallel	All
Week2			100% Methods of analyzing d.c. circuits	
Week3			Electrical theorems	
Week4			Review of Kirchhoff's Laws on ac circuits	
Week5			Star delta and delta star conversion in ac circuits	
Week6			RLC circuits	
Week7			Mid-term Exam	
Week8			Series and parallel circuits	
Week9			Series – parallel circuits in ac circuits	
Week10			Methods of analysis in ac circuits I	
Week11			Methods of analysis in ac circuits II	
Week12			Electrical theorems in ac circuits I	
Week13			Electrical theorems in ac circuits II	
Week14			Power and power triangle	
Week15			Power , apparent power , reactive and real power	
Week16			Preparatory week before the final Exam	

Delivery Plan (Weekly Syllabus)	
المنهج الأسبوعي للمختبر	
	Material Covered
Week1	Lab 1: series-parallel dc circuits
Week2	Lab 2: Norton's theorem
Week3	Lab 3: RLC circuits
Week4	Lab 4: Kirchhoff's laws
Week5	Lab 5: mesh method
Week6	Lab 6: superposition theorem
Week7	Lab 7: Thevenin theorem

Learning and Teaching Resources		
مصادر التعليم والتدريس		
	Text	Available in theLibrary?
Required Texts	Introductory circuit analysis by Boylston	Yes
Recommended Texts	Introductory circuit analysis by Boylston	Yes
Websites	https://www.coursera.org/browse/physical-science-and-engineering/electrical-	

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	أمتياز	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 is 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.

- Mathematics I

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	معلومات المادة الدراسية	none	Semester
Co-requisites module		none	Semester
Module Title	Mathematics I		Module Delivery
Module Type Core	S		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	UOBAB0301013		
ECTS Credits 6	6		
SWL (hr/sem)	150		
Module Level	First	Semester of Delivery	
Administering Department	Energy Engineering	College	Iraq University College
Module Leader	Dr. Kamel El Shamaa	e-mail	Shamaa@iuc.edu.iq.Kamel
Module Leader's Acad. Title	Assistant Lecturer	Module Leader's Qualification	
Module Tutor	Dhaha Habib	e-mail	Dhaha Habib@iuc.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	401/06/202	Version Number	1.0

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادي	
Module Objectives أهداف المادة الدراسية	<p>After completing the course, students should be able to:</p> <ol style="list-style-type: none"> 1) Enable the pupil to learn the concepts of mathematics and applications in his work. 2) To study the characteristics and properties of number sets, and obtain the number systems. 3) To understand the concept of function, to learn draw the graph of functions, to know the lists types of functions. 4) Study the meaning of limit and continuous function. 5) To understand the meaning of derivative function and applications. 6) Study the transcendental function. 7) Study the Unit vector, vector equation, cross product, dot product. 8) To knows the meaning of complex number.

<p>Module Learning Outcomes</p> <p>مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1) Describe the characteristics and properties of number sets, and obtain the number systems. 2) Describe and State the concept of function, draw the graph of functions, the lists types of functions. 3) To understands the meaning of limit and continuous function. 4) To knows the meaning of derivative function and applications. 5) Describe the transcendental function. 6) Describe the matrix and its operations and to know the determent of its. 7) Describe the Unit vector, vector equation, cross product, dot product. 8) To understands the meaning of complex number.
<p>Indicative Contents</p> <p>المحتويات الإرشادية</p>	<p style="text-align: center;">Indicative content includes the following.</p> <ul style="list-style-type: none"> • Type of sets, type of interval, Cartesians plain. The domain and rang of functions, even and odd functions. Drawing curved function, shifting the graph. limit from the left and right. [20 hr] • The concept of continuous function, Algebraic operations on continuous functions. Methods of derivation, the chain rule. Applications on derivatives. Kind of exponential functions. Types of trigonometric functions. The inverse of the trigonometric functions. Kind of Hyperbolic functions. [20 hr] • Types of matrices, operations on matrices. Use matrices in solving linear systems of equations. Meaning vector, algebraic properties of vectors. Vector equation, cross product, dot product. Properties of complex numbers, the representation of the complex number. [20 hr]

<p style="text-align: center;">Learning and Teaching Strategies</p> <p style="text-align: center;">استراتيجيات التعلم والتعليم</p>	
Strategies	<p>Type something like: 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.</p>

<p style="text-align: center;">Student Workload (SWL)</p> <p style="text-align: center;">حمل الدراسي للطالب محسوب ل ٥١ سبوعا</p>			
Structured SWL (h/sem)	64	Structured SWL (h/w)	4
الحمل الدراسي المنتظم للطالب خلال الفصل		الحمل الدراسي المنتظم للطالب أسبوعيا	
Unstructured SWL (h/sem)	86	Unstructured SWL (h/w)	6
الحمل الدراسي غير لمنتظم للطالب خلال الفصل		الحمل الدراسي غير المنتظم للطالب أسبوعيا	
Total SWL (h/sem)	150		
إجمالي الدرس لك لي للطالب خلال الفصل			

<p style="text-align: center;">Module Evaluation</p> <p style="text-align: center;">تقييم المادة الدراسية</p>					
		Time/Number	Week Due		
Formative assessment	Quizzes	2	0% (10)2	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.				

	Report	1	10% (10)		LO #5, #8 and #10
Summative assessment	Midterm Exam	hr2	10% (10)	7	LO #1 - #7
	Final Exam	hr3	50% (50)	16	All
Total assessment			100%		

Delivery Plan (Weekly Syllabus) المنهج الأسبوعي النظري	
	Material Covered
Week1	System numbers.
Week2	The functions and its kinds.
Week3	The graph of the function.
Week4	Limit function.
Week5	Continuous functions.
Week6	Derivatives.
Week7	Applications on derivatives. (Mid-term Exam)
Week8	Exponential functions.
Week9	The inverse trigonometric functions.
Week10	Hyperbolic functions.
Week11	Matrices and their types.
Week12	Solving systems of linear equations.
Week13	Vectors.
Week14	The operations on the Vector.
Week15	Complex numbers.
Week16	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعليم والتدريس		
	Text	Available in the Library?
Required Texts	George B. Thomas Jr, Weir Joel R. Hass ' alculus' (V.12), 2014	Yes
Recommended Texts	1. Haward Anton" Calculus and analytic geometry". 2. Schemes series " Theory and problems of calculus	no
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	أمتياز	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 (فيد المعالجة)	(45-49)	More work is required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
<p>Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.</p>				

- Physics

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	none	Semester	
Co-requisites module	معلومات المادة الدراسية none	Semester	
Module Title	Physics I		Module Delivery
Module Type Core	S		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture
Module Code	UOBAB0301014		<input checked="" type="checkbox"/> Lab
ECTS Credits 6	6		<input type="checkbox"/> Tutorial
SWL (hr/sem)	125		<input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Level	First	Semester of Delivery	one
Administering Department	Energy Engineering	College	Iraq University College
Module Leader	Dr. Kamel El Shamaa	e-mail	Shamaa@iuc.edu.iq.Kamel
Module Leader's Acad. Title	Assistant Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor	Dr. Kamel El Shamaa	e-mail	Shamaa@iuc.edu.iq.Kamel
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	401/06/202	Version Number	1.0

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادي	
Module Objectives أهداف المادة الدراسية	<ol style="list-style-type: none"> 1. Analyze the atomic structure of matter at its most fundamental. 2. Recognize the state of matter and its properties. 3. Understand the forms of energy. 4. Solve problems that call for the application of conservation of energy. 5. Know the classification of the semiconductors and the mechanism behind them. 6. Explain the basic properties of light and describe some of its applications in engineering.

