# MODULE DESCRIPTION FORM

Module Information معلومات المادة الدر اسية						
Module Title		Mechanics I		Module Delivery		
Module Type		Core			⊠ Theory	
Module Code	PHY-111				<ul> <li>☑ Lecture</li> <li>☑ Lab</li> <li>☑ Tutorial</li> <li>☑ Practical</li> <li>☑ Seminar</li> </ul>	
ECTS Credits	8					
SWL (hr/sem)	200					
Module Level		1	Semester o	f Delivery 1		1
Administering Department		physics	College	science		
Module Leader	Nabeel. F. Latt	coofi	e-mail	dr.nabe	dr.nabeel.fawzi@uoanbar.edu.iq	
Module Leader's	Acad. Title	Assist. Prof.	Module Lea	ader's Qualification Ph.D.		Ph.D.
Module Tutor	utor Name (if available)		e-mail	E-mail		
Peer Reviewer Name		Name	e-mail	E-mail		
Scientific Committee Approval Date		14/06/2023	Version Nu	<b>nber</b> 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 الدر اسية ونتائج التعلم والمحتويات الإرشادية			
Module Objectives أهداف المادة الدر اسية	<ol> <li>To develop problem solving skills and understanding of vectors quantities and Properties of Vectors.</li> <li>Studying the science of movement describing an aspect of "kinematics" of movement influences in terms of "dynamics".</li> <li>The chapter deals with of one-dimensional motion with constant acceleration</li> <li>This is the basic subject for constant acceleration, and Free Fall.</li> <li>The concept of law of motion and the concept of force.</li> </ol>			
	Important: Write at least 6 Learning Outcomes, better to be equal to the			
Module Learning Outcomes مخرجات التعلم للمادة الدر اسية	<ol> <li>number of study weeks.</li> <li>Recognize how dot and cross product in the vector quantities.</li> <li>List the various terms associated with Physical Quantity and Measurements.</li> <li>Summarize what meant by vector quantities.</li> <li>Discuss the Application of one-dimensional motion with constant acceleration.</li> <li>Describe constant acceleration, and Free Fall.</li> <li>Define Motion in two dimensions.</li> <li>Identify the basic Motion in two dimension with constant acceleration.</li> <li>Discuss the Projectile motion with horizontal range and maximum height of a projectile.</li> <li>The law of motion and the concept of force.</li> <li>Explain the Newton's laws of motion.</li> <li>Identify the Work and Energy relationship with Work done by a varying force and Work done by a spring.</li> </ol>			
Indicative Contents المحتويات الإرشادية	Indicative content includes the following.         Part A - Physics and Measurements and Properties of Vectors         Physical Quantity – Derived quantities, Dimensional Analysis, Vector and Scalar-Coordinate system. Properties of Vectors, Vector addition and subtraction,         Components of a vector, Product of a vector: scalar product and the vector product.         [15 hrs]         Kinematics Description of Motion – The position vector and the displacement vector,         The average and Instantaneous velocity and acceleration. Application of one-dimensional motion with constant acceleration, Free Fall, Motion in two dimensions.			

Projectile motion, Motion in Uniform Circular Motion. [15 hrs]
Dynamics, The Law of Motion- The concept of force, Newton's laws of motion, Newton's first and second law, Newton's third law. [10 hrs]
Weight and tension- Force of friction (natural and step responses), Questions with solution [15 hrs]
Revision problem classes [6 hrs]
<u>Part B - Analogue Electronics</u>
Work and Energy
Work done by a constant force, Work done by a varying force, Work done by a spring, Work and kinetic energy, Power, Questions with solution. [7 hrs]
Potential energy and conservation energy – Potential energy and conservation energy. Conservative forces, Potential energy Conservation of mechanical energy, Total mechanical energy, Non-conservative forces and the work-energy theorem, Questions with solution [15 hrs]
The Linear Moment and Collisions– The Linear Moment, Conservation of linear momentum, Collisions. Perfectly Inelastic collisions, Elastic collisions, Special cases, Questions with solution. [15 hrs]

Learning and Teaching Strategies				
استر اتيجيات التعلم والتعليم				
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes,			

interactive tutorials and by considering types of simple experiments involving some
sampling activities that are interesting to the students.

Student Workload (SWL) الحمل الدر اسي للطالب محسوب لـ ١٥ اسبو عا				
Structured SWL (h/sem)       Structured SWL (h/w)         109       109         الحمل الدر اسي المنتظم للطالب أسبو عيا				
Unstructured SWL (h/sem) الحمل الدر اسي غير المنتظم للطالب خلال الفصل	91	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	6	
Total SWL (h/sem) الحمل الدر اسي الكلي للطالب خلال الفصل	200 الحمل الدر اس			

Module Evaluation							
تقييم المادة الدر اسية							
	Time/Number     Weight (Marks)     Week Due     Relevant Learning       Outcome						
	Quizzes	3	15% (15)	5 and 10	LO #1, #2 and #10, #11		
Formative	HW	5	5% (5)	2 and 12	LO #3, #4 and #6, #7		
assessment	Projects / Lab.	1	15% (15)	Continuous	All		
	Inside HW	5	5% (5)	13	LO #5, #8 and #10		
Summative	Midterm Exam	1hr	10% (10)	7	LO #1 - #7		
assessment	Final Exam	3hr	50% (50)	16	All		
Total assessment			100% (100 Marks)				

Delivery Plan (Weekly Syllabus)			
المنهاج الأسبوعي النظري			
	Material Covered		
Week 1	Introduction: Physics and Measurements		
Week 2	Properties of Vectors		
Week 3	Product of a vector: The scalar product, and the vector product		
Week 4	Kinematics Description of Motion		
Week 5	One-dimensional motion with constant acceleration		
Week 6	Projectile motion		
Week 7	Motion in Uniform Circular Motion		
Week 8	Motion in two dimensions, Projectile motion		
Week 9	The Law of Motion		
Week 10	Mutual Inductance, Force of friction		
Week 11	Work and Energy, Work done by a varying force, Power		
Week 12	Potential energy and conservation energy, Potential energy		
Week 13	Total mechanical energy		
Week 14	The Linear Moment and Conservation of linear momentum		
Week 15	Perfectly Inelastic collisions, Elastic collisions and Special case		
Week 16	Preparatory week before the final Exam		

	Delivery Plan (Weekly Lab. Syllabus)				
	المنهاج الأسبوعي للمختبر				
	Material Covered				
Week 1	Lab 1: determination of the acceleration of gravity by means of spring				

Week 2	Lab 2: equilibrium of force
Week 3	Lab 3: determination of liquid density by test tube
Week 4	Lab 4: determination moment of inertia by bifilar
Week 5	Lab 5: determination of the acceleration of gravity
Week 6	Lab 6: coefficient of static friction between two surfaces
Week 7	Lab 7: Freely Falling bodies

Learning and Teaching Resources مصادر التعلم والتدريس				
	Text	Available in the Library?		
Required Texts	VECTOR ANALYSIS, Murray R Spiegel Lerner L.S, Physics for scientist and engineers, Jones and Bartell,Publishers, 1996.	No		
Recommended Texts	Serway, R. A., Physics for scientists and engineering with modern physics. Saunders College Publishing, 1990.	No		
Websites	https://www.coursera.org/browse/physical-science-and-engi	heering		

