الوصف المقرر للمرحلة الاولى

نموذج وصف المقرر

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information	
معلومات المادة الدراسية	

Module Title	**Elementary Statistics I**		Module Delivery
Module Type	<u>Core</u>		☒ Theory ☒ Lecture ☐ Lab ☒ Tutorial ☐ Practical ☐ Seminar
Module Code	**STAT101**		
ECTS Credits	<u>**7**</u>		
SWL (hr/sem)	<u>**175**</u>		

Module Level	UGI	Semester of Delivery		1
Administering Department	STAT	College		CSM
Module Leader	Khairy Badal Rasheed	e-mail		Khairy-stat@uomosul.edu.iq
Module Leader's Acad. Title	Lecture	Module Leader's Qualification		Msc.
Module Tutor	Shaimaa Waleed Mahmood	e-mail		@uomosul.edu.iqshaimaa.waleed
Peer Reviewer Name	Name	e-mail		E-mail
Scientific Committee Approval Date	10/06/2023	Version Number		1.0

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

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1- Give the learner the statistical skills that enable him to work in the fields of statistic, calculating measures of statistic.

	2- The subject of statistics is a digital language and an art to express the variables and numbers accurately, and thus enables the student to benefit from this subject in the statistics and the programs that are important to him in most fields of life. 3- Statistics course aims to develop ways and means of thinking and how to deal with various problems. 4- Trying to think in sound ways and methods, specifically in solving problems and thus improving and developing society.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- Understand the fundamental concepts and principles of statistics, including data types, measurement scales, and sampling methods. 2- Interpret and analyze data using descriptive statistical measures, such as measures of central tendency (mean, median, mode) and measures of variability (range, variance, standard deviation). 3- Apply probability theory to analyze and make predictions about uncertain events, including calculating probabilities and understanding the laws of probability. 4- Utilize basic principles of statistical inference to draw conclusions about a population based on sample data, including hypothesis testing and confidence intervals. 5- Apply appropriate statistical techniques for analyzing relationships between variables, including correlation analysis and simple linear regression. 6- Understand and interpret the results of statistical software output and graphical representations. 7- Communicate statistical findings and interpretations effectively, both orally and in written form. 8- Develop critical thinking and problem-solving skills in the context of statistical analysis and interpretation.
Indicative Contents المحتويات الإرشادية	1- familiarize students with the basics of statistics, its fields of application. 2- the statistical method in scientific research, methods of data collection. 3- classification and presentation for the purpose of obtaining the necessary information to make appropriate decisions and the possibility of using this data in prediction, in addition to developing students. 4- skills in research design method. 5- bringing the student to a level where he has the ability to interpret the results and turn them into a practical reality.
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 in the statistical methods.

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	82	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	20% (20)	5 and 10	LO #1, #2 and #4
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Report	1	10% (10)	13	All
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	Definition and importance of statistics
Week 2	Statistical method in scientific research Statistical Notation Types of statistics
Week 3	Data types and methods of collection
Week 4	Types of Samples
Week 5	Frequency distributions (importance and types)
Week 6	Presentation of data Frequency distribution (Tabular presentation)
Week 7	Cumulative distribution
Week 8	Graphical presentation

Week 9	Measures of Central tendency for ungrouped data
Week 10	Measures of Central tendency for grouped data
Week 11	Properties of central tendency measures
Week 12	Measures of dispersion (variation) for ungrouped data Measures of dispersion (variation) grouped data
Week 13	Properties of dispersion measurements
Week 14	Pearson and spearman correlation
Week 15	Preparatory week before the final Exam
Week 16	**Preparatory week before the final Exam**

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Elementary Statistics (2007), Allan Bluman.	Yes
Recommended Texts	Basics of Statistics (1995), Jarkko Isolalo.	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 DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information		
معلومات المادة الدراسية		

Module Title	**Elementary Statistics II**	**Module Delivery**
Module Type	**Core**	☒ **Theory**
Module Code	**STAT107**	☒ **Lecture**
ECTS Credits	**7**	☐ **Lab**
SWL (hr/sem)	**175**	☒ **Tutorial**
		☐ **Practical**
		☐ **Seminar**

Module Level	UGI	**Semester of Delivery**	2
Administering Department	STAT	**College**	CSM
Module Leader	Khairy Badal Rasheed	**e-mail**	Khairy-stat@uomosul.edu.iq
Module Leader's Acad. Title	Lecture	**Module Leader's Qualification**	Msc.
Module Tutor	Shaimaa Waleed Mahmood	**e-mail**	@uomosul.edu.iqshaimaa.waleed
Peer Reviewer Name	Name	**e-mail**	E-mail
Scientific Committee Approval Date	10/06/2023	**Version Number**	1.0

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

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	5- Give the learner the statistical skills that enable him to work in the fields of engineering, calculating probabilities and linear equations. 6- The subject of statistics is a digital language and an art to express the variables and numbers accurately, and thus enables the student to benefit from this subject in the engineering and arithmetic transactions that are important to him in most fields of life.

	7- Statistics course aims to develop ways and means of thinking and how to deal with various problems.
	8- Trying to think in sound ways and methods, specifically in solving problems and thus improving and developing society.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	9- Understand the fundamental concepts and principles of statistics, including data types, measurement scales, and sampling methods. 10- Interpret and analyze data using descriptive statistical measures, such as measures of central tendency (mean, median, mode) and measures of variability (range, variance, standard deviation). 11- Apply probability theory to analyze and make predictions about uncertain events, including calculating probabilities and understanding the laws of probability. 12- Utilize basic principles of statistical inference to draw conclusions about a population based on sample data, including hypothesis testing and confidence intervals. 13- Apply appropriate statistical techniques for analyzing relationships between variables, including correlation analysis and simple linear regression. 14- Understand and interpret the results of statistical software output and graphical representations. 15- Communicate statistical findings and interpretations effectively, both orally and in written form. 16- Develop critical thinking and problem-solving skills in the context of statistical analysis and interpretation.
Indicative Contents المحتويات الإرشادية	6- familiarize students with the basics of statistics, its fields of application. 7- he statistical method in scientific research, methods of data collection 8- lassification and presentation for the purpose of obtaining the necessary information to make appropriate decisions and the possibility of using this data in prediction, in addition to developing students. 9- kills in research design method. 10- ringing the student to a level where he has the ability to interpret the results and turn them into a practical reality.