<p>Module Learning Outcomes</p> <p>مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1. Understanding the basic concepts and definitions is important in any field of study. 2. Learning the properties of individual atoms and molecules, as well as how they interact with each other. 3. knowing the physical and chemical properties of each state, such as gas, liquid, and solid, as well as understanding how the atoms and molecules interact with each other in the various states. 4. Be familiar with how the forms of energy interact with one another and how they are used. 5. Understanding how energy can be converted from one form to another as well as familiarity with the equations involved. 6. Learning how semiconductors are classified and what the mechanisms are behind each type of semiconductor. 7. Applying the light fundamental principles and how engineers are able to create complex technological solutions
<p>Indicative Contents</p> <p>المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <ul style="list-style-type: none"> • Some basic concepts and definitions, how atomic structure is formed and interatomic bonding energy and classification, properties of matter, state of matter, energy sources, kinetic energy, and work. [23 hr] • Potential energy, thermal properties of matter, how heat and law of thermodynamics applied, what are the fluid characteristics, electric field, and potential. [22 hr] • Classifications of Conductor and insulator materials, semiconductors, propagation of light and optics characteristics, and elements of solid-state physics. [15 hr]

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

<p>Strategies</p>	<p>This module will be taught in such a way that students will be compelled to participate in the exercises and their critical thought skills will be refined and expanded through participation. Classes and interactive tutorials will be used in order to reach this goal, as well as considering the types of simple experiments involving sampling activities that the learners might find interesting as well. The module will also include group activities, which will encourage collaboration and the exchange of ideas. This will help to create an engaging learning experience for the students and will also help them to develop their communication skills</p>
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Student Workload (SWL)

لحمل الدراسي للطالب محسوب ل ٥١ سبوعا

<p>Structured SWL (h/sem)</p> <p>الحمل الدراسي المنتظم للطالب خلال الفصل</p>	<p>64</p>	<p>Structured SWL (h/w)</p> <p>الحمل الدراسي المنتظم للطالب أسبوعيا</p>	<p>4</p>
<p>Unstructured SWL (h/sem)</p> <p>الحمل الدراسي غير منتظم للطالب خلال الفصل</p>	<p>61</p>	<p>Unstructured SWL (h/w)</p> <p>الحمل الدراسي غير المنتظم للطالب أسبوعيا</p>	<p>4</p>
<p>Total SWL (h/sem)</p> <p>إجمالي إدراس لك لي للطالب خلال إلفصل</p>	<p>150</p>		

Delivery Plan (Weekly Syllabus)

المنهج الأسبوعي النظري

	Material Covered
Week1	Some basic concepts and definitions
Week2	Atomic structure and interatomic bonding
Week3	Properties of matter
Week4	State of matter
Week5	Energy sources
Week6	Kinetic Energy and work
Week7	Potential energy (Mid-term Exam)
Week8	Thermal properties of matter
Week9	Heat and law of thermodynamics
Week10	Fluids
Week11	Electric field and potential
Week12	Conductor and insulator materials
Week13	Semiconductors
Week14	Lights and optics
Week15	Elements of solid-state physics
Week16	Preparatory before the final Exam

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Week Due		
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	hr2	10% (10)	7	LO #1 - #7
	Final Exam	hr3	50% (50)	16	All
Total assessment			100%		

Delivery Plan (Weekly Syllabus) المنهج الأسبوعي للمختبر	
	Material Covered
Week1	Lab 1: Photon energy
Week2	Lab 2: Data analysis for calculating Plank's constant
Week3	Lab 3: Energy distribution
Week4	Lab 4: Electrical properties of insulated materials
Week5	Lab 5: Light interaction with matter

Learning and Teaching Resources مصادر التعليم والتدريس		
	Text	Available in the Library?
Required Texts	Halliday, D., Resnick, R., & Walker, J. (2013). Fundamentals of physics. John Wiley & Son	Yes
Recommended Texts	Radi, H., & Rasmussen, J. O. (2013). Principles of physics. Springer	Yes
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	أمتياز	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 (فيد المعالجة)	(45-49)	More work is 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.

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Fundamental of Computer	Semester	Module Delivery
Co-requisites module	B none	Semester	<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	UOBAB0301015		
ECTS Credits 6	4		
SWL (hr/sem)	100		
Module Level	First	Semester of Delivery	one
Administering Department	Energy Engineering	College	Iraq University College
Module Leader	Dr. Kamel El Shamaa	e-mail	Shamaa@iuc.edu.iq.Kamel
Module Leader's Acad. Title	Assistant Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor	Mohamed Gamal	e-mail	Gamal @iuc.edu.iq.Mohamed
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	401/06/202	Version Number	1.0

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادي	
Module Objectives أهداف المادة الدراسية	The computer science curriculum aims to introduce the student to computer science and the skills related to this subject. The main purpose of the course is to introduce the student to an idea about the computer and its components and how each of its parts works through an explanation of the input units, the central processing unit, the input units, the storage units, and the types of operating systems and programs Microsoft Office and how to connect to the Internet and identify and protect against virus risks

<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<p>A- Cognitive objectives</p> <p>A1- During the school year, the student learns the basics of computer science.</p> <p>A2- Enabling the student to know the main principles of the most prominent concepts of computer science, their sources and types, and the mechanisms used for their purpose.</p> <p>A 3- Enabling the student to know all the basics that he uses in the scientific subject</p> <p>A 4- Definition of computer, its development history and generations</p> <p>A 5- An explanation of the computer system with all its elements and systems</p> <p>A6- Introducing the student to the input unit, its principles of work, its types, and the work of the basic office programs</p> <p>A 7- The central processing unit, its parts, how each part works, the output unit, its working principles and types</p> <p>b- The skill objectives of the subject</p> <p>B1 - Familiarity with developments in the field of computers</p> <p>B2 - Familiarity with computer components</p> <p>B3 - Enabling the student to understand every part of the computer, how it works, and the work of the basic office programs</p> <p>B4- Giving the student an opportunity to explain a small part of the class to his classmates to enhance his self-confidence.</p> <p>B5- Solve a small part of the homework to urge the students to complete the solution, give class assignments, and make groups to solve these assignments</p>
<p>Indicative Contents المحتويات الإرشادية</p>	<p>The students will be able to identify the values, trends and patterns of behavior that uphold the ethics of the profession and work to adhere to them after graduation.</p> <p>1-Urging the student to understand the objective of studying the subject in general.</p> <p>2-Urging the student to think about how to develop oneself in the field of computers.</p> <p>3 -Making the student able to deal with the computers and how to use the programs in accordance with the rules and regulations of engineering.</p>

<p>Learning and Teaching Strategies استراتيجيات التعلم والتعليم</p>	
<p>Strategies</p>	<ol style="list-style-type: none"> The teacher prepares lectures on the subject in soft electronic form and presents them to the students. The teacher gives lectures in detail. the teacher requests periodic reports and homework on the basic subjects of the subject. Academic methods and lectures Dialogue modalities Use projectors Providing the student with basic and secondary topics related to computer work Translating theoretical topics and vocabulary related to computer technologies Requiring the student to follow developments in computer science

<p>Student Workload (SWL) الحمل الدراسي للطالب محسوب ل ٥١ سبوعا</p>			
<p>Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل</p>	<p>49</p>	<p>Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا</p>	<p>3</p>
<p>Unstructured SWL (h/sem) الحمل الدراسي غير منتظم للطالب خلال الفصل</p>	<p>51</p>	<p>Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا</p>	<p>1</p>
<p>Total SWL (h/sem) إجمالي الحمل الدراسي لك لي للطالب خلال الفصل</p>	<p>100</p>		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Week Due		
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	hr2	10% (10)	7	LO #1 - #7
	Final Exam	hr3	50% (50)	16	All
Total assessment			100%		