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

### MODULE DESCRIPTION FORM

# نموذج وصف المادة الدراسية

Module Information معلومات المادة الدر اسية						
Module Title	Mechanics I			Modu	le Delivery	
Module Type				⊠ Theory		
Module Code	PHY-111				⊠ Lecture ⊠ Lab	
ECTS Credits		8			☐ Tutorial ☐ Practical ☐ Seminar	
SWL (hr/sem)		200				
Module Level		1	Semester of Delivery 1		1	
Administering Dep	partment	physics	College	science		
Module Leader	Nabeel. F. Latt	oofi	e-mail	dr.nabeel.fawzi@uoanbar.edu.iq		ar.edu.iq
Module Leader's	Acad. Title	Assist. Prof.	Module Lea	Module Leader's Qualification Ph.D.		Ph.D.
Module Tutor	Name (if available)		e-mail	E-mail		
Peer Reviewer Name Name		e-mail	E-mail			
Scientific Committee Approval Date		14/06/2023	Version Nu	mber	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 الدر اسية ونتائج التعلم والمحتويات الإرشادية			
Module Objectives	6. To develop problem solving skills and understanding of vectors quantities and			
the the the start	Properties of Vectors.			
أهداف المادة الدر أسيه	7. Studying the science of movement describing an aspect of "kinematics" of			
	movement influences in terms of "dynamics".			
	8. The chapter deals with of one-dimensional motion with constant acceleration			
	9. This is the basic subject for constant acceleration, and Free Fall.			
	Important: Write at least 6 Learning Outcomes, better to be equal to the			
	number of study weeks.			
	12. Recognize how dot and cross product in the vector quantities.			
	13. List the various terms associated with Physical Quantity and Measurements.			
Module Learning	14. Summarize what meant by vector quantities.			
Outcomes	15. Discuss the Application of one-dimensional motion with constant			
	16 Describe constant acceleration, and Free Fall			
	17 Define Motion in two dimensions			
مخرجات التعلم للمادة الدر اسبة	18. Identify the basic Motion in two dimension with constant acceleration.			
	19. Discuss the Projectile motion with horizontal range and maximum height of a			
	projectile.			
	20. The law of motion and the concept of force.			
	21. Explain the Newton's laws of motion.			
	22. Identify the Work and Energy relationship with Work done by a varying force			
	and Work done by a spring.			
	Indicative content includes the following.			
Indicative Contents				
المحتويات الار شادية	Part A Dhysics and Maasurements and Droparties of Vesters			
	Part A - Physics and Measurements and Properties of Vectors			
	Physical Quantity – Derived quantities, Dimensional Analysis, Vector and Scalar-			

Coordinate system. Properties of Vectors, Vector addition and subtraction,
Components of a vector, Product of a vector: scalar product and the vector product.
[15 hrs]
Kinematics Description of Motion – The position vector and the displacement vector,
The average and Instantaneous velocity and acceleration. Application of one-
dimensional motion with constant acceleration, Free Fall, Motion in two dimensions,
Projectile motion, Motion in Uniform Circular Motion, [15 hrs]
Dynamics, The Law of Motion- The concept of force, Newton's laws of motion,
Newton's first and second law, Newton's third law. [10 hrs]
Weight and tansian Farsa of friction (natural and stan responses). Questions with
weight and tension- Force of inction (natural and step responses), Questions with
solution [15 hrs]
Revision problem classes [6 hrs]
Part B - Analogue Electronics
Work and Energy
Work done by a constant force, Work done by a varying force, Work done by a spring,
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Potential energy and conservation energy – Potential energy and conservation
anorgy Concernation forces. Retential energy Concernation of mechanical energy
energy. Conservative forces, Potential energy Conservation of mechanical energy,
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Learning and Teaching Strategies					
استر اتيجيات التعلم والتعليم					
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.				

St	udent Worl	kload (SWL)				
۱ اسبو عا	، محسوب لـ ٥	الحمل الدر اسي للطالب				
Structured SWL (h/sem)		Structured SWL (h/w)				
	109	<b>4</b>	7			
الحمل الدراسي المنتظم للطالب خلال الفصل		الحمل الدراسي المنتظم للطالب أسبو عيا				
Unstructured SWL (h/sem)		Unstructured SWL (h/w)				
	91	i fittit terre ti e i sti t ti	6			
الحمل الدراسي غير المنتظم للطالب خلال الفصل		الحمل الذراسي عير المنتظم للطالب اسبوعيا				
I OTAL SWL (n/sem)						
الحمل الدر اللي الحلي للطالب حارل العصل						

Module Evaluation							
تقييم المادة الدر اسية							
	Time/Number     Weight (Marks)     Week Due     Relevant Learning       Outcome						
	Quizzes	3	15% (15)	5 and 10	LO #1, #2 and #10, #11		
Formative	HW	5	5% (5)	2 and 12	LO #3, #4 and #6, #7		
assessment	Projects / Lab.	1	15% (15)	Continuous	All		
	Inside HW	5	5% (5)	13	LO #5, #8 and #10		

Summative	Midterm Exam	1hr	10% (10)	7	LO #1 - #7
assessment	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)				
المنهاج الاسبوعي النظري				
	Material Covered			
Week 1	Introduction: Physics and Measurements			
Week 2	Properties of Vectors			
Week 3	Product of a vector: The scalar product, and the vector product			
Week 4	Kinematics Description of Motion			
Week 5	One-dimensional motion with constant acceleration			
Week 6	Projectile motion			
Week 7	Motion in Uniform Circular Motion			
Week 8	Motion in two dimensions, Projectile motion			
Week 9	The Law of Motion			
Week 10	Mutual Inductance, Force of friction			
Week 11	Work and Energy, Work done by a varying force, Power			
Week 12	Potential energy and conservation energy, Potential energy			
Week 13	Total mechanical energy			
Week 14	The Linear Moment and Conservation of linear momentum			
Week 15	Perfectly Inelastic collisions, Elastic collisions and Special case			
Week 16	Preparatory week before the final Exam			

Delivery Plan (Weekly Lab. Syllabus)					
	المنهاج الاسبوعي للمختبر				
	Material Covered				
Week 1	Lab 1: determination of the acceleration of gravity by means of spring				
Week 2	Lab 2: equilibrium of force				
Week 3	Lab 3: determination of liquid density by test tube				
Week 4	Lab 4: determination moment of inertia by bifilar				
Week 5	Lab 5: determination of the acceleration of gravity				
Week 6	Lab 6: coefficient of static friction between two surfaces				
Week 7	Lab 7: Freely Falling bodies				

Learning and Teaching Resources				
مصادر التعلم والتدريس				
	Text	Available in the Library?		
Required Texts	VECTOR ANALYSIS, Murray R Spiegel Lerner L.S, Physics for scientist and engineers, Jones and Bartell,Publishers, 1996.	No		
Recommended Texts	Serway, R. A., Physics for scientists and engineering with modern physics. Saunders College Publishing, 1990.	No		
Websites	https://www.coursera.org/browse/physical-science-and-engir	heering		

Grading Scheme						
مخطط الدرجات						
Group	Grade	التقدير	Marks %	Definition		
Success Group	A - Excellent	امتياز	90 - 100	Outstanding Performance		
(50 - 100)	<b>B</b> - Very Good	جيد جدا	80 - 89	Above average with some errors		

	<b>C</b> - Good	ختر	70 - 79	Sound work with notable errors
D - Satisfactory E - Sufficient		متوسط	60 - 69	Fair but with major shortcomings
		مقبول	50 - 59	Work meets minimum criteria
Fail Group	<b>FX</b> – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
(0 – 49)	<b>F</b> – Fail	راسب	(0-44)	Considerable amount of work required

# MODULE DESCRIPTION FORM

Module Information معلومات المادة الدر اسية						
Module Title	Mechanics I			Module Delivery		
Module Type	Core			🛛 Theory		
Module Code		PHY-111		⊠ Lecture ⊠ Lab		
ECTS Credits	8			☐ Tutorial ☐ Practical ☐ Seminar		
SWL (hr/sem)	200					
Module Level		1	Semester of Delivery 1		1	
Administering De	partment	physics	College	science		
Module Leader	Nabeel. F. Lattoofi		e-mail	dr.nabeel.fawzi@uoanbar.edu.iq		
Module Leader's Acad. Title Assist. Prof.		Module Lea	.eader's Qualification Ph.D.			
Module Tutor	Name (if available) e-mail		E-mail			
Peer Reviewer Name Name			e-mail	E-mail		

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 الدر اسية ونتائج التعلم والمحتويات الإرشادية						
Module Objectives أهداف المادة الدر اسية	<ol> <li>To develop problem solving skills and understanding of vectors quantities and Properties of Vectors.</li> <li>Studying the science of movement describing an aspect of "kinematics" of movement influences in terms of "dynamics".</li> </ol>					
	<ul><li>13. The chapter deals with of one-dimensional motion with constant acceleration</li><li>14. This is the basic subject for constant acceleration, and Free Fall.</li><li>15. The concept of law of motion and the concept of force.</li></ul>					
	Important: Write at least 6 Learning Outcomes, better to be equal to the number of study weeks.					
Module Learning Outcomes	<ul> <li>23. Recognize how dot and cross product in the vector quantities.</li> <li>24. List the various terms associated with Physical Quantity and Measurements.</li> <li>25. Summarize what meant by vector quantities.</li> <li>26. Discuss the Application of one-dimensional motion with constant</li> </ul>					
مخرجات التعلم للمادة الدراسية	<ul><li>20. Discuss the Application of one dimensional motion with constant acceleration.</li><li>27. Describe constant acceleration, and Free Fall.</li><li>28. Define Motion in two dimensions.</li></ul>					
	<ol> <li>Identify the basic Motion in two dimension with constant acceleration.</li> <li>Discuss the Projectile motion with horizontal range and maximum height of a projectile.</li> <li>The law of motion and the concept of force.</li> <li>Explain the Newton's laws of motion.</li> </ol>					

