Module Information
معلومات المادة الدراسية

Module Title	**Engineering Mechanics**	**Module Delivery**	
Module Type	**Core**	☒ **Theory** ☒ **Lecture** ☐ **lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	ATU22011		
ECTS Credits	**10**		
SWL (hr/sem)	**250**		

Module Level	UG1	**Semester of Delivery**	1
Administering Department	**Technical building and Construction**	**College**	**Technical College/ Al Mussaib**
Module Leader	Hayder Saad Oleiwi	**e-mail**	hayder.rashid@atu.edu.iq
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**	M.Sc in Mechanical engineering
Module Tutor	Neima Abdullah Mansoor	**e-mail**	neima.abdullah@atu.edu.iq
Peer Reviewer name	Dr. Ammar Adil Abdulnabe	**e-mail**	ammaralbakry@atu.edu.iq
Scientific Committee Approval Date	1 / 6 / 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 fundamentals of engineering mechanics (Static's & Dynamics) in the engineering applications, the loads analysis, resultants. 2. Equilibrium in 2-D and 3-D, moments and couples. 3. 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. 1. Teaching the student, the fundamentals of engineering mechanics (Static's & 2. Dynamics) in the engineering applications, the loads analysis, resultants, 3. equilibrium in 2-D and 3-D, moments and couples. 4. first and second moment of inertia, motion of particles, and their theories. 5. Equipment and machinery design. 6. Inspection, installation, operation, maintenance and repair of all kinds of devices, turbocharged machines and equipment.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. Part A - Introduction, Fundamentals concepts, Load Analysis & Vectors, Moments, Couples, Resultant of Force Systems, Equivalent Systems of Forces. Part B - 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 primary 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	6.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	157	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	10.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**250**		

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 to mechanics, Force systems, Scalar & vector quantities , Parallelogram law , Triangle law , Forces & components .
Week 2	Moment of a force , Varignon`s theorem , Applications
Week 3	Couples , Resolution of a force into a force & a couple .
Week 4	Resultant of force systems , Resultant of concurrent force system , Resultant of parallel force system , Resultant of non-concurrent force system .
Week 5	Equilibrium of force system , Free body diagram , Equilibrium of concurrent force system , Equilibrium of parallel force system , Equilibrium of non-concurrent force system .
Week 6	Types of beams, Supports, and loads, Equilibrium of beams.
Week 7	Trusses, Analysis of trusses, method of Joint , method of section .
Week 8	Analysis of frames (method of members) .
Week 9	Friction , Theory of friction , Angle of friction , Types of friction , Wedges ,Applications.
Week 10	Centroids of areas & lines , Centroids by integration , Centroids of composite areas , Applications.
Week 11	Moment of inertia , Polar moment of inertia , Radius of gyration , Transfer formula for moment of inertia , Moment of inertia for composite areas , Product of inertia , Moment of inertia with respect to inclined axes , Mohr` circle for moment of inertia .
Week 12	Principles of dynamics , Kinematics & kinetics , Motion of a particle , Fundamental Equations of kinetics for a particle , Effective force on a particle.
Week 13	Rectilinear translation, Rectilinear motion with constant acceleration , Free falling bodies .
Week 14	Kinetics of rectilinear translation (Analysis as a particle) , Dynamic Equilibrium in translation (Analysis as a rigid body) .
Week 15	Preparing for the final exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	R. C. Hibbeler 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 (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 Information
معلومات المادة الدراسية

Module Title	**Engineering Drawing**		**Module Delivery**	
Module Type	**Core**		☐ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	ATU22012			
ECTS Credits	٤			
SWL (hr/sem)	١٠٠			
Module Level	UGI	**Semester of Delivery**	1	
Administering Department	Technical building and Construction	**College**	Technical College/ Al Mussaib	
Module Leader	Hayder saad Oleiwi	**e-mail**	Hayder.rashid@atu.edu.iq	
Module Leader's Acad. Title	Assist. Lecturer	**Module Leader's Qualification**	M.Sc in mechanical engineering	
Module Tutor	Dr. Ammar Adil Abdulnabe	**e-mail**	ammaralbakry@atu.edu.iq	
Peer Reviewer Name	**Dr. Ammar Adel**	**e-mail**	ammaralbakry@atu.edu.iq	
Scientific Committee Approval Date		**Version Number**		

