

**Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department**



Academic Program and Course Description Guide

2025

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name:

Faculty/Institute:

Scientific Department:

Academic or Professional Program Name:

Final Certificate Name:

Academic System:

Description Preparation Date:

File Completion Date:



Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:





العدد: ٢٠٢٦/٢/٢٣
التاريخ: ٢٠٢٦/٢/٢٣

أمر إداري م/ إعادة تشكيل لجنة

إشارة الى أمرنا الإداري المرقم (٢٠٦٢/١٨/٧) في (٢٠٢٥/١٠/١٥) المتضمن تشكيل لجنة و استناداً الى الصلاحيات المخولة لنا،
تقرر إعادة تشكيل لجنة تطوير المناهج الدراسية في قسم نظم المعلومات الحاسوبية للعام الدراسي ٢٠٢٦/٢٠٢٥ من الذوات التدريسيين المدرجة أسمائهم أدناه:

ت	الاسم	العضوية
١	أ.م. بيداء عبد القادر خضر	رئيساً
٢	أ.د. زينب إبراهيم عثمان	عضواً
٣	أ.د. ميساء عبد الكريم ناصر	عضواً
٤	أ.م.د. سلمى عبد الباقي محمود	عضواً
٥	أ.م.د. علياء سلمان صابر	عضواً
٦	أ.م. مروة كامل حسين	عضواً

أ.د. هشام كاظم هاشم
عميد الكلية
٢٠٢٦/٢/٢٣

نسخة منه الى////

- مكتب السيد العميد
- مكتب السيد معاون العميد للشؤون العلمية/ مع التقدير
- قسم نظم المعلومات الحاسوبية/ مذكرتك المرقمة ٨٨ في ٢٠٢٦/٢/١٦
- الذوات اعلاه
- شعبة الحسابات/ لإجراء اللازم
- شعبة الموارد البشرية/ الملف الشخصي
- ملفه الكتب الصادرة

رجاء ٢٠٢٦/٢/٢٣

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information				
معلومات المادة الدراسية				
Module Title	Computer ProgrammingI		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	CSIT0101			
ECTS Credits	7			
SWL (hr/sem)	175			
Module Level	1	Semester of Delivery		1
Administering Department	CIS	College	CSIS	
Module Leader	NOOR Muhamed Jumaa		e-mail	Noor-jumaa@gmail.com
Module Leader's Acad. Title	Assist	Module Leader's Qualification	MSc	
Module Tutor	Name (if available)		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date	01/09/2025	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

<p>Module Objectives</p> <p>أهداف المادة الدراسية</p>	<ol style="list-style-type: none"> 1. Learn of programming languages provides added insight into other fields. 2. Learn an understanding of the effective and responsible use and management of program language is important for managers and other business knowledge workers in today's global information Society. 3. Learn that people must understand the components of programming language and how all of these components work together to bring value to an organization. 4. We need to turn our attention to the role that programming language play in today's global information Society.. 5. The competitiveness of most companies is in a large degree based on the effective use of information systems, therefore we must to think about what advantages and disadvantages Can bring to the businesses and society the integrating information system. 6. what a programming language ? A language is a group of interrelated statement working together toward a common goal by accepting inputs and producing outputs in an organized transformation process 7. why learning algorithm? 8. why learning Flow chart? 9. Why learn about Basic input/output? <ul style="list-style-type: none"> - Cin/cout. 10. Why learn about loop type? <ul style="list-style-type: none"> - for..loop - while..loop 11. Why Learn about functions? <ul style="list-style-type: none"> - Defining a Function, Calling a Function, Function Arguments(Call by value, Call by Reference)
<p>Module Learning Outcomes</p> <p>مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1- Give the student the most important skills to become a C++ power users have a broad understanding of C++ language and they know which tool or function is best used in a given situation. 2- Learn the most important skills to deal with if statement and nested if statement. 3- Learn the most important skills to deal with for statement and nested for statement.(Loop types) 4- Learn how to write and use the most important functions
<p>Indicative Contents</p> <p>المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <ul style="list-style-type: none"> - <u>Principles of electronic</u> How can use C++ program , entering of variable types , basic input/output statement, and type of operators. - IF TYPE

	<p>If statement,nested if statement.</p> <ul style="list-style-type: none"> - <u>LOOP TYPES</u> For loop,nested for loop ,while,do while . - <u>Function</u> Defining a Function, Calling a Function, Function Arguments(Call by value, Call by Reference)
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Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<p>The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes and the lab, interactive tutorials, and by considering types of simple experiments involving some sampling activities that are interesting to the students.</p>

Student Workload (SWL) الحمل الدراسي للطلاب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	62	Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	113	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	5
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب خلال الفصل	200		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative	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	Introduction to Computer Programming language
Week 2	Algorithm Design
Week 3	Flowcharts
Week 4	COMMENTS IN C++
Week 5	DATA TYPES
Week 6	VARIABLE TYPES
Week 7	CONSTANTS/LITERALS
Week 8	BASIC INPUT/OUTPUT
Week 9	OPERATORS
Week 10	DECISION-MAKING STATEMENTS
Week 11	LOOP TYPES (for ..loop)
Week 12	LOOP TYPES(while..loop)
Week 13	LOOP TYPES(Do..while loop)
Week 14	FUNCTIONS
Week 15	FUNCTIONS(void)
Week 16	Exam

Delivery Plan (Weekly Lab. Syllabus)	
المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: learning how can use program C++
Week 2	Lab 2: execute many examples of statements BASIC INPUT/OUTPUT
Week 3	Lab 3: execute many examples of VARIABLE TYPES
Week 4	Lab 4: execute many examples of if statement
Week 5	Lab 5: execute many examples of nested if statement
Week 6	Lab 6: execute many examples of switch statement

Week 7	Lab 7: execute many examples of for..loop statement
Week 8	Lab 8 execute many examples of for..loop statement
Week 9	Lab9: execute many examples of nested for..loop statement
Week 10	Lab 10: execute many examples of nested for..loop statement
Week 11	Lab 11: execute many examples of While..loop statement
Week 12	Lab 12: execute many examples of Do..While..loop statement
Week 13	Lab 13:execute many examples of functions
Week 14	Lab 14: execute many examples of functions(void)
Week 15	Lab15: execute many examples of functions(void)

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1. Fundamentals of Programming C++, Richard L. Halterman, school of Computing Southern Adventist University, December 2, 2018. 2. A first book of c++ by Gary Bronson, 4th edition, 2012 by Gary Bronson 3. Problem solving with c++ by Walter Savitch, 7th edition, 2009. 4. C++: The Complete Reference by Herbert Schildt, 4th edition, 2003	Yes
Recommended Texts	تعلم لغة (C++) للمبتدئين ; لغات البرمجة للمبتدئين	Yes
Websites	https://www.programiz.com/cpp-programming	

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	Information System Principles		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	CSITCIS103			
ECTS Credits	6			
SWL (hr/sem)	150			
Module Level	1	Semester of Delivery		1
Administering Department	CIS	College	CSIS	
Module Leader	Marwah Kamil Hussein		e-mail	Marwa.hussein@uobasrah.edu.iq
Module Leader's Acad. Title	Ass. Prof.		Module Leader's Qualification	A.P.
Module Tutor	Name (if available)		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date	01/09/2025		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

<p>Module Objectives أهداف المادة الدراسية</p>	<ol style="list-style-type: none"> 1. Learn having an understanding of information Systems provides added insight into other fields. 2. Learn an understanding of the effective and responsible use and management of information systems is important for managers and other business knowledge workers in today's global information Society. 3. Learn that people must understand the components of information systems and how all of these components work together to bring value to an organization. 4. We need to turn our attention to the role that information systems play in an Organization. 5. The competitiveness of most companies is in a large degree based on the effective use of information systems, therefore we must to think about what advantages and disadvantages Can bring to the businesses and society the integrating information system
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1. Identify components of an information systems infrastructure and their role in achieving organization goals. (SO:0; PI:0.1) 2. 2. Relate how information systems are enabling new forms of commerce and collaboration between individuals, organizations, and governments. (SO:6; PI:6.2) 3. 3. Explain the use of information system in an organization and its value in supporting organizational processes and decision making. (SO:6; PI:6.1) 4. 4. Analyze security, professional, social and ethical issues in development, deployment and usage of an information system. (SO:4; PI:4.2) CYS (SO:6; PI:6.2) 5. 5. Show responsibility for their own learning and continuing personal and professional development. (SO:4; PI:4.1)
<p>Indicative Contents المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <ul style="list-style-type: none"> - Use of Information System in Organization - Careers in information systems - Hardware and software concepts - Software development concepts and detailed stages - Database and data modeling concepts - Internet and WWW - Knowledge Management and Specialized Information Systems - Valuing Information System and Globalization - Information and Decision Support Systems - Business Intelligence - Security, Privacy and Ethical issues of Information System

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 solving exercises.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	32	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	118	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	7
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

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

Week 2	Is framework for business professionals.
Week 3	The components of information system
Week 4	The role of information Systems
Week 5	Advantages and disadvantages of information system
Week 6	Careers in information systems
Week 7	Mid-term Exam
Week 8	Information technology concepts
Week 9	Classification of information
Week 10	System concepts
Week 11	Hardware
Week 12	Internal and external memory
Week 13	Software
Week 14	Application software
Week 15	Cloud computing
Week 16	

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

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

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Ralph, M. Stair, George W. Reynolds, Thomas Chesney, "Principles of Business Information Systems", 3rd Edition, 2018. ISBN 9781473748415	Yes

Recommended Texts	Joseph Valacich , Christoph Schneider, "Information Systems Today: Managing in a Digital World" 7th Edition, 2015 ISBN-13: 978-0133940473 ISBN-10: 01339404705	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	Computer Skills		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	CSITCIS102			
ECTS Credits	7			
SWL (hr/sem)	175			
Module Level	1	Semester of Delivery		1
Administering Department	CIS	College	CSIT	
Module Leader	Wid Aqeel Jawad		e-mail	Wid.jawad@uobasrah.edu.iq
Module Leader's Acad. Title	Lecturer		Module Leader's Qualification	MSc.
Module Tutor	Name (if available)		e-mail	
Peer Reviewer Name			e-mail	
Scientific Committee Approval Date	16/09/2025	Version Number	1.0	

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module		Semester	
Co-requisites module		Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	<ol style="list-style-type: none"> 1. Computer basics, components and applications. 2. Different types of computers. 3. The concept of the internet and its applications (e-mail, browsers). 4. Professional document creation, editing and printing. 5. Electronic spreadsheets and how to use them to perform calculations. 6. The appropriate design and display of digital presentations. 7. How to search for information using different sources 8. How to design and develop applications using simple software.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> 1. Demonstrate knowledge of basic concepts of hardware, software, network, internet and clouds. 2. Manage files, folders and user accounts efficiently. 3. Develop well designed documents, workbooks and databases using MS Office. 4. Apply IT tools to collect, analyze, evaluate and report data.
Indicative Contents المحتويات الإرشادية	<ol style="list-style-type: none"> 1. Introduction to the computer <ul style="list-style-type: none"> - Basic components of a computer (monitor, CPU, storage, etc.) - Keyboard vs. mouse - Desktop vs. laptop - Activity: power off/on computers 2. Introduction to Windows <ul style="list-style-type: none"> - Desktop (icons, Start button, taskbar) - Cursor/mouse - Activity: click & drag desktop icons - Programs (3 ways to start programs: icon, Start, All Programs) 3. Typing 4. Windows Navigation <ul style="list-style-type: none"> - Window features (minimize, resize, exit, click & drag) - Menu bar (drop-down arrow) - Tool bar (icons) (roll cursor over to ID) - Scrolling - Multiple ways to do the same thing (menu, icon, keyboard) 5. Word <ul style="list-style-type: none"> - How to open Word (icon, Start menu, All Programs) - What is a "document" - Using the cursor with text (how to position, different types of cursor) - Review menu bar and tool bar - Using the keyboard with text (arrows, backspace, delete, tab, shift, space, enter keys) - Highlighting text (click & drag, full line from margin, edit/select all) - Requirement to highlight text for formatting commands - Formatting commands (Bold/Italicize/Underline, show as "on/off" icons) - Font size, Font type (review drop-down arrow) - Text color, Text highlight (review drop-down arrow) - Alignment (left, center, right) - Undo/Redo