	33. Identify the Work and Energy relationship with Work done by a varying force
	and Work done by a spring.
	Indicative content includes the following.
	Part A - Physics and Measurements and Properties of Vectors
	Physical Quantity – Derived quantities, Dimensional Analysis, Vector and Scalar- Coordinate system. Properties of Vectors, Vector addition and subtraction, Components of a vector, Product of a vector: scalar product and the vector product. [15 hrs]
	Kinematics Description of Motion – The position vector and the displacement vector, The average and Instantaneous velocity and acceleration. Application of one- dimensional motion with constant acceleration, Free Fall, Motion in two dimensions, Projectile motion, Motion in Uniform Circular Motion. [15 hrs]
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Indicative Contents المحتويات الإرشادية	Weight and tension- Force of friction (natural and step responses), Questions with solution [15 hrs]
	Revision problem classes [6 hrs]
	Part B - Analogue Electronics
	Work and Energy
	Work done by a constant force, Work done by a varying force, Work done by a spring, Work and kinetic energy, Power, Questions with solution. [7 hrs]
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The Linear Moment and Collisions- The Linear Moment, Conservation of linear
momentum, Collisions. Perfectly Inelastic collisions, Elastic collisions, Special cases,
Questions with solution. [15 hrs]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم				
Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.			

Student Workload (SWL)					
الحمل الدر اسي للطالب محسوب لـ ١٥ اسبو عا					
Structured SWL (h/sem)	100	Structured SWL (h/w)	_		
الحمل الدراسي المنتظم للطالب خلال الفصل	109	الحمل الدراسي المنتظم للطالب أسبوعيا	7		
Unstructured SWL (h/sem)	01	Unstructured SWL (h/w)			
الحمل الدراسي غير المنتظم للطالب خلال الفصل	91	الحمل الدراسي غير المنتظم للطالب أسبوعيا	Б		
Total SWL (h/sem)		200			
الحمل الدر اسي الكلي للطالب خلال الفصل		200			

Module Evaluation					
تقييم المادة الدر اسية					
	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome	

	Quizzes	3	15% (15)	5 and 10	LO #1, #2 and #10, #11
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assessment	Final Exam	3hr	50% (50)	16	All
Total assessment		100% (100 Marks)			

Delivery Plan (Weekly Syllabus)				
	المنهاج الاسبوعي النظري			
	Material Covered			
Week 1	Introduction: Physics and Measurements			
Week 2	Properties of Vectors			
Week 3	Product of a vector: The scalar product, and the vector product			
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Week 5	One-dimensional motion with constant acceleration			
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Week 13	Total mechanical energy
Week 14	The Linear Moment and Conservation of linear momentum
Week 15	Perfectly Inelastic collisions, Elastic collisions and Special case
Week 16	Preparatory week before the final Exam

	Dellasse Disc (Mescher Leb Callebas)				
	Delivery Plan (weekly Lab. Syllabus)				
	Missell country laise				
	Material Covered				
Week 1	Lab 1: determination of the acceleration of gravity by means of spring				
Week 2	Lab 2: equilibrium of force				
Week 3	Lab 3: determination of liquid density by test tube				
Week 4	Lab 4: determination moment of inertia by bifilar				
Week 5	Lab 5: determination of the acceleration of gravity				
Week 6	Lab 6: coefficient of static friction between two surfaces				
Week 7	Lab 7: Freely Falling bodies				

Learning and Teaching Resources						
	مصادر التعلم والتدريس					
	Text	Available in the Library?				
Required Texts	VECTOR ANALYSIS, Murray R Spiegel Lerner L.S, Physics for scientist and engineers, Jones and Bartell,Publishers, 1996.	No				
Recommended Texts	Serway, R. A., Physics for scientists and engineering with modern physics. Saunders College Publishing, 1990.	No				
Websites	https://www.coursera.org/browse/physical-science-and-engir	neering				

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

### MODULE DESCRIPTION FORM

Module Information معلومات المادة الدر اسية					
Module Title	Comp	outer programmi	ng I	Module Delivery	
Module Type		В		🛛 Theory	
Module Code	SCI-101				
ECTS Credits	4		Tutorial     Dractical		
SWL (hr/sem)	hr/sem) 75				
Module Level 1 Se		Semester of I	Delivery	1	

Administering Department		Type Dept. Code	College	Type College Code		
Module Leader	lule Leader Name		e-mail	E-mail		
Module Leader's	ule Leader's Acad. Title Professor Module Leader's Qualification Ph.		Ph.D.			
Module Tutor	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 Nu	mber	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 الدر اسية ونتائج التعلم والمحتويات الإرشادية				
<b>Module Objectives</b> أهداف المادة الدر اسية	<ol> <li>To develop problem solving skills and understanding of computer programming.</li> <li>Developing students to adapt to the rapid changes of special technologies in the field of information that characterize the age.</li> <li>Developing students' ability to think scientifically through the method of solving problems using computers.</li> <li>Providing students with self-learning, research and investigation skills through the use of various computer software applications.</li> </ol>				
	Important: Write at least 6 Learning Outcomes, better to be equal to the				
	number of study weeks.				
Module Learning Outcomes	<ul> <li>Teaching the theoretical curriculum by presenting the material to the students while activating the participation of the students.</li> <li>Teaching the material practically using the computer.</li> <li>Employing the student to apply the subject in practice using the calculator.</li> </ul>				
مخرجات التعلم للمادة الدراسية	<ul> <li>Conducting implicit tests during the lecture.</li> <li>Activate the material test in the lecture that follows the explanation of the material to confirm and consolidate the material, adding the</li> <li>Test the effectiveness of the material for students.</li> </ul>				

	Explanation of the article and its practical application on the computer
	Using the Fortran program.
	Indicative content includes the following.
Indicative Contents	Fortran program,
	Components of the Fortran Desktop, Components of the Menu bar, Create a new file,
المحلويات الإرسادية	Fortran Data Types, Arithmetic Operators, Relational Operators, statements in
	ForTran[15 hrs]

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)						
۱ اسبوعا	الحمل الدر اسي للطالب محسوب لـ ١٥ اسبو عا					
Structured SWL (h/sem)	100	Structured SWL (h/w)	7			
الحمل الدر اسي المنتظم للطالب خلال الفصل	105	الحمل الدر اسي المنتظم للطالب أسبو عيا	,			
Unstructured SWL (h/sem)	01	Unstructured SWL (h/w)	6			
الحمل الدر اسي غير المنتظم للطالب خلال الفصل	91	الحمل الدراسي غير المنتظم للطالب أسبوعيا	0			
Total SWL (h/sem)		200				
الحمل الدر اسي الكلي للطالب خلال الفصل						

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

assessment	Final Exam	3hr	50% (50)	16	All
Total assessment		100% (100 Marks)			

Delivery Plan (Weekly Syllabus)						
	المنهاج الأسبوعي النظري					
	Material Covered					
Week 1	Introduction - Hardware And Software Computer Units					
Week 2	Introduction to programming - Problems Solution With Programming					
	Flow charts					
Week 3	- Flow Charts For Different Programming Examples Solution					
	- Flow Charts For Different Programming Examples Solution					
Week 4	Fortran 90 programming language					
Week 5	- Introduction To Fortran 90					
Week 6	Components of the Fortran Desktop					
Week 7	Mid-term Exam					
Week 8	Components of the Menu bar					
Week 9	Create a new files and Run the program					
Week 10	Save and close the program					
Week 11	Fortran Data types, Constants & Variables					
Week 12	Input / Outputs Formats					
Week 13	Arithmetic Operators					
Week 14	Relational Operators					
Week 15	read and print statements					
Week 16	Preparatory week before the final Exam					

Delivery Plan (Weekly Lab. Syllabus)					
المنهاج الأسبوعي للمختبر					
	Material Covered				
Week 1	Lab 1: Components of the Fortran Desktop				
Week 2	Lab 2: Create a new files and Run the program				
Week 3	Lab 3: Save and close the program				

Week 4	Lab 4: Fortran Data types, Constants & Variables
Week 5	Lab 5: Input / Outputs Formats
Week 6	Lab 6: Arithmetic Operators
Week 7	Lab 7: read and print statements