Relation with other Modules

العلاقة مع المواد الدراسية الأخرى

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

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims	Introducing the fundamentals of engineering drawing to the student so that he can be qualified to express his thoughts, draw & execute the projects related to civil engineering; As well as aims to: 1- Assisting requester in experimenting and creating their design ideas in the two-dimensional environment of architectural drawing and design programs with the help of a computer. 2-Take advantage of the technologies provided by AutoCAD to complete many graphic operations quickly and with greater accuracy and present them in a professional manner. 3-Teaching the requester how to use the devices associated with the regular drawing programs, and training students to import and export drawings to other compatible programs and how to integrate them with other information for engineering projects.
Module Learning Outcomes	1- Knowledge of commands and instructions in the AutoCAD program and how to use them correctly. 2- The student's ability to understand and apply the basics of engineering drawing. 3- 3- Reading, disassembling and assembling geometric shapes through drawing and projection methods. 4- 4- Developing the student's skill in using the AutoCAD program in drawing engineering shapes. 5- 5- Developing the student's engineering imagination through deducing the projections and sections of each geometric solid and realizing its dimensions.
Indicative Contents	Indicative content includes the following: 1- Knowing the commands and directives and conducting auxiliary exercises to apply them in their correct form to increase his ability to absorb the material and to communicate with the most important ideas presented by the material through the Internet. 2- Going to implement an engineering design with all its recognized requirements in the field of work, which reflect the skills through designing engineering plans that meet the details and dimensions that can be implemented on the ground. 3- Applications to various engineering processes. 4- Auxiliary exercises that the student presents by applying and delivering them as a participatory work to increase his ability to absorb the material. 5- Going to implement an engineering design with all its recognized requirements in the field of work, which reflect the skills through designing engineering plans that meet the details and dimensions that can be implemented on the ground.

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	The strategy includes the following: 1- Students' awareness of concepts and basics in interior design. 2- Applications to various engineering processes. 3- Use different websites to learn more about engineering drawing. 4- Training the student to read, disassemble, and assemble geometric shapes through the methods of drawing, projection, and sections, and in this expansion of his geometric imagination, because he recognizes the hidden parts in each geometric figure. 5- Training the student to draw different geometric shapes and. employing them in the engineering painting, each in its appropriate location. 6- Introducing the student to the basic principles of engineering drawing, drawing parts and assembling them using projections. And all the necessary information to accurately describe the true shape of the desired object. In addition, engineering drawing is taught using the AutoCAD program.

Student Workload (SWL)

الحمل الدراسي للطالب

Structured SWL (h/sem)	٧٨	**Structured SWL (h/w)**	٥.2
Unstructured SWL (h/sem)	٢٢	**Unstructured SWL (h/w)**	1.5
Total SWL (h/sem)	١٠٠		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	4	20% (20)	3,5,6,10	LO #1,2,…..10
	Assignments	2	10% (10)	7, 8	LO # 8