	<ul style="list-style-type: none"> - Spell check (by the word, by the document) - Find/replace - Bullets/numbers - Review Windows Navigation (lesson 6) - Copy/cut/paste <p>6. Excel</p> <ul style="list-style-type: none"> - Introduction to Excel (cells, row, column) - Tables - Basic Excel formulas <p>7. Windows File Management</p> <ul style="list-style-type: none"> - Options for storage (internal drive, flash drive, CD/DVD) - Introduce Flash Drive - Files and Folders - My Computer - Save As, Save and Exit without changes <p>8. Internet Navigation</p> <ul style="list-style-type: none"> - What is the Internet - What is a Web Browser - Links and navigation bars - Back & forward arrow buttons, home button - Address bar (how to use the website address/URL in the address bar) <p>9. Internet Search</p> <ul style="list-style-type: none"> - How to start a web browser (Mozilla Firefox or Internet Explorer) - Getting to Google (toolbars, search box, other Google features) - Job search <p>10. EMAIL</p> <ul style="list-style-type: none"> - Open new email - Send emails (attachment, text...)
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Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<p>The primary approach for delivering this module will focus on fostering active student engagement in exercises, while simultaneously enhancing their critical thinking abilities. This will be accomplished through a combination of classroom and laboratory sessions, interactive tutorials, and the incorporation of captivating sampling activities to facilitate hands-on learning experiences for the students.</p>

Student Workload (SWL)			
الحمل الدراسي للطلاب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	62	Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	113	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب خلال الفصل	175		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	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	<ul style="list-style-type: none"> ✓ Using the Computer and Managing Files • Operating System • File Management • Utilities • Print Management
Week 2	<ul style="list-style-type: none"> ✓ Word Processing • Using the Application • Document Creation • Formatting
Week 3	<ul style="list-style-type: none"> ✓ Word Processing • Objects • Mail Merge

	<ul style="list-style-type: none"> • Prepare Outputs
Week 4	<ul style="list-style-type: none"> ✓ Word Processing • Referencing • Enhancing Productivity • Collaborative Editing
Week 5	<ul style="list-style-type: none"> ✓ Spreadsheets • Using the Application • Cells • Managing Worksheets • Formulas and Functions
Week 6	<ul style="list-style-type: none"> ✓ Spreadsheets • Formatting • Charts • Prepare Outputs • Analysis
Week 7	<ul style="list-style-type: none"> ✓ Spreadsheets • Validating and Auditing • Enhancing Productivity • Collaborative Editing
Week 8	Mid-term Exam
Week 9	<ul style="list-style-type: none"> ✓ Presentation • Using the Application • Developing a Presentation • Text • Charts and Diagrams
Week 10	<ul style="list-style-type: none"> ✓ Presentation • Graphical Objects • Prepare Outputs • Presentation Planning • Slide Masters and Templates
Week 11	<ul style="list-style-type: none"> ✓ Presentation • Multimedia • Enhancing Productivity • Managing Presentations
Week 12	<ul style="list-style-type: none"> ✓ Online Essentials • Web Browsing Concepts • Web Browsing
Week 13	<ul style="list-style-type: none"> ✓ Online Essentials • Web-Based Information • Communication Concepts • Using E-mail
Week 14	<ul style="list-style-type: none"> ✓ Visio • Using the Application • Creating Technical Layouts
Week 15	<ul style="list-style-type: none"> ✓ Visio • Exploring Advanced Diagrams

	<ul style="list-style-type: none"> • Diagramming and Data • Advanced Custom Shape Design
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Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	<ol style="list-style-type: none"> 1. Operating System: <ul style="list-style-type: none"> • Familiarization with the chosen operating system • Navigating through the desktop, taskbar, and start menu 2. File Management: <ul style="list-style-type: none"> • Creating, renaming, copying, moving, and deleting files and folders • Sorting and organizing files based on different criteria 3. Utilities: <ul style="list-style-type: none"> • Exploring system utilities for maintenance tasks • Performing basic optimization tasks for computer performance 4. Print Management: <ul style="list-style-type: none"> • Setting up and configuring printers • Printing documents and adjusting print settings
Week 2	<ol style="list-style-type: none"> 1. Using the Application: <ul style="list-style-type: none"> • Opening the word processing application • Exploring the user interface and menus 2. Document Creation: <ul style="list-style-type: none"> • Creating and saving a new document • Opening an existing document 3. Formatting: <ul style="list-style-type: none"> • Applying font styles, sizes, and colors • Adjusting paragraph alignment • Adding bullet points or numbering • Applying basic text formatting (bold, italic, underline)
Week 3	<ol style="list-style-type: none"> 1. Objects: <ul style="list-style-type: none"> • Inserting and formatting images and shapes • Adjusting object size and position • Applying borders and shading 2. Mail Merge: <ul style="list-style-type: none"> • Creating a data source with recipient information • Designing a template with placeholders • Performing a mail merge to generate personalized documents • Previewing and editing merged documents 3. Prepare Outputs: <ul style="list-style-type: none"> • Formatting documents for printing • Setting up headers, footers, and page numbers • Adding tables of contents or indexes • Creating PDF or electronic document formats
Week 4	<ol style="list-style-type: none"> 1. Referencing: <ul style="list-style-type: none"> • Adding citations and creating a bibliography • Inserting footnotes or endnotes 2. Enhancing Productivity: <ul style="list-style-type: none"> • Using shortcuts and keyboard commands for faster editing • Customizing the user interface and toolbar 3. Collaborative Editing: <ul style="list-style-type: none"> • Enabling track changes and reviewing document revisions • Inserting comments and resolving conflicts
Week 5	<ol style="list-style-type: none"> 1. Using the Application:

	<ul style="list-style-type: none"> • Navigating the spreadsheet application • Exploring different toolbars and options <ol style="list-style-type: none"> Cells: <ul style="list-style-type: none"> • Entering and formatting data in cells • Adjusting cell alignment and text wrapping Managing Worksheets: <ul style="list-style-type: none"> • Creating, renaming, and deleting worksheets • Moving and copying worksheets Formulas and Functions: <ul style="list-style-type: none"> • Writing basic formulas for calculations • Using common functions (e.g., sum, average, count) • Referencing cells in formulas
Week 6	<ol style="list-style-type: none"> Formatting: <ul style="list-style-type: none"> • Formatting cell content • Applying conditional formatting Charts: <ul style="list-style-type: none"> • Creating charts • Customizing chart elements Prepare Outputs: <ul style="list-style-type: none"> • Setting up print areas • Saving and sharing spreadsheets Analysis: <ul style="list-style-type: none"> • Using functions for data analysis • Sorting and filtering data
Week 7	<ol style="list-style-type: none"> Validating and Auditing: <ul style="list-style-type: none"> • Setting data validation rules • Auditing formulas for errors Enhancing Productivity: <ul style="list-style-type: none"> • Using shortcuts for efficient navigation • Utilizing autofill and templates Collaborative Editing: <ul style="list-style-type: none"> • Tracking changes by multiple users • Inserting comments
Week8	Lab Exam
Week9	<ol style="list-style-type: none"> Using the Application: <ul style="list-style-type: none"> • Navigating the presentation application • Exploring different toolbars and options Developing a Presentation: <ul style="list-style-type: none"> • Creating slides and selecting layouts • Adding and arranging content (text, images, shapes) • Applying themes and customizing backgrounds Text: <ul style="list-style-type: none"> • Formatting text (font, size, color) • Aligning and spacing text on slides Charts: <ul style="list-style-type: none"> • Inserting and formatting charts • Adding labels and titles to charts
Week10	<ol style="list-style-type: none"> Graphical Objects: <ul style="list-style-type: none"> • Inserting and manipulating graphical objects • Applying effects and styles to graphics • Arranging and aligning graphical objects on slides Prepare Outputs: <ul style="list-style-type: none"> • Setting up slide layouts and design elements • Configuring slide transitions and animations Presentation Planning:

	<ul style="list-style-type: none"> • Outlining the structure and content of the presentation • Determining key messages and visuals for each slide <p>4. Slide Masters and Templates:</p> <ul style="list-style-type: none"> • Modifying slide masters for consistent design • Creating and applying slide templates
Week11	<p>1. Multimedia:</p> <ul style="list-style-type: none"> • Inserting and managing multimedia elements (videos, audio, animations) • Configuring playback settings for multimedia • Syncing multimedia with slide transitions <p>2. Enhancing Productivity:</p> <ul style="list-style-type: none"> • Utilizing shortcuts and productivity features • Using slide layouts and templates • Applying design themes for visual appeal <p>3. Managing Presentations:</p> <ul style="list-style-type: none"> • Organizing and managing slides • Rearranging slide order • Configuring slide show settings
Week12	<p>1. Web Browsing Concepts:</p> <ul style="list-style-type: none"> • Understanding the basics of web browsing • Exploring different web browsers and their features • Learning about search engines and their functionalities <p>2. Web Browsing:</p> <ul style="list-style-type: none"> • Opening a web browser and navigating to websites • Using bookmarks and favourites to save and access web pages • Exploring tabs and managing multiple web pages
Week13	<p>1. Web-Based Information:</p> <ul style="list-style-type: none"> • Searching and accessing information from websites • Evaluating online source reliability • Bookmarking useful websites <p>2. Communication Concepts:</p> <ul style="list-style-type: none"> • Understanding online communication forms • Practicing netiquette and online etiquette • Recognizing online communication risks <p>3. Using E-mail:</p> <ul style="list-style-type: none"> • Composing and sending emails • Managing email folders • Attaching files and formatting emails
Week14	<p>1. Using the Application:</p> <ul style="list-style-type: none"> • Opening and navigating the Visio application • Exploring the user interface and toolbars • Familiarizing with various Visio features and options <p>2. Creating Technical Layouts:</p> <ul style="list-style-type: none"> • Creating and arranging shapes on a drawing canvas • Adding connectors and lines to create flowcharts or diagrams <p>Applying formatting and styles to enhance the visual appearance</p>
Week15	<p>1. Exploring Advanced Diagrams:</p> <ul style="list-style-type: none"> • Creating complex diagrams with advanced shapes and connectors • Using templates and stencils for specific diagram types • Incorporating advanced features like layers and callouts <p>2. Diagramming and Data:</p> <ul style="list-style-type: none"> • Importing and linking external data to create data-driven diagrams • Customizing data visuals and applying data graphics • Creating organizational charts or network diagrams with data connectivity <p>3. Advanced Custom Shape Design:</p> <ul style="list-style-type: none"> • Creating and modifying custom shapes using shape creation tools

	<ul style="list-style-type: none"> Enhancing existing shapes to meet specific requirements Utilizing shape behaviours and metadata for enhanced functionality
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Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Microsoft Office 2013 Visual Quickstart Guide by Steve Schwartz	
Recommended Texts	Gary B. Shelly, Misty E. Vermaat (2010). Microsoft Office 2010: Brief. Cengage Learning. OR any ECDL, ICDL or IC3 books	
Websites	https://www.microsoft.com	

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

Module Information				
Module Title	Mathematics for Information Systems		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	CIS104			
ECTS Credits	5			
SWL (hr/sem)	150			
Module Level	1	Semester of Delivery		1
Administering Department	CIS	College	CSIS	
Module Leader	Hadel ismail mustafa		e-mail	hadeel.mustafa@uobasrah.edu.iq
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Ph.D.	
Module Tutor	Name (if available)		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date	01/06/2025	Version Number	1.0	

Relation with other Modules			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	1. Gain the necessary mathematical knowledge to deal with the language of computers. 2. The skill of using mathematical laws and expressing them in scientific mathematical symbols

	<ol style="list-style-type: none"> Understanding of mathematical structures, especially the numerical, algebraic and geometric systems. Awareness of the integration of experience represented in the investment of mathematical knowledge in other fields of study. Understanding the nature of mathematics as an integrated system.
Module Learning Outcomes	<ol style="list-style-type: none"> Understand quadratic, cubic, exponential, logarithmic and hyperbolic functions. Understand the inverse of the previous functions and their graphs. Learning limits, continuity. Learning derivatives and their applications. Learning integrations and its applications.
Indicative Contents	<p>Indicative content includes the following.</p> <p><u>Functions</u> Functions and Their Graphs, Trigonometric Functions [8 hrs]</p> <p><u>Limits and Continuity</u> Limit of a Function and Limit Laws, The Precise Definition of a Limit, One-Sided Limits, Continuity [8 hrs]</p> <p><u>Derivatives</u> The Derivative as a Function, Differentiation Rules, Derivatives of Trigonometric Functions, The Chain Rule, Implicit Differentiation. [9 hrs]</p> <p><u>Applications of Derivatives</u> Extreme Values of Functions on Closed Intervals, The Mean Value Theorem, Monotonic Functions and the First Derivative Test, Concavity and Curve Sketching, Applied Optimization. [10 hrs]</p> <p><u>Integrals</u> The Definite Integral, The Fundamental Theorem of Calculus, Indefinite Integrals and the Substitution Method, Definite Integral Substitutions and the Area Between Curves.[10 hrs]</p>