Learning and Teaching Resources							
	مصادر التعلم والتدريس						
	Text	Available in the Library?					
Required Texts	اساسيات الحاسوب وتطبيقاته المكتبية الجزء -1 , الاول ، أ. د. غسان عبد الحميد واخرون، ٤١ بغداد	No					
Recommended Texts	<ul> <li>2 -Brooks, David R. Problem solving with Fortran 90: for scientists and engineers. Springer Science &amp; Business Media, 2012.</li> <li>3- Hahn, Brian. Fortran 90 for scientists and engineers. Elsevier, 1994.</li> </ul>	No					
Websites							

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

وصف المقرر

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مختبر الكهربانية						
					مقرر	۲. رمز ال
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	abduls	alam@uoanbar.edu io	من اسم يددر) البريد الالكتروني:	الدراسي (ادر اصر محمد خلف	م ون المعرر ا م عبد السلام م	۷ اسم مس الاسم: م
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يسية ودورها	جريائية والمغناط	لتجارب العلمية في مختبر الك	• تعرف الطلبة على ا		المعرز	
ت الحديثة في العلوم سة في دوائر الدولة	ة . يدرسه (التطبيقان لمغناطيسية). زياء الكهربانية ف د التخرج وممارس ختبرات البحثية ف	كهربائية واستخداماته اليومي يطرأ على الحقل العلمي الذي مجال الفيزياء الكهربائية وال ين بقيمة وأهمية مادة الفيز تعاملهم مع طلبة المدارس بع سين في المدارس وبعض اله وفي مجال البحث والتطوير.	في فهم اساسيات ال أن يفهم الطالب ما للتجارب العلمية في جعل الطلبة يشعرو والتكنلوجيا وكيفية اختصاصاتهم كمدر المتعلقة بالصناعة		ة الدراسية	اهداف الماد
				والتعلم	بجيات التعليم و	۹. استراتب
اسيات مختبر ائية	تعرف على أسر ربائية. مختبر. فيزياء الكهربا والمغناطيسية	ين الطالب قادرا على ال العملية فيه هم اساسيات الفيزياء الكه والعملية المستخدمة في ال هم التطبيقات العملية لعلم جودة في مختبر الكهربائية موجودة في المختبر	الدراسة نتَّوقع أن يكو خناطيسية). والتطبيقات قادرا على معرفة وف المصطلحات العلمية قادرا على معرفة وف ي الاجهزة العلمية المو ي كيفية عمل الاجهزة ال	من خلال هذه الكهربائية والم - جعل الطالب - التعرف علو والمغناطيسية. - التعرف علو - التعرف علو	ä	الاستراتيجي
eran by Mars in	ه سا <sup>رد</sup> روب و		* • • ·		المقرر	١٠. بنية
طريقه التقييم	طريقه التعلم	او الموضوع	اسم الوحدة	مخرجات	الساعات	الاسبوع

				التعلم المطلوبة				
أسئلة عامة	عملي		اثبات قانون اوم		۲	١		
و مناقشة	_	لمصدر كهربائى	تعين القدرة العظمى		۲	۲		
		خطية بين فرق الجهد والتيار المار	درأسة العلاقة الغير		۲	٣		
		- 2	خلال مقاومة ساخنة		۲	٤		
		مجهولة باستخدام فنظرة ويتستون	قياس قيمة مقاومه		۲	٥		
		خلية لمصدر كهربائي.	قياس المقاومة الدا		۲	٦		
			قياس التردد الرنيني		۲	v		
		بيحها وتسليمها	جمع التقارير وتصد		۲	٨		
			امتحان شهر ۱		Ť.	٩		
		ع العكسي	تحقيق قانون التربي		, 			
		ه للمجال المغناطيسي الارضي	ايجاد المركبة الافقي		, 			
		-	المحولة الكهرباية		, Y			
		وميتر	ايجاد مقاومه الكلفاذ					
		نيحها وتسليمها	جمع التفارير وتصد					
			امتحان سبھر ۲		1	12		
			الملكان فهافي		T	10		
	· · · ·		<b></b>	· · · · ·	م المقرر	۱۱. تقیید		
ه والشهريه	توزيع الدرجة من ٣٠ على وفق المهام المكلف بها الطالب مثل التحضير اليومي والامتحانات اليومية والشفوية والشهرية والتحريرية والتقارير الخ							
				ریس	ادر التعلم والتد	۱۲. مص		
كتاب الفيزياء العملية كتاب القياسات الكهربائية			الكتب المقررة المطلوبة (المنهجية ان وجدت)			الكت		
	الشيت الاساسي للتجارب في المختبر			المراجع الرئيسية (المصادر)				
			المجلات العلمية،	التي يوصى بها (	مراجع الساندة	الكتب والم		
				لتقارير)	1)			
			نترنت	رونية ، مواقع الا	المراجع الالكت			

### **Course Description Form**

1. Course Name:
Mechanics Lab
2. Course Code:
SCP012
3. Semester / Year:

#### 1, 2 course 2023-2024

#### 4. Description Preparation Date:

18/4/2024

#### 5. Available Attendance Forms:

#### Official working hours / attendance

6. Number of Credit Hours (Total) / Number of Units (Total)

#### 2 hours a week

2\*15 weeks = 30 hours in the course

#### 7. Course administrator's name (mention all, if more than one name) Name: Anhar Abd Alsalam Email: anhar.abdalsalam@uoanbar.edu.iq

8. Course Objectives

#### **Course Objectives**

Knowledge of the basic concepts of mechanical principles

Basic knowledge of how to calculate variables.

#### 9. Teaching and Learning Strategies

		•				
Strate	дХ	Involvin him to u the cour means o - The ab - The ab - The ab readings - The ab - The ab	ng the student in knowledge and operation of all de se the Internet to access scientific websites to coll se and develop his ability to access the latest scien of verifying: ility to deal with information sources. ility to develop an appropriate research strategy. ility to evaluate the projects of his fellow students ility to analyze the required research information s. ility to criticize incorrect readings in discussion cir- lity to extract correct readings using modern scien	evices, and ect topics ntific findin by taking rcles. ntific meth	d training related to ngs as a correct	
10. 0	10. Course Structure					
Week	Hours	Required Learning	Unit or subject name	Learning method	Evaluation method	

		Outcomes		
1	2		Finding the Earth's acceleration using a simple pendulum.	
2	2		Simple harmonic motion Hooke's law. Maxwell's wheel (law of conservation of energy).	
3	2		Coefficient of direct friction.	

4	2	Double suspension pendulum.				
4	2	Simple harmonic motion.				
5	2	Find the radius of gyration of a cylinder rolling	on an inclined			
6	2	surface.				
	2	Finding the hardness coefficient of a metal rod	using the static			
/	2	method. Calculating Young's modulus for a metric ruler				
8	2	Calculate the viscosity coefficient of the liquid.				
9	2	Calculate the density of a liquid using a weight	ed test tube.			
10	2	Calculating the surface tension coefficient of a	liquid using			
11	2	capillary tubes. Projectile movement				
12	2	Calculating the speed of sound in air using a res	sonance tube.			
13	2					
10	2					
	2					
15	Z					
11.	Course	e Evaluation				
Distri	Distributing the score out of 30 according to the tasks assigned to the student such as daily					
prepa	preparation, daily oral, monthly, or written exams, reports etc					
12.	12. Learning and Teaching Resources					
Requir	Required textbooks (curricular books, if any)					
Main r	Main references (sources) The basic sheet for experiments in laboratory					
Recon	nmended	books and references (scientific				
journa	journals, reports)					
Electro	Electronic References, Websites					

# MODULE DESCRIPTION FORM

Module Information معلومات المادة الدر اسية						
Module Title	Mechanics II			Modu	le Delivery	
Module Type		Core			⊠ Theory ⊠ Lecture ⊠ Lab	
Module Code		PHY-121				
ECTS Credits	8				☐ Tutorial	
SWL (hr/sem)	200					
Module Level		1	Semester of Delivery 1		1	
Administering De	partment	physics	College	science		
Module Leader	Nabeel. F. Latt	oofi	e-mail	dr.nabeel.fawzi@uoanbar.edu.iq		<u>ar.edu.iq</u>
Module Leader's Acad. Title		Assist. Prof.	Module Leader's Qualification Ph.D		Ph.D.	
Module Tutor	Name (if available)		e-mail	E-mail		
Peer Reviewer Name		Name	e-mail	E-mail		
Scientific Committee Approval Date		14/04/2024	Version Nu	ersion 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				