Delivery Plan (Weekly Syllabus)

المنهج الأسبوعي النظري

	Material Covered
Week1	Computers: their generations, components: hardware and software
Week2	(Input and output) (system software and application software).
Week3	Windows operating system Windows concept, advantages, basic requirements
Week4	Windows The concept of a window for any program and identifying its main components, folders, and
Week5	files and how to deal with them
Week6	Windows Learning about My Computer and Control Panel components
Week7	Output devices such as (printer and ways to deal with it)
Week8	Word (document building and formatting methods)
Week9	Midterm Exam
Week10	Excel program (data building, processing, and ways to extract it)
Week11	1Excel program (data building, processing, and ways to extract it)
Week12	PowerPoint program (building and coordinating presentations)
Week13	PowerPoint program (building and coordinating presentations)
Week14	The concept of computer viruses: how to infect, types and treatment
Week15	The Internet: a definition of how to deal with the Internet, Internet browsers, web searches and e-mail
Week16	Preparatory before the final Exam

Delivery Plan (Weekly Syllabus)

المنهج الأسبوعي للمختبر

	Material Covered
Week1	Computers: their generations, components: hardware and software
Week2	(Input and output) (system software and application software).
Week3	Windows operating system Windows concept, advantages, basic requirements
Week4	Windows The concept of a window for any program and identifying its main components, folders, and
Week5	files and how to deal with them
Week6	Windows Learning about My Computer and Control Panel components
Week7	Output devices such as (printer and ways to deal with it)
Week8	Word (document building and formatting methods)
Week9	Word (document building and formatting methods)
Week10	Excel program (data building, processing, and ways to extract it)
Week11	Excel program (data building, processing, and ways to extract it)
Week12	PowerPoint program (building and coordinating presentations)
Week13	PowerPoint program (building and coordinating presentations)
Week14	The concept of computer viruses: how to infect, types and treatment
Week15	The Internet: a definition of how to deal with the Internet, Internet browsers, web searches and e-mail
Week16	Preparatory before the final Exam

Learning and Teaching Resources

مصادر التعليم والتدريس

	Text	Available in the Library?	
Required Texts	Computer basics and office applications / 4 parts - Prof. Dr. Ghassan معلومات المادة الدراسية	NO	
Reco	Module Title	Architecture, Sixth Arabic Language Module Delivery	
	Module Type	Core B <input checked="" type="checkbox"/> Theory Yes	
	Module Code	Donald H. Sandersz, Computer today, Second edition, Graw-hill UOBAB0301016 <input type="checkbox"/> Lecture	
	ECTS Credits	6 Lectures provided by the subject teacher <input type="checkbox"/> Tutorial	
	SWL (hr/sem)	50 Books available in the college library <input type="checkbox"/> Practical	
W		<input type="checkbox"/> Seminar	
	Module Level	First Semester of Delivery one	
	Administering Department	Energy Engineering College Iraq University College	
	Module Leader	Dr. Kamel El Shamaa e-mail Shamaa@iuc.edu.iq.Kamel	
	Module Leader's Acad. Title	Assistant Lecturer Module Leader's Qualification Ph.D.	
	Module Tutor	Mohamed e-mail Mohamed @iuc.edu.iq	
	Peer Reviewer Name	e-mail	
	Scientific Committee Approval Date	401/06/202	Version Number 1.0

- Arabic Language

Grading Scheme				
مخطط الدرجات				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	Co-requisites module	A - Excellent	أمتياز none 90 - 100	Outstanding Performance
		B - Very Good	جيد جدا 80 - 89	Above average with some errors
		C - Good	الصفحة 32 70 - 79	Sound work with notable errors
		D -	متوسط 60 - 69	Fair but with major shortcomings
		Satisfactory	قبول 50 - 59	Work meets minimum criteria

	<p style="text-align: center;">Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادي</p>
<p style="text-align: center;">Module Objectives أهداف المادة الدراسية</p>	<p>1 إتقان اللغة الهدف الرئيسي من أهداف الوحدة في اللغة العربية هو مساعدة المتعلمين على تطوير الكفاءة في القراءة والكتابة والتحدث والاستماع إلى اللغة العربية. وهذا يشمل تحسين المفردات والقواعد والنطق ومهارات الفهم. مهارات الاتصال هدف آخر هو تعزيز قدرة المتعلمين على التواصل الفعال باللغة العربية. يتضمن ذلك التركيز على الاستخدام العملي للغة ، مثل الانخراط في</p> <p style="text-align: right;">2</p> <p>المحادثات والتعبير عن الآراء وطرح الأسئلة والإجابة عليها والمشاركة في أنشطة التواصل المختلفة. التفاهم الثقافي: قد تهدف أهداف الوحدة أيضًا إلى تعزيز التفاهم الثقافي والوعي بالعالم العربي. ويشمل ذلك تعريف المتعلمين بالعادات والتقاليد والأدب والتاريخ والجوانب الاجتماعية المرتبطة بالدول الناطقة باللغة العربية.</p> <p style="text-align: right;">3</p> <p>4 استخدام اللغة الوظيفية يمكن أن يكون الهدف من أهداف الوحدة هو تزويد المتعلمين بالمهارات اللغوية اللازمة لأداء مهام أو وظائف محددة باللغة العربية. قد يتضمن ذلك تعلم المفردات والعبارات المتعلقة بموضوعات مثل السفر والتسوق وتناول الطعام والرعاية الصحية والتفاعلات التجارية.</p> <p>5 الدقة اللغوية قد تؤكد أهداف الوحدة على تطوير الدقة النحوية والاستخدام السليم للغة. يتضمن ذلك تعلم قواعد وهيكل قواعد اللغة العربية ، وبناء الجملة ، والصرف الإنتاج جمل متماسكة وخالية من الأخطاء.</p> <p style="text-align: right;">6.</p> <p>التعلم المستقل: هدف آخر هو تعزيز قدرة المتعلمين على دراسة واستكشاف اللغة العربية بشكل مستقل خارج الفصل الدراسي. يمكن أن يشمل ذلك تشجيع التعلم الذاتي ، وتوفير الموارد المزيد من الممارسة ، وتطوير استراتيجيات لاكتساب اللغة بشكل فعال. 7 التقييم والتقدم قد تهدف أهداف الوحدة أيضًا إلى تقييم تقدم المتعلمين وتقديم ملاحظات حول مهاراتهم في اللغة العربية. يسمح هذا لكل من المتعلمين والمدرسين بتقييم إنجازاتهم وتحديد مجالات التحسين</p>