Learning and Teaching Strategies	
Strategies	<p>The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by solving exercises.</p>

Student Workload (SWL)			
Structured SWL (h/sem)	47	Structured SWL (h/w)	3
Unstructured SWL (h/sem)	103	Unstructured SWL (h/w)	6
Total SWL (h/sem)	150		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	20% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	20% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	0	0% (0)		
	Report		0% (0)		
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)	
	Material Covered
Week 1	Functions and Their Graphs, Trigonometric Functions
Week 2	Rates of Change and Tangent Lines to Curves, Limit of a Function and Limit Laws, The Precise Definition of a Limit
Week 3	One-Sided Limits, Continuity
Week 4	Tangent Lines and the Derivative at a Point, The Derivative as a Function, Differentiation Rules
Week 5	The Derivative as a Rate of Change, Derivatives of Trigonometric Functions
Week 6	The Chain Rule, Implicit Differentiation
Week 7	Mid-term Exam
Week 8	Area and Estimating with Finite Sums, Sigma Notation and Limits of Finite Sums

Week 9	The Definite Integral
Week 10	The Fundamental Theorem of Calculus
Week 11	The Fundamental Theorem of Calculus
Week 12	Indefinite Integrals and the Substitution Method
Week 13	Indefinite Integrals and the Substitution Method
Week 14	Indefinite Integrals and the Substitution Method
Week 15	Preparation before final exam
Week 16	

Delivery Plan (Weekly Lab. Syllabus)

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

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	Calculus, George B. Thomas, Pearson 14 th edition	Yes
Recommended Texts	Calculus, Vol.1, EDWIN "JED" HERMAN	No
Websites	https://www.coursera.org/learn/introduction-to-calculus	

Grading Scheme

Group	Grade		Marks %	Definition
Success Group (50 - 100)	A – Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C – Good		70 - 79	Sound work with notable errors

	D – Satisfactory		60 - 69	Fair but with major shortcomings
	E – Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail		(45-49)	More work required but credit awarded
	F – Fail		(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

Module Information			
معلومات المادة الدراسية			
Module Title	English Language I		Module Delivery
Module Type	Support		☒ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code	CTISCIS105		
ECTS Credits	2		
SWL (hr/sem)	100		
Module Level	1	Semester of Delivery	
Administering Department	CIS	College	CSIS
Module Leader	Dr. Haider J. Fadhil		e-mail
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Ph.D.
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/09/2025	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. This course aims at acquiring the student's skills in the art of expressing scientific meanings in clear language and agreement with the scientific truth 2. He can also use synonyms and abbreviations without changing from the truth.
Module Learning Outcomes	1. Learn how to use parts of speech in the English language. 2. Learn how to form a sentence in English.

مخرجات التعلم للمادة الدراسية	3. Learn how to form sentences using tenses.
Indicative Contents المحتويات الإرشادية	

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 solving exercises.

Student Workload (SWL) الحمل الدراسي للطلاب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	32	Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	68	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	4
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب خلال الفصل	100		

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

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Parts of speech (noun..verb.. adj. .. adv. .. pron. .. conj...)
Week 2	Sentences construction : (simple sentence / compound sentence / complex sentence and compound / complex sentence)
Week 3	Tenses// Past simple/ present simple Present simple and future time /past and present continuous
Week 4	Present perfect /past perfect
Week 5	Present perfect continuous and past perfect continuous
Week 6	Future tense(will / going to)
Week 7	Mid term exam
Week 8	Active and passive voice (present simple and past simple)
Week 9	Prepositions of time and place (on . in . at) Outlines and paragraphs
Week 10	1-Punctuation
Week 11	2- Reading for specific information (skimming and scanning and reading non-fiction)
Week 12	1-Essay writing
Week 13	2-Denoelop the extensive and intensive reading skills by taking different passage.
Week 14	Technical writing.
Week 15	Choose a topic and apply the items of scientific writing.
Week 16	Choose a topic and apply the items of scientific writing.

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

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

Week 7	
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Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Calculus, George B. Thomas, Pearson 14 th edition Essential English Grammar. Second Edition	Yes
Recommended Texts	Headway plus 3-Essential Grammar in Use. Third 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
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	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
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MODULE DESCRIPTION FORM

Module Information				
معلومات المادة الدراسية				
Module Title	الديمقراطية وحقوق الانسان		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	CSIT0111			
ECTS Credits	2			
SWL (hr/sem)				
Module Level	1	Semester of Delivery		1
Administering Department	CIS	College	CSIT	
Module Leader	م.د.حسن مالح ناصر		e-mail	dr.hassan.malih@gmail.com
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	MSc.	
Module Tutor	Name (if available)		e-mail	
Peer Reviewer Name			e-mail	
Scientific Committee Approval Date	01/09/2025	Version Number	1.0	

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	تربط هذه المادة بين الجانب العلمي للطالب مع التعامل في كافة متطلبات حياته من حيث تعامله مع المجتمع	Semester	
Co-requisites module		Semester	1

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	تكمّن أهمية مادة حقوق الانسان والديمقراطية من خلال دراسة الطالب لأهم الحقوق التي جاءت في الاعراف والقوانين الدولية فضلا عما جاء في الشريعة الاسلامية والساتير العراقية لا سيما الدستور النافذ لسنة 2005 فضلا عن معرفة الطالب للمواثيق الدولية التي صدرت بخصوص حقوق الانسان , هذا من جهة ومن جهة اخرى اطلاع الطالب على التجارب الديمقراطية التي سبقتنا للاستفادة منها..
Module Learning Outcomes	الاهداف المهاراتية الخاصة بالموضوع 1 - المام الطالب بحقوق الانسان والطفل والديمقراطية.

مخرجات التعلم للمادة الدراسية	<p>2- المام الطالب بكيفية التمسك بحقوقه والدفاع عنها والسعي للحفاظ عنها بالطرق القانونية.</p> <p>3- اشاعة مفهوم الحقوق والحريات بين الطلبة.</p> <p>4- الالمام بالبرامج المهمة والمؤسسات والبروتوكولات في مجال حقوق الانسان والديمقراطية.</p>
Indicative Contents المحتويات الإرشادية	<p>المهارات العامة و التأهيلية المنقولة (المهارات الأخرى المتعلقة بقابلية التوظيف والتطور الشخصي).</p> <p>1- تمكين الطلبة من كتابة التقارير حول المواضيع الخاصة بمادة حقوق الانسان.</p> <p>2- تمكين الطلبة من ربط النظريات بالواقع العملي للحقوق والحريات.</p> <p>3- تمكين الطلبة من اجتياز اختبارات مهنية تنظم من قبل جهات محلية او دولية.</p> <p>د- تمكين الطلبة من التطوير الذاتي المستمر لما بعد التخرج.</p> <p>د- إقامة سمينارات خاصة للطلاب لغرض التطوير الذاتي لشخصياتهم.</p>

Learning and Teaching Strategies			
استراتيجيات التعلم والتعليم			
Strategies	استراتيجية التعلم والتعليم		
	<div>1- محاضرات عن المادة على شكل ورقي و الالكتروني (بوربوينت) و يعرضها للطلبة.</div> <div>2- لقاء المحاضرات بشكل تفصيلي.</div> <div>3- طلب تقارير دورية و واجبات بيتية عن المواضيع الاساسية للمادة.</div> <div>طرائق التقييم</div> <div>1-مناقشة يومية لمعرفة مدى استيعاب الطلبة للمادة ووضع تقييم للمشاركات اليومية.</div> <div>2-امتحانات يومية بأسئلة علمية متنوعة وقصيرة لفهم مدى استيعابهم للمادة.</div> <div>3-اعطاء جزء من درجة كل فصل للواجبات البيتية.</div> <div>4-امتحانات يومية (كوزات) و امتحانات شهرية للمنهج الدراسي والامتحان النهائي</div> <div>الاهداف الوجدانية والقيمية</div> <div>1- حث الطالب على استيعاب الهدف من دراسة المادة بشكل عام .</div> <div>ج- حث الطالب على استيعاب عمل كل دالة او كود او مصطلح ضمن المادة.</div> <div>3-حث الطالب على التفكير بكيفية تطوير الذات في مجال الحاسبات والبرامجيات.</div> <div>4- جعل الطالب قادر على التعامل مع الحاسبة وكيفية استخدام البرامج .</div> <div>د - المهارات العامة و التأهيلية المنقولة (المهارات الأخرى المتعلقة بقابلية التوظيف والتطور الشخصي).</div> <div>1- تمكين الطلبة من كتابة التقارير حول المواضيع الخاصة بمادة الديمقراطية.</div> <div>2- تمكين الطلبة من ربط النظريات بالواقع العملي للحقوق والحريات.</div> <div>3- تمكين الطلبة من اجتياز اختبارات مهنية تنظم من قبل جهات محلية او دولية.</div> <div>4- تمكين الطلبة من التطوير الذاتي المستمر لما بعد التخرج.</div> <div>5- إقامة سمينارات خاصة للطلاب لغرض التطوير الذاتي لشخصياتهم.</div>		
Student Workload (SWL)			
الحمل الدراسي للطلاب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem)	32	Structured SWL (h/w)	2
الحمل الدراسي المنتظم للطلاب خلال الفصل		الحمل الدراسي المنتظم للطلاب أسبوعيا	
Unstructured SWL (h/sem)	18	Unstructured SWL (h/w)	1
الحمل الدراسي غير المنتظم للطلاب خلال الفصل		الحمل الدراسي غير المنتظم للطلاب أسبوعيا	

Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50
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Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	15% (15)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	15% (15)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.			Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	<ul style="list-style-type: none"> ✓ تعريف الديمقراطية ✓ الديمقراطية ✓ أولاً: أصل الديمقراطية. ✓ ثانياً: مفهوم الديمقراطية. ✓ ثالثاً: أنواع الديمقراطية
Week 2	<ul style="list-style-type: none"> ✓ جذور مفهوم الديمقراطية وتطوره
Week 3	<ul style="list-style-type: none"> ✓ أشكال الديمقراطية ✓ الديمقراطية المباشرة (مضمون الديمقراطية المباشرة- تطبيقات الديمقراطية المباشرة – تقدير نظام الديمقراطية المباشرة
Week 4	<ul style="list-style-type: none"> ✓ الديمقراطية شبه المباشرة (مضمون الديمقراطية شبه المباشرة – مظاهر الديمقراطية شبه المباشرة- مشاركة الشعب في العمل التشريعي-الاعتراض الشعبي – الاقتراح الشعبي – الاستفتاء الشعبي وأنواعه.
Week 5	<ul style="list-style-type: none"> ✓ الرقابة الشعبية على نواب الشعب (العزل الشعبي للنائب -الحل الشعبي للبرلمان) – تقدير نظام الديمقراطية شبه المباشرة
Week 6	<ul style="list-style-type: none"> ✓ الديمقراطية التمثيلية – مفهوم النظام التمثيلي (النيابي) – الطبيعة القانونية للديمقراطية التمثيلية (نظرية النيابة – نظرية العضو)
Week 7	<ul style="list-style-type: none"> ✓ الانتخاب (مفهوم الانتخاب – التكييف القانوني للانتخاب
Week 8	الامتحان الأول
Week 9	<ul style="list-style-type: none"> ✓ معنى الحق لغة واصطلاحاً – المراحل التي مرت بها فكرة الحقوق والحريات
Week 10	<ul style="list-style-type: none"> ✓ أنواع حقوق الإنسان في القانون الدولي –الحقوق المدنية والسياسية(حق الحياة-حق الأمن-حرية الاعتقاد-حرية التنقل والسفر-حرية الرأي –حق المساواة)
Week 11	<ul style="list-style-type: none"> ✓ الحقوق الاقتصادية والاجتماعية والثقافية (حق العمل-حق التعليم –حق التملك –حق الرعاية الاجتماعية-الحق في بيئة نظيفة)

Week 12	<ul style="list-style-type: none"> • حقوق الإنسان في الحضارات والامم القديمة • حقوق الإنسان في الديانات السماوية • الحقوق والحريات في الشريعة الإسلامية
Week 13	✓ حقوق المرأة في الإسلام ✓ حقوق الطفل
Week 14	✓ حقوق الإنسان في المواثيق الدولية-ميثاق الأمم المتحدة –الإعلان العالمي لحقوق الإنسان ✓ دستور العراق
Week 15	الامتحان

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	كتاب منهجي	
Recommended Texts		
Websites		

Grading Scheme

مخطط الدرجات

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

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

MODULE DESCRIPTION FORM

Module Information				
معلومات المادة الدراسية				
Module Title	Computer ProgrammingII		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	CSITCIS106			
ECTS Credits	8			
SWL (hr/sem)	200			
Module Level	1	Semester of Delivery		2
Administering Department	CIS	College	CSIS	
Module Leader	NOOR MOHAMMED JUMAA		e-mail	noor.mohammed@uobasrah.edu.iq
Module Leader's Acad. Title	Assist lac.		Module Leader's Qualification	MSc
Module Tutor	Name (if available)		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date	01/06/2023		Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Computer ProgrammingI1	Semester	1
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	<ol style="list-style-type: none"> Learn of programming languages provides added insight into other fields. Understanding the practical and responsible use and management of program language is important for managers and other business knowledge workers in today's global information Society. Learn that people must understand the components of programming language and how all of these components work together to bring value to an organization.