	Projects / Lab.	1	10% (10)	Continuous	
Summative assessment	**Midterm Exam**	2 hr	10% (10)	12	LO # 1-12
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Introduction to defined the engineering drawing and introduction about AutoCAD software in engineering drawing. Windows setting, limits, grid, snap, object snap
Week 2	Draw menu, line, polyline, ray, construction line. Polygon, arc, circle, rectangle, ellipse, hatch.
Week 3+4	Modify (move, copy, stretch, rotate, mirror, scale). Modify (trim, fillet, array, erase, explode, offset).
Week 5	Annotation (dimension, liner, leader, table)
Week 6+7	Text, Layers properties, match properties, by layer.
Week 8	The first and third angle projection method
Week 9+10	Draw the projection with the first angle projection method.
Week 11	Drawing the projection with the third angle projection method.
Week 12	Drawing the three projections with the first and third angle.
Week 13	Drawing the three projections with the first and third angle and see the difference between them
Week 14	Isometric.
Week 15	Isometric.
Week 16	Final exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Recommended Texts	1- Engineering Drawing (plan and solid geometry) N.D.Bhatt 2- Auto CAD 2009 , 2d training manual \ K.S.Kurland 3- الرسم الهندسي \ هاشم عبود العيسوي ويوسف حسين الراضي 4- الهندسة الوصفية \ د يوسف نيقولا	No
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 Information معلومات المادة الدراسية				
Module Title	Applied Mathematics		**Module Delivery**	
Module Type	**Support learning activity**		☒ **Theory** ☒ **Lecture** ☐ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	ATU22013			
ECTS Credits	**8**			
SWL (hr/sem)	**200**			
Module Level	UGI	**Semester of Delivery**	1	
Administering Department	**Technical building and Construction**	**College**	**Technical College/ Al Mussaib**	
Module Leader	Ahlam Obaid Hassan	**e-mail**	tcm.ahlam@atu.edu.iq	
Module Leader's Acad. Title	Assist lecturer	**Module Leader's Qualification**	M.Sc in Structural-Civil Engineering	

Module Tutor		**e-mail**	
Peer Reviewer Name	Prof.Dr. Nabeel Hameed	**e-mail**	lnm.nbl@atu.edu.iq
Scientific Committee Approval Date		**Version Number**	1.0

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

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims	To teach students the principles of mathematics necessary for undergraduate study and to achieve the desired goal which is the use of the principles and fundamentals of mathematics in solving problems related to engineering in general and civil engineering in particular and linking these principles with other subjects.
Module Learning Outcomes	Upon completion of the course, students should be able to: 1. Skill of thinking 2. Skill of conclusion and evaluation 3. Skill analysis 4. The skill of observation 5. The student's ability to excel and cognitive perception to diagnose theories and general 6. Principles in the study. 7. Future planning to link, what students learn in daily life. 8. Practice different patterns in mathematical proofs. 9. Self-reliance in getting to the idea and how to manage solving the scientific problem. 10. Statistical concepts and applications in civil engineering. 11. Critical Thinking 12. Analytical methods in solving problems 13. Identify operational problems to carry out civil engineering studies and evaluate alternative solutions.
Indicative Contents	Introduction to engineering mathematics, study of the some mathematics preliminaries, course description, student learning outcomes, course outline (Syllabus), grading units, typical grading and references of the course. [3 hrs.] Limit & Continuity [4 hrs.] Slope of the straight line , Slope of the curve [3 hrs.] Derivatives of algebraic functions, Chain rule, Second and higher order derivative, Application in mechanics [3 hrs.] Trigonometric functions [3 hrs.] Derivatives of trigonometric functions [3 hrs.] Inverse of trigonometric function , The exact value of trigonometric functions Derivatives of inverse of trigonometric functions [3 hrs.]

	Logarithmic and exponential functions , Logarithmic method in derivatives [3 hrs.] Derivative of logarithmic and exponential functions , Derivative of au , loga u [3 hrs.] Hyperbolic functions, Relation between the hyperbolic functions and exponential functions [3 hrs.] Derivative of hyperbolic functions [3 hrs.] Applications of derivatives , Rate of change [3 hrs.] Integration of algebraic functions [3 hrs.] Applications of indefinite integration and finite integration [3 hrs.] Integration of trigonometric functions and inverse Trigonometric functions [3 hrs.] Integration of lnx,u-1,au,eu [3 hrs.] Methods of integration [4 hrs.] Area by calculus (Rectangular method ,Trapezoidal rule, Simpson rule) [4 hrs.] Area under curve , Area between two curves [4 hrs.] Volume by revolution (Disk strip ,Washer strip, Shell strip) [4 hrs.] Length of the plane curve , Area of surface of revolution [4 hrs.] Matrices (Inverse Matrix) [4 hrs.] Matrices (Grammar Method) [4 hrs.]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Assessment is based on 1. Exams. 2. Student feedback. 3. Preparation of scientific reports.

