MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Computer Principals			**Module Delivery**	
Module Type	**Basic**			☒ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**ATU24012**				
ECTS Credits	**4**				
SWL (hr/sem)	**100**				
Module Level	UGI		**Semester of Delivery**	1	
Administering Department	PME		**College**	TCM	
Module Leader	Atheer Saleh Hassoon		**e-mail**	atheer.hassoon@atu.edu.iq	
Module Leader's Acad. Title	Assit.Lecturer		**Module Leader's Qualification**	M.sc	
Module Tutor	Zaid .M.Farid		**e-mail**	Zaidaldabagh8@gmail.com	
Peer Reviewer Name	Name		**e-mail**	Nona	
Scientific Committee Approval Date	01/06/2023		**Version Number**	1.0	

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

Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1. To develop problem solving skills and understanding of computer programs. 2. To understand functions of engineering programs. 3. This course deals with the basic concept of derivation of functions programs. 4. This is the basic subject for all method of integration methods.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Recognize different types of functions and their behavior in science topics. 2. List the various lows associated with limits of computer. 3. Summarize what is meant by a basic computer. 4. Discuss the domain and range of many types of functions. 5. Describe computer components.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. None

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.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	52	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**100**		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	4	20% (10)	3,5,10 and 12	LO #1, #2 and #10, #11
	Assignments	4	20% (10)	5,7, 9and 13	LO #3, #4 and #6, #7
	Projects / Lab.	0	10% (10)	-----	----

	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
Week الموضوع	الاسبوع
تعريف الحاسبات مكوناتها اجيالها	1-2
نظام تشغيل ال**MS-Doc**	3
اوامر نظام التشغيل الداخلية	4-5
اوامر نظام التشغيل الخارجية	6
مفهوم نظام وندوز ومزاياه	7
الاستفادة من بعض المفاتيح للدخول الى البرامج واغلاقها	8
التعرف على مكونات سطح المكتب	9
الاستفادة من لوحة السيطرة	10
الاستفادة من البرامج الاضافية	11

التعامل مع **Note pad ,WordPad**	12-13
مفهوم فيروسات الحاسوب	14-15
امتحان	16

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	اساسيات الحاسوب وتطبيقاتها تاليف أ.م.د. زياد محمد عبود أ.د.غسان حميد عبد المجيد	Yes
Recommended Texts	None	No
Websites	None	

Grading Scheme

مخطط الدرجات

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

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**English for Acadimic**			**Module Delivery**	
Module Type	**S**			☒ **Theory** ☐ **Lecture** ☐ **lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	ATU24011				
ECTS Credits	**2**				
SWL (hr/sem)	**50**				
Module Level		1	**Semester of Delivery**		1
Administering Department		PME	**College**		TCM
Module Leader	Doaa Fadhil Kareem		**e-mail**		doaa.fadhil.tcm@atu.edu.iq
Module Leader's Acad. Title		Assistant Lecher	**Module Leader's Qualification**		Msc
Module Tutor			**e-mail**		
Peer Reviewer Name		Name	**e-mail**		
Scientific Committee Approval Date		01/06/2023	**Version Number**		1.0

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1. Teaching the student, the basic principle of English Language. 2. Teaching students the exits of letters. 3. Teach the student the basic rules of the subject .
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Important: Write at least 6 Learning Outcomes, better to be equal to the number of study weeks. 1. Listening, Question, Cities and Countries, Numbers, Reading, Every Day English . 2. The Family, Possessives, Possessives Adjectives Vocabulary, Listening, Reading, Everyday English. 3. Sport, Food and Drinks, Present Simples, Number and Price, Listening. 4. Questions, Pronouns and Possessives. 5. Prepositions, Everyday English, Past Simple Irregular Verbs,. 6. Times Past, Reading, Past Simple- Regular, Everyday English, Vocabulary, Grammar,. 7. Present Continuous, Present Simple and Continuous, Reading, Opposite Verbs.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. Part A -

	Introduction , Listening, Question, Cities and Countries, Numbers, Reading, Every Day English, Jobs, Question and Negatives, Address, Phone Remember, Listening, Pronunciation, Listening, Everyday English, Sport, Food and Drinks, Present Simples, Number and Price, Listening, Object Pronouns, Questions Words, Why and Because, Vocabulary, Reading, Writing, Everyday English. Part B - , Prepositions, Everyday English, Past Simple Irregular Verbs, Times Past, Reading, Past Simple- Regular, Everyday English, Vocabulary, Grammar, Past Simple, Making Conversation, Time Expression, Reading, Everyday English, Present Continuous, Present Simple and Continuous, Reading, Opposite Verbs.

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

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	18	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	1
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	32	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2

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

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	20% (20)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	-	-	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction
Week 2	Basics of Present simple tense
Week 3	Spelling of –S and –ES and Exercises.
Week 4	**Present continuous tense** and Exercises.