	<p>4. We need to turn our attention to the role that programming language plays in today's global information Society.</p> <p>6. in this course we will cover basic concepts and techniques for programming including arrays and strings.</p> <p>7. Why learn about loop types?</p> <ul style="list-style-type: none"> - For..loop. - While..loop. - Do while loop. - Nested loop. <p>8. Why learn about series?</p> <p>9. Why learn about Shape?</p> <p>10. Why learn about strings?</p> <p>11. Why Learn about functions?</p> <ul style="list-style-type: none"> - Defining a Function, Function Declarations, Calling a Function, Function Arguments(Call by value, Call by Reference) <p>12. Why learn about Array?</p> <ul style="list-style-type: none"> - One and Two-dimensional array.
<p>Module Learning Outcomes</p> <p>مخرجات التعلم للمادة الدراسية</p>	<p>1- Give the student the most important skills to become a C++ power users have a broad understanding of C++ language and they know which tool or function is best used in a given situation.</p> <p>2- At the end of this course, students should be able to design, write and test a C++ program to implement a working solution to a given problem.</p> <p>3- Learn the most important skills to deal with loop types, functions, strings</p>
<p>Indicative Contents</p> <p>المحتويات الإرشادية</p>	<p>Indicative content includes the following:</p> <ul style="list-style-type: none"> - <u>Principles of electronic</u> How can use a C++ program, entering of variable types, basic input/output the statement, and type of operators. - <u>Shapes</u> If statement, nested if statement, For loop, nested for loop, while, and do while. - <u>Series</u> If statement, nested if statement, For loop, nested for loop, while, and do while. - <u>Function</u> Defining a Function, Calling a Function, Function Arguments(Call by value, Call by Reference) - <u>Strings</u> <ul style="list-style-type: none"> • Declaration, String function, Array of string - <u>Arrays</u> <ul style="list-style-type: none"> • One-dimensional array • Two-dimensional array

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 and the lab, interactive tutorials, and by considering types of simple experiments involving some sampling activities that are interesting to the students.
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Student Workload (SWL)

الحمل الدراسي للطلاب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	92	Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	108	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	7
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب خلال الفصل	200		

Module Evaluation

تقييم المادة الدراسية

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

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction to Computer Programming II
Week 2	Loop type (break with continue)

Week 3	Series in C++
Week 4	Use Function with Series in C++
Week 5	Shape in C++
Week 6	Function with Shape in C++
Week 7	String in C++
Week 8	String function
Week 9	One dimension array
Week 10	One dimension array with search
Week 11	One dimension array with Sort
Week 12	One dimension array with Function
Week 13	Two-dimension array
Week 14	Two-dimension array with Array sort and search
Week 15	Two-dimension array with Function
Week 16	Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: execute many examples of Loop type
Week 2	Lab 2: execute many examples of Loop type (break with continue)
Week 3	Lab 3: execute many examples of Use Series in C++
Week 4	Lab 4: execute many examples of Use Series in C++
Week 5	Lab 5: execute many examples of Use Function with Series in C++
Week 6	Lab 7: execute many examples of Shape in C++
Week 7	Lab 8 execute many examples of Function with Shape in C++
Week 8	Lab 6: execute many examples of String
Week 9	Lab9: execute many examples of One dimension array
Week 10	Lab 10: execute many examples of One dimension array with a search
Week 11	Lab 11: execute many examples of One dimension array with a sort
Week 12	Lab 12: execute many examples of One dimension array with Function
Week 13	Lab 13:execute many examples of two dimension
Week 14	Lab 14: execute many examples of Two dimension array with a sort and search

Week 15	Lab15: execute many examples of Two dimension array with Function

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1. Fundamentals of Programming C++, Richard L. Halterman, school of Computing Southern Adventist University, December 2, 2018. 2. A first book of c++ by Gary Bronson, 4th edition, 2012 by Gary Bronson 3. Problem solving with c++ by Walter Savitch, 7th edition, 2009. 4. C++: The Complete Reference by Herbert Schildt, 4th edition, 2003	Yes
Recommended Texts	تعلم لغة (C++) للمبتدئين ; لغات البرمجة للمبتدئين	Yes
Websites	https://www.programiz.com/cpp-programming	

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

Module Information				
معلومات المادة الدراسية				
Module Title	Computer Fundamentals		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	CSITCIS109			
ECTS Credits	7			
SWL (hr/sem)	175			
Module Level	1	Semester of Delivery		2
Administering Department	CIS	College	CSIT	
Module Leader	Dr. Muslim Mohsin Khudhair		e-mail	Muslim.khudhair@uobasrah.edu.iq
Module Leader's Acad. Title	Lecturer		Module Leader's Qualification	Ph.D.
Module Tutor	Name (if available)		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date	15/06/2023		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	<ol style="list-style-type: none"> 1. Describe the parts of typical desktop personal computers. 2. Describe the essential elements and duties of computer operating systems. 3. Determine the standards that qualified computer technicians adhere to. 4. Microsoft Windows installations, maintained, configured, and installed. 5. Introduced to the analysis of the architecture of a computer system and its components such as the execution unit, arithmetic and logical (ALU) unit, and memory unit. 6. Gives more details about the number system and logic gates and design it.

<p>Module Learning Outcomes</p> <p>مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1. Identify the components of standard desktop personal computers. 2. Identify fundamental components and functions of personal computer operating systems. 3. Identify best practices followed by professional personal computer technicians. 4. Install and configure computer components. 5. Install and configure system components. 6. Maintain and troubleshoot peripheral components. 7. Troubleshoot system components. 8. Install and configure operating systems. 9. Maintain and troubleshoot installations of Microsoft Windows. 10. Students will be introduced to the design and analysis of the hardware of a computer system and its components such as the execution unit, arithmetic and logical (ALU) unit, and memory unit. 11. The characteristics of instruction sets and the architecture of RISC and CISC machine. 12. Gives the students more details about the number system and logic gates and design it.
<p>Indicative Contents</p> <p>المحتويات الإرشادية</p>	<ol style="list-style-type: none"> 1. Personal Computer Components: 2. Operating System Fundamentals 3. Personal Computer Technician Professional Best Practices 4. Installing and Configuring Peripheral Components 5. Maintaining and Troubleshooting Peripheral Components 6. Troubleshooting System Components 7. Installing and Configuring Operating Systems 8. Introduction to Computer Architecture. 9. Computer Instruction Set. 10. Memory Organization. 11. Introduction to number systems 12. Coding systems 13. Logic gates 14. Simplify using gates

<p>Learning and Teaching Strategies</p> <p>استراتيجيات التعلم والتعليم</p>	
<p>Strategies</p>	<p>The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by solving exercises.</p>

Student Workload (SWL)			
الحمل الدراسي للطلاب محسوب لـ ١٥ أسبوعا			
Structured SWL (hr/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	77	Structured SWL (hr/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	5
Unstructured SWL (hr/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	98	Unstructured SWL (hr/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	6
Total SWL (hr/sem) الحمل الدراسي الكلي للطلاب خلال الفصل	175		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	#1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	#3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	#5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	#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	Personal Computer Components <ul style="list-style-type: none"> Personal Computer Components System Unit Components Storage Devices Personal Computer Connection Methods
Week 2	Operating System Fundamentals <ul style="list-style-type: none"> Personal Computer Operating Systems Windows User Interface Components Windows File System Management Windows System Management Tools
Week 3	PC Technician Professional Best Practices <ul style="list-style-type: none"> Tools of the Trade

	<ul style="list-style-type: none"> • Electrical Safety • Environmental Safety and Materials Handling • Perform Preventative Maintenance • Diagnostics and Troubleshooting • Professionalism and Communication
Week 4	Installing and Configuring Peripheral Components <ul style="list-style-type: none"> • Install and Configure Display Devices • Install and Configure Input Devices • Install and Configure Adapter Cards • Install and Configure Multimedia Devices
Week 5	Installing and Configuring Peripheral Components <ul style="list-style-type: none"> • Install and Configure Storage Devices • Install and Configure Power Supplies • Install and Configure Memory • Install and Configure CPUs • Install and Configure System Boards
Week 6	Maintaining and Troubleshooting Peripheral Components <ul style="list-style-type: none"> • Troubleshoot Display Devices • Maintain and Troubleshoot Input Devices • Troubleshoot Adapter Cards • Troubleshoot Multimedia Devices
Week 7	Troubleshoot Storage Devices <ul style="list-style-type: none"> • Troubleshoot Power Supplies • Troubleshoot Memory • Troubleshoot CPUs • Troubleshoot System Boards
Week 8	Installing and Configuring Operating Systems <ul style="list-style-type: none"> • Install Microsoft Windows • Upgrade Windows • Add Devices to Windows • Optimize Windows
Week 9	Introduction to Computer Architecture. <ul style="list-style-type: none"> • Von Neumann Architecture. • Hardware, Software, and Firmware. • Basics of Computer Architecture. • Computer Structures.
Week 10	Computer Instruction Set. <ul style="list-style-type: none"> • Instruction Types. <ul style="list-style-type: none"> • Data Transfer Instructions. • Arithmetic Instructions. • Logical Instructions. • Program-control Instructions. • System-control Instructions. I/O Instructions. • RISC and CISC.
Week 11	Memory Organization. <ul style="list-style-type: none"> • Memory Types. • Access Modes.

	<ul style="list-style-type: none"> • RAM Types. • Multilevel Memories (Memory Hierarchy). • Cache Memory. • Elements of Cache Design. • Associative Memory. • Memory Interleaving.
Week 12	Introduction to number systems <ul style="list-style-type: none"> • Place values and binary to decimal conversion • Decimal to binary conversion • Octal to decimal conversion (and vice versa) • Hexadecimal to decimal conversion (and vice versa) • Arithmetic operations in binary
Week 13	Coding systems <ul style="list-style-type: none"> • Ascii • Excess-3 code • Gray code
Week 14	Logic gates <ul style="list-style-type: none"> • (And, Or, Xor, Not) gates • (Nor, Nand, Xnor) gates
Week 15	Simplify using gates
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	First Look at Computer Parts and Tools
Week 2	Introducing Windows Operating Systems
Week 3	All about Motherboards & Supporting Processors and Upgrading Memory
Week 4	Supporting Hard Drives
Week 5	Installing Windows
Week 6	Satisfying Customer Needs
Week 7	PC Maintenance and Troubleshooting Strategies
Week 8	Maintaining Windows and Optimizing Windows
Week 9	Troubleshooting Windows and Applications and Troubleshooting Windows Startup Problems
Week 10	Troubleshooting Hardware Problems
Week 11	Memory addressing
Week 12	Perform various encryption operations.
Week 13	Learn how to deal with logical design programs.
Week 14	How to design logic gates.
Week 15	Simple logical design project.