Student Workload (SWL)

الحمل الدراسي للطالب

Structured SWL (h/sem)	93	**Structured SWL (h/w)**	6.2
Unstructured SWL (h/sem)	107	**Unstructured SWL (h/w)**	7.1
Total SWL (h/sem)	200		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	4	20% (20)	3,5,6,10	
	Assignments	2	10% (10)	7, 8	
	Tutorial	1	10% (10)	11	
Summative assessment	**Midterm Exam**	2 hr	10% (10)	12	
	Final Exam	3hr	50% (50)	16	
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري محتوى كل اسبوع يجب ان يغطي الوقت المحدد

	Material Covered
Week 1	Limits
Week 2	Slope of the straight line , Slope of the curve

Week 3	Derivatives of algebraic functions , Chain rule , Second and higher order derivative , Application in mechanics, Trigonometric functions
Week 4	Derivatives of trigonometric functions Inverse of trigonometric function , The exact value of trigonometric functions
Week 5	Derivatives of inverse of trigonometric functions Logarithmic and exponential functions , Logarithmic method in derivatives
Week 6	Logarithmic and exponential functions , Logarithmic method in derivatives Derivative of logarithmic and exponential functions , Derivative of a^u , $\log_a u$
Week 7	Hyperbolic functions , Relation between the hyperbolic functions and exponential functions Derivative of hyperbolic functions
Week 8	Applications of derivatives , Rate of change Integration of algebraic functions
Week 9	Applications of indefinite integration and finite integration Integration of trigonometric functions and inverse Trigonometric functions
Week 10	Integration of trigonometric functions and inverse Trigonometric functions, Integration of $\ln x, u^{-1}, a^u, e^u$
Week 11	Methods of integration
Week 12	Area by calculus (Rectangular method ,Trapezoidal rule, Simpson rule) Area under curve , Area between two curves
Week 13	Volume by revolution (Disk strip ,Washer strip, Shell strip)
Week 14	Length of the plane curve , Area of surface of revolution Matrices (Inverse Matrix) Matrices (Grammar Method)

Week 15	**Preparatory week before the final Exam**

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	1. Calculus "Seven Edition" By H. Anton , I.Bivens , S. Davis 2. Advanced Engineering Mathematics , By C.R. Wylie , 3. Calculus , By Thomas	
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 Information
معلومات المادة الدراسية

Module Title	**Engineering physics**		**Module Delivery**	
Module Type	**Support Learning Activity**		☒ **Theory** ☐ **Lecture** ☐ **Lab** ☒ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	ATU22014			
ECTS Credits	**4**			
SWL (hr/sem)	**100**			
Module Level	UGI	**Semester of Delivery**	1	
Administering Department	Technical building and Construction	**College**	Technical College/ Al Mussaib	
Module Leader	Waqar Abbas Khudhair	**e-mail**	waqaralaly@gmail. com	
Module Leader's Acad. Title		**Module Leader's Qualification**		
Module Tutor	None	**e-mail**	E-mail	
Peer Reviewer Name	Abbas Abdulkadhim Klaif	**e-mail**	dr.abbas.rikabi@atu.edu.iq	
Scientific Committee Approval Date	1 / 6 / 2023	**Version Number**	1.0	