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 in the statistical methods.

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

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	82	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**175**		

Module Evaluation
تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	20% (20)	5 and 10	LO #1, #2 and #4
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Report	1	10% (10)	13	All
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		Multiple correlation coefficient
Week 2		Partial correlation coefficient
Week 3		Simple linear regression
Week 4		Multiple linear regression
Week 5		Testing of hypotheses
Week 6		Type one and two error

Week 7	Z –test (one sample)
Week 8	Z –test (two samples)
Week 9	t –test (one sample)
Week 10	t –test (two samples)
Week 11	t –test (paired samples)
Week 12	Confidence Intervals
Week 13	ANOVA{Analysis of variance (part 1) }
Week 14	ANOVA{Analysis of variance (part 1) }
Week 15	Preparatory week before the final Exam
Week 16	**Preparatory week before the final Exam**

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Elementary Statistics (2007), Allan Bluman.	Yes
Recommended Texts	Basics of Statistics (1995), Jarkko Isolalo.	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 DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			

Module Title	**Calculus I**		**Module Delivery**
Module Type	**Basic**		☒ Theory
Module Code	**STAT102**		☒ Lecture ☐ Lab
ECTS Credits	**7**		☒ Tutorial ☐ Practical
SWL (hr/sem)	**175**		☐ Seminar

Module Level	UGI	**Semester of Delivery**		1
Administering Department	STAT	**College**		CSM
Module Leader	Dr. Heyam Abed Al-Majeed Hayawi	**e-mail**		he.hayawi@uomosul.edu.iq
Module Leader's Acad. Title	Assistant Prof.	**Module Leader's Qualification**		Ph.D.
Module Tutor	Rehad Emad Slewa	**e-mail**		alshamany@uomosul.edu.iq
Peer Reviewer Name		**e-mail**		E-mail
Scientific Committee Approval Date	10/06/2023	**Version Number**		1.0

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

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	The goal of this course is to help you understand the subject of calculus and demonstrate its fundamental role in various scientific fields, particularly in Statistics. Throughout the course, you will explore the two major concepts of calculus: the derivative and the integral, both of which have numerous practical applications.

Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Understanding Calculus, sketch a graph of an equation, find the intercepts of a graph, and find the domain and range of a function. 2. Understanding the types of functions, such that one-to-one, even and odd, and trigonometric. Able to solve trigonometric equations. 3. Able to define limits and continuity of functions and effectively evaluate them, Understand the properties associated with limits. 4. Define the derivative as a generalization of the slope of the tangent line to a curve. Gain an understanding of convenient formulas that allow us to calculate the derivative of almost any function we encounter. Acquire knowledge of convenient rules for evaluating derivatives. 5. Being able to find the absolute maximum and minimum values of a given function and identify its extrema. 6. Learning how the fundamental theorem of calculus and how differentiation and integration are inverse operations of each other.
Indicative Contents المحتويات الإرشادية	**Part A - Preliminaries** Understanding the concept of limits; Evaluating limits algebraically and graphically; One-sided limits and infinite limits; Defining continuity and its properties; Identifying discontinuities and types of discontinuities. [18 hrs.] **Part B - Derivatives** Basic rules and techniques of differentiation; Derivatives of exponential, logarithmic, and trigonometric functions; Derivatives of exponential, logarithmic, and trigonometric functions; Applications of Differentiation (Optimization problems). [36 hrs.] **Part C - Fundamental Theorem of Calculus** Understanding the connection between differentiation and integration and evaluating definite integrals using the Fundamental Theorem of Calculus. [6 hrs.] **Part D - Integration** Antiderivatives and indefinite integrals; Definite integrals and their properties; Techniques of integration, including substitution and integration by parts; Applications of Integration, including Area under a curve and the average value of a function, the average value of a function. [30 hrs.]

Learning and Teaching Strategies
استراتيجيات التعلم والتعليم

Strategies	Preparing Prerequisite Knowledge, begin each topic with real-world examples and applications to demonstrate the relevance and practicality of calculus to Encourage students to explore how calculus concepts are applied in various fields, such as statistics and computer science. Providing timely feedback on student work to identify, address errors, and reinforce learning through quizzes. Promoting collaborative learning by assigning problem-solving tasks. Encourage students to work together, explain concepts to their peers, and engage in collaborative problem-solving.

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	82	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

Module Evaluation

تقييم المادة الدراسية

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

Total assessment	100% (100 Marks)		

<table>
<tr><td colspan="2" align="center">**Delivery Plan (Weekly Syllabus)**
المنهاج الاسبوعي النظري</td></tr>
<tr><td>**Week**</td><td>**Material Covered**</td></tr>
<tr><td>Week 1</td><td>A Preview of Calculus - Reviewing Graphs and Types of Functions.</td></tr>
<tr><td>Week 2</td><td align="right">Review-Functions and Trigonometry</td></tr>
<tr><td>Week 3</td><td>Limits and continuity of functions</td></tr>
<tr><td>Week 4</td><td>Concept of Derivatives and the fundamental rules of Differentiation</td></tr>
<tr><td>Week 5</td><td>Product, Quotient, and Chain Rules</td></tr>
<tr><td>Week 6</td><td>Extrema on an Interval, Increasing and Decreasing Functions</td></tr>
<tr><td>Week 7</td><td>Concavity and Points of Inflection</td></tr>
<tr><td>Week 8</td><td>Mid-term Exam + Curve Sketching and Linear Approximations</td></tr>
<tr><td>Week 9</td><td>Applications-Optimization Problems</td></tr>
<tr><td>Week 10</td><td>Antiderivatives and Basic Integration Rules</td></tr>
<tr><td>Week 11</td><td>The Fundamental Theorem of Calculus</td></tr>
<tr><td>Week 12</td><td>Basic Rules and Techniques of Integration</td></tr>
<tr><td>Week 13</td><td>Differentiation and Integration of Exponential and Natural Logarithmic Functions</td></tr>
<tr><td>Week 14</td><td>The area under the region and between two curves.</td></tr>
<tr><td>Week 15</td><td>Volume-The Disk Method</td></tr>
<tr><td>Week 16</td><td>**Preparatory week before the final Exam**</td></tr>
</table>