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	<p>Textbook:</p> <ol style="list-style-type: none"> 1. (Wiley series on parallel and distributed computing) Abd-El-Barr M., El-Rewini H. - Fundamentals of Computer Organization and Architecture-Wiley (2005) 2. Michael Meyers-Mike Meyers CompTIA A+ Guide_ Essentials Lab Manual, Third Edition (Exam 220-701) (Mike Meyers' Computer Skills) (2010) 3. CH Roth Jr, LL Kinney, EB John. Fundamentals of logic design- Cengage Learning (2013) 	Yes (E-copy)

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

Module Information				
معلومات المادة الدراسية				
Module Title	Computer Application In Business		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	CSITCIS107			
ECTS Credits	7			
SWL (hr/sem)	175			
Module Level	1	Semester of Delivery		2
Administering Department	CIS	College	CSIS	
Module Leader	Dr.Aliea S.Sabir		e-mail	aliea.sabir@uobasrah.edu.iq
Module Leader's Acad. Title	Assist Professor		Module Leader's Qualification	Ph.D.
Module Tutor	Name (if available)		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date	01/06/2023		Version Number	1.0

Relation with other Modules				
العلاقة مع المواد الدراسية الأخرى				
Prerequisite module	Computer skills		Semester	1
Co-requisites module	None		Semester	

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	<ol style="list-style-type: none"> 1. Plan, create, modify, and presented spreadsheets 2. Organize, edit, and enhance data in spreadsheets to achieve business standards, and recognize and resolve many types of errors. 3. Use formulas and built-in functions appropriately and correctly to solve problems and critically assess the results 4. Learn the logical function to solve the selection problems. Logical functions use to compare values and give logical results only (True, False)

	<ol style="list-style-type: none"> 5. Learn the Statistical functions, The functions in this category perform statistical analysis on ranges of data, like average, count, countIf, Mean, etc. 6. Learn Math functions, This category contains a wide variety of functions that perform mathematical and trigonometric calculations like, sum, sumif , round, etc. 7. Learn the information functions, Each of these functions, referred to collectively as the information functions, checks the specified value and returns TRUE or FALSE depending on the outcome.like , ISBLANK , ISERROR , ISTEXT,..etc. 8. Learn the text function, The functions in this category perform very important processes to the textual information, like, search, mid, replace, find, left,..etc. 9. Learn Lookup and Reference Functions, Functions in this category are used to find (look up) values in lists or tables. A common example is a tax table. You can use the VLOOKUP function to determine a tax rate for a particular income level. 10. Learn Date and time functions, Functions in this category are used to deal with date and time values like, today, date, now, datedif, ..etc. 11. Plan, organize, create, and present spreadsheet data in graphic form, Microsoft Office Excel supports numerous types of charts to help you display data in ways that are meaningful to your audience. When you want to create a chart or change an existing chart, you can choose from a wide range of chart subtypes available for each of the following chart types. 12. Learn some Advanced Tools, like, Tables, Conditional format, Data validation, and What-If Analysis
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> 1- Give the student the most important skills to become an Excel power users have a broad understanding of Excel's functionality and they know which tool or function is best used in a given situation. Power users create complex workbooks for their use and are often called on to help develop workbooks for their colleagues, or to identify why their colleagues' workbooks don't work as intended. 2- Learn the most important skills to deal with worksheets and workbooks. 3- Learn how to deal with and solve formula errors. 4- Learn how to write and use the most important functions in many categories. 5- Learn how to use chart graphical representation to analyze the data. 6- Learn additional advanced skills and tools like tables, data validation, and other tools to enhance the student's ability level.
Indicative Contents المحتويات الإرشادية	<p>Indicative content includes the following.</p> <ul style="list-style-type: none"> - <u>Principles of electronic</u> Worksheet creation and formatting, entering of data, formulas, error handling, and type of operators. - <u>Functions</u> Logical, statistical, math, text, lookup, and reference functions and data and time function - <u>Graphical representations</u> Column, line, Bar, Area, and many other types - <u>Advance tool</u> Tables, conditional format, data validation, and what-if analyses

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 and the lab, interactive tutorials, and by considering types of simple experiments involving some sampling activities that are interesting to the students.
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	62	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	113	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	7.5
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	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الأسبوعي النظري

	Material Covered
Week 1	General introduction about how to handle worksheets and workbooks and Worksheet creation and formatting, entering of data, formulas, types of operators, and error solving
Week 2	Logical functions
Week 3	Statistical functions
Week 4	Statistical functions
Week 5	Math functions
Week 6	Information functions
Week 7	Mid-term Exam + lab exam
Week 8	Lookup and reference function
Week 9	Lookup and reference function
Week 10	Text function
Week 11	Text function
Week 12	Date and time function
Week 13	Date and time function
Week 14	Basic chart
Week 15	Advanced tools
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Lab 1: Worksheet creation and formatting; entering of data
Week 2	Lab 2: execute many examples of logical functions and make weakly practice exam
Week 3	Lab 3: execute many examples of statistical functions
Week 4	Lab 4: execute many examples of statistical functions and make weakly practice exam
Week 5	Lab 5: execute many examples of math functions and make weakly practice exam
Week 6	Lab 6: execute many examples of information functions and make weakly practice exam
Week 7	Lab 7: mid term lab exam
Week 8	Lab 8: execute many examples of lookup and reference functions and make weakly practice exam
Week 9	Lab9: execute many examples of lookup and reference functions and make weakly practice exam
Week 10	Lab 10: execute many examples of text functions

Week 11	Lab 11: execute many examples of text functions and make weakly practice exam
Week 12	Lab 12: execute many examples of date and time functions
Week 13	Lab 13:execute many examples of date and time functions and make weakly practice exam
Week 14	Lab 14:execute many examples of the basic chart
Week 15	Lab15: execute many examples of advanced tools

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Excel Data Analysis, Modeling and Simulation, Second Edition, Hector Guerrero College of William & Mary, Mason School of Business, Williamsburg, VA, USA, 2019	Yes
Recommended Texts	اكسل 2019 ، الدليل السهل ، 2019 ، نضال الشامي	Yes
Websites	Excel VBA Tutorial - Easy Excel Programming (excel-easy.com)	

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

Module Information				
معلومات المادة الدراسية				
Module Title	Electrical Circuits		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	CSITCIS108			
ECTS Credits	76			
SWL (hr/sem)	175			
Module Level	1	Semester of Delivery		2
Administering Department	Type Dept. Code	College	Type College Code	
Module Leader	Zahra Salman Bloshi		e-mail	zahraa.csit@avicenna.uobasrah.edu.iq
Module Leader's Acad. Title	Assistant teacher		Module Leader's Qualification	Ph.D.
Module Tutor	Name (if available)		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date	01/06/2023		Version Number	1.0

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

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	This course aims at teaching students how to think mathematically. Students will learn a set of mathematical facts and techniques as well as some major discrete structures that related with computers. They will also learn how to use these facts, techniques and discrete structures to design computer-based solutions for real life problems.
Module Learning Outcomes	<ul style="list-style-type: none"> Developing the acquisition of some acquired skills from inflammation Everyday life.

مخرجات التعلم للمادة الدراسية	<ul style="list-style-type: none"> Developing mathematical skills (skills that help form mathematical sense) skills Estimation, mental calculation, judging the reasonableness of the results, etc.). Acquiring various methods of conducting operations. Develop the ability to seriously classify and collect numerous data, tabulate and read them representation and interpretation.
Indicative Contents المحتويات الإرشادية	<ul style="list-style-type: none"> ✓ Self-learning skills ✓ Skills to work in a team ✓ Thinking skills with mathematical logic ✓ Report writing skills

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 solving exercises..
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	47	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	128	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	8
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% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	20% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	0	0%	Continuous	All

	Report	0	0%	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	<ul style="list-style-type: none"> • Sets • Subsets • Operations on sets • Computer Representation of Sets
Week 2	<ul style="list-style-type: none"> • Cartesian product • Sequences • Properties of Integers
Week 3	<ul style="list-style-type: none"> • Matrices • Propositional and Logical Operations • Conditional Statements
Week 4	<ul style="list-style-type: none"> • Conditional Statements • Mathematical Induction • Product sets and Partitions
Week 5	<ul style="list-style-type: none"> • Methods of Proving Theorems • Recursive • Relations
Week 6	<ul style="list-style-type: none"> • Properties of Relations • Operations Relations • Computer Representation of Relations
Week 7	<ul style="list-style-type: none"> • Properties of Relations • Equivalence Relations • Computer Representation of Relations and Digraphs • Operations and Relations

Week 8	<ul style="list-style-type: none"> • Functions • Functions for Computer Science • Domain and codomain of the function
Week 9	<ul style="list-style-type: none"> • Range of the function • Graph of function • Functions types
Week 10	<ul style="list-style-type: none"> • Permutation Functions • Graph • The types of graphs
Week 11	<ul style="list-style-type: none"> • Some Special Simple Graphs • Representing Graphs • Isomorphism and Isomorphic of graphs
Week 12	<ul style="list-style-type: none"> • Common graphs • Some important concepts
Week 13	<ul style="list-style-type: none"> • Kinds of graphs • More graphs
Week 14	<ul style="list-style-type: none"> • Trees • Labeled Trees
Week 15	<ul style="list-style-type: none"> • Tree Searching • Undirected Trees
Week 16	<ul style="list-style-type: none"> • Tree Traversal • Traversal Algorithms • Infix, Prefix, and Postfix Notation

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	Kolman, Busby, and Ross (2008). Discrete Mathematical Structures, 6th ed. Prentice Hall.	Yes
Recommended Texts	Kenneth Rosen (2012). Discrete Mathematics and Its Applications, 7th ed. Mc-Graw Hill.	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
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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

2026-2025

Module Information				
معلومات المادة الدراسية				
Module Title	Database Principles		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	IS203			
ECTS Credits	7			
SWL (hr/sem)	150			
Module Level	2	Semester of Delivery		1
Administering Department	CIS	College	CSIT	
Module Leader	Asaad A. Alhijaj		e-mail	asaad.abdulhassan@uobasrah.edu.iq
Module Leader's Acad. Title	Prof.	Module Leader's Qualification	Ms.c.	
Module Tutor	Name (if available)		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date	9/2/2026	Version Number	1.0	

Relation with other Modules				
العلاقة مع المواد الدراسية الأخرى				
Prerequisite module	IS101 Programming I, IS105 IS Principles		Semester	1 Level 1
Co-requisites module	None		Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	<p>Basic concepts, Database and database users, Database concepts and architecture, Data modeling with ER model, Relational model, language and systems, Relational data model, Constraints (integrity), Relational algebra, SQL, Database design, theory and methodology, Functional dependencies and normalization, Relational database design algorithm, Practice of database design and tuning, Object-oriented and extended relational database technology, Concepts for object-oriented database, standard languages, and design, extended relational databases.</p>
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<p>At the end of this course, students should be able to : Analyze, Design (Using ER, UML, and other models), and Implement (Using Ms-Access and SQL and VBA) database satisfying commercial requirements</p>
Indicative Contents المحتويات الإرشادية	<ul style="list-style-type: none"> • Introduction to Databases • Conceptual Database Design • Entity Relationship Diagram • Enhanced ER (EER) Model Concepts (ERD) • Relational Data Model and Relational Database Constraints • Relational Algebra • Normalization • Structured Query Language (SQL) • Advanced SQL • File Structure and Indexes • Database Performance Issues

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	<p>The module is delivered through a series of lectures. The lecture sessions discuss and explain to students the theoretical underpinnings of how Databases are designed and implemented.</p> <p>Assessment is divided into Five elements. First, there are a number of quizzes that assess the student's competency in specific topics on a weekly basis.</p> <p>There is a midterm class test. There are then two take-home assignments. Mini-Projects developed by a team of 3 to 5 students. Finally, an end-of-semester exam tests the learner's understanding of the theoretical material.</p>
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	60	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	90	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)	4 and 12	LO #1- #4 and #8- #10
	Assignments	2	10% (10)	6 and 12	LO #6, and #8, #9
	Projects / Lab.	1	10% (10)	14	LO #2- #12
	Report	-	-	-	-
Summative assessment	Midterm Exam	2hr	20% (20)	9	LO #1 - #8
	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 Databases
Week 2	Conceptual Database Design
Week 3	Entity Relationship Diagram (ERD)
Week 4	Enhanced ER (EER) Model Concepts
Week 5	Relational Data Model and Relational Database Constraints
Week 6	Relational Algebra-- 1st Assignment
Week 7	Structured Query Language (SQL)
Week 8	Advanced SQL
Week 9	Midterm Exam

Week 10	Normalization
Week 11	File Structure and Indexes
Week 12	Database Performance Issues -
Week 13	2nd Assignment
Week 14	Mini-project evaluation
Week 15	Review and Exam Preparation: a review of key topics and concepts, exam practice, and preparation
Week 16	Final Exam