Relation with other Modules

العلاقة مع المواد الدراسية الأخرى

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims	After successful completion of this course the student will be able to understand: 1. student's knowledge of Units, Physical Quantities and Vectors. 2. Demonstrates knowledge of Standards and Units, Utilization of Units and conversions. 3. definition of linear motion equation . 4. He will be able compute 2-D and 3-D Motion. 5. definition of Newton's Law. 6. Implements the Applications of Newton's Law. 7. knowledge and calculation of work and Kinetic Energy. 8. He will be able calculation of the Potential Energy and Conservation of Energy knowledge and calculation of the Momentum, Impulse and Collisions. 9. definition of and calculation of the Rotational motion of Rigid Bodies and calculation of the Rotational Kinematics.
Module Learning Outcomes	The ability to convert units in various systems Distinguish between different physical quantities and the standards that define these quantities The ability of the student to solve the problems of the linear equation and the two- and three-dimensional kinetic equations. Implementing applied problems on Newton's law and solving potential energy and momentum issues And how to solve the problems of rotational motion of solid bodies
Indicative Contents	Preparing the student to continue self-learning, acquiring skills and developing his potential.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم

Strategies	The ability of the student to solve the problems of the linear equation and the two- and three-dimensional kinetic equations. Implementing applied problems on Newton's law and solving potential energy and momentum issues

Student Workload (SWL)

الحمل الدراسي للطالب

Structured SWL (h/sem)	63	**Structured SWL (h/w)**	4.2
Unstructured SWL (h/sem)	37	**Unstructured SWL (h/w)**	2.5
Total SWL (h/sem)	100		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	4	20% (20)	3,5,6,10	
	Assignments	2	10% (10)	7, 8	
	Seminar	1	10% (10)	11	
Summative assessment	**Midterm Exam**	2 hr	10% (10)	12	
	Final Exam	3hr	50% (50)	16	
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري محتوى كل اسبوع يجب ان يغطي الوقت المحدد	
	Material Covered
Week 1	Demonstrates knowledge about the introduction and Scope of Physics 1, Units, Physical Quantities and Vectors.
Week 2	Demonstrates knowledge of Standards and Units, Utilization of Units and conversions.
Week 3	Demonstrates knowledge and implementation of the Linear Motion.
Week 4	Demonstrates knowledge and compute 2-D and 3-D Motion.
Week 5	Demonstrates knowledge about Newton's Law.
Week 6	Implements the Applications of Newton's Law.
Week 7	Review and solution of the homework.
Week 8	Mid- Term Exam.
Week 9	Demonstrates knowledge and calculation of work and Kinetic Energy.
Week 10	Demonstrates knowledge and calculation of the Potential Energy and Conservation of Energy.
Week 11	Demonstrates knowledge and calculation of the Momentum, Impulse and Collisions.
Week 12	Demonstrates knowledge and calculation of the Rotational motion of Rigid Bodies.
Week 13	Demonstrates knowledge and calculation of the Rotational Kinematics.
Week 14	**Preparing to final exam**
Week 15	**Final exam**

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Lectures prepared by the teacher	yes
Recommended Texts	book_Bueche,_Frederick_Hecht,_Eugene_Schaums_Outline_of _College	No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	**A -** Excellent	امتياز	90 - 100	Outstanding Performance
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Module Information

معلومات المادة الدراسية

Module Title	**حقوق الانسان والديمقراطية**	**Module Delivery**	
Module Type	**Basic**		☒ **Theory** ☐ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**
Module Code	ATU22015		
ECTS Credits	٢		
SWL (hr/sem)	50		

Module Level	JGI	**Semester of Delivery**	١
Administering Department	**Technical building and Construction**	**College**	Technical College / Al Mussaib
Module Leader	Hasan Omran	**e-mail**	hasanalkeif@gmail.com
Module Leader's Acad. Title	Assist. lecturer	**Module Leader's Qualification**	MSc in art
Module Tutor	None	**e-mail**	
Peer Reviewer Name	Dr.Shaimaa Haded	**e-mail**	
Scientific Committee Approval Date		**Version Number**	1