<p>Module Learning Outcomes</p> <p>مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1. الفهم السمي: إظهار القدرة على فهم وفهم اللغة العربية المتوقعة عبر مجموعة من الموضوعات والسياقات ، بما في ذلك المحادثات والعروض التقديمية والتسجيلات الصوتية. 2. الفهم الغرائي: إظهار القدرة على قراءة وفهم النصوص العربية المكتوبة بمستويات مختلفة من الصعوبة ، مثل المقالات والقصص والمواد الأصلية ، واستخراج المعلومات ذات الصلة. 3. إتقان التحدث: التواصل الفعال باللغة العربية من خلال التعبير عن الأفكار والآراء والمعلومات في شكل منطوق. الانخراط في المحادثات والمشاركة في المناقشات وتقديم العروض باستخدام المفردات والقواعد والتطبيقات المناسبة. 4. إتقان الكتابة: إنتاج نصوص مكتوبة باللغة العربية ، مثل المقالات والتقاير ورسائل البريد الإلكتروني والرسائل ، بوضوح وتماسك ودقة نحوية. قم بتطبيق اصطلاحات اللغة المناسبة ، بما في ذلك التهجئة وعلامات الترقيم وبناء الفقرة. 5. المفردات والقواعد: إظهار مجموعة واسعة من المفردات وفهم قواعد قواعد اللغة العربية وهياكلها. استخدم المفردات المناسبة للتعبير عن الأفكار والأفكار بدقة ، وتطبيق القواعد النحوية بشكل فعال في الاتصال الكتابي والمنطوق. 6. الوعي الثقافي: إظهار فهم للجوانب الثقافية للبلدان الناطقة باللغة العربية ، بما في ذلك العادات والتقاليد والأعراف الاجتماعية. التعرف على الاختلافات الثقافية واحترامها وتطبيق المعرفة الثقافية بشكل مناسب في استخدام اللغة. 7.طلاقة اللغوية: تنمية الطلاقة في اللغة العربية من خلال التحدث والرد بشكل عفوي ، دون تردد مفرط. أظهر القدرة على الحفاظ على المحادثة والتفاوض بشأن المعنى والتعامل مع مواقف الاتصال المختلفة بثقة. 8. التفكير النقدي: تطبيق مهارات التفكير النقدي لتحليل وتقييم النصوص العربية ، بما في ذلك المقالات الإخبارية ، والأعمال الأدبية ، والمواد الثقافية. صياغة الآراء ودعمها ، وإقامة الروابط ، وإظهار الفهم وراء مستوى الفهم السطحي. 9. التعلم المستقل: تحمل مسؤولية التعلم الذاتي من خلال استخدام الموارد والاستراتيجيات لتطوير إتقان اللغة العربية. إظهار القدرة على الانخراط في التعلم الذاتي للغة والبحث عن فرص لتحسين المستمر. 10. التواصل بين الثقافات: الانخراط في التواصل الفعال بين الثقافات من خلال إظهار فهم الاختلافات الثقافية ، وتكييف استخدام اللغة وفقاً لذلك ، وإظهار الاحترام لوجهات النظر المتنوعة.
<p>Indicative Contents</p> <p>المحتويات الإرشادية</p>	<p>لمبتدأ والخير أن يكون الطالب جملة فيها مبتدأ وخير ، لتصويبات اللغوية أن يتعرف الطالب على التصويبات اللغوية علامات الترقيم أن يستعمل الطالب علامات الترقيم يجوب فتح همزة ان وكسرها أن يتعرف الطالب موقع فتح همزة ان وكسرها لادب القصصي أن يتعرف الطالب على الادب القصصي لادب العربي زيادة الثروة اللغوية للطالب شعر الحر والشعر العمودي أن يفرق الطالب بين الشعر العمودي والحر لعدد أن يكتب الطالب العدد بشكل صحيح حافظ ابراهيم أن يترجم الطالب لحياة الشاعر حافظ ابراهيم بدر شاكر السياب أن يترجم الطالب لحياة الشاعر بدر شاكر السياب لجواهري أن يترجم الطالب لحياة الشاعر الجواهري همزة القط أن يستخرج الطالب همزة القط</p>

<p>Learning and Teaching Strategies</p> <p>استراتيجيات التعلم والتعليم</p>	
<p>Strategies</p>	<p>النهج التواصلية: التأكيد على استخدام اللغة العربية للتواصل الهادف شجع المتعلمين على الانخراط في محادثات حقيقية ولعب الأدوار وأنشطة التواصل التي تعكس مواقف الحياة الواقعية. توفير فرص للتفاعل الهادف باللغة العربية لتطوير مهارات التحدث والاستماع. المهارات المتكاملة دمج المهارات اللغوية الأربع الاستماع والتحدث والقراءة والكتابة في عملية التدريس والتعلم. قم بإنشاء أنشطة تسمح</p> <p>للمتعلمين بممارسة هذه المهارات وتعزيزها في وقت واحد. على سبيل المثال ، قراءة نص بصوت عالي ومناقشته ثم كتابة رد. مواد أصلية: دمج المواد العربية الأصلية ، مثل المقالات الإخبارية والأدب والأغاني ومقاطع الفيديو والبودكاست ، في المناهج الدراسية. تعرض هذه المواد المتعلمين لاستخدام اللغة الواقعية والجوانب الثقافية للمجتمعات الناطقة باللغة العربية ، مما يعزز كفاءتهم اللغوية وفهمهم الثقافي. التعلم السياقي: تعليم اللغة العربية في سياقات ذات مغزى تتعلق بحياة المتعلمين أو مجالات اهتمامهم. استخدم الموضوعات والموضوعات والمواقف ذات الصلة لجعل تجربة تعلم اللغة أكثر جاذبية ووثوقية للمتعلمين.</p> <p>مناهج متعددة الوسائط استخدم مجموعة متنوعة من الموارد والوسائط لتلبية أنماط التعلم المختلفة. اجمع بين الأنشطة البصرية والسمعية والحركية لتعزيز تعلم اللغة. قم بدمج أدوات الوسائط المتعددة وتطبيقات تعلم اللغة والموارد عبر الإنترنت والأنشطة التفاعلية لإنشاء بيئة</p> <p>تعليمية جذابة. التعلم القائم على المهام تنظيم تعلم اللغة حول المهام الهادفة التي تتطلب من المتعلمين استخدام اللغة العربية لتحقيق أهداف محددة. يمكن أن تشمل المهام التخطيط لرحلة أو وصف تجربة شخصية أو المشاركة في مناقشة. يعزز هذا النهج استخدام اللغة ومهارات حل المشكلات</p>

<p>Student Workload (SWL)</p>			
<p>لحمل الدراسي للطالب محسوب ل ٥١ سبوعا</p>			
<p>Structured SWL (h/sem)</p> <p>الحمل الدراسي المنتظم للطالب خلال الفصل</p>	<p>30</p>	<p>Structured SWL (h/w)</p> <p>الحمل الدراسي المنتظم للطالب أسبوعيا</p>	<p>2</p>
<p>Unstructured SWL (h/sem)</p>	<p>20</p>	<p>Unstructured SWL (h/w)</p>	<p>1</p>

الحمل الدراسي غير المنتظم للطلاب خلال الفصل	الحمل الدراسي غير المنتظم للطلاب أسبوعياً
Total SWL (h/sem) إجمالي الساعات الدراسية خلال الفصل	50

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Week Due		
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	hr2	10% (10)	7	LO #1 - #7
	Final Exam	hr3	50% (50)	16	All
Total assessment			100%		

Delivery Plan (Weekly Syllabus)	
المناهج الأسبوعي النظري	
	Material Covered
Week 1	أن يكون الطالب جملة فيها مبتدأ وخبر
Week 2	أن يتعرف الطالب على التصويبات اللغوية
Week 3	أن يستعمل الطالب علامات الترقيم
Week 4	أن يتعرف الطالب موقع فتح همزة ان وكسرها
Week 5	أن يتعرف الطالب على الأدب القصصي
Week 6	الامتحان الفصلي
Week 7	زيادة الثروة اللغوية للطلاب
Week 8	أن يفرق الطالب بين الشعر العمودي والحر
Week 9	أن يكتب الطالب العدد بشكل صحيح
Week 10	أن يترجم الطالب لحياة الشاعر حافظ ابراهيم
Week 11	أن يترجم الطالب لحياة الشاعر بدر شاكر السياب
Week 12	أن يترجم الطالب لحياة الشاعر الجواهري
Week 13	أن يستخرج الطالب همزة القطع
Week 14	أن يستعمل الطالب همزة الوصل
Week 15	أن يكون الطالب جملة فيها مبتدأ وخبر
Week 16	الامتحان النهائي

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1- عليوي ، سعد حسن ، النحو الوسيط ، ط1 ، دار صفاء للنشر والتوزيع ، عمان -الأردن ، 2015. 2- النحوي ، ابن عقيل ، شرح ابن عقيل على الفية ابن مالك ، ط1 ، دار الكتب العلمية ، بيروت - لبنان ، 2006. ضبيب ، شوقي ، تاريخ الأدب العربي ، ط2، دار المعارف للطباعة ، القاهرة ، 2006.	Yes
Recommended Texts	أ) الانصاري ، ابن هشام ، شرح قطر الندى وبل الصدى ، ط1 ، دار الهلال للنشر والتوزيع ، بيروت - لبنان ، 2009. ب) السامرائي ، فاضل صالح ، معاني النحو ، دار ابن كثير للنشر والتوزيع ، بيروت - لبنان ، 2017.	No
Websites	وكيبديا ، منتديات اللغة العربية	

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.