Delivery Plan (Weekly Lab. Syllabus) المناهج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab1: Introduction to MS-Access
Week 2	Lab2: Tables Design 1
Week 3	Lab3:Tables Design 2
Week 4	Lab4:Forms
Week 5	1st Quiz
Week 6	Lab5:Queries1
Week 7	Lab6:Queries2
Week 8	Lab7:Reports
Week 9	2nd Quiz
Week 10	Lab8:Switchboard and user interface
Week 11	Lab9: Macro's and VBA
Week 12	Mini-Project Projects Evaluation

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	[1] Kroenke, David, and David J. Auer. <i>Database concepts</i> . Prentice Hall, 2013. [2] Silberschatz, Abraham, Henry F. Korth, and S. Sudarshan. <i>Database system concepts</i> . 4 th edition. Hightstown: McGraw-Hill, 2002 ISBN 0-07-255481-9. [3] Elmasri, Ramez., Fundamentals of database systems / Ramez Elmasri, Shamkant B. Navathe.—6th ed.,p. cm. ISBN-13: 978-0-136-08620-8	No

Recommended Texts	Bagui, S. & Earp, R (2004). <i>Learning SQL A Step-by-Step Guide Using Access®</i> . Addison-Wesley Publishing. ISBN: 0-32-111904-5.	No
Websites	http://mailman.cs.yale.edu/mailman/listinfo/db-book-list	

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A – Excellent	امتياز	90 - 100	Outstanding Performance
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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

2025-2026

Module Information				
معلومات المادة الدراسية				
Module Title	Information Retrieval		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	CSIT0205			
ECTS Credits	5			
SWL (hr/sem)	32			
Module Level	2	Semester of Delivery		2
Administering Department	CIS	College	CSIT	
Module Leader	Dr.Aliea S.Sabir		e-mail	aliea.sabir@uobasrah.edu.iq
Module Leader's Acad. Title	Assist Professor		Module Leader's Qualification	Ph.D
Module Tutor	Name (if available)		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date	01/06/2023		Version Number	1.0

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

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	<ol style="list-style-type: none"> 1- Overview of the basic concept of information retrieval system 2- Discuss How to do efficient (fast, compact) text indexing. 3- Discuss the most important Retrieval models: Boolean, vector-space, probabilistic, and machine-learning models. 4- Take brief details about the Evaluation and IR interface issues 5- Discuss the Document clustering and classification.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> 1- To learn the basic concept of information retrieval systems, the differences between Unstructured (text) vs. structured (database) data in the mid-nineties and today, and take a deep detail of the classic search model. 2- To learn how to construct an index and What strategies can we use with limited main memory. 3- To learn compression (in general), use compression for inverted indexes, and discuss DICTIONARY COMPRESSION and POSTINGS COMPRESSION in detail. 4- To learn what is Wild-card queries, and Query processing. 5- To learn the Ranked retrieval model, Scoring documents, Term frequency, Collection statistics, Weighting schemes, and Vector space scoring 6- To learn the most important Evaluation metrics used in information retrieval. 7- To learn the path from IR to text classification.
Indicative Contents المحتويات الإرشادية	<p>Indicative content includes the following.</p> <ul style="list-style-type: none"> • <u>Introduction</u> <ul style="list-style-type: none"> - Basic Assumptions of Information Retrieval - The classic search model - Term-document incidence matrices - Incidence vectors - Inverted index • <u>Index construction</u> <ul style="list-style-type: none"> - Sort-based index construction - Scaling index construction - Blocked sort-based Indexing • <u>Compression</u> <ul style="list-style-type: none"> - Why compression for inverted indexes - DICTIONARY COMPRESSION - POSTINGS COMPRESSION

- Wild-card queries
 - Query processing
 - B-trees handle *'s at the end of a query term
 - Permuterm index
 - Permuterm query processing
 - Bigram (k-gram) indexes
 - Processing wild-cards
 - Processing wild-card queries
- Ranked retrieval model
 - Problem with Boolean search
 - Ranked retrieval models
 - Scoring as the basis of ranked retrieval
 - Jaccard coefficient
 - Binary term-document incidence matrix
 - Bag of Words model
 - Term frequency tf
 - Log-frequency weighting
 - Rare terms are more informative
 - Collection vs. Document Frequency
 - Idf weight
- Evaluating an IR system
 - Unranked retrieval evaluation
 - Precision and Recall
- Text Classification
 - Standing queries
 - Spam filtering
 - Categorization/Classification
 - Classification Methods
 - 1- Manual classification
 - 1- Hand-coded rule-based classifiers
 - 2- Supervised learning
- Search engine type
 - Search engine methods

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	<p>The module is delivered through a series of lectures. The lecture sessions discuss and explain to students the theoretical underpinnings of how software systems are analyzed and designed.</p> <p>Assessment is divided into four elements. First, many quizzes assess the student's competency in specific topics weekly. And there are several practical assessments to execute the important algorithm</p> <p>there is a midterm class test. There is then two a take-home assignment. Finally, there is an end-of-semester exam that tests the learners' understanding of the theoretical material.</p>
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Student Workload (SWL) الحمل الدراسي للطلاب محسوب ل ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	30	Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	93	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	6.2
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب خلال الفصل	32		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)		
	Assignments	2	10% (10)		
	Projects / Lab.	-	-		
	Report	1	10% (10)		
Summative assessment	Midterm Exam	2hr	20% (10)		
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered

Week 1	Basic Assumptions of Information Retrieval, The classic search model, Term-document incidence matrices, Incidence vector, Inverted index
Week 2	Sort-based index construction, Scaling index construction, Blocked sort-based Indexing
Week 3	Why compression for inverted indexes, DICTIONARY COMPRESSION
Week 4	POSTINGS COMPRESSION
Week 5	Wild-card queries , Query processing, B-trees handle *'s at the end of a query term, Permuterm index Permuterm query processing
Week 6	Bigram (k-gram) indexes, Processing wild cards, Processing wild-card queries
Week 7	Midterm exam
Week 8	Ranked retrieval model , Problem with Boolean search, Ranked retrieval models, Scoring as the basis of ranked retrieval, Jaccard coefficient
Week 9	Binary term-document incidence matrix, Bag of Words model, Term frequency tf, Log-frequency weighting, Rare terms are more informative, Collection vs. Document Frequency
Week 10	Idf weight, Effect of idf on ranking, tf-idf weighting, Score for a document given a query, Documents as vectors, Queries as vectors,
Week 11	Formalizing vector space proximity, Why distance is a bad idea, Use angle instead of distance, From angles to cosines, Length normalization
Week 12	Length normalization, cosine(query, document), Cosine for length-normalized vectors, Cosine similarity, Computing cosine scores, and Weighting may differ in queries vs documents
Week 13	Evaluating an IR system , Unranked retrieval evaluation, Precision, and Recall
Week 14	Text Classification , Standing queries Spam filtering, Categorization/Classification
Week 15	Classification Methods, 1- Manual classification, 2- Hand-coded rule-based classifiers , 3- Supervised learning Search engine type
Week 16	Preparatory week before the final Exam

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

Week 7	
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Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	<i>Introduction to Information Retrieval</i> , by C. Manning, P. Raghavan, and H. Schütze (Cambridge University Press, 2008).	yes
Recommended Texts	<i>Modern Information Retrieval</i> , by R. Baeza-Yates and B. Ribeiro-Neto.	no
Websites	CS 276: Information Retrieval and Web Search (stanford.edu)	

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

2026-2025

Module Information				
معلومات المادة الدراسية				
Module Title	Object Oriented Programming		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	CSIT0201			
ECTS Credits	7			
SWL (hr/sem)	175			
Module Level	2	Semester of Delivery		1
Administering Department	CIS	College	CSIT	
Module Leader	Raidah S. Khudayer		e-mail	raidah.khudayer@uobasrah.edu.iq
Module Leader's Acad. Title	Asst. Prof		Module Leader's Qualification	Ph.D.
Module Tutor	Name (if available)		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date	01/06/2023		Version Number	1.0

Relation with other Modules				
العلاقة مع المواد الدراسية الأخرى				
Prerequisite module	CSIT0106 Computer Programming II		Semester	1 Level 1
Co-requisites module	None		Semester	

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	<ol style="list-style-type: none"> 1. Introduce the concepts of object-oriented programming in a higher-level programming language, such as Java 2. Analyze a problem statement to design a model of objects necessary to create software architecture. 3. Gain skills in designing, and programming software for reuse of code.

	<ol style="list-style-type: none"> 4. Establish development methods in object-oriented programming to qualify students for teaching the language in other settings. 5.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> 1. Identify what mean of object-oriented programming and structural programming. 2. Learn the basic of java programming language: structure, data type, input and output statement. 3. Identify on control statements and define arrays and how to access to elements 4. Identify on how to write method and call it in java. 5. Understand and practical mastery of object-oriented concepts such as classes, objects. 6. Identify on access modifies 7. Identify on data abstraction, methods overriding, method overloading. 8. Understand inheritance concept, types and how implements of it. 9. Understanding polymorphism concept, types. 10. Identify on abstract class and interface.
Indicative Contents المحتويات الإرشادية	<ul style="list-style-type: none"> • Introduction to OOP • java basics • Classes, objects • constructors Strings • Inheritance concept • this and supper • overloading and overriding • Access modifiers • Polymorphism concept • Abstraction concepts • Encapsulation concept • Abstract class and interface

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<p>The main strategy that will be adopted in this module through a series of lectures the theoretical underpinnings of meaning of object oriented programming language (such as java) and it concepts. This will be achieved through of theoretical lectures in classes and projects in lab, there many assessment that increase the activities and understanding of students:</p> <ol style="list-style-type: none"> 1. There are a number of quizzes that assess the student's competency in end of each topic. 2. There is a midterm class test. 3. There are take-home mini-projects by a team of 2 students. 4. There are end-of-semester exam test.

Student Workload (SWL)			
الحمل الدراسي للطلاب محسوب ل ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	62	Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	113	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب خلال الفصل	175		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	5% (5)	4 and 8	LO #2- #5
	Assignments	2	5% (5)	6 and 10	LO #7, #9
	Projects / Lab.	1	20% (20)	14	LO #2- #14
	Report	-	-	-	-
Summative assessment	Midterm Exam	2hr	20% (20)	8	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	<p>Introduction: What is Object-oriented programming (OOP), what is the structure of object-oriented programming?</p> <p>What are the main concepts of OOP?</p> <p>What are the benefits of OOP?</p> <p>Program template for Java programs, identifier, basic data types, variables and constant.</p>
Week 2	<p>Class Declaration</p> <p>Object Creation</p>

	Constructors, overloading Constructor
Week 3	Exercises in Classes
Week 4	variable types, this keyword and method overloading and type Promotion(casting)
Week 5	Inheritance, definition, types, super keyword
Week 6	Exercises in Inheritance
Week 7	Method Overriding and access modifiers
Week 8	Mid-term Exam
Week 9	Encapsulation concept
Week 10	Polymorphism , definition, types
Week 11	Exercises in polymorphism and Encapsulation
Week 12	Abstraction: abstract class
Week 13	Exercises in abstraction
Week 14	interface concept, implement and extends with interface
Week 15	Exercises in interface
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: java and NetBeans
Week 2	Lab 2: training in Arrays
Week 3	Lab 3: training with overloading method
Week 4	Lab 4: classes and object
Week 5	1st Quiz
Week 6	Lab 5: training in classes and constructor
Week 7	Lab 6: training with access modifier
Week 8	Lab7: training in inheritance
Week 9	Lab 8: training with super keyword
Week 10	Lab 9: training with overridden method
Week 11	2nd Quiz
Week 12	Lab 10: training with abstract class
Week 13	Lab 11: training with interface
Week 14	Lab 12: training in all OOP Concepts

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	A. A. Puntambekar. (2020). Object oriented programming,	No
Recommended Texts	[1] C. Thomas Wu (2010). An Introduction to Object-Oriented Programming with Java. Fifth Edition. McGraw-Hill. [2] Herbert Schildt (2007). Java: The Complete Reference. Seventh Edition. McGraw-Hill.	No
Websites	https://www.google.iq/books/edition/Object_Oriented_Programming/WKUbEAAAQBAJ?hl=en&gbpv=1&dq=object+oriented+programming+java&printsec=frontcover	

Grading Scheme				
مخطط الدرجات				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