<table>
<tr><th colspan="3">Learning and Teaching Resources
مصادر التعلم والتدريس</th></tr>
<tr><th></th><th>Text</th><th>Available in the Library?</th></tr>
<tr><td>Required Texts</td><td>مبادئ الرياضيات - التفاضل والتكامل، (1980)، علي عزيز علي وعبد الرزاق علي الحسوان وعادل زينل حسين</td><td>Yes</td></tr>
<tr><td>Recommended Texts</td><td>The Great Courses Study Workbook for Understanding Calculus Problems, Solutions, and Tips by Bruce H. Edwards, PhD Professor of Mathematics, University of Florida, 2010.</td><td>No</td></tr>
<tr><td>Websites</td><td></td><td></td></tr>
</table>

<table>
<tr><th colspan="5">Grading Scheme
مخطط الدرجات</th></tr>
<tr><th>Group</th><th>Grade</th><th>التقدير</th><th>Marks %</th><th>Definition</th></tr>
<tr><td rowspan="5">Success Group (50 - 100)</td><td>A – Excellent</td><td>امتياز</td><td>90 - 100</td><td>Outstanding Performance</td></tr>
<tr><td>B - Very Good</td><td>جيد جدا</td><td>80 - 89</td><td>Above average with some errors</td></tr>
<tr><td>C – Good</td><td>جيد</td><td>70 - 79</td><td>Sound work with notable errors</td></tr>
<tr><td>D - Satisfactory</td><td>متوسط</td><td>60 - 69</td><td>Fair but with major shortcomings</td></tr>
<tr><td>E – Sufficient</td><td>مقبول</td><td>50 - 59</td><td>Work meets minimum criteria</td></tr>
<tr><td rowspan="2">Fail Group (0 – 49)</td><td>FX – Fail</td><td>راسب)قيد المعالجة(</td><td>(45-49)</td><td>More work required but credit awarded</td></tr>
<tr><td>F – Fail</td><td>راسب</td><td>(0-44)</td><td>Considerable amount of work required</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
</table>

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

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information		
معلومات المادة الدراسية		

Module Title	**Calculus II**	**Module Delivery**
Module Type	**Basic**	⊠ Theory ⊠ Lecture ☐ Lab ⊠ Tutorial ☐ Practical ☐ Seminar
Module Code	**STAT108**	
ECTS Credits	**7**	
SWL (hr/sem)	**175**	

Module Level	UG1	**Semester of Delivery**	2
Administering Department	STAT	**College**	CSM
Module Leader	Dr. Heyam Abed Al-Majeed Hayawi	**e-mail**	he.hayawi@uomosul.edu.iq
Module Leader's Acad. Title	Assistant Prof.	**Module Leader's Qualification**	Ph.D.
Module Tutor	Rehad Emad Slewa	**e-mail**	alshamany@uomosul.edu.iq
Peer Reviewer Name		**e-mail**	E-mail
Scientific Committee Approval Date	10/06/2023	**Version Number**	1.0

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

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	The goal of this course is to the goal of this course is to further your understanding and appreciation of calculus as calculus I.

Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Being able to use the integration techniques such as integration by parts, trigonometric Substitution, and partial Fractions. 2. Gaining the ability to evaluate improper integrals where one of the limits of integration is infinite or not continuous. 3. Understanding the moments and centers of mass. Being able to find the balancing point of a planar area, or lamina. 4. Understanding the infinite series and their connection to the functions. 5. Defining infinite series is perhaps the most important topic in Calculus II. The concept of infinite series is based on sequences. 6. Being able to approximate a function with a polynomial to linear form. 7. Defining vectors and their properties.
Indicative Contents المحتويات الإرشادية	**Part A - Techniques of Integration** In this part, students learn various techniques to evaluate integrals more effectively. They explore methods such as integration by substitution, integration by parts, and trigonometric and hyperbolic substitutions. They also delve into partial fraction decomposition, which involves breaking down rational functions into simpler fractions. [42 hrs.] **Part B - Infinite Series** Infinite series plays a significant role in Calculus II. Students investigate the convergence and divergence of series and learn about important series, such as geometric series. Additionally, they encounter power series and Taylor series, which expand functions as infinite polynomials. [30 hrs.] **Part C - Vectors** Vectors and their properties are examined in this part. Students learn about vector operations, including addition, subtraction, and scalar multiplication. They explore the dot product and cross product, understanding their geometric and algebraic interpretations. [12 hrs.] **Part D - Moments, Centers of Mass** The students understand how to calculate moments using the cross-product and explore the concept of moments in different contexts. Students study the definition of the center of mass.[6 hrs.]

Learning and Teaching Strategies
استراتيجيات التعلم والتعليم

Strategies	Preparing Prerequisite Knowledge, begin each topic with real-world examples and applications to demonstrate the relevance and practicality of calculus to Encourage students to explore how calculus concepts are applied in various fields, such as statistics and computer science. Providing timely feedback on student work to identify, address errors, and reinforce learning through quizzes. Promoting collaborative learning by assigning problem-solving tasks. Encourage students to work together, explain concepts to their peers, and engage in collaborative problem-solving.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	82	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

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

Delivery Plan (Weekly Syllabus)

	المنهاج الاسبوعي النظري	
Week	**Material Covered**	
Week 1	Basic Functions of Calculus and Limits.	
Week 2	Trigonometric Integrals	
Week 3	Integration by Parts,	
Week 4	Integration by Trigonometric Substitution	
Week 5	Integration by Partial Fractions	
Week 6	applications of Integration methods	
Week 7	Mid-term Exam + Improper Integrals	
Week 8	Moments, Centers of Mass, and Centroids	
Week 9	Sequences and Limits	
Week 10	Infinite Series—Geometric Series	
Week 11	Series, Divergence, and	
Week 12	Taylor Polynomials and Approximations	
Week 13	Power Series and Intervals of Convergence	
Week 14	Vectors in the Plane	
Week 15	The Dot Product of Two Vectors	
Week 16	**Preparatory week before the final Exam**	

	Learning and Teaching Resources مصادر التعلم والتدريس	
	Text	**Available in the Library?**
Required Texts	NO	No