Semester – Two

معلومات المادة الدراسية			
Module Title	Engineering Drawing and Auto-CAD I		Module Delivery
Module Type Core	Core		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture
Module Code	UOBAB0301011		<input checked="" type="checkbox"/> Lab
ECTS Credits 6	6		<input type="checkbox"/> Tutorial
SWL (hr/sem)	150		<input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Level	First	Semester of Delivery	one
Administering Department	Energy Engineering	College	Iraq University College
Module Leader	Dr. Kamel El Shamaa	e-mail	Shamaa@iuc.edu.iq.Kamel
Module Leader's Acad. Title	Assistant Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor	Leica Nabeel	e-mail	nabeel@iuc.edu.iq.Leica
Peer Reviewer Name	Hussain alaa	e-mail	Hussain.alaa@iuc.edu.iq
Scientific Committee Approval Date	401/06/202	Version Number	0.1

- **Engineering Drawing and Auto-CAD II**

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 الإرشادي	

<p>Module Objectives أهداف المادة الدراسية</p>	<ol style="list-style-type: none"> 1. Develop proficiency in <i>technical communication</i> and production of mechanical engineering drawings. 2. Develop skills in the preparation of working and assembly mechanical drawings. 3. <i>Develop an understanding of the properties, uses and production of materials used in the manufacture of engineering components.</i> 4. Provide knowledge of the different methods of production of engineering components. 5. <i>Develop skills in communicating technical information using illustrations, scaled models and working drawings to solve engineering design problems.</i> 6. Develop skills in applying and drawing principles to facilitate product development and manufacture. 7. Develop <i>proficiency</i> in the use of Computer-Aided Drafting (CAD) software, <i>instruments, media and reference materials</i> to produce engineering drawings. 8. Develop an interest in mechanical engineering as disciplines and careers. 9. <i>Develop the capacity for critical and creative thinking, problem-solving, leadership and cooperative behaviors through authentic learning experiences.</i>
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<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1. Know the principles of Lettering and Dimensioning. 2. Know how to construct standard engineering curves. 3. Know how to construct a number of different geometrical constructions. 4. Know how to project solids in orthographic projection. 5. Know how to use Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures “different lines”). 6. Know how to use Computer-Aided Drafting software to produce drawings (different two-dimensional figures “surfaces”).
<p>Indicative Contents المحتويات الإرشادية</p>	<p>Indicative content includes the following. [150]</p> <ul style="list-style-type: none"> • Drawing Instruments and Accessories. [12 hrs.] • Lettering and Dimensioning Practices. [12 hrs.] <ul style="list-style-type: none"> • Geometrical Constructions. [46 hrs.] • Orthographic Projections. [40 hrs.] • Computer-Aided Drafting software (two-dimensional figures). [40 hrs.]

<p>Learning and Teaching Strategies استراتيجيات التعلم والتعليم</p>	
<p>Strategies</p>	<p>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</p>

Student Workload (SWL) لحمل الدراسي للطالب محسوب ل ٥١ سبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	95	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير منتظم للطالب خلال الفصل	55	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
Total SWL (h/sem) إجمالي الحمل الدراسي للطالب خلال الفصل	150		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	4	5% (20)	5 and 10	LO #3, #4, #5, and #6
	Class Assignment	15	1.5% (22.5)	Continuous	All
	Home work	15	0.5% (7.5)	Continuous	LO #3, #5 and #6
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #4
	Final Exam	3hr	40% (40)	16	All
Total assessment			100%		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	4	5% (20)	5 and 10	LO #3, #4, #5, and #6
	Class Assignment	15	1.5% (22.5)	Continuous	All
	Home work	15	0.5% (7.5)	Continuous	LO #3, #5 and #6
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #4
	Final Exam	3hr	40% (40)	16	All
Total assessment			100%		

Delivery Plan (Weekly Syllabus)	
المناهج الاسبوعي النظري	
	Material Covered
Week 1	Drawing instruments and accessories, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 2	Lettering and dimensioning practices, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 3	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 4	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 5	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 6	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 7	Geometrical constructions, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 8	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 9	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 10	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 11	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 12	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 13	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 14	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 15	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)	
المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Drawing instruments and accessories, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 2	Lettering and dimensioning practices, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 3	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 4	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 5	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").
Week 6	Geometrical constructions, Computer-Aided Drafting software to produce drawings (user interface, one-dimensional figures "different lines").

Week 7	Geometrical constructions, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 8	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 9	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 10	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 11	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 12	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 13	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 14	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).
Week 15	Orthographic projections, Computer-Aided Drafting software to produce drawings (different surfaces).

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Engineering drawing, Abdul Rasoul Al Khafaf, University of Technology, Baghdad, Iraq, 1990.	Yes
Recommended Texts	Handbook of engineering drawing and AutoCAD, Mohammad Abid Muslim Altufaily, University of Babylon, Iraq, 2007	Yes
Websites	https://youtu.be/zL1BA-mcjcc	

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.

- Mathematics

معلومات المادة الدراسية			
Module Title	Mathematics I		Module Delivery
Module Type Core	S		<input checked="" type="checkbox"/> Theory
Module Code	UOBAB0301013		<input type="checkbox"/> Lecture
ECTS Credits 6	6		<input type="checkbox"/> Lab
SWL (hr/sem)	150		<input checked="" type="checkbox"/> Tutorial
			<input type="checkbox"/> Practical
			<input type="checkbox"/> Seminar
Module Level	First	Semester of Delivery	one
Administering Department	Energy Engineering	College	Iraq University College
Module Leader	Dr. Kamel El Shamaa	e-mail	Shamaa@iuc.edu.iq.Kamel
Module Leader's Acad. Title	Assistant Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor	Dhaha Habib	e-mail	Dhaha Habib@iuc.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	401/06/202	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 الإرشادي
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<p>Module Objectives أهداف المادة الدراسية</p>	<p>After completing the course, students should be able to:</p> <ol style="list-style-type: none"> 1) Enable the pupil to learn the concepts of mathematics and applications in his work. 2) To study the Definite Integrals, Properties of definite integrals. 3) To understand methods of integrations: Integration by parts, by Tabular, by Partial Fractions. 4) Study the applications of the definite integral: 1- Area under the curve, 2- Area between two curves, 3-Area in polar co-ordinate. 5) To understand the Numerical methods for evaluating definite integrals: I- Trapezoidal rule, II- Simpson's rule. 6) Study the Sequences: convergent sequence: Limits that arise frequently. 7) Study the infinite series: converges series, diverges series, Kind of series: 1-Geometric Series, P-Series. 8) To knows the Tests for converges of series:1-Integral Test, 2-Ratio Test, 3-RootTest, Taylor and Maclaurin series.
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1) Describe the characteristics and Properties of definite integrals. 2) Describe and State the concept of methods of integrations: Integration by parts, by Tabular, by Partial Fractions. 3) To understands the applications of the definite integral: 1- Area under the curve, 2- Area between two curves, 3-Area in polar co-ordinate. 4) To knows the meaning of the Numerical methods for evaluating definite integrals: Trapezoidal rule, Simpson's rule. 5) Describe the Sequences: convergent sequence: Limits that arise frequently. 6) Describe the Infinite series: converges series, diverges series, Kind of series: 1-Geometric Series, 2- P-Series. 7) Describe the Unit vector, vector equation, cross product, dot product. 8) To understands the Tests for converges of series: 1-Integral Test, 2-Ratio Test, 3-RootTest, To knows the meaning of Taylor and Maclaurin series.
<p>Indicative Contents المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <ul style="list-style-type: none"> • Integration: Definite Integrals, Properties of definite integrals, Methods of integrations: Integration by parts, by Tabular, by Partial Fractions, Integration by reduction formulas, Integrating powers, Integration by Trigonometric Substitutions, Integration of irrational function, Integration of rational function of Trigonometric, Applications of the definite integral:1- Area under the curve, 2- Area between two curves, 3-Area in polar co-ordinate. [20 hr] • 4-Volumes By Disks: around , around , 5- Volumes By Washers: around , around , 6- Volumes By Cylindrical Shells: about , about , Volume in polar co-ordinates system, Length of a plane curve, Area of a surface of revolution, Area of the surface in polar co-ordinates system. [20 hr] • Area of a surface of revolution, Area of the surface in polar co-ordinates system, Multiple Integrals: Double Integrals, Triple Integrals, Numerical methods for evaluating definite integrals: Trapezoidal rule, Simpson's rule, Sequences: convergent sequence: Limits that arise frequently, Infinite series: converges series, diverges series, Kind of series:1-Geometric Series, P-Series, Tests for converges of series:1-Integral Test, 2-Ratio Test, 3-RootTest, Taylor and Maclaurin series. [20 hr]