	16. To develop problem solving skills and understanding of Rotational motion.
	17. Studying the science of movement describing an aspect of Rotational kinetic
	energy.
	18. The chapter deals with of the law of universal gravitation
	19. This is the basic subject for the periodic and frequency of the motion.
	20. The concept of law of Fluid Mechanics, Density and Pressure.
	Important: Write at least 6 Learning Outcomes, better to be equal to the
	number of study weeks.
	1. Recognize how Rotational motion, angular displacement, angular velocity and
	angular acceleration.
Module Learning	2. Relationship between angular and linear quantities.
Outcomes	3. Work and energy of rotational motion.
	4. Newton's universal law of gravity, Weight and gravitational force.
	5. Describe of simple harmonic motion (SHM).
	6. The amplitude of motion from the initial condition.
محرجات التعلم للمادة الدراسية	7. The simple pendulum and the torsional pendulum.
	8. Discuss the operations of representing the simple harmonic motion with the
	circular motion.
	9. Discuss the various properties of fluid Mechanics, density and Pressure.
	10. Explain the Buoyant forces and Archimedes' principle.
	11. The Equation of continuity and Bernoulli's equation.
	Indicative content includes the following.
	Part A - Rotational motion
	Angular displacement, angular velocity and angular acceleration. Rotational motion
	with constant angular acceleration, Relationship between angular and linear
	quantities, Angular velocity and linear velocity, angular acceleration and linear
	acceleration. [15 hrs]
Indicative Contents	Rotational kinetic energy, Torque, Work and energy of rotational motion and Angular
Indicative Contents	Rotational kinetic energy, Torque, Work and energy of rotational motion and Angular momentum, Relation between The torque and the angular momentum [15 hrs]
Indicative Contents المحتويات الإرشادية	Rotational kinetic energy, Torque, Work and energy of rotational motion and Angular momentum, Relation between The torque and the angular momentum [15 hrs]
Indicative Contents المحتويات الإرشادية	Rotational kinetic energy, Torque, Work and energy of rotational motion and Angular momentum, Relation between The torque and the angular momentum [15 hrs]
Indicative Contents المحتويات الإرشادية	Rotational kinetic energy, Torque, Work and energy of rotational motion and Angular momentum, Relation between The torque and the angular momentum [15 hrs] The law of universal gravitation- The law of universal gravitation, Newton's universal
Indicative Contents المحتويات الإرشادية	Rotational kinetic energy, Torque, Work and energy of rotational motion and Angular momentum, Relation between The torque and the angular momentum [15 hrs] The law of universal gravitation- The law of universal gravitation, Newton's universal law of gravity, Weight and gravitational force. [10 hrs]
Indicative Contents المحتويات الإرشادية	Rotational kinetic energy, Torque, Work and energy of rotational motion and Angular momentum, Relation between The torque and the angular momentum [15 hrs] The law of universal gravitation- The law of universal gravitation, Newton's universal law of gravity, Weight and gravitational force. [10 hrs]
Indicative Contents المحتويات الإرشادية	Rotational kinetic energy, Torque, Work and energy of rotational motion and Angular momentum, Relation between The torque and the angular momentum [15 hrs] The law of universal gravitation- The law of universal gravitation, Newton's universal law of gravity, Weight and gravitational force. [10 hrs]
Indicative Contents المحتويات الإرشادية	Rotational kinetic energy, Torque, Work and energy of rotational motion and Angular momentum, Relation between The torque and the angular momentum [15 hrs] The law of universal gravitation- The law of universal gravitation, Newton's universal law of gravity, Weight and gravitational force. [10 hrs]
Indicative Contents المحتويات الإرشادية	Rotational kinetic energy, Torque, Work and energy of rotational motion and Angular momentum, Relation between The torque and the angular momentum [15 hrs] The law of universal gravitation- The law of universal gravitation, Newton's universal law of gravity, Weight and gravitational force. [10 hrs] Gravitational potential energy- Total Energy for circular orbital motion, Escape
Indicative Contents المحتويات الإرشادية	Rotational kinetic energy, Torque, Work and energy of rotational motion and Angular momentum, Relation between The torque and the angular momentum [15 hrs] The law of universal gravitation- The law of universal gravitation, Newton's universal law of gravity, Weight and gravitational force. [10 hrs] Gravitational potential energy- Total Energy for circular orbital motion, Escape velocity. [15 hrs]
Indicative Contents المحتويات الإرشادية	Rotational kinetic energy, Torque, Work and energy of rotational motion and Angular momentum, Relation between The torque and the angular momentum [15 hrs] The law of universal gravitation- The law of universal gravitation, Newton's universal law of gravity, Weight and gravitational force. [10 hrs] Gravitational potential energy- Total Energy for circular orbital motion, Escape velocity. [15 hrs]
Indicative Contents المحتويات الإرشادية	Rotational kinetic energy, Torque, Work and energy of rotational motion and Angular momentum, Relation between The torque and the angular momentum [15 hrs] The law of universal gravitation- The law of universal gravitation, Newton's universal law of gravity, Weight and gravitational force. [10 hrs] Gravitational potential energy- Total Energy for circular orbital motion, Escape velocity. [15 hrs]

Part B - Analogue Electronics
Periodic Motion: Simple harmonic motion
Simple Harmonic Motion (SHM), the periodic time, the frequency of the motion, the angular frequency, the velocity and acceleration of the periodic motion, the maximum velocity and the maximum acceleration, The amplitude of motion from the initial condition, mass attached to a spring. [15 hrs]
Total energy of the simple harmonic motion– The simple pendulum, the torsional pendulum, Representing the simple harmonic, motion with the circular motion, Question with solution. [7 hrs]
Fluid Mechanics– Fluid Mechanics, Density and Pressure, Variation of pressure with depth, Pascal's Law, Buoyant forces and Archimedes' principle, The Equation of continuity, Bernoulli's equation. [15 hrs]

Learning and Teaching Strategies استر اتيجيات 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 الدر اسي للطالب محسوب لـ ١٥ اسبو عا			
Structured SWL (h/sem) الحمل الدر اسي المنتظم للطالب خلال الفصل	109	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبو عيا	7
Unstructured SWL (h/sem) الحمل الدر اسي غير المنتظم للطالب خلال الفصل	91	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبو عيا	6
Total SWL (h/sem) 200 الحمل الدر اسي الكلي للطالب خلال الفصل			

Module Evaluation					
تقييم المادة الدر اسية					
	Time/Number     Weight (Marks)     Week Due     Relevant Learning       Outcome				
	Quizzes	3	15% (15)	5 and 10	LO #1, #2 and #10, #11
Formative	HW	5	5% (5)	2 and 12	LO #3, #4 and #6, #7
assessment	Projects / Lab.	1	15% (15)	Continuous	All
	Inside HW	5	5% (5)	13	LO #5, #8 and #10
Summative	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
assessment	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)			
	المنهاج الاسبوعي النظري		
	Material Covered		
Week 1	ek 1 Introduction - Rotational motion Theory		

Week 2	Basics of Rotational motion with Angular velocity and Angular acceleration
Week 3	Relationship between angular and linear quantities
Week 4	Rotational kinetic energy, Torque and Work and energy of rotational motion
Week 5	Relation between The torque and the angular momentum
Week 6	The law of universal gravitation, Weight and gravitational force
Week 7	Total Energy for circular orbital motion, Escape velocity
Week 8	Periodic Motion: Simple harmonic motion, Simple Harmonic Motion (SHM)
Week 9	The amplitude of motion from the initial condition
Week 10	The angular frequency, The velocity and acceleration of the periodic motion, The maximum velocity and the maximum acceleration
Week 11	Total energy of the simple harmonic motion, The simple pendulum
Week 12	Representing the simple harmonic motion with the circular motion
Week 13	Fluid Mechanics, Density and Pressure
Week 14	Pascal's Law, Buoyant forces and Archimedes' principle
Week 15	The Equation of continuity and Bernoulli's equation
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)		
المنهاج الأسبوعي للمختبر		
	Material Covered	
Week 1	Lab 1: Free Falling	
Week 2	Lab 2: Projectile	
Week 3	Lab 3: Spiral Spring	
Week 4	Lab 4: Coefficient of friction	

Week 5	Lab 5: Equilibrium of rigid body
Week 6	Lab 6: Simple Harmonic motion
Week 7	Lab 7: Viscosity