Relation with other Modules

العلاقة مع المواد الدراسية الأخرى

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	١-زيادة معرفة الطالب بالجانب المفاهيمي النظري والتطور التاريخي لمادة حقوق الانسان والديمقراطية ٢- تنمية مهارات الطالب التحليلية والنقدية فيما يتعلق بواقع ومستقبل حقوق الانسان والديمقراطية ٣- تدريب الطالب على اهمية المشاركة الفاعلة في جوانب الحياة العامة كتعزيز احترام مبادى حقوق الانسان العامة والمشاركة الفاعلة في الحياة السياسية والثقافية. ٤- تمكين الطلاب من فهم اهمية التعليم ودوره في نشر ثقافة حقوق الإنسان والديمقرلطية في بناء مجتمع حضاري يقوم على أساس الحكم الصالح الذي من اهم مقوماته الإيمان بحقوق الإنسان والتربية عليها والمشاركة الفاعلة في الحكم عبر الانتخابات الحرة والعادلة
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	١- يفهم معنى حقوق الانسان وأشكالها ٢- يعرف المواثيق والعهود الدولية لحقوق الانسان ٣- يعرف مفهوم الحريات وتصنيفها ٤- اهم مبادئ وتطبيقات نظم الديمقراطية
Indicative Contents المحتويات الإرشادية	١- التعامل مع الانتهاكات الحاصلة لحقوق الانسان ٢- يفهم حقوقه وواجباته اتجاه المجتمع ٣- فهم ممارسة التطبيقات الديمقراطية

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	١- التحضير اليومي للمادة والمناقشة الفاعلة وبطريقة او اسلوب التفكير النقدي ٢-استخدام اسلوب مجموعات التركيز المصغرة لمناقشة مفردات المادة ٣-كتابة اوراق تحليلة لمفردات المادة او خارجها والتي لها علاقة مباشرة بمواضيع حقوق الانسان والديمقراطية

٤- الامتحانات التحريرية اليومية والنصف الشهرية ٥- الامتحانات الفصلية والنهائية او المشاركة اليومية -2اختبارات يومية -3اختبارات فصلية -4الاختبارات النهائية -5الحضور اليومي ٦-تقديم تقارير كنشاط فصلي	

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	18	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	1.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	32	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	٢.1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50		

Module Evaluation تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	٣	10%(10)	4,8,12	
	Assignments	1	10%(10)		
	seminar		10%(10)		
	Report	1	10%(10)		
Summative assessment	Midterm Exam	2 hr	10%	٧	
	Final Exam	3hr	٪٥٠	١٥	
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	حقوق إنسان، تعريفها، أهدافها. حقوق الإلانسان في الشرائع السماوية مع التركيز على حقوق الانسان في الاسلام
Week 2	حقوق الانسان في التاريخ المعاصر الحديث المنظمات غير الحكومية العاملة بحقوق الانسان
Week 3	حقوق الانسان في الدساتير العراقية
Week 4	العلاقة بين حقوق الانسان والحريات العامة حقوق الانسان الاقتصادية والاجتماعية والسياسية
Week 5	حقوق الانسان الحديثة ضمانات احترام وحماية حقوق الانسان على الصعيد الوطني
Week 6	دور المنظمات الاقليمية العاملة بحقوق الانسان

	النظرية العامة للحريات
Week 7	القاعدة الشرعية لدولة القانون تنظيم الحريات من قبل السلطة العامة
Week 8	الديمقراطية وتعريفها وانواعها مفاهيم الديمقراطية
Week 9	الديمقراطية في العالم الثالث أالانظمة الديميقراطية في العالم الثالث
Week 10	مفهوم الحريات و تصنيف الحريات العامة الحريات أالاساسية، الحريات الفكرية والاقتصادية والاجتماعية
Week 11	حرية االامن والشعور باالاطمئنان وحرية الذهاب واالاياب حرية التعليم والصحافة والتجمع
Week 12	حرية الجمعيات والعمل حرية التملك
Week 13	حرية التجارة والصناعة حرية المرأة
Week 14	الحريات السياسية والحريات العامة
Week 15	التقدم العلمي والتقين والحريات العامة مستقبل الحريات العامة
Week 16	الامتحان النهائي