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	Type something like: 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.
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Student Workload (SWL)

حمل الدراسي للطالب محسوب ل ٥١ سبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	64	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير منتظم للطالب خلال الفصل	86	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
Total SWL (h/sem) إجمالي إدراس لك لي للطالب خلال الفصل	150		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Week Due		
Delivery Plan (Weekly Syllabus) المنهج الأسبوعي النظري				2 and #10, #11	
Material Covered				#4 and #6, #7	
Week1	Projects / Lab. Report	Integration: Definite Integrals, Properties of definite integrals.			
Week2			Methods of integrations.		
Week3		1	10% (10)	Methods of integrations.	LO #5, #8 and #10
Week4	Midterm Exam	hr2	10% (10)	Methods of integrations.	LO #1 - #7
Week5		hr3	40% (40)	Applications of the definite integral.	All
Week6	Final Exam			Volumes By Disks.	
Week7			100%	Volumes By Washers. (mid-term Exam)	
Week8				Volumes By Cylindrical Shells.	
Week9				Volume in polar co-ordinates system, Length of a plane curve.	
Week10				Area of a surface of revolution, and in polar co-ordinates system.	
Week11				Multiple Integrals.	
Week12				Numerical methods for evaluating definite integrals.	
Week13				Sequences.	
Week14				Infinite series.	
Week15				Taylor and Maclaurin series.	
Week16				Preparatory before the final Exam	

Learning and Teaching Resources

مصادر التعليم والتدريس

	Text	Available in the Library?
Required Texts	1. Haward Anton" Calculus and analytic geometry". 2. Schoms series "Theory and problems of calculus".	yas
Recommended Texts	George B. Thomas Jr, Weir Joel R. Hass 'calculus' (V.12), 2014	NO
Websites		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Week Due		
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	hr2	10% (10)	7	LO #1 - #7
	Final Exam	hr3	50% (50)	16	All
Total assessment			100%		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Integration: Definite Integrals, Properties of definite integrals.
Week 2	Methods of integrations.
Week 3	Methods of integrations.
Week 4	Methods of integrations.
Week 5	Applications of the definite integral.
Week 6	Volumes By Disks.
Week 7	Volumes By Washers. (mid-term Exam)
Week 8	Volumes By Cylindrical Shells.
Week 9	Volume in polar co-ordinates system, Length of a plane curve.
Week 10	Area of a surface of revolution, and in polar co-ordinates system.
Week 11	Multiple Integrals.
Week 12	Numerical methods for evaluating definite integrals.
Week 13	Sequences.
Week 14	Infinite series.
Week 15	Taylor and Maclaurin series.
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	George B. Thomas Jr, Weir Joel R. Hass 'Calculus' (V.12), 2014.	Yes
Recommended Texts	1. Haward Anton" Calculus and analytic geometry". 2. Schoms series "Theory and problems of calculus" .	No
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	أمتياز	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 is required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	معلومات المادة الدراسية none	Semester	
Co-requisites module	none	Semester	Module Delivery
Manufacturing Processes & Engi Workshop			
Module Type Core	S		<input checked="" type="checkbox"/> Theory
Module Code	UOBAB0301024		<input type="checkbox"/> Lecture
ECTS Credits 6	4		<input type="checkbox"/> Lab
SWL (hr/sem)	100		<input type="checkbox"/> Tutorial
			<input checked="" type="checkbox"/> Practical
			<input type="checkbox"/> Seminar
Module Level	First	Semester of Delivery	one
Administering Department	Energy Engineering	College	Iraq University College
Module Leader	Dr. Kamel El Shamaa	e-mail	Shamaa@iuc.edu.iq.Kamel
Module Leader's Acad. Title	Assistant Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor	Dr. Kamel El Shamaa	e-mail	Shamaa@iuc.edu.iq.Kamel
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	401/06/202	Version Number	1.0

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادي	
Module Objectives أهداف المادة الدراسية	<ol style="list-style-type: none"> 1) To study the machining operations and machine tools that include: turning and related operations, drilling and related operations, milling, grinding and other abrasive processes, and other machining operations. 2) To understand the bulk deformation processes in metal working that include: and related operations, forging and related operations, extrusion, and wire and bar drawing and also study the sheet metal working / cutting operations, bending operations, and drawing. 3) Study the joining and assembly processes that include: fundamentals of welding, welding, resistance welding, oxyfuel gas welding, soldering, and brazing. 4) To learn the fundamentals of metal casting, and metal casting processes.

<p>Module Learning Outcomes</p> <p>مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1. Describe turning and related operations 2. Learn drilling and related operations 3. Give information about milling 4. Define grinding and other abrasive processes 5. Give information about other machining operations: shaping and planning, broaching, and sawing 6. Know the rolling and related operations 7. Learn about of forging and related operations 8. Give information about extrusion 9. Study wire and bar drawing 10. Give information about sheet metal working / cutting operations, bending operations, and drawing 11. Define fundamentals of welding 12. Know the arc welding 13. Define resistance welding, and ox fuel gas welding 14. Study soldering, and brazing 15. Give information about fundamentals of metal casting, metal casting processes
<p>Indicative Contents</p> <p>المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <ul style="list-style-type: none"> • Study the machining operations and machine tools that include: turning and related operations, drilling and related operations, milling, grinding and other abrasive processes, and other machining operations. [20 hr]. • Study the bulk deformation processes in metal working that include: rolling and related operations, forging and related operations, extrusion, and wire and bar drawing and also study the sheet metal working / (1) cutting operations, (2) bending operations, (3) drawing. [20 hr] • Study the joining and assembly processes that include: fundamentals of welding, arc welding, resistance welding, oxyfuel gas welding, soldering, and brazing. [16 hr] • study the fundamentals of metal casting, and metal casting processes. [4 hr]