Learning and Teaching Resources						
	مصادر التعلم والتدريس					
	Text	Available in the Library?				
Required Texts	Lerner L.S, Physics for scientist and engineers, Jones and Bartell, Publishers, 1996.	Yes				
Recommended Texts	Serway, R. A., Physics for scientists and engineering with modern physics. Saunders College Publishing, 1990.	No				
Websites	https://www.coursera.org/browse/physical-science-and-engin	eering				

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

# نموذج وصف الوحدة

<b>معلومات الوحدة</b> معلومات المادة الدر اسية						
عنوان الوحدة		المغناطيسية				تسليم الوحدة
نوع الوحدة		رئيسيە				* •••••
رمز الوحدة		PH-122				⊠ النظرية ⊠ محاضرة
اعتمادات النظام الأوروبي	٨				التعليمي	⊠ مختبر □ البرنامج □ عمل
SWL (ساعة / نصف)	۲					⊥ پ □ ندوة
مستوى الوحدة					فصل التسليم	١
قسم الإدارة		اكتب رمز القسم	كلية			اكتب رمز الكلية
مسؤول ا <b>لوحدة</b>		سمیر عبید نواف	بريد Sameer@uoanbar. إلكتروني		@uoanbar.edu.iq	
ل الوحدة	اللقب العلمي لمسؤول	مدرس		حدة	<b>مؤ هلات</b> مسؤول ا <b>لو</b>	ماجستیر
محاضر ا <b>لوحدة</b>			بريد إلكتروني			
	اسم المراجع		بريد إلكتروني			بريد إلكتروني
تاريخ موافقة اللجنة العلمية			ار	رقم الإصد		١

	العلاقة مع الوحدات الأخرى			
	تتوافق مع المواد الدراسية الأخرى			
وحدة المتطلبات الأساسية		لا أحد	نصف السنة	
وحدة المتطلبات المشتركة		لا أحد	نصف السنة	

	أهداف الوحدة ومخرجات التعلم والمحتويات الإرشادية					
	أهداف الدراسة ونتائج التعلم والمحتويات التجريبية					
أ <b>هداف الوحدة</b> الهدف الدر اسي	ستغطي هذه الوحدة المفاهيم الأساسية للكهرومغناطيسية تقدم الوحدة بعض المفاهيم الأساسية للكهرومغناطيسية لتوفير أساس مادي لمفاهيم المغناطيسية					
نتائج التعلم الوحدة	<ul> <li>تحديد مصطلح المغناطيسية.</li> <li>وصف مبدأ المغناطيسية.</li> <li>اذكر أربع خصائص لخطوط القوة المغناطيسية.</li> <li>اذكر قوانين الجذب والتنافر الثلاثة.</li> </ul>					
مخرجات التعليم في المرحلة المتوسطة	<ul> <li>وصف المجال المحيط بالموصل الحامل للديار.</li> <li>وصف قاعدة اليد اليمنى.</li> <li>تحديد نو عين من المغناطيس الدائم.</li> <li>وصف تأثير هول.</li> </ul>					
المحتويات الإرشادية	<ul> <li>١- استخدام المعلومات النظرية والمهارات اليدوية والفكرية اللازمة في التطبيقات العملية المتعلقة بالرسم المدكانيكي والبناء</li> </ul>					
الاشتراكات الترويجية	، عي <i>ت بيني وربب</i> ٢- تقييم المعلومات والمهارات المكتسبة/المكتسبة بشكل نقدي. ٣- استخدام برامج الكمبيوتر اللازمة، وتكنولوجيا الاتصالات .					

	استراتيجيات التعلم والتدريس				
للتعليم والتعليم					
الاستراتيجيات	تتمثل الإستراتيجية الرئيسية التي سيتم اعتمادها في تقديم هذه الوحدة في تشجيع مشاركة الطلاب في التمارين، وفي الوقت نفسه تحسين وتوسيع مهارات التفكير النقدي لديهم.				

عبء عمل الطالب (SWI)	

الحمل للطالب المصنف لـ ١٥ اسبوعا				
SWL منظم (ساعة/نصف) الحمل المفترض للطالب خلال الفصل	١٠٦	SWL منظم (ح/ث) الحمل الدر اسي المنتظم يدر س للطالب أسبو عيا	٧	
SWL غير منظم (ساعة/نصف) الحمل حسب غير المتوقع للطالب خلال الفصل	٩٤	SWL غير منظم (ح/ث) ""الحمل المفترض غير للطالب أسبو عيا""	٦	
إ <b>جمالي SWL (ساعة/نصف)</b> الحمل الكلي للطالب خلال الفصل		۲		

تقييم الوحدة							
	تقييم المادة الدر اسية						
م ذات الصلة الأسبوع الوزن (العلامات) الوقت/الرقم المستحق					نتائج التعلم ذات الصلة		
التقييم التكويني	الاختبار ات	٥	()•)%)•	١٤ - ١	لو رقم ۱، رقم ۲، ورقم ۱۰، رقم ۱۱		
	واجبات	0	()•)%)•	۱٤-۱	لو #۳، #٤ و #٦، #٧		
	مختبر. التقارير	١	())%)V	مستمر	الجميع		
	ندوة	١	(٣) %٣	۱٤-۱	لو رقم <sup>٥</sup> ورقم ٨ ورقم ١٠		
التقييم التلخيصي	إختبار نصف الفصل	۲ ساعة	()•)%)•	Y	السؤال رقم ۱ - رقم ۷		
	إمتحان نهائي	۳ ساعات	(°•) %°•	17	الجميع		
	١٠٠% (١٠٠ علامة) التقييم الإجمالي						

	خطة التسليم (المنهج الأسبوعي)
	المنهاج الأسبوعي
	المواد المغطاة
الأسبوع ا	القوة المغناطيسية

الأسبوع ٢	حقل مغناطيسي
الأسبوع ٣	حركة شحنة نقطة في المجال المغناطيسي
الأسبوع ٤	القوة المغناطيسية على التيارات
الأسبوع ه	قانون أمبير
الأسبوع ٢	ثنائي القطب المغناطيسي
الأسبوع ٧	اختبار نصف الفصل
الأسبوع ٨	م ثنائي القطب المغناطيسي في محال ثابت
الأسبوع	- ي
الاسبوع ٢	الحواص المعاطيسية للمواد
الاسبوع ١٠	قانون قار اداي
الأسبوع ١١	قانون لينز
الأسبوع ١٢	EMF متحرك
الأسبوع ١٣	المجال الكهربائي المستحث
الأسبوع ٢٤	مراجعة الدورة
الأسبوع ١٥	إمتحان نهائي

	خطة التسليم (منهج المختبر الأسبوعي)
	المنهاج الأسبوعي للمختبر
	المواد المغطاة
الأسبوع ا	تحقيق قانون اوم للدائرة الكهربائية للتيار والتي تحتوي على سعة كهربائية
الأسبوع ٢	قياس الرادة الحثية والحث
الأسبوع ٣	يؤثر على الافقية للمجال المغناطيسي ليون
الأسبوع ٤	قياس تردد التيار المتردد
الأسبوع ٥	تحقيق قانون التربيع العكسي بالمغناطيسية
الأسبوع ٦	تردد الرنيني

الأسبوع ٧	

مصادر التعلم والتدريس					
	مصادر التعلم والتدريس				
	نص	متوفر في المكتبة؟			
النصوص المطلوبة	الفيزياء للعلماء والمهندسين، الطبعة السادسة بقلم جون دبليو جيويت، سيرواي	لا			
النصوص الموصى بها	مقدمة للديناميكا الكهربائية الطبعة الرابعة بقلم ديفيد ج. غريفيت	لا			
المواقع الإلكترونية					

	مخطط الدرجات				
		رجات الحرارة	مخططات در		
مجموعة	درجة	التقدير	العلامات %	تعريف	
	اً ـ ممتاز	موافق	۱۰۰ _ ۹۰	أداء مذهل	
مجموعة النجاح	<b>ب</b> – جيد جداً	جيد جدا	۸۹ _ ۸۰	فوق المتوسط مع بعض الأخطاء	
() · · - • ·)	ی - ختر	ختر	۷۹ _ ۷۰	عمل سليم مع وجود أخطاء ملحوظة	
( )	<b>د</b> _ مرضية	متوسط	٦٩ _ ٦٠	عادلة ولكن مع عيوب كبيرة	
	<b>ھ</b> ـ كافية	مقبول	09_0.	العمل يلبي الحد الأدنى من المعابير	
مجموعة فاشلة (۰ - ۲۹)	<b>FX</b> – فشل	راسب ( وحدة المعالجة المركزية )	(29-20)	مطلوب المزيد من العمل ولكن تم منح الائتمان	
	<b>ف</b> _ فاشل	ر اسب	(55-•)	كمية كبيرة من العمل المطلوب	

**ملاحظة:** سيتم تقريب العلامات العشرية التي تزيد أو تقل عن ٩.٠ إلى العلامة الكاملة الأعلى أو الأدنى (على سبيل المثال، سيتم تقريب علامة ٩٤.٥ إلى ٥٥، في حين سيتم تقريب علامة ٤٤.٤ إلى ٥٤. لدى الجامعة سياسة عدم التغاضي عن "فشل التمريرة القريبة" وبالتالي فإن التعديل الوحيد للعلامات الممنوحة بواسطة العلامة (العلامات) الأصلية سيكون التقريب التلقائي الموضح أعلاه.