Week 5	**Spelling of –ing and Spelling of –ed.**
Week 6	**Past simple tense and Exercises.**
Week 7	Mid-term Exam
Week 8	**Past continuous tense and Exercises.**
Week 9	EXPRESSIONS OF QUANTITY.
Week 10	Present perfect tense
Week 11	COMPARE THE PAST SIMPLE AND PRESENT PERFECT
Week 12	Verb Patterns
Week 13	The Second Conditional
Week 14	Past Perfect Tense
Week 15	Present Perfect Continuous
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	

Week 7	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	**Headway**	Yes
Recommended Texts		
Websites		

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

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Mathematics -I			**Module Delivery**	
Module Type	**Basic**			☒ **Theory** ☐ **Lecture** ☐ **Lecture** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**ATU24013**				
ECTS Credits	**6**				
SWL (hr/sem)	**150**				
Module Level	1		**Semester of Delivery**	1	
Administering Department	PME		**College**	TCM	
Module Leader	Fadhil Abid Elaiwi		**e-mail**	fadhil.alrubaiy@atu.edu.iq	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/06/2023		**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	5. To develop problem solving skills and understanding of mathematics, engineering, and the natural sciences through the application of algebra and trigonometry concepts. 6. To understand functions, their plots and properties and plots. 7. This course deals with the basic concept of derivation of functions. 8. This is the basic subject for all method of integration methods. 9. To understand special types of trigonometry functions such as hyperbolic functions with their related Laws.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	6. Recognize different types of functions and their behavior in science topics. 7. List the various lows associated with limits of function. 8. Summarize what is meant by a basic electric circuit. 9. Discuss the domain and range of many types of functions. 10. Describe logarithmic, exponential, and trigonometric functions. 11. Identify the basic definition of derivatives and their applications. 12. Discuss the various methods of integration process to traditional and special types of functions.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. Part A – functions: **-Functions,** with their types, properties, graphing, and available application in different fields. - Revision problem for homework and assessment tests. Part B – Limits And Continuity Continuity clarifying the continuity and limits definitions by confining the term “endpoints” to intervals instead of more general domains, and we moved the subsection on continuous extension of a function to the end of the continuity section. - Revision problem for homework and assessment tests.

	Part C – Derivatives Derivatives clarified the meaning of differentiability for functions of several variables, and added a result on the Chain Rule for functions defined along a path. Brief geometric insight justifying l'Hôpital's Rule. Some examples for derivative applications. - Revision problem for homework and assessment tests. Part D – Integrals Integrals view basic integration formulas and the Substitution Rule, using them in combination with algebraic and trigonometric identities, before presenting other techniques of integration - Revision problem for homework and assessment tests.

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.

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

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	87	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**150**		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	4	20% (10)	3,5,10 and 12	LO #1, #2 and #10, #11
	Assignments	4	20% (10)	5,7, 9and 13	LO #3, #4 and #6, #7
	Projects / Lab.	0	0% (10)	-----	----
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Determinants, properties
Week 2	Grammar's rule, application of determinant
Week 3	Trigonometric functions& relation
Week 4	Graphing of functions, Trigonometric equations
Week 5	Vectors, vectors in space, unit vector
Week 6	Scalar product, vector product
Week 7	Function of limits, Algebraic limit
Week 8	Trigonometric limit, Infinity as limit
Week 9	Derivative rule, Algebraic& Trigonometric derivative
Week 10	Chain rule, velocity& acceleration
Week 11	Inverse trigonometric functions& its derivative
Week 12	Logarithm& Exponential functions& its derivative
Week 13	Hyperbolic functions& its derivative
Week 14	Inverse hyperbolic functions& its derivative
Week 15	Integration, integrals of trigonometric& inverse functions
Week 16	**Preparatory week before the final Exam**

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Thomas' Calculus Thirteenth Edition, George B. Thomas, Jr. Cenveo® Publisher Services.2013	Yes
Recommended Texts	Higher Engineering Mathematics, Fifth Edition John Bird, BSc(Hons), by Published by Elsevier Ltd.2006	No
Websites		

Grading Scheme

مخطط الدرجات

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

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Work Shops**			**Module Delivery**	
Module Type	**Core**			☐**Theory** ☐**Lecture** ☐ **lab** ☐ **Tutorial** ☒ **Practical** ☐ **Seminar**	
Module Code	ATU24014				
ECTS Credits	**6**				
SWL (hr/sem)	**150**				
Module Level	UGI		**Semester of Delivery**	1	
Administering Department	PME		**College**	TCM	
Module Leader	Hussein Al-Gburi		**e-mail**	Hussein83@atu.edu.iq	
Module Leader's Acad. Title	Lecher		**Module Leader's Qualification**	Msc	
Module Tutor	Talbe Ameer		**e-mail**	Talbawan200@etu.edu.iq	
Peer Reviewer Name	Name		**e-mail**		
Scientific Committee Approval Date	01/06/2023		**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى

Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	Teaching and training the student to be able of, getting a skill in applying a machining and industrial operations with using different kinds of hand tools and measuring tools.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	8. Teaching the student, the fundamentals of metals casting. 9. Recognize the steps of wilding 10. Describe the tools of filing. 11. Recognize the steps of cutting tools types, uses of measuring instruments. 12. Summarize Turning Processes: - Facing, simple steps, learning using measuring instruments.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. <u>Part A -</u> Foundry work shop- Filing Work Shop <u>Part B -</u> Lath Work Shop- Welding work shop

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

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	57	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**150**		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	0	0% (20)	5 and 10	
	Assignments	15	80% (10)	1-15	
	Projects / Lab.	-	-	Continuous	
	Report	4	20% (10)	13	
Summative assessment	**Midterm Exam**	2hr	0% (0)	7	
	Final Exam	3hr	0% (0)	16	All

Total assessment	100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	**Foundry work shop:** - Metal casting and its importance , purpose of using casts in industry, casting work shop equipments, industrial safety regulation in works shop, making sand mold for one piece pattern and cores types , resources of sand and mould properties, additives materials, mixing processes and percentage of quality , using sand mixing, sand treatment and sand handling equipments, making manual sand mold for one piece cast.
Week 2	Making sand mold for one-piece cast with runner and risers, cast cleaning make core and baking it in baking furnace, make sand mold for two pieces pattern with core.
Week 3	Making sand mold with core, melting the metal, pouring the metal. take out the cast from the mold, cleaning the cast, Melting furnaces of metals: types, specifications, its uses (rotary, crucible) heat treatment and cat inspection, visual surface defects and its causes. Measuring cast dimension and insure equal to original dimension.
Week 4	**Filing Work Shop:** - Vernier types, measuring methods, measuring height and depth, sketching process on sheet metal plate, tools used, scratching pointer, strip divider, bended edge divider, 90-degree square ruler, bended rulers.
Week 5	Files, files and filling process: filing types and its specifications, clamp vices types, processes of fixing work piece on it, the uses of different types of fillings, filing cleaning process, filling methods, exercises on scratching method and simple file,

Week 6	Saw cutting, hand saw, saw blade, fixing the saw blade, the saw blade condition available for sawing process, exercises for saw cutting process
Week 7	**Lath Work Shop: -**Lathe machine, specifications its uses, accessory lathe parts, lathe operation, lathe cutting tools types, uses of measuring instruments.
Week 8	Turning Processes: - Facing, simple steps, learning using measuring instruments
Week 9	Internal and external taper turning, making exercises for both methods.
Week 10	**Welding work shop:** - work shop safety, safety requirement, Gas welding: equipment, assembly and regulation, welding tools, gases used, specifications, fluxes, fillers, flame types and its uses, flame ignition, flam regulation.
Week 11	Corner and butt-welding training exercises
Week 12	Oxygen cutting: equipments, safety, requirement, cutting exercises
Week 13	Arc welding: welding machine and equipments, safety regulation, arc ignition
Week 14	Making exercises, making beaks on plates, using different kinds of electrodes
Week 15	Edge preparation, making exercises of T joints.
Week 16	

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	

Week 5	
Week 6	
Week 7	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts		
Recommended Texts		
Websites		

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

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Engineering Drawing			**Module Delivery**	
Module Type	Core			☒ Theory ☐ Lecture ☐ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	ATU24016				
ECTS Credits	6				
SWL (hr/sem)	150				
Module Level	1		**Semester of Delivery**	1	
Administering Department	PEM		**College**	TCM	
Module Leader	Waleed Abdul Hamza Asker		**e-mail**	Waleedali824 @gmail.com	
Module Leader's Acad. Title	Aissit lec		**Module Leader's Qualification**	MSC	
Module Tutor	Huda salih mkhailf		**e-mail**	Huda.salish.tcm@atu.edu.iq	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	10/06/2023		**Version Number**	1.0	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	**1- Introducing students to the importance of engineering drawing and its relationship to other engineering subjects** **2- Developing the student's mental and motor abilities in drawing simple and complex shapes** **3- Expanding the student's horizons of engineering shapes and complexes to identify their components and parts** 4- **Organizing the student's thought to draw, assemble and disassemble engineering shapes and mechanical parts**
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	**Important: Write at least 6 Learning Outcomes, better to be equal to the number of study weeks.** **1. To familiarize the student with the importance of engineering drawingان** **2. The student learns how to imagine geometric shapes** **3. 3- The student should be able to draw geometric shapes, diagrams and isometrics through the skill he has acquired** **4. To distinguish the mechanical components and parts and the principle of their work** 5. Passing the curriculum of computer drawing AutoCAD 6. The student should be 100% proficient in the skill
Indicative Contents المحتويات الإرشادية	Indicative content includes the following.