Module Information

معلومات المادة الدراسية

2026-2025

Module Title	Marketing		Module Delivery	
Module Type			☒ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	CSIT0202			
ECTS Credits	4			
SWL (hr/sem)				
Module Level	2	Semester of Delivery		
Administering Department	CIS	College	CSIT	
Module Leader	Reem qasim		e-mail	reem.qasim@uobasrah.edu.iq
Module Leader's Acad. Title	Lecturer		Module Leader's Qualification	
Module Tutor	Name (if available)		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date			Version Number	
Relation with other Modules				
Prerequisite module	None			Semester
Co-requisites module	None			Semester
Module Aims, Learning Outcomes and Indicative Contents				
Module Objectives	<ul style="list-style-type: none">- Understanding modern marketing and its tools- Understand the basic principles, theories and concepts of marketing.- Understanding of marketing and the marketing mix.- Understanding the nature of consumer behavior and the factors that contribute to its formation and influence it.- Learn how to enter the world of existing markets with projects or provide new services to consumers.- Learn to apply principles and tools.- Learn and understand individual marketing and marketing as a career can work in practice.			
Module Learning Outcomes	<ul style="list-style-type: none">- Understand the concept and process of marketing- The ability to build and develop a marketing strategy for a product or service			

	<ul style="list-style-type: none"> - Explain the characteristics of consumer behavior - The ability to segment and target the market and successfully market a new product - Deep understanding of the marketing mix from the point of view of the seller 4Ps and from the point of view of the buyer 4Cs - The importance of the brand and the value of the brand of the product and service and how to develop it
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Learning and Teaching Strategies

Strategies	The strategy that will be adopted in presenting a subject will be in a positive manner and will be delivered through stories, realistic proverbs, and sequential events, with the aim of helping students in Breaking away from stereotypical and traditional thinking and progressing towards presenting creative ideas that are characterized by realistic imagination that is appropriate to an environment Local business, following the example of the experiences that took place in developed countries.
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	32	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	68	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	100		

Module Evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	4 and 12	
	Assignments	2	10% (10)	6 and 9	
	Projects / Lab.	-	-	-	-
	Report	1	10% (10)	12	

Summative assessment	Midterm Exam	2hr	20% (20)	8	
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي

	Material Covered
Week 1	What Is Marketing
Week 2	Marketing Strategy
Week 3	Analyzing the Marketing Environment
Week 4	Consumer Markets and Consumer Buyer Behavior
Week 5	Customer-Driven Marketing Strategy: Creating Value for Target Customers Products, and Brands
Week 6	Products, and Brands
Week 7	Exam
Week 8	Services, and Brands
Week 9	New Product Development
Week 10	Pricing
Week 11	Communicating
Week 12	Advertising and Public Relations
Week 13	Personal Selling and Sales Promotion
Week 14	Direct and Online Marketing:
Week 15	Creating Competitive Advantage

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

	Text	Available in the Library?
Required Texts	Philip Kotler & Gary Armstrong (2020). Principles of Marketing. 20th ed., Prentice Hall.	No
Recommended Texts	Jeff Tanner, Principles of Marketing, Baylor University Mary Raymond, Clemson University, 2010.	No
Websites		

Grading Scheme

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	System Analysis & Design		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	CSITCIS206			
ECTS Credits	4			
SWL (hr/sem)	100			
Module Level	2	Semester of Delivery		4
Administering Department	CIS	College	CSIT	
Module Leader	Zainab H. Majeed		e-mail	zainab.meejeed@uobasrah.edu.iq
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Ms.c.	
Module Tutor	Name (if available)		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0	

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	CSITCIS205	Semester	3
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	<p>After successfully completing this course, students will have gained comprehensive theoretical knowledge as well as practical skills related to the system development process of information systems. students who successfully complete the course should be able to:</p> <ul style="list-style-type: none"> • gather data to analyse and specify the requirements of a system. • design system components and environments. • build general and detailed models that assist programmers in implementing a system. • design a database for storing data and a user interface for data input and output, as well as controls to protect the system and its data
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> 1. Understand the fundamental concepts and terms of system analysis and system design 2. Describe different lifecycle models and explain the various stages in systems development. 3. Discuss various approaches to systems analysis and design and explain their strengths and weaknesses. 4. Discover and understand the details of the problem or the need and define the main criteria to obtain approval to proceed 5. understand how to plan and monitor the project by using scheduling techniques (Break down structure and Gantt chart) 6. introducing to system analysis process, discover Systems Analysis Tools & Techniques 7. Explain information gathering techniques (interview, questionnaire) 8. Define two types of requirements (functional and non-functional) 9. Model system functionality using UML activity, usecase and sequence diagrams 10. Model an overall system using UML class diagrams. 11. understand the design of the various new system components such as deployment environment, the application architecture and software, and the database. 12. discuss the principles of user interface design and explain the main factors influencing usability of software systems
Indicative Contents المحتويات الإرشادية	<p>Indicative content includes the following.</p> <p><u>Overview</u></p> <ul style="list-style-type: none"> • What is system analysis • What is system design • The role of system analyst in software development <p><u>System development approaches</u></p> <ul style="list-style-type: none"> • Phases of system development life cycle (SDLC) • Predictive approach • Waterfall model as an example of predictive <p><u>System development approaches</u></p> <ul style="list-style-type: none"> • Adaptive approach • Spiral model • Incremental model

	<ul style="list-style-type: none"> • Walking skeleton model <p><u>Software development lifecycle- phases-1</u></p> <ul style="list-style-type: none"> • Identify the problem • Quantify project approval factors. • Perform risk and feasibility analysis. • Review with the client and obtain approval <p><u>Software development lifecycle: phases-2: planning</u></p> <ul style="list-style-type: none"> • Schedule the work using breakdown structure • Schedule the work using Gantt chart • Evaluate work processes. • Monitor progress and make corrections <p><u>Software development lifecycle- phases-3: analysis</u></p> <ul style="list-style-type: none"> • Gather detailed information using interview and questionnaire • Define requirements (functional and non-functional) • Prioritize requirements • Develop user-interface dialogs (story board and prototype) • Evaluate requirements with users <p><u>Software development lifecycle: phases-3: analysis</u></p> <ul style="list-style-type: none"> • Purpose and notation of activity diagrams • Use cases, Actors, Use case diagram • Mapping a UML class model, associations, inheritance • UML interaction diagrams: Messages, Elements of a Sequence Diagram <p><u>Software development lifecycle: phases-4: Design</u></p> <ul style="list-style-type: none"> • Design the environment. • Design application architecture and software. • Design user interfaces. • Design system interfaces. • Design the database. • Design system controls and security <p><u>Software development lifecycle: phases-4: Design</u></p> <ul style="list-style-type: none"> • Describe usability issues. • Main rules of user interface design
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Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<p>The module is delivered through a series of lectures. The lecture sessions discuss and explain to students the theoretical underpinnings of how software systems are analyzed and designed.</p> <p>Assessment is divided into four elements. First there are a number of quizzes that assess the student's competency in specific topics on a weekly basis.</p>

	there is a midterm class test. There is then two a take home assignment. Finally, there is an end of semester exam that tests the learners understanding of the theoretical material.
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Student Workload (SWL)			
الحمل الدراسي للطلاب محسوب ل ١٥ أسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	32	Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	68	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	4
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب خلال الفصل	100		

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

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Overview- definition of several terms such as: system analysis, system design and the role of system analyst in software development
Week 2	System Development Approaches: predictive approach
Week 3	System Development Approaches: adaptive (agile) approach

Week 4	Software development lifecycle (SDLC): all six/seven phases
Week 5	Software development lifecycle (SDLC): phase1: identify the problem
Week 6	Software development lifecycle (SDLC): phase2: project planning
Week 7	Software development lifecycle (SDLC): phase3: Analysis activities
Week 8	Systems Analysis Activities: system requirements gathering and defining
Week 9	Systems Analysis Activities: UML Modeling (Activity diagram)
Week 10	Systems Analysis Activities: UML Modeling (use case diagram)
Week 11	Systems Analysis Activities: UML Modeling (class diagram)
Week 12	Systems Analysis Activities: UML Modeling (Sequence diagram)
Week 13	Systems Design Activities: Essentials of Systems Design
Week 14	Systems Design Activities: User Interface Design
Week 15	Review and Exam Preparation: review of key topics and concepts, exam practice and preparation
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

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

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	J. W. Satzinger, R. B. Jackson and S. D. Burd. <i>Systems Analysis and Design in a Changing World</i> , 7th ed. Boston, USA: Thomson Course Technology, 2015. (ISBN- 10: 1305117204 ISBN-13: 978-1305117204)	No

Recommended Texts	Unhelkar, B. Software Engineering with UML, 2017. Boca Raton: Taylor & Francis, ISBN: 9781351235181.	No
Websites	https://www.udemy.com/course/system-analysis-design-k/	

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

2025-2026

Module Information				
معلومات المادة الدراسية				
Module Title	Decision Support systems		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	CSIT0210			
ECTS Credits	5			
SWL (hr/sem)	32			
Module Level	2	Semester of Delivery		2
Administering Department	CIS	College	CSIT	
Module Leader	Dr.Aliea S.Sabir		e-mail	aliea.sabir@uobasrah.edu.iq
Module Leader's Acad. Title	Assist. Professor		Module Leader's Qualification	PH.D.
Module Tutor	Name (if available)		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date	01/06/2023		Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	OOP	Semester	1
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p>Module Objectives أهداف المادة الدراسية</p>	<ul style="list-style-type: none"> • Understand the conceptual foundations of decision-making • Understand the systems approach • Understand the phases of decision-making: intelligence, design, choice, and implementation • Differentiate between the concepts of making a choice and establishing a principle of choice • Recognize how decision style, cognition (reasoning), management style, personality, and other factors influence decision-making • Understand how computer technologies can assist managers in their work • Learn the basic concepts of decision-making • Learn the basic concepts of decision support systems • Recognize the different types of decision support systems used in practice • Understand how the World Wide Web/Internet has affected decision support systems • What is Management Information Systems (MIS) • Understand the different model classes • Explain what optimization, simulation, and heuristics are, and when and how to use them • Describe how to structure a linear programming model • Describe the key issues of model management
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<ul style="list-style-type: none"> • This course provides the required skills and knowledge of the various decision-making models so that decisions can be based on logical and mathematical foundations under different circumstances, such as in cases of uncertainty, lack of information, or certainty. • This course studies the design of computerized systems to support individual or organizational decisions. • Moreover, the course aims at understanding the need for computerized support of managerial decision-making and what was an early framework for managerial decision-making.
<p>Indicative Contents المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <p>DECISION-MAKING</p> <ul style="list-style-type: none"> • DECISION-MAKING AND PROBLEM-SOLVING • DECISION-MAKING DISCIPLINES • THE STRUCTURE OF DSS SYSTEMS • CLOSED AND OPEN SYSTEMS • SYSTEM EFFECTIVENESS AND EFFICIENCY • INFORMATION SYSTEMS AND MODELS <ul style="list-style-type: none"> - ICONIC (SCALE) MODELS - ANALOG MODEL - MATHEMATICAL (QUANTITATIVE) MODELS

- SIMULATION MODELS
- THE BENEFITS OF MODELS
- PHASES OF THE DECISION-MAKING PROCESS
 - THE INTELLIGENCE PHASE
 - DESIGN PHASE
 - CHOICE PHASE
 - IMPLEMENTATION PHASE
- PROGRAMMED VERSUS NONPROGRAMMED PROBLEMS

Management Support Systems

- Managerial Decision-making And Information Systems
- Managers And Computer Support
- Computerized Decision Support And The Supporting Technologies
- Framework For Decision Support
- Computer Support For Structured Decisions
- E-concept Of Decision Support Systems
- Group Support Systems
- Enterprise Information Systems (EIS)
- Knowledge Management Systems
- Expert Systems
- Artificial Neural Networks
- Hybrid Support Systems
- Emerging Technologies And Technology Trends

Management Information Systems

- Introduction (MIS)
 - Characteristics of MIS
 - Characteristics of Computerized MIS
 - Nature and Scope of MIS
- Enterprise Resource Planning (ERP)
 - Why of ERP
 - Scope of ERP
 - Advantages of ERP
 - Disadvantage of ERP
- Customer Relationship Management (CRM)
 - Why CRM?
 - Advantages of CRM
 - Disadvantages of CRM

Decision theory

- IDENTIFICATION OF THE PROBLEM AND ENVIRONMENTAL ANALYSIS
 - VARIABLE IDENTIFICATION
 - FORECASTING
 - MODEL CATEGORIES
 - MODEL MANAGEMENT
 - KNOWLEDGE-BASED MODELING
 - CURRENT TRENDS
- STATIC AND DYNAMIC MODELS
- DECISION-MAKING UNDER CERTAINTY (DMUC)
- DECISION-MAKING UNDER RISK (DMUR)