<p style="text-align: center;">Learning and Teaching Strategies</p> <p style="text-align: center;">استراتيجيات التعلم والتعليم</p>	
Strategies	<p>Teaching and learning strategies can include a range of whole class, group and individual activities to accommodate different abilities, skills, learning rates and styles that allow every student to participate and to achieve some degree of success. After considering students' needs, learning styles</p>

<p style="text-align: center;">Student Workload (SWL)</p> <p style="text-align: center;">الحمل الدراسي للطالب محسوب ل ٥١ سبوعا</p>			
<p>Structured SWL (h/sem)</p> <p>الحمل الدراسي المنتظم للطالب خلال الفصل</p>	64	<p>Structured SWL (h/w)</p> <p>الحمل الدراسي المنتظم للطالب أسبوعيا</p>	4
<p>Unstructured SWL (h/sem)</p> <p>الحمل الدراسي غير لمنتظم للطالب خلال الفصل</p>	63	<p>Unstructured SWL (h/w)</p> <p>الحمل الدراسي غير المنتظم للطالب أسبوعيا</p>	2
<p>Total SWL (h/sem)</p> <p>إجمالي إدراس لك لي للطالب خلال إلفصل</p>	100		

Module Evaluation						
تقييم المادة الدراسية						
		Time/Number	Week Due			
F ass	Delivery Plan (Weekly Syllabus)					and #10 -
	المنهج الأسبوعي النظري					#13
						d #6 - #10
				Material Covered		
	Week1	Projects / Lab.	1	5% (5)	Turning and Related Operations	All
	Week2	Report	1	10% (10)	Drilling and Related Operations	All
	Week3				Milling	
Su ass	Week4	Midterm Exam	hr2	10% (10)	Grinding and Other Abrasive Processes	LO #1 - #10
	Week5	Final Exam	hr3	50% (50)	Other Machining Operations	All
Total as	Week6			100%	() shaping and planing, () broaching, and () sawing	
	Week7				Rolling and Related Operations	
	Week8				Forging and Related Operations	
	Week9				Extrusion, Wire and Bar Drawing	
	Week10				Wire and Bar Drawing	
	Week11				Sheet Metal Working / () Cutting Operations, () Bending Operations, () Drawing	
	Week12				Fundamentals of Welding – (mid-term Exam)	
	Week13				Arc welding	
	Week14				Resistance welding, Oxyfuel gas welding	
	Week15				Soldering, Brazing	
	Week16				Preparatory before the final Exam	

Delivery Plan (Weekly Syllabus)	
المنهج الأسبوعي للمختبر	
	Material Covered
Week1	A) The turning workshop consists of training its students on: 1) Listed work (adjusting the correct measurements for different diameters and lengths using a triangle turning pen).
Week2	2) Make the arches (it should be on the same piece as the first exercise, after adjusting it and making sure of the measurements according to the drawing in the first exercise).
Week3	3) Making different angles (introducing the student to the use of shaping pens (square pen, corner pen 55)).
Week4	Exam: A test was conducted for the student on what he learned in the theoretical and practical aspects
Week5	B) The filling workshop consists of training its students on:

	1) Filling flat surfaces and filling straight and inclined angles
Week6	2) Sawing and sawing process
Week7	3) Hand Drills and Vertical Stationary Drills (How to Operate and Use)
Week8	Exam: A test was conducted for the student on what he learned in the theoretical and practical aspects
Week9	C) The welding workshop consists of training its students on various welding methods, such as: 1) Manual arc welding: a) Training on how the electric arc works and occurs between two electrodes.
Week10	b) Training on how to make welding lines straight.
Week11	c) Training on how to weld the construction exercise (increasing the thickness of the piece).
Week12	2) Gas welding (oxy-acetylene)
Week13	Electric arc welding protected by inert gas represented by gases such as argon and carbon dioxide, where argon gas is used with tungsten electrode welding machines (T.I.G) and CO2 gas with machines (M.I.G).
Week14	4) Electrical resistance welding, specifically spot welding
Week15	Exam: A test was conducted for the student on what he learned in the theoretical and practical aspects
Week16	Preparatory week before the final Exam

Learning and Teaching Resources

مصادر التعليم والتدريس

	Text	Available in the Library?
Required Texts	1] Groover, Mikell P. Fundamentals of modern manufacturing: materials, processes, and systems. John Wiley & Sons, 202	NO
Recommended Texts	None	NO
Websites	https://books.google.com/books?hl=ar&lr=&id=mB7zDwAAQBAJ&oi=fnd&pg=PA1&dq=FUNDAMENTALS+OF+MODERN+MANUFACTURING+Materials,Processes,andSystems+Fourth+Edition&ots=H1hck34oBY&sig=os2Xrjr-16zwPs6JVbGDCG4fuy8	

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Week Due		
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	hr2	10% (10)	7	LO #1 - #7
	Final Exam	hr3	50% (50)	16	All
Total assessment			100%		

معلومات المادة الدراسية			
Module Title	Chemistry	Module Delivery	
Module Type Core	S	<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar	<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial

Grading Scheme مخطط الدرجات					
Group	Grade	التقدير	Marks %	Definition	
ECTS Credits 6	A - Excellent	4 أمتياز	90 - 100	Outstanding	Performance
SWL (hr/sem)	B - Very Good	100 جيد جدا	80 - 89	Above average with some errors	
Module Level	First	Semester of Delivery		one	work with notable errors
Success Group (50 - 100)	C - Good	جيد	70 - 79	Fair but with major errors	
Administering Department	D - Satisfactory	Energy Engineering College	Iraq University College	Dr. Kamel El Shamaa	Shamaa@iuc.edu.iq
Module Leader	E - Sufficient	Assistant Lecturer	Module Leader's Qualification	50 - 59	Work meets minimum criteria
Acad. Title	FX - Fail	Lecturer	Muthanna	(45 - 49)	More work is required
Module Tutor	Fail	Muthanna	Muthanna	(0 - 44)	Considerable amount of work required
Peer Reviewer Name	Fail				
Date			Number		

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.

- Chemistry

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) To develop problem solving skills and understanding of the quantitative analytical methods. 2) To understand acids, basis and salts. 3) This course deals with the basic concept of buffers. 4) This is the basic subject for all physical chemistry concepts. 5) To understand ideal gas law. 6) To perform the thermochemistry
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	10. The students will know the principle of analytical chemistry. 11. List the quantitative and qualitative analysis. 12. Summarize what is meant by acids, basis and salts. 13. Discuss the titration curves. 14. Describe the principle of organic chemistry in terms of alkan, alkenes and alkynes. 15. Identify the basic hydrocarbons by its nomenclature and reactions. 16. Explain the Ideal gas law. 17. Identify the enthalpy of a chemical reaction.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. <ul style="list-style-type: none"> • Introduction of Analytical Chemistry and its types, The principle of Volumetric analysis, Moler, Normal and formal concentration, Acid Base titrations, Buffers and Titration Curves, Oxidation-Reduction reactions, Precipitation reactions. [20 hrs] • Organic chemistry (Introduction), The Alkanes, Alkanes reactions and Alkenes. [15 hrs] <ul style="list-style-type: none"> • Alkenes reactions, Alkynes and Alkynes reactions. [15 hrs] • Ideal gas low, Boyle's law, Charles's law, thermochemistry, Energy sources. [10 hrs]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
	Type something like: 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) لحمل الدراسي للطالب محسوب ل ٥١ سبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	64	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير لمنتظم للطالب خلال الفصل	63	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	2
Total SWL (h/sem) إلحمل الدرإس إللك لى للطالب خلال إلفصل	150		