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	هادي, رياض عزيز. (٢٠٠٥). حقوق الانسان (تطورها . مضامينها . حمايتها) (بغداد.) الدليمي, حافظ علوان. (٢٠٠٩). قراءة معاصرة لموضوعة حقوق الانسان.	
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 Information

معلومات المادة الدراسية

Module Title	Advanced English skills			**Module Delivery**	
Module Type	Basic			☒ **Theory** ☐ **Lecture** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	ATU22016				
ECTS Credits	2				
SWL (hr/sem)	50				
Module Level	UGI		**Semester of Delivery**	**1**	
Administering Department	**Technical building and Construction**		**College**	**Technical College/ Al Mussaib**	
Module Leader	**Sarah Selan**		**e-mail**	**sarahselan2016@gmail.com**	
Module Leader's Acad. Title	Assist.Lecturer		**Module Leader's Qualification**	MSC in Architecture engineering	
Module Tutor					
Peer Reviewer Name	Dr. Abass K. Al Rekabi		**e-mail**	Dr.abbas.rikabi@atu.edu.iq	
Scientific Committee Approval Date			**Version Number**		

Relation with other Modules

العلاقة مع المواد الدراسية الأخرى

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

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims	1-The aim of this course is to provide English learners with integrated language skills such as reading, listening and writing resulting in a level of basic language knowledge.

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

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	1- Uses the available material to increase his efficiency. 2- Constructs sentences in Present Perfect Tense, Simple Future Tense and Going to Future Tense both in an oral and written task. 3- Defines basic Modals and employ them in elementary level of communication and writing skills. 4- Develop and enhance students' language skills to communicate in English properly. 5- Interprets the texts written in elementary level of English.

Student Workload (SWL)

الحمل الدراسي للطالب

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	3.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	2	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	0.1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Report	1	10% (10)	13	LO # 5, 8 and 10
	seminar	1	10%(10)		

Summative assessment	**Midterm Exam**	2 hr	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	Parts of speech, vocabulary and comprehension
Week 2	Verb to be, present simple, vocabulary and comprehension.
Week 3	Possessive adjective, possessives, verb to have, verb to do, vocabulary and comprehension.
Week 4	Definite Indefinite articles, pronouns, subject, object,
Week 5	This and that, expletive there, prepositions, vocabulary and comprehension
Week 6	Plurals, , expressions of quantity, , vocabulary and comprehension
Week 7	Simple past, modal verbs, auxiliary verbs,
Week 8	Question words, asking questions, vocabulary and comprehension.
Week 9	Negative and interrogative, I would like and I like, vocabulary and comprehension.
Week 10	Writing a composition, punctuation, vocabulary and comprehension.
Week 11	Present continues, vocabulary and comprehension
Week 12	Types of questions, (yes -no) questions and (wh) questions
Week 13	Simple past, vocabulary and comprehension
Week 14	Simple past,
Week 15	**revision**

Week 16	**Final Exam**

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Headway plus for beginners	Yes
Recommended Texts	Any Grammar and comprehension for technical learning	No
Websites	1- https://www.coursera.org/browse/physical-science-and-engineering/electrical-engineering 2- https://link.springer.com/book/10.1007/978-981-10-8624-3 3- https://progressivecollege.ie/courses/early-learning-and-care-qqi-level-5-major-award/?gad=1&gclid=EAIaIQobChMI_Nqu2tqA_wIVZ4VoCR2O0woLEAAYASAAEgI9WvD_BwE	

Grading Scheme

مخطط الدرجات

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