# MODULE DESCRIPTION FORM

نموذج وصف المادة الدر اسية

Module Information معلومات المادة الدراسية							
Module Title		Mechanics II		Modu	le Delivery		
Module Type		Core			⊠ Theory		
Module Code		PHY-121			☐		
ECTS Credits				Tutorial  Practical			
SWL (hr/sem)							
Module Level		1	Semester of Delivery 2		2		
Administering De	partment	Type Dept. Code	College	Type College Code			
Module Leader			e-mail				
Module Leader's Acad. Title			Module Lea	eader's Qualification Ph.D.		Ph.D.	
Module Tutor	odule Tutor Name (if available)		e-mail	E-mail			
Peer Reviewer Name		Name	e-mail	E-mail			
Scientific Committee Approval Date		14/06/2023	Version Nu	mber 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 الدر اسية	<ol> <li>To develop problem solving skills and understanding of Rotational motion.</li> <li>Studying the science of movement describing an aspect of Rotational kinetic energy.</li> <li>The chapter deals with of the law of universal gravitation</li> <li>This is the basic subject for the periodic and frequency of the motion.</li> <li>The concept of law of Eluid Mechanics. Density and Pressure.</li> </ol>			
	Important: Write at least 6 Learning Outcomes, better to be equal to the number of study weeks.			
Module Learning Outcomes مخرجات التعلم للمادة الدر اسية	<ol> <li>Recognize how Rotational motion, angular displacement, angular velocity and angular acceleration.</li> <li>Relationship between angular and linear quantities.</li> <li>Work and energy of rotational motion.</li> <li>Newton's universal law of gravity, Weight and gravitational force.</li> <li>Describe of simple harmonic motion (SHM).</li> <li>The amplitude of motion from the initial condition.</li> <li>The simple pendulum and the torsional pendulum.</li> <li>Discuss the operations of representing the simple harmonic motion with the circular motion.</li> <li>Discuss the various properties of fluid Mechanics, density and Pressure.</li> <li>Explain the Buoyant forces and Archimedes' principle.</li> <li>The Equation of continuity and Bernoulli's equation.</li> </ol>			
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. Part A - Rotational motion Angular displacement, angular velocity and angular acceleration. Rotational motion with constant angular acceleration, Relationship between angular and linear quantities, Angular velocity and linear velocity, angular acceleration and linear acceleration. [15 hrs] Rotational kinetic energy, Torque, Work and energy of rotational motion and Angular momentum, Relation between The torque and the angular momentum [15 hrs] The law of universal gravitation- The law of universal gravitation, Newton's universal law of gravity, Weight and gravitational force. [10 hrs] Gravitational potential energy- Total Energy for circular orbital motion, Escape			

volocity [15 hrs]
velocity. [15 his]
Revision problem classes [6 hrs]
Part B - Analogue Electronics
Periodic Motion: Simple harmonic motion
Simple Harmonic Motion (SHM), the periodic time, the frequency of the motion, the angular frequency, the velocity and acceleration of the periodic motion, the maximum velocity and the maximum acceleration, The amplitude of motion from the initial condition, mass attached to a spring. [15 hrs]
Total energy of the simple harmonic motion– The simple pendulum, the torsional pendulum, Representing the simple harmonic, motion with the circular motion, Question with solution. [7 hrs]
Fluid Mechanics– Fluid Mechanics, Density and Pressure, Variation of pressure with depth, Pascal's Law, Buoyant forces and Archimedes' principle, The Equation of continuity, Bernoulli's equation. [15 hrs]

Learning and Teaching Strategies استر اتیجیات التعلم و التعلیم			
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 الدر اسي للطالب محسوب لـ ١٥ اسبو عا				
Structured SWL (h/sem)		Structured SWL (h/w)	_	
الحمل الدر اسي المنتظم للطالب خلال الفصل	106	الحمل الدراسي المنتظم للطالب أسبو عيا	7	
Unstructured SWL (h/sem)		Unstructured SWL (h/w)	6	
الحمل الدر اسي غير المنتظم للطالب خلال الفصل	94	الحمل الدراسي غير المنتظم للطالب أسبوعيا	6	
Total SWL (h/sem) الحمل الدر اسي الكلي للطالب خلال الفصل	200			

Module Evaluation						
تقييم المادة الدراسية						
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome	
Formative assessment	Quizzes	5	15% (15)	1 to 10	LO #1, #2 and #10, #11	
	Inside HW	5	5% (5)	2 and 12	LO #3, #4 and #6, #7 and #10	
	Projects / Lab.	1	15% (15)	Continuous	All	
	нพ	5	5%(5)	1 to 15	LO #5, #8, #9, #12 and #10	
Summative	Midterm Exam	2hr	10% (10)	7	LO #1 - #7	
assessment	Final Exam	3hr	50% (50)	16	All	
Total assessme	ent	·	100% (100 Marks)			

Delivery Plan (Weekly Syllabus)

المنهاج الأسبوعي النظري			
	Material Covered		
Week 1	Introduction - Rotational motion Theory		
Week 2	Basics of Rotational motion with Angular velocity and Angular acceleration		
Week 3	Relationship between angular and linear quantities		
Week 4	Rotational kinetic energy, Torque and Work and energy of rotational motion		
Week 5	Relation between the torque and the angular momentum		
Week 6	The law of universal gravitation, Weight and gravitational force		
Week 7	Total Energy for circular orbital motion, Escape velocity		
Week 8	Periodic Motion: Simple harmonic motion, Simple Harmonic Motion (SHM)		
Week 9	The amplitude of motion from the initial condition		
Week 10	The angular frequency, The velocity and acceleration of the periodic motion, The maximum velocity and the maximum acceleration		
Week 11	Total energy of the simple harmonic motion, The simple pendulum		
Week 12	Representing the simple harmonic motion with the circular motion		
Week 13	Fluid Mechanics, Density and Pressure		
Week 14	Pascal's Law, Buoyant forces and Archimedes' principle		
Week 15	The Equation of continuity and Bernoulli's equation		
Week 16	Preparatory week before the final Exam		

	Delivery Plan (Weekly Lab. Syllabus)				
	المنهاج الاسبوعي للمختبر				
	Material Covered				
Week 1	عزم القصور الذاتي لدولاب الموازنة				

Wook 2	
WEEK Z	
Week 3	إيجاد معامل الصلابة لساق معدنية بطريقة اللي الاستاتيكية
Week 4	حساب معامل يونك لمسطرة متريه
Week 5	حساب معامل لز و جة السائل
Week 6	حساب كثافة السائل باستخدام انبوية اختبار مثقله
Week 7	حساب معامل الشد السطحي للسائل باستخدام أنابيب شعريه
Maak0	
weeks	
Week9	حساب سر عة الصوت في العواء باستخدام انبو بة الرين
TTCCK5	

Learning and Teaching Resources مصادر التعلم والتدريس					
	Text	Available in the Library?			
Required Texts	Lerner L.S, Physics for scientist and engineers, Jones and Bartell, Publishers, 1996.	Yes			
Recommended Texts	Serway, R. A., Physics for scientists and engineering with modern physics. Saunders College Publishing, 1990.	No			
Websites	https://www.coursera.org/browse/physical-science-and-engineering				