Recommended Texts	Understanding Calculus II: Problems, Solutions, and Tips, by Professor Bruce H. Edwards, University of Florida, 2013.	No
Websites		

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

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

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information		
معلومات المادة الدراسية		

Module Title	**Demography**		**Module Delivery**
Module Type	**Core**		☒ **Theory**
Module Code	**STAT109**		☒ **Lecture**
ECTS Credits	**6**		☐ **Lab**
			☒ **Tutorial**
SWL (hr/sem)	**150**		☐ **Practical**
			☐ **Seminar**

Module Level	UGI	**Semester of Delivery**	2
Administering Department	STAT	**College**	CSM
Module Leader	Dr. Noor Nawzat Ahmed	**e-mail**	nooalior@uomosul.edu.iq
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**	Ph.D.
Module Tutor	Dr. Noor Nawzat Ahmed	**e-mail**	nooalior@uomosul.edu.iq
Peer Reviewer Name		**e-mail**	
Scientific Committee Approval Date	10/06/2023	**Version Number**	1.0

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

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	Preparing the student to work in various statistics departments so that he begins collecting and disseminating demographic, social, and mathematical information in a scientific manner
Module Learning Outcomes	1. The student learns to study social and medical data related to the population because they are the source of all economic and non-economic activities, whether cultural, social, health, etc., and that these activities are linked and

مخرجات التعلم للمادة الدراسية	affect each other.
	2. .2The student will learn how to obtain demographic data and methods for detecting and correcting errors to which demographic data are exposed.
	3. .3The student will learn how to conduct a census and population survey, as well as be able to make population predictions
	4. .4The student must master the composition and analysis of routine life tables, clinical tables, and calculation of life expectancy rates
	5. .5Calculate severity metrics and analyze survival data
Indicative Contents المحتويات الإرشادية	1. .1Introduction to population statistics, sources of population data, types of population societies, calculating demographic indicators, and calibrating rates (13 hours)
	2. .2Methods for detecting errors in demographic data and methods for revising demographic data (12hr)
	3. .3Population forecasting (12hr)
	4. .4Construct and analyze usual and clinical life tables (12hr)
	5. .5Calculating life rates and measures of the relationship between life factors, relative risk, its types and rates, and analyzing survival data and survival patterns. (14hr)

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	The main strategy to be adopted is to encourage students to learn how to obtain and analyze demographic data and to expand and refine their critical thinking skills through lectures and through reports that the students will prepare.

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	87	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**150**		

Module Evaluation
تقييم المادة الدراسية

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

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction of Demography- Sources of Population Data
Week 2	Benefits of Statistical Demography
Week 3	Age, gender, and economic composition of the population
Week 4	Population pyramid
Week 5	Demographic indicators and the rates on which studies are based
Week 6	Methods of adjusting rates
Week 7	Study of data evaluation, age and gender composition, and detection of errors related to demographic data
Week 8	Methods for refining demographic data
Week 9	Matching mathematical functions for population forecasting
Week 10	Building regular life schedules
Week 11	Construct clinical life tables - Analysis of life tables
Week 12	Life rates - Measures of the relationship between life factors
Week 13	Relative risk, its types and rates - Midterm Exam

Week 14		Relative risk, its types and rates
Week 15		Analysis of survival data and survival pattern
Week 16		**Preparatory week before the final Exam**

	Learning and Teaching Resources	
	مصادر التعلم والتدريس	
	Text	**Available in the Library?**
Required Texts	"DEMOGRAPHY"- lecture node- UNIVERSITY OF AGRICULTURE, ABEOKUTA COLLEGE OF NATURAL SCIENCES DEPARTMENT OF STATISTICS	No
	الاحصاء الديموغرافي/عبد الحسين الزيني	Yes
Recommended Texts		No
Websites	Introduction to Demography / www.population-europe.eu	

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

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

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

<table>
<tr><td colspan="4" align="center">Module Information
معلومات المادة الدراسية</td></tr>
<tr><td>Module Title</td><td><u>MATLAB programming</u></td><td colspan="2">Module Delivery</td></tr>
<tr><td>Module Type</td><td><u>Basic</u></td><td colspan="2" rowspan="3">☒ Theory
☒ Lecture
☒ Lab
☐ Tutorial
☐ Practical
☐ Seminar</td></tr>
<tr><td>Module Code</td><td><u>STAT110</u></td></tr>
<tr><td>ECTS Credits</td><td><u>5</u></td></tr>
<tr><td>SWL (hr/sem)</td><td><u>125</u></td></tr>
<tr><td>Module Level</td><td>UGI</td><td>Semester of Delivery</td><td>2</td></tr>
<tr><td>Administering Department</td><td>STAT</td><td>College</td><td>CSM</td></tr>
<tr><td>Module Leader</td><td>Hyllaa Anas Abdul-Majeed</td><td>e-mail</td><td>hyllaa.77@uomosul.edu.iq</td></tr>
<tr><td>Module Leader's Acad. Title</td><td>Lecturer</td><td>Module Leader's Qualification</td><td>MSc.</td></tr>
<tr><td>Module Tutor</td><td></td><td>e-mail</td><td></td></tr>
<tr><td>Peer Reviewer Name</td><td></td><td>e-mail</td><td></td></tr>
<tr><td>Scientific Committee Approval Date</td><td>10/06/2023</td><td>Version Number</td><td>1.0</td></tr>
</table>

<table>
<tr><td colspan="4" align="center">Relation with other Modules
العلاقة مع المواد الدراسية الأخرى</td></tr>
<tr><td>Prerequisite module</td><td>None</td><td>Semester</td><td></td></tr>
<tr><td>Co-requisites module</td><td>None</td><td>Semester</td><td></td></tr>
</table>

<table>
<tr><td colspan="2" align="center">Module Aims, Learning Outcomes and Indicative Contents
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية</td></tr>
<tr><td>Module Objectives
أهداف المادة الدراسية</td><td>

1. 1- Perform complex calculations very quickly
2. 2- Derivation of logarithms
3. 3- Simulation and design of various systems in all branches of science and industry
4. 4- Data analysis and exploration
5. 5- Drawing in two and three dimensions (2D-3D)