	Part A - Engineering tools T-square ruler, compass, pens, triangles, drawing paper, drawing boards Geometric figures, identification boards, data show Part B- Computer hall A computer equipped with AutoCAD 2007, a data show data display device, the use of information and its practical applications

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.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	87	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	63	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
Total SWL (h/sem)	**150**		

الحمل الدراسي الكلي للطالب خلال الفصل	

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	15	30% (10)	1 -15	LO #3, #4 and #6, #7
	Projects / Lab.	0	0% (10)	Continuous	All
	Report	0	0% (10)		LO #5, #8 and #10
Summative assessment	Midterm Exam	3hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Define the Engineering Drawing
Week 2	The tools used in Engineering Drawing
Week 3	Typed of drawing sheets, types of lines
Week 4	English and Arabic Letters writing and sheet table
Week 5	Geometric construction, types of lines and arcs

Week 6	Geometric construction, types of regular polygons , Quadrilateral
Week 7	Geometric construction, types of circles and ellipse
Week 8	Isometric Views
Week 9	Dimensions
Week 10	Exercises , Center translation
Week 11	Theory of projection 1" angle
Week 12	Theory of projection 3" angle
Week 13	**Drawing the three projection views**
Week 14	**sections**
Week 15	**Draw sections**
Week 16	**Final Exam**

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	**Available in the Library?**
Required Texts	Engineering drawing book , Illustration aids, computer graphics book	Yes
Recommended Texts	Engineering drawing , Abdul Rasool Al-Khafaf	No
Websites	https://www.scribd.com/document/370481058/%D9%83%D8%AA%D8%A7%D8%A8-%D8%A7%D9%84%D8%B1%D8%B3%D9%85-	

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

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

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية		
Module Title	**Fundamentals of Engineering Mechanics-Statics**	**Module Delivery**
Module Type	**Core learning activity**	☒ **Theory**

Module Code	ATU24015		☐**Lecture** ☐ **lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
ECTS Credits	**6**			
SWL (hr/sem)	**150**			
Module Level	1	**Semester of Delivery**	1	
Administering Department	PME	**College**	TCM	
Module Leader	Doaa Fadhil Kareem	**e-mail**	doaa.fadhil.tcm@atu.edu.iq	
Module Leader's Acad. Title	Assistant Lecher	**Module Leader's Qualification**	Msc	
Module Tutor		**e-mail**		
Peer Reviewer Name	Name	**e-mail**		
Scientific Committee Approval Date	01/06/2023	**Version Number**	1.0	

Relation with other Modules

العلاقة مع المواد الدراسية الأخرى

Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	4. Teaching the student, the fundamentals of engineering mechanics (Static's & Dynamics) in the engineering applications, the loads analysis, resultants.

	5. Equilibrium in 2-D and 3-D, moments and couples. 6. First and second moment of inertia, motion of particles, and their theories.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Important: Write at least 6 Learning Outcomes, better to be equal to the number of study weeks. 13. Teaching the student, the fundamentals of engineering mechanics (Static's & 14. Dynamics) in the engineering applications, the loads analysis, resultants, 15. equilibrium in 2-D and 3-D, moments and couples. 16. first and second moment of inertia, motion of particles, and their theories. 17. Equipment and machinery design. 18. Inspection, installation, operation, maintenance and repair of all kinds of devices, turbocharged machines and equipment.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. <u>Part A -</u> Introduction , Fundamentals concepts, Load Analysis & Vectors, Moments, Couples, Resultant of Force Systems, Equivalent Systems of Forces. <u>Part B -</u> Equilibrium of Rigid Bodies , Centroids of Area, Friction, Center of Gravity, Work, Moment of Inertia.

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

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	102	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	7
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**150**		

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

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction
Week 2	Fundamentals concepts
Week 3	Load Analysis & Vectors
Week 4	**Moments**
Week 5	**Couples**
Week 6	**Resultant of Force Systems**
Week 7	Resultant of Force Systems
Week 8	**Equivalent Systems of Forces**
Week 9	Equivalent Systems of Forces
Week 10	Equilibrium of Rigid Bodies
Week 11	Centroids of Area
Week 12	Centroids of Area
Week 13	Friction
Week 14	Center of Gravity
Week 15	Work
Week 16	**Moment of Inertia**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	**J. L. Meriam** **L. G. Kraige**	Yes
Recommended Texts	John Wiley & Sons, Inc	yes
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group	**A -** Excellent	امتياز	90 - 100	Outstanding Performance
(50 - 100)	**B -** Very Good	جيد جدا	80 - 89	Above average with some errors

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