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

(0 – 49)	<b>F –</b> 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 الدر اسية						
Module Title	Comp	uter programmi	ng II	Modu	le Delivery	
Module Type		В			⊠ Theory	
Module Code	SCI-101				⊠ Lecture ⊠ Lab	
ECTS Credits	4				Tutorial Reactical	
SWL (hr/sem)	75					
Module Level		2	Semester of Delivery 2		2	
Administering De	partment	Type Dept. Code	College	Type C	Type College Code	
Module Leader	Name		e-mail	E-mail		
Module Leader's	Acad. Title	Professor	Module Lea	ader's Qu	alification	Ph.D.
Module Tutor	Name (if availa	able)	e-mail	E-mail		
Peer Reviewer Name Name		Name	e-mail	E-mail	E-mail	
Scientific Committee Approval Date		01/06/2023	Version Nu	mber	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 الدر اسية	<ol> <li>To develop problem solving skills and understanding of computer programming.</li> <li>Developing students to adapt to the rapid changes of special technologies in the field of information that characterize the age.</li> <li>Developing students' ability to think scientifically through the method of solving problems using computers.</li> <li>Providing students with self-learning, research and investigation skills through the use of various computer software applications.</li> </ol>				
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ul> <li>Important: Write at least 6 Learning Outcomes, better to be equal to the number of study weeks.</li> <li>Teaching the theoretical curriculum by presenting the material to the students while activating the participation of the students.</li> <li>Teaching the material practically using the computer.</li> <li>Employing the student to apply the subject in practice using the calculator.</li> <li>Conducting implicit tests during the lecture.</li> <li>Activate the material test in the lecture that follows the explanation of the material to confirm and consolidate the material, adding the</li> <li>Test the effectiveness of the material for students.</li> <li>Explanation of the article and its practical application on the computer</li> <li>Using the Fortran program.</li> </ul>				
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. <u>Fortran program</u> , Write and open statement, Do loops statements, If statement, Matrices and vectors, Routing & Remainder functions, Function and Subroutine.[30 hrs]				

Learning and Teaching Strategies						
استر اتيجيات 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 الدر اسي للطالب محسوب لـ ١٥ اسبو عا					
Structured SWL (h/sem)         109         Structured SWL (h/w)         7           الحمل الدر اسي المنتظم للطالب أسبو عيا         الحمل الدر اسي المنتظم للطالب خلال الفصل         7					
Unstructured SWL (h/sem) الحمل الدر اسي غير المنتظم للطالب خلال الفصل	91	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	6		
Total SWL (h/sem)       200         الحمل الدر اسي الكلي للطالب خلال الفصل					

Module Evaluation							
تقييم المادة الدر اسية							
		Time/Number	Weight (Marks)	Week Due	Relevant Learning		
				Week Bue	Outcome		
	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11		
Formative	Assignments	2	5% (5)	2 and 12	LO #3, #4 and #6, #7		
assessment Projects / Lab.		1	15% (15)	Continuous	All		
	seminar	1	10% (10)	13	LO #5, #8 and #10		
Summative	Midterm Exam	2hr	10% (10)	7	LO #1 - #7		
assessment Final Exam 3		3hr	50% (50)	16	All		
Total assessme	nt		100% (100 Marks)				

Delivery Plan (Weekly Syllabus)			
المنهاج الاسبوعي النظري			
Material Covered			
Week 1	Write and open statement		
Week 2         Do loops statements			
Week 3	Do loops		

Week 4	Do while loops
Week 5	If statement
Week 6	If/else statement
Week 7	Mid-term Exam
Week 8	Logical- If statement
Week 9	Matrices and vectors
Week 10	Routing & Remainder functions
Week 11	Floor function
Week 12	int: function
Week 13	nint: function
Week 14	Real function
Week 15	Function and Subroutine
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)			
المنهاج الأسبوعي للمختبر			
	Material Covered		
Week 1	Lab 1: Write and open statement		
Week 2	Lab 2: Do loops statements		
Week 3	Lab 3: Write and open statement		
Week 4	Lab 4: Do loops statements		
Week 5	Lab 5: If statement		
Week 6	Lab 6: Matrices and vectors		
Week 7	Lab 7: Floor function		

Learning and Teaching Resources						
	مصادر التعلم والتدريس					
	Text         Available in the Library?					
	Brooks, David R. Problem solving with Fortran 90: for					
	scientists and engineers. Springer Science & Business					
Required Texts	Media, 2012.	No				

Recommended	Hahn, Brian. Fortran 90 for scientists and engineers.	Ne
Texts	Elsevier, 1994.	INO
Websites		

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

# MODULE DESCRIPTION FORM

Module Information معلومات المادة الدر اسية					
Module Title	English Language I		Module Delivery		
Module Type	S			⊠ Theory	
Module Code	UOA003			⊠ Lecture ⊠ Lab	
ECTS Credits	2			□ Tutorial □ Practical	
SWL (hr/sem)	50			□ Seminar	
Module Level		1	Semester of	Delivery	2
Administering Department			College		

Module Leader	Qayes Abdullah Abbas		e-mail	<u>qayes a.abbas@uoanbar.edu.iq</u>		<u>nbar.edu.iq</u>
Module Leader's Acad. Title		lecturer	Module Leader's Qualification		Ph.D.	
Module Tutor	Qayes Abdull	ah Abbas	e-mail	<u>qayes a. abbas@uoanbar.edu.iq</u>		<u>nbar.edu.iq</u>
Peer Reviewer Name		Name	e-mail	E-mail		
Scientific Committee Approval Date		01/03/2024	Version Number 1.0		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 الدر اسية ونتائج التعلم والمحتويات الإرشادية					
Module Objectives أهداف المادة الدراسية	<ol> <li>1- The student's knowledge of the basics of the English language</li> <li>2- Teaching the student the basic pillars of the language, including grammar, pronunciation, listening and writing</li> <li>3- Training students on the method of dialogue and group work</li> <li>4- Applying what the student learns in daily life</li> </ol>				
Module Learning Outcomes	<ul><li>1- Introducing students to the importance of learning English</li><li>2 -Introduce students to modern language teaching methods</li></ul>				
مخرجات التعلم للمادة الدراسية	<ul><li>3- Introduce the student to how to speak English</li><li>4- Developing the student's ability to deal with technical means</li></ul>				

	5- Developing the student's ability to deal with the Internet
	6- Developing the student's ability to deal with multiple means
	7- Developing the student's ability to dialogue and discussion
	Good knowledge of the rules
	Good scientific background by refining ideas and applying them in writing
	The ability to apply reading and deduction.
	Developing the student's ability to perform daily duties.
Indicative Contents	Easy to deal with the English language
المحتويات الإرشادية	Developing the student's skill in dialogue and discussion
	Developing the student's ability to deal with technical means
	Developing the student's ability to deal with the Internet
	Developing the student's ability to deal with multiple means
	Developing the student's ability to dialogue and discussion

Learning and Teaching Strategies				
استر اتيجيات التعلم والتعليم				
Strategies	The primary strategy that will be adopted in delivering this module is to encourage student's participation in the exercises, while at the same time refining and expanding their critical thinking skills. By presenting the lecture in English, practices, and activities in the classroom through interactive group work, listening to dialogues prepared by local English speakers, watching reports from English news channels, managing the lecture in an applied manner related to the reality of daily life, as well as assigning students with some duties, in addition to allocating a percentage of Grades for daily assignments, tests, and attendance			

### Student Workload (SWL)

الحمل الدر اسي للطالب محسوب لـ ١٥ استو عا				
Structured SWL (h/sem)		Structured SWL (h/w)		
الحمل الدر اسي المنتظم للطالب خلال الفصل	30	الحمل الدراسي المنتظم للطالب أسبو عيا	7	
Unstructured SWL (h/sem)		Unstructured SWL (h/w)	_	
الحمل الدراسي غير المنتظم للطالب خلال الفصل	20	الحمل الدراسي غير المنتظم للطالب أسبوعيا	6	
Total SWL (h/sem)				
الحمل الدر اسي الكلي للطالب خلال الفصل	50			

Module Evaluation					
تقييم المادة الدر اسبة					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes		10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments		10% (10)	2 and 12	LO #3, #4 and #6, #7
	Seminar		10% (10)		
	Report		10% (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	Lec1: Hello			

Week 2	Your World
Week 3	All about You
Week 4	Family and Friends
Week 5	The Way I Live
Week 6	Every Day
Week 7	My Favorites
Week 8	Where I Live
Week 9	Times Past
Week 10	We Had a Great Time
Week 11	I Can Do That
Week 12	Please and Thank You
Week 13	Here and now
Week 14	It's time to go
Week 15	Comprehensive review of previous units
Week 16	A 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	New Headway Plus Beginner, John and Liz Soars, Oxford	Yes	
Recommended Texts			
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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(0 – 49)	<b>F</b> – Fail	راسب	(0-44)	Considerable amount of work required	