</td></tr>
</table>

	6. 6-solve problems that are difficult for the researcher to do in the usual ways
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Know the basic axioms of the MATLAB language. 2. The ability to operate the system and identify its windows. 3. The ability to write and implement simple programs. 4. The ability of the MATLAB program to perform mathematical operations in vectors or matrices. 5. Identify ready-made instructions for solving problems or programming them. 6. The possibility of writing programs in the MATLAB language when the classical methods fail to solve them. 7. 8. The possibility of solving problems in MATLAB language, including numerical solutions 9. Develop skill in dealing with programs similar to MATLAB. 10. Encourage the student to look at books and extract information from them 11. One of the most important outputs is building a basic base for the student to move to future stages of subjects in which probability theory is a basis.
Indicative Contents المحتويات الإرشادية	Part - Introduction to the MATLAB Introduction to the MATLAB program and the Windows program, clarifying some important instructions and commands, writing data in the program, matrices in the matlab program, and creating matrices based on the instructions. [12 hrs] Part - Create matrices in MATLAB Writing the matrix in the program, some instructions used in the matrix, creating a row, column, or vector matrix with consecutive elements, some other instructions for creating matrices finding the inverse, determinant, and rank of the matrix in matlab, and reshaping matrices. [12 hrs] Part – Algebraic operations in matlab Algebraic operations on matrices in matlab, matrix elevation, finding the square root of a matrix and also boolean signs in matlab. [12 hrs] Part - Boolean directives in MATLAB Using (and), (or) between arrays whose elements are (1,0), and how to write input and output statements. [12 hrs] Part - Writing programs in MATLAB language And how to write a simple program based on writing the program using (for -end), drawing in MATLAB, conditional cases (if-end), using dashes (for the end) and (if the end) together. [15 hrs]

Learning and Teaching Strategies
استراتيجيات التعلم والتعليم

Strategies	The main strategy that will be adopted in providing solutions to some of the problems that the student faces in solving them when they cannot be solved by classical methods, by programming these solutions to reach the best solution depending on the programming

language, including the MATLAB language that is commonly used in scientific departments, including statistics, and in the applied fields of the market Work as well as gain skills in developing solutions by encouraging students to participate in exercises, while improving and expanding critical thinking skills at the same time. This will be achieved through classes and interactive educational programs by identifying the directives of the MATLAB language program and getting to know the system of the system so that the student acquires the skill in programming to benefit from in the field of his studies, primary and higher

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	62	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	251		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (15)	3 and 9	LO #1, #2 AND #4, #5, #6
	Assignments	2	15% (15)	4 and 12	LO #3, #4 and #7
	Report	1	10% (10)	13	LO #9
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #10
	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 the MATLAB program and the Windows program, clarification of some important instructions and commands, and writing data in the program
Week 2		Matrices in the MATLAB program, and methods of writing the matrix in the program
Week 3		Some instructions used in the matrix
Week 4		Creates a row, column, or matrix vector with consecutive elements, and Create matrices based on instructions
Week 5		Mid-term Exam + Some other instructions for creating matrices
Week 6		Finding the inverse, determinant, and rank of a matrix in MATLAB , and reshaping matrices
Week 7		Adding new elements to the matrix, deleting some elements of the matrix, and changing the values of some elements of the matrix and submatrix
Week 8		Algebraic operations on matrices in the MATLAB program, raising the matrix, finding the square root of the matrix and also logical signs in the MATLAB program

Week 9	Using (and), (or) between matrices whose elements are (1,0), and how to write input and output sentences
Week 10	loops, and how to write a simple program
Week 11	Writing the program using (for -end)
Week 12	Mid-term Exam +Drawing in MATLAB
Week 13	Conditional (if-end) cases
Week 14	Using the (for-end) and (if-end) conditionals together
Week 15	use loop(while-end)
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus)
المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Lab 1: Introduction to MATLAB and its main windows and writing data in the program
Week 2	Lab 2: Application examples for Matrices in the MATLAB program, and methods of writing the matrix in the program
Week 3	Lab 3: Application examples for Some instructions used in the matrix
Week 4	Lab 4: Application examples for Creates a row, column, or matrix vector with consecutive elements, and Create matrices based on instructions
Week 5	Lab 5: Application examples for Some other instructions for creating matrices
Week 6	Lab 6: Application examples for Finding the inverse, determinant, and rank of a matrix in MATLAB, and reshaping matrices
Week 7	Lab 7: Application examples for Adding new elements to the matrix, deleting some elements of the matrix, and changing the values of some elements of the matrix and submatrix
Week 8	Lab 8: Application examples for Algebraic operations on matrices in the MATLAB program, raising the matrix, finding the square root of the matrix and also logical signs in the MATLAB program
Week 9	Lab 9: Application examples for Using (and), (or) between matrices whose elements are (1,0), and how to write input and output sentences
Week 10	Lab 10: Application examples for loops, and how to write a simple program
Week 11	Lab 11: Application examples for Writing the program using (for -end)
Week 12	Lab 12: Application examples for Drawing in MATLAB
Week 13	Lab 13: Application examples for Conditional (if-end) cases
Week 14	Lab 14: Application examples for Using the (for-end) and (if-end) conditionals together
Week 15	Lab 15: Application examples for use loop(while-end)

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts		
Recommended Texts	"تطبيقات MATLAB الحلول العددية" ، ياسين احمد الشبول، 2004	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 DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information		
معلومات المادة الدراسية		

Module Title	**Computer**	**Module Delivery**
Module Type	**Basic**	☒ Theory
Module Code	**UOM103**	☒ Lecture
ECTS Credits	**3**	☒ Lab
SWL (hr/sem)	**75**	☐ Tutorial ☐ Practical ☐ Seminar

Module Level	UGI	**Semester of Delivery**	2
Administering Department	STAT	**College**	CSM
Module Leader	Dr. Alla Abd AlStaar Hamoodat	**e-mail**	allahamoodat@uoMOSUL.edu.iq
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**	Dr.
Module Tutor	Dr. Alla Abd AlStaar Hamoodat	**e-mail**	allahamoodat@uoMOSUL.edu.iq
Peer Reviewer Name		**e-mail**	
Scientific Committee Approval Date	10/06/2023	**Version Number**	1.0