Module Evaluation تقيم المادة الدراسية					
		Time/Number	Week Due		
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1- #4, #5 - #9 and #10 - #13
	Assignments	2	10% (10)	2 and 12	LO #1 - #5 and #6 - #10
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	hr2	10% (10)	7	LO #1 - #7
	Final Exam	hr3	50% (50)	16	All
Total assessment			100%		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction - Analytical Chemistry and its types
Week 2	The principle of Volumetric analysis
Week 3	Molar, Normal and formal concentration
Week 4	Acid Base titrations
Week 5	Buffers
Week 6	Review of Titration Curves
Week 7	Mid-term Exam
Week 8	Oxidation-Reduction reactions
Week 9	Alkanes reactions
Week 10	Alkenes reactions
Week 11	Alkynes reactions
Week 12	Aldehydes and ketones
Week 13	Carboxylic acids reactions
Week 14	Ideal gas law and Boyle's law
Week 15	Thermochemistry and Energy sources
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Lab 1: Acid- Base titration
Week 2	Lab 2: Reduction - Oxidation titration
Week 3	Lab 3: Precipitation titration
Week 4	Lab 4: Complex metric titration
Week 5	Lab 5: Determination the density of a liquid
Week 6	Lab 6: Determination of Calorimetric Constant
Week 7	Lab 7: Determination the Viscosity of a pure liquid

Learning and Teaching Resources

مصادر التعليم والتدريس

	Text	Available in the Library?

Required Texts	General Chemistry; Darrell D. Ebbing; Steven D. Gammon	NO
Recommended Texts	None	NO
Websites	https://books.google.iq/books?id=BnccCgAAQBAJ&printsec=frontcover&redir_esc=y#v=onepage&q&f=false	

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	أمتياز	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 is required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
<p>Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.</p>				

- English language I

Relation with other Modules العلاقة مع المواد الدراسية الأخرى				
Mc	Prerequisite module	English language I	none	Semester
M	Co-requisites module	S	none	Semester
				Delivery
				<input checked="" type="checkbox"/> Theory
				<input type="checkbox"/> Lecture
				<input type="checkbox"/> Lab
				<input type="checkbox"/> Tutorial
				<input type="checkbox"/> Practical
				<input type="checkbox"/> Seminar
				<input checked="" type="checkbox"/> Theory
				<input type="checkbox"/> Lecture
				<input checked="" type="checkbox"/> Lab
				<input type="checkbox"/> Tutorial
				<input type="checkbox"/> Practical
				<input type="checkbox"/> Seminar
Module Code	UOBAB0301026			
ECTS Credits 6	4			
SWL (hr/sem)	100			
Module Level	First	Semester of Delivery		one
Administering Department	Energy Engineering	College	Iraq University College	
Module Leader	Dr. Kamel El Shamaa	e-mail	Shamaa@iuc.edu.iq.Kamel	
Module Leader's Acad. Title	Assistant Lecturer	Module Leader's Qualification	Ph.D.	
Module Tutor	Dr. Majeed Abdul Hussein	e-mail	Majeed Abdul Hussein@iuc.edu.iq	
Peer Reviewer Name		e-mail		
Scientific Committee Approval Date	401/06/202	Version Number	1.0	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادي

<p>Module Objectives أهداف المادة الدراسية</p>	<ol style="list-style-type: none"> 1) Developing skills of reading, writing, speaking and listening. 2) Providing a survey of theoretical perspectives concerning the student's learning and development. 3) Providing an overview of a variety of important issues in English language that help the students to communicate easily with others. 4) Applying the theoretical issues in order to give the student the opportunity to practice language and encourage him to speak with foreign people. 5) Giving the students the ability to express their opinions and participating in discussion. 6) Using variety of digital devices and tools in order to interpret and create meaning.
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1. The ability to understand the uses of language in the light of purposes. 2. Identifying the most important daily phrases to be applicable in life. 3. Development of evidence-based arguments. 4. Making the students aware of the correct usages of English grammar in writing and speaking. 5. Improving the students' ability in English in terms of fluency and comprehensibility. 6. Students will give oral presentation and receive feedback on their performance. 7. Improving the students' reading skills through the extensive reading. 8. Providing the students with a large repertoire of vocabulary. 9. Applying the grammatical forms in communicative contexts such as: class activities, reading & writing, and homework. 10. Strengthening the students' ability to write essays and academic papers. 11. Enhancing the students' competence in four important elements: Writing, speaking, reading and listening.
<p>Indicative Contents المحتويات الإرشادية</p>	<p style="text-align: center;">Indicative content includes the following.</p> <ul style="list-style-type: none"> • Focusing on four important issues in English language: Writing, speaking reading and listening [15 hrs] • Understanding the general topic or main idea, major points, important facts and details, vocabulary in context, and pronoun references. [15 hrs] • Comprehending the main idea, major points, and important details related to the main idea. [10 hrs] <ul style="list-style-type: none"> • Students should be able to speak successfully in and outside the classroom. [15 hrs] <ul style="list-style-type: none"> • [6 hrs] <p style="text-align: right;">Part B - Analogue Electronics Fundamentals</p> <ul style="list-style-type: none"> • Recognizing tenses choosing the correct form, arranging the sentences in the correct order, [15 hrs] <ul style="list-style-type: none"> • Covering aspects such as phonetics, semantics and pragmatics. [7 hrs] • Exploring the building blocks of the language, understanding language in deeper level, learning how to structure words and sentences so that other people can understand them. [15 hrs]

<p>Learning and Teaching Strategies استراتيجيات التعلم والتعليم</p>	
	<p>Student is an essential part of the process thus we should take into consideration the levels of student's' comprehension whence providing him with better and easies planning, improved</p>

ability to monitor student's goals ,teaching language skills across all curriculum topics,
Speaking slowly and allowing extra time for students to respond, using a variety of methods to engage learning..

Student Workload (SWL) لحمل الدراسي للطالب محسوب ل ٥١ سبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير منتظم للطالب خلال الفصل	67	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
Total SWL (h/sem) إجمالي الدرس لك لي للطالب خلال الفصل	100		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Week Due		
Formative assessment	Quizzes	3	20% (2)	35 and 1	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.				
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	hr1	10% (10)	7	LO #1 - #7
	Final Exam	hr3	50% (50)	16	All
Total assessment			100%		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction – Giving a general information about English Language
Week 2	Speaking (paired choice) asking about the general opinions about possible issues
Week 3	Speaking(campus announcement & general conversation) report on the speaker's opinion & explain why he/she feels that way
Week 4	Integrated speaking (Academic reading & Lecture) explaining the academic topics & describing the main points in it.
Week 5	Listening to engineering conversation to obtain a wide vocabularies
Week 6	Listening to various videos concerning the engineering fields as: (Mechanical engineering, electrical engineering in addition to renewable energies).
Week 7	Mid-term Exam
Week 8	Writing (learning students how to write essays on engineering field)
Week 9	Writing (enabling students to write their opinion about specific academic topic in general or write about engineering subject in particular).
Week 10	Speaking (making the students sum up the main points of the lecture that is delivered previously)
Week 11	Speaking (increasing the student' ability to speak fluency and increasing its rate)
Week 12	Listening (encourage the student to make inferences from what he/she heard before)
Week 13	Listening (ask the student what the speaker imply in his/her speech)
Week 14	Writing (ask student to write the essential information in the highlighted sentences in paragraph and make paraphrasing in to those sentences)
Week 15	Witting (encourage student to extract the most important issues in paragraph)
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعليم والتدريس		
	Text	Available in the Library?
Required Texts	TOEFL Practice Online The official practice test that can help you go anywhere	NO
Recommended Texts	The Cambridge Encyclopedia of the English Language By David Crystal	NO
Websites	https://www.cambridge.org/	

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks %	Definition
	A - Excellent	أمتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
Success Group (50 - 100)	C - Good	الصفحة 60 جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings