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

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1. Improved Communication: Fast communication can help increase productivity, allow for better business decisions and facilitate company expansion into new regions or countries. The movement of information within organizations or companies has become instantaneous. Employees can easily transfer data across departments without any interruption. Tools such as email, electronic fax, mobile phones, and text messages enhance the movement of information data between employees, customers, and business partners or suppliers, allowing for greater connectivity across internal and external structures. 2. • Improved Communication: Fast communication can help increase productivity, allow for better business decisions and facilitate company expansion into new regions or countries. The movement of information within organizations or companies has become

	instantaneous. Employees can easily transfer data across departments without any interruption. Tools such as email, electronic fax, mobile phones, and text messages enhance the movement of information data between employees, customers, and business partners or suppliers, allowing for greater connectivity across internal and external structures.
	3. Work: Streamlined workflow systems, shared storage, and collaborative workspaces can increase business efficiency and allow employees to process a greater level of work in a shorter period of time. Information technology systems can be used to automate routine tasks, to facilitate data analysis and to store data in a way that can be easily retrieved for future use. Technology can also be used to answer customer questions through email, in a real-time chat session, or through a phone routing system that connects the customer to an available customer service agent.
	4. Cost Reduction and Economic Efficiency: Communication technology and social technology have made business promotion and product launch affordable. Many small businesses have found ways to use social technology to increase their brand awareness and get more customers for less. In business, factors such as operating cost play an important role in business development and growth. So when companies use information technology to reduce operating costs, the return on investment will increase, which will lead to business growth.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Enhancing the ability of information technology to adapt and respond to the multiple, renewable and constantly changing needs of all parties benefiting from the outputs of the information system, especially the university leaders in the researched university, and thus enables information technology to carry out its work efficiently and effectively. Predicting the studied phenomenon in the future by means of Box-Jenkins model. 2. Employing information technologies in the axes of the educational process worked to build a bridge of vital communication between faculty members and all sources of the educational process, and this necessarily means facilitating the teacher's task in delivering information to the student within an interactive technical environment, and information technologies provide multiple sources in order to obtain information Whether it is from sources within the university or from the Internet and the educational technologies it contains.
Indicative Contents المحتويات الإرشادية	Although the information technology specialization is one of the most demanded fields currently in all global markets, some specializations range from stagnant to saturated and required, so you should study the market well before choosing a specialization. But if you are looking for the best majors that have a future in the field of information technology, then they are as follows: Network security major in programming - software engineering - 3D printing - data science major - Artificial Intelligence - Computer Science - Aerospace Engineering

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 by Using appropriate teaching strategies and methods and teaching aids to develop thinking skills.

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	12	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

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

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Getting to know the computer and the history of its stages of development - indicating the types of computers - installing the computer - defining the physical parts
Week 2	Data entry units and data output units to the computer - The central processing unit and its tasks
Week 3	Primary and secondary memories - Types of displays
Week 4	Software
Week 5	Computer operating systems
Week 6	Low-level languages and high-level languages
Week 7	Service application software
Week 8	Getting to know the Word program - How to open or run the program - Transforming the Word program interface - Word program menus.
Week 9	Home Toolbar - Home Page Insert Menu - Toolbar - Insert Menu - Page Layout
Week 10	Microsoft Excel - the most common uses of the Excel program - opening the Excel program - closing the Excel program - an explanation of the main toolbar of the Excel program
Week 11	Entering data in Excel program - how to navigate in a worksheet - inserting a function from the ready-

	made functions into a cell - examples - shading cells - clearing cells
Week 12	The basics of building a POWER POINT presentation - entering the program and the program interface - creating a new presentation
Week 13	Open a presentation file - save a presentation - insert a new slide - add shapes to the slide - slide margins - slide design - add animations to the slide
Week 14	Internet - services provided by the Internet - keywords, comprehensive search engines
Week 15	Create an E-mail
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus)
المنهاج الاسبوعي للمختبر

	Material Covered
Lab 1	Word applications
Lab 2	Applications on Excel
Lab 3	PowerPoint applications
Lab 4	E-mail applications

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Fundamentals of Information Technology	Yes
Recommended Texts	Glend Gay and Ronald B., "Information Technology", 3 rd Ed, CSEC,OUP Oxford,2019.	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 DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information
معلومات المادة الدراسية

Module Title	**Linear Algebra**		**Module Delivery**
Module Type	**Basic**		☒ Theory
Module Code	**STAT104**		☒ Lecture
ECTS Credits	**6**		☐ Lab
SWL (hr/sem)	**150**		☒ Tutorial
			☐ Practical
			☐ Seminar
Module Level	UGI	**Semester of Delivery**	1
Administering Department	STAT	**College**	CSM
Module Leader	Hyllaa Anas Abdul-Majeed	**e-mail**	hyllaa.77@uomosul.edu.iq
Module Leader's Acad. Title	Professor	**Module Leader's Qualification**	MSc.
Module Tutor		**e-mail**	
Peer Reviewer Name		**e-mail**	
Scientific Committee Approval Date	10/06/2023	**Version Number**	1.0

Relation with other Modules
العلاقة مع المواد الدراسية الأخرى

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

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

Module Objectives أهداف المادة الدراسية	1- The student discusses vector spaces and related abstract concepts. 2- The student is familiar with the algebraic concepts and terminology of matrices and determinants and inverses, and uses creative thinking in the use of elementary transformation methods. 3-Learn about systems of linear equations and their applications. 4-Recognize the basis and dimension of vector spaces.
Module Learning Outcomes	1- Algebraic operations on matrices and calculating determinants. 2- Solve linear systems. 3 - Learn about vector spaces and algebraic operations on them. 4- Self-learning method

مخرجات التعلم للمادة الدراسية	5- One of the most important outputs is building a base for the student to move to the basic stages of subjects in which matrices and linear equations are the basis. 6- Encourage the student to look at books and extract information from them
Indicative Contents المحتويات الإرشادية	Part (1) - Definition of matrix, its types, algebraic operations on matrices and determinants, methods of finding the determinant and their properties. [13 hours] Part (2) - inverse and methods of finding the inverse of a matrix and its properties. [11 hours] Part (3) - Linear Equations and Methods for Solving Linear Equations. [14 hours] Part (4) - rank of matrix, The canonical form and equivalent matrices, and rank relation with equations. [14 hours] Part (5) - Latent roots, vectors, algebraic operations on vectors, linear composition, distance and Euclidean length. [11 hours]

Learning and Teaching Strategies
استراتيجيات التعلم والتعليم

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

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

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

Module Evaluation
تقييم المادة الدراسية

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

		Material Covered
Week 1		Definition of matrices and types
Week 2		Algebraic processes on matrices
Week 3		Determinants, Determinant solution methods
Week 4		properties of the determinant
Week 5		Mid-term Exam + Inverse matrix using the matrices method (the adjoint of matrix)
Week 6		Inverse matrix using Gaussian deletion method
Week 7		The properties of the inverse matrix
Week 8		Linear equations, Methods of solving linear equations in the case of m = n
Week 9		Method of matrices to solve linear equations in the case of m> n
Week 10		rank of matrix, The canonical form
Week 11		equivalent matrices, Relationship of ranks and linear equations m>n
Week 12		Mid-term Exam + Relationship of ranks and linear equations m=n
Week 13		Latent roots of order (2x2), (3x3)
Week 14		Vector and Algebraic processes on vector, Euclidean length and Euclidean distance
Week 15		Linear Composition
Week 16		**Preparatory week before the final Exam**

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	الجبر الخطي، عبد المجيد حمزة ولميعة باقر	Yes
Recommended Texts	Elementary and Intermediacies Algebra (2)—Mark Dugopolski	No
Websites		

Grading Scheme
مخطط الدرجات

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

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

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			

Module Title	**Basics Programming**	Module Delivery	
Module Type	**Basic**	☒ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**STAT103**		
ECTS Credits	**6**		
SWL (hr/sem)	**150**		

Module Level	UGI	Semester of Delivery	1
Administering Department	STAT	**College**	CSM
Module Leader	Shyma Shakeeb Mohammd	**e-mail**	shymshak@uomosul.edu.iq
Module Leader's Acad. Title	Assistant Lecturer	**Module Leader's Qualification**	MSc.
Module Tutor	Husham Y. A. Alameen	**e-mail**	hisham.alameen@uomosul.edu.iq
Peer Reviewer Name		**e-mail**	
Scientific Committee Approval Date	10/06/2023	**Version Number**	1.0

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

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	The objective is to learn the student the fundamental of programming through practical application using the C++ programming language. In this course, students will learn about: The basic programming and OOPs concepts. Creating C++ programs, Tokens, expressions and control structures in C++. Arranging same data systematically with arrays. Classes and objects in C++. Constructors and destructors in C++. Files management and templates in C++. Handling exceptions to control errors.
Module Learning	After completing this course, the student will have acquired basic information

Outcomes مخرجات التعلم للمادة الدراسية	in the science of computer programming through the following outcomes for learning this module, and these outcomes are: 1. Understand tokens, expressions, and control structures. 2. Explain arrays and strings and create programs using them. 3. Describe and use constructors and destructors. 4. Understand and employ file management. 5. Demonstrate how to control errors with exception handling. 6. Use functions and pointers in C++ program. 7. Describe OOPs concepts.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. <u>Part A – Introduction C++ and Basic programming</u> Understanding Language Features, history, covers C++ statements and expressions, constants, variables, operators, and how to control execution flow in applications. Exploring C++ Types, describes C++ built-in types, aggregated types, type aliases, initializer lists, and conversion between types. Rules of C++ programming, structure of C++ program, C++ Tokens (Identifiers, Keywords, Constants, Operators, Special characters), C++ data types (Basic, Derived, User defined). Console I/O statements (cin, cout), programs to perform various calculations, programs to implement various operators. [15 hrs] Arrays and Control statements: definition, advantages, array types, single dimension, double dimension, declaration, accessing array data, implementation of array operations. Conditional control statements, if-else, switch-case, loops, while, do while, for. Implementing programs on conditional & loops, break, continue, go to keywords. [15 hrs] <u>Part B – Functions and Object-oriented programming</u> Gives a thorough description of the fundamental characteristics of the object-oriented C++ programming language. In addition, students are introduced to the steps necessary for creating a fully functional C++ program. Many examples are provided to help enforce these steps and to demonstrate the basic structure of a C++ program. [15 hrs] Describes how to declare and call standard functions. This will also teach students to use standard classes, including standard header files. In addition, students work with string variables for the first time in this topic. Explains the use of streams for input and output, with a focus on formatting techniques. Formatting flags and manipulators are discussed, as are field width, fill characters, and alignment. [7 hrs] Introduces operators needed for calculations and selections. Binary, unary, relational, and logical operators are all examined in detail. Also, describes the statements needed to control the flow of a program. These include loops with while, do-while, and for; selections with if-else, switch, and the conditional operator; and jumps with goto, continue, and break. [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 الدراسي للطالب محسوب لـ ١٥ اسبوعا

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

Module Evaluation
تقييم المادة الدراسية

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

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

	Material Covered
Week 1	Structure of Simple C++ Programs
Week 2	Fundamental Types: characters identifiers, variable declaration, constants.
Week 3	Operators for fundamental types: Binary Arithmetic Operators, Unary Arithmetic Operators, Relational Operators, Logical Operators.

Week 4	Arithmetic operations: converting arithmetic types, implicit type conversions, performing usual arithmetic type conversions, more type conversions.
Week 5	Arrays: defining arrays, initializing arrays, class arrays, multidimensional arrays, member arrays.
Week 6	Library files " header"
Week 7	Assign statements
Week 8	Conditional statements
Week 9	Control Flow: loops, the for statement, the while statement, the do-while statement, selections with if-else.
Week 10	Control Flow to complete: else-if chains, conditional expressions, selecting with switch, jumps with break, continue, and go to.
Week 11	The Standard Class string: defining and assigning strings, concatenating strings, comparing strings, inserting and erasing in strings, searching and replacing in strings, accessing characters in strings.
Week 12	Input and Output with Streams: streams, formatting and manipulators, formatted output of integers, formatted output of floating-point numbers, output in fields, output of characters.
Week 13	Functions: significance of functions in C++, defining functions, return value of functions, passing arguments, inline functions.
Week 14	Functions: default arguments, overloading functions, recursive functions.
Week 15	Strings, and Boolean values, formatted input, formatted input of numbers, unformatted input/output.
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus)	
المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: An introduction to installing programs on a computer, C++ installation with its libraries.
Week 2	Lab 2: Characters identifiers
Week 3	Lab 3: Variables declaration
Week 4	Lab 4: Constants
Week 5	Lab 5: Arithmetic operations
Week 6	Lab 6: library files " header"
Week 7	Lab 7: Assign statement
Week 8	Lab 8: "if "conditional statements
Week 9	Lab 9: "if – else "conditional statements
Week 10	Lab 10: Array
Week 11	Lab 11:" for loop"

Week 12	Lab 12:"while loop"
Week 13	Lab 13: Functions
Week 14	Lab 14: Functions
Week 15	Lab 15: String

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Introduction to C++, Brian Gregor, Research Computing Services. Part 1	NO
Recommended Texts	How To Program, 2016, Pule & Harvey (10 Edition)	NO
Websites		

Grading Scheme
مخطط الدرجات

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

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

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information
معلومات المادة الدراسية

Module Title	**English Language I**		**Module Delivery**
Module Type	**Basic**		☒ **Theory**
Module Code	**UOM102**		☒ **Lecture**
ECTS Credits	**2**		☐ **Lab**
SWL (hr/sem)	**50**		☐ **Tutorial**
			☐ **Practical**
			☐ **Seminar**

Module Level	UGI	**Semester of Delivery**	2
Administering Department	STAT	**College**	CSM
Module Leader	Hajer Akram Jasim Ali	**e-mail**	hajerakram@uomosul.edu.iq
Module Leader's Acad. Title	Asst. lecturer	**Module Leader's Qualification**	MSc.
Module Tutor	None	**e-mail**	
Peer Reviewer Name		**e-mail**	
Scientific Committee Approval Date	11/06/2023	**Version Number**	1.0

Relation with other Modules
العلاقة مع المواد الدراسية الأخرى

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

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

Module Objectives أهداف المادة الدراسية	1. To be able to speak English fluently and accurately. 2. To think in English and then speak. 3. To be able to talk in English. 4. To be able to compose freely and independently in speech and writing. 5. To be able to read books with understanding.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. To address grammar issues that students encounter in their daily speech, writing, reading, and listening 2. To address the issue of grammatical errors that affect effective communication 3. To improve your reading skills through the practice of vocabulary enrichment, reading

	comprehension exercises, speed reading strategies, written responses, discussions, and reflections
	4. Recognize the structure and organization of paragraphs,
	5. Use strategies to think critically about reading and use appropriate technology to enhance reading comprehension, reading speed, and vocabulary development
	6. Develop writing skills.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. Introduction: about new headway pre-intermediate plus [1 hrs] Tenses: past-present-future, wh- questions. Vocabulary- using a bilingual dictionary, reading (communication). Everyday English (social expressions) [9 hrs] Grammar: Review about tenses, Present tenses, have and have got. Vocabulary: about (daily life), listening and match between verb and nouns. Practices about simple present and present continuous, Reading: about living in the USA. Social expressions about every day English. [8 hrs] Past tenses, simple past and past continuous, practice, Reading and listening, regular and irregular verbs. Vocabulary: about N.- V.- Adj. endings. Everyday English (time expressions). [6hrs] Grammar: the quantities, also about Something/someone/somewhere, practices. Reading: about markets, practices. [6 hrs]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	developing the four skills: The main strategy that will be adopted in The skill of speaking, The skill of reading, The skill of writing, The skill of listening, Also, it enables the students for the use grammar correctly,

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا				
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**50**		

Module Evaluation

تقييم المادة الدراسية

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

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Reading passage: Are You Getting Enough Sleep?
Week 2	• Building Vocabulary • Doing exercises: A • Words to remember Ask Students (According to attendance list) to write a short paragraph or report related to their field and use technical terminologies to enhance their English within their major
Week 3	• Reading passage: Mika's Homestay in London. • Students would explain their assignments about their major.
Week 4	• Building Vocabulary • Doing exercises: A-B • Words to remember Ask Students (According to attendance list) to write a short paragraph or report related to their field and use technical terminologies to enhance their English within their major.
Week 5	• Reading passage: It's Not Always Black and White. • Students would explain their assignments about their major.
Week 6	• Building Vocabulary • Doing exercises: A • Words to remember Ask Students (According to attendance list) to write a short paragraph or report related to their field and use technical terminologies to enhance their English within their major.
Week 7	• Reading passage: Helping Others.

	• Students would explain their assignments about their major. •
Week 8	• Building Vocabulary • Doing exercises: A • Words to remember Ask Students (According to attendance list) to write a short paragraph or report related to their field and use technical terminologies to enhance their English within their major.
Week 9	• Reading passage: Generation Z: Digital Nations. • Students would explain their assignments about their major.
Week 10	• Building Vocabulary • Doing exercises: A-B • Words to remember Ask Students (According to attendance list) to write a short paragraph or report related to their field and use technical terminologies to enhance their English within their major.
Week 11	• Reading passage: How to Be a Successful Businessperson. • Students would explain their assignments about their major.
Week 12	Mid-term Exam.
Week 13	• Building Vocabulary • Doing exercises: A • Words to remember Ask Students (According to attendance list) to write a short paragraph or report related to their field and use technical terminologies to enhance their English within their major.
Week 14	• Reading passage: The Growth of Urban Farming. • Students would explain their assignments about their major.
Week 15	• Building Vocabulary • Doing exercises: A-B • Words to remember Ask Students (According to attendance list) to write a short paragraph or report related to their field and use technical terminologies to enhance their English within their major.
Week 16	**Preparatory week before the final Exam**

Delivery Plan (Weekly Lab. Syllabus)	
المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	None

Week 2		None
Week 3		None
Week 4		None
Week 5		None
Week 6		None
Week 7		None

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Select Readings Teacher-approved readings for today's students pre-intermediate 2nd Ed. By: Linda Lee + Eric Gundersen	Yes
Recommended Texts	Select Readings Elementary	Yes
Websites	https://www.libgen.is/search.php?req=select+readings+pre-intermediate&open=0&res=25&view=simple&phrase=1&column=def	

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.