	<ul style="list-style-type: none"> • DECISION-MAKING UNDER UNCERTAINTY • Practical experiment • Decision theory report
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Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<p>The module is delivered through a series of lectures. The lecture sessions discuss and explain to students the theoretical underpinnings of how software systems are analyzed and designed.</p> <p>Assessment is divided into four elements. First, many quizzes assess the student's competency in specific topics every week.</p> <p>there is a midterm class test. There is then two take-home assignment. Finally, there is an end-of-semester exam that tests the learners' understanding of the theoretical material.</p>

Student Workload (SWL) الحمل الدراسي للطلاب محسوب ل ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	30	Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	68	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	4.5
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب خلال الفصل	100		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)		
	Assignments	2	10% (10)		
	Projects / Lab.	-	-		
	Report	1	10% (10)		
Summative assessment	Midterm Exam	2hr	20% (10)		
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	DECISION-MAKING , DECISION-MAKING AND PROBLEM-SOLVING, DECISION-MAKING DISCIPLINES, THE STRUCTURE OF THE DSS SYSTEM, CLOSED AND OPEN SYSTEMS
Week 2	SYSTEM EFFECTIVENESS AND EFFICIENCY, INFORMATION SYSTEMS AND MODELS, IICONIC (SCALE) MODELS, ANALOG MODEL, MATHEMATICAL (QUANTITATIVE) MODELS SIMULATION MODELS, PROGRAMMED VERSUS NONPROGRAMMED PROBLEMS
Week 3	Management Support Systems , Managerial Decision-making And Information Systems Managers And Computer Support, Computerized Decision Support, And The Supporting Technologies Framework For Decision Support
Week 4	Computer Support For Structured Decisions, E-concept Of Decision Support Systems, Group Support Systems, Enterprise Information Systems (EIS)
Week 5	Knowledge Management Systems, Expert Systems, Artificial Neural Networks, Hybrid Support Systems, Emerging Technologies, And Technology Trends
Week 6	Management Information Systems Introduction (MIS), Characteristics of MIS, Characteristics of Computerized MIS, Nature, and Scope of MIS
Week 7	Midterm exam
Week 8	Enterprise Resource Planning (ERP), Why of ERP, Scope of ERP, Advantages of ERP, Disadvantage of ERP
Week 9	Customer Relationship Management (CRM), Why CRM? , Advantages of CRM Disadvantages of CRM
Week 10	Decision theory IDENTIFICATION OF THE PROBLEM AND ENVIRONMENTAL ANALYSIS, VARIABLE IDENTIFICATION, FORECASTING, MODEL CATEGORIES
Week 11	MODEL MANAGEMENT, KNOWLEDGE-BASED MODELING, CURRENT TRENDS, STATIC AND DYNAMIC MODELS
Week 12	DECISION-MAKING UNDER CERTAINTY (DMUC)
Week 13	DECISION-MAKING UNDER RISK (DMUR)
Week 14	DECISION-MAKING UNDER UNCERTAINTY
Week 15	DECISION-MAKING UNDER UNCERTAINTY
Week 16	The 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	Efraim Turban, Ramesh Sharda, Dursun Delen, "Decision Support and Intelligence Systems", Prentice Hall; 7th edition, 2005.	yes
Recommended Texts	V.L. Sauter, Decision Support Systems For Business Intelligence, New York: John Wiley & Sons, 2010.	No
Websites	Free Online Course: Decision Support Systems from YouTube Class Central	

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

2026-2025

Module Information				
معلومات المادة الدراسية				
Module Title	Baath		Module Delivery	
Module Type	Core		☐ Theory ☐ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	CSIT0102			
ECTS Credits	7			
SWL (hr/sem)				
Module Level		Semester of Delivery		
Administering Department	CIS	College	CSIT	
Module Leader	Dr.Hassan malih Naser		e-mail	Hassan.malih@uobasrah.edu.iq
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	MSc.	
Module Tutor	Name (if available)		e-mail	
Peer Reviewer Name			e-mail	
Scientific Committee Approval Date	01/06/2024	Version Number	1.0	

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	This course emphasizes to students the need to adhere to ethical principles when teaching this subject, which must be passed on to current and future generations. It focuses on studying and teaching a period during which the Iraqi state was known for its violations of human rights, its perpetration of crimes against humanity, and its infamous "era of graves" and genocide.		Semester
Co-requisites module			Semester

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims أهداف المادة الدراسية	<p>The importance of the curriculum lies in informing students about "the crimes of killing Iraqi scholars, including clerics who opposed the Ba'ath Party, the suppression of the Shaaban uprising, and the crimes against the Turkmen, particularly in the Ninety-Day Zone in Kirkuk Governorate, which included displacement, land seizure, and annexation to other governorates. It also covers the cross-border crimes that led to the launching of foreign wars against neighboring countries such as Iran and Kuwait."</p>
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<p>It is a missing piece of research knowledge in the Iraqi research field, relating to the more than three decades during which the Ba'ath Party ruled Iraq, committing major human and political crimes. It will be presented to students and discussed using direct questions.</p>
Indicative Contents المحتويات الإرشادية	<p>Understanding the nature of the totalitarian political system established by the Ba'ath Party, whose influence was not limited to Iraq but extended to several other countries. In the fields of philosophical and psychological studies, there are topics related to studying the manufacture of fear, cruelty, and violence, which are among the main pillars of the Ba'ath Party. There is also a study of the social and psychological effects resulting from genocide and human rights violations.</p>

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	<p>Lectures on the subject are delivered in paper and electronic format (PowerPoint), and presented to students.</p> <ol style="list-style-type: none"> 2. Deliver lectures in detail. 3. Request periodic reports and homework on the core topics of the subject. 1. Daily discussions to determine the extent of students' comprehension of the subject and to evaluate daily participation. 2. Daily exams with a variety of short scientific questions to assess students' comprehension of the subject. 3. Allocating a portion of each semester's grade for homework. 4. Daily exams (quizzes) and monthly exams for the curriculum and the final exam.
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Student Workload (SWL)

الحمل الدراسي للطالب

Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	77	Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	98	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	5
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب خلال الفصل	175		

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 #3
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #5
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #9
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	Violations of rights and freedoms Section One: A descriptive overview of the political systems in Iraq (1921-2003)
Week 2	The second topic: The Baath regime's violations of public rights and freedoms.
Week 3	The third topic: The impact of the Baath regime's behavior on society
Week 4	The fourth topic: The impact of the transitional phase in combating authoritarian politics.
Week 5	Psychological and social fields
Week 6	Religion and State
Week 7	Culture, media and the militarization of society
Week 8	First exam
Week 9	The impact of wars on the environment and population

Week 10	The use of internationally prohibited weapons and environmental pollution
Week 11	The scorched earth policy
Week 12	Draining the marshes and forced migration
Week 13	The destruction of the agricultural environment
Week 14	Mass graves and the bombing of places of worship
Week 15	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	
Week 8	

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Recommended supporting books and references (scientific journals, reports, etc.)	
Recommended Texts	Required textbooks (methodology if any)	
Websites	Electronic references, online sites	

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
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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	Data Structures		Module Delivery
Module Type	Core		☐ Theory ☐ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code			
ECTS Credits	6		
SWL (hr/sem)	150		
Module Level	2	Semester of Delivery	
Administering Department		College	
Module Leader	Dr. Raidah S. Khudayer		e-mail
Module Leader's Acad. Title		professor	Module Leader's Qualification
			Ph.D.
		e-mail	
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	1/6/2024	Version Number	

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

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	<ol style="list-style-type: none"> 1. To know the meaning of data structures in computer science and their classification. 2. To understand how each data structure is stored in memory. 3. To understand how access to each data structure is stored in memory. 4. To perform basic operations on each data structure. 5. To implement each data structure by using any programming language.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> 1. It provides the means of data types and data structures. 2. Identify the classification of data structures and the main operations of them. 3. Identify arrays and discuss the features, main operations, how to access each element, and how to implement them in Java. 4. Identify how representation strings are created and how to create a string object in Java. 5. Identify linked lists and discuss the features, main operations, types, and how to implement them in Java. 6. Identify the stacks and discuss the features, main operations, Applications, including implementation in Java using arrays and linked lists. 7. Discuss how to evaluate the expression using the stack. 8. Learn how to write the implementation of a recursive function by using a stack. 9. Identify the queues and discuss the features, main operations, applications, and how to implement them in Java using arrays and linked lists.
Indicative Contents المحتويات الإرشادية	<ul style="list-style-type: none"> • Introduction to Data Structures • Classification of Data Structures • Arrays • Strings • Linked lists • Stacks • Application of Stack • Recursion • Queues

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<p>The main strategy that will be adopted in this module is through a series of lectures on the theoretical underpinnings of how the data is organized in memory and how it is implemented by using one of the programming languages, such as Java. This will be achieved through, instead of theoretical lectures in classes and projects in the lab, many assignments increase the activities and understanding of students:</p> <ol style="list-style-type: none"> 1. Several quizzes assess the student's competency at the end of each topic. 2. There is a midterm class test. 3. There are take-home mini-projects by a team of 2 students. 4. There is an end-of-semester exam.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	64	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	86	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	5.7
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	4 and 8	LO #3- #5 and #7
	Assignments	2	10% (10)	6 and 10	LO #8, #9
	Projects / Lab.	1	20% (20)	14	LO #3- #9
	Report	-	-	-	-
Summative assessment	Midterm Exam	1hr	10% (10)	7	LO #1 - #6
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction - Types of Data Types, Types of Data Structures
Week 2	Arrays DS: definition, features, logic, physical structure, and access equations of a one-dimensional array.
Week 3	Arrays DS: logic, physical structure, and access equations of two-dimensional arrays.
Week 4	Arrays DS: logic, physical structure, access equation of three and multi-dimensional arrays, and triangle arrays.
Week 5	Strings DS: definition, basic representations in memory, and creating a string object.
Week 6	Stack DS: definition, features, implementation using lists and arrays
Week 7	Stack DS: application uses a list and arrays
Week 8	Mid-term Exam

Week 9	Queue DS: definition, features, implementation using lists and Arrays
Week 10	Queue DS: application uses a list and an array
Week 11	Queue DS: types of queues
Week 12	Object-Oriented Programming (OOP) definition, Classes and Objects, Encapsulation, Inheritance, Polymorphism
Week 13	Linked Lists DS: definition, advantages and disadvantages of arrays and linked lists, basic operations of linked lists, types of linked lists.
Week 14	Stack and queue implementation using linked lists
Week 15	Implementation of linked lists using OOP

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Arrays in the Java language
Week 2	Tasks in arrays using the Java language
Week 3	String methods in the Java language
Week 4	Tasks in Strings using Java language
Week 5	Stack in Java language
Week 6	Stack to evaluate expression
Week 7	Queues in Java language
Week 8	Queues to evaluate expression
Week 9	OOP in Java languages
Week 10	Linked Lists in Java language
Week 11	Tasks in linked lists (single and circular linked lists)
Week 12	Tasks in linked lists (double and Circular Double Linked Lists)
Week 13	Implement a stack and a queue using linked lists in Java
Week 14	Implementation of linked lists using OOP in Java
Week 15	Final project presentation

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	1. DATA STRUCTURES AND ALGORITHMS IN JAVA, MICHAEL T. GOODRICH, ROBERTO TAMASSIA, MICHAEL H. GOLDWASSER (6 TH EDITION) , 2014. 2. Data Structures and Algorithmic Thinking with Python By Narasimha Karumanchi, 2016. 3. A Textbook of Data Structures and Algorithms, Granville Barnett, and Luca Del Tongo 2008	
Recommended Texts	Hands-On Data Structures and Algorithms with Java by Michael T. Goodrich, 2014	No
Websites	https://realJava.com/Java-data-structures/ GeeksforGeeks: https://www.geeksforgeeks.org/	

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

2025\2026

Module Information				
Module Title	Web Programming II		Module Delivery	
Module Type	BASIC		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code				
ECTS Credits	3			
SWL (hr/sem)	100			
Module Level	2	Semester of Delivery		
Administering Department	CIS	College	CSIT	
Module Leader	Dr. Nahla Abbas Flayh		e-mail	Nahla.flayh@uobasrah.edu.iq
Module Leader's Acad. Title	lecturer	Module Leader's Qualification	Ph.D	
Module Tutor	No	e-mail	E-mail	
Peer Reviewer Name	Name	e-mail	E-mail	
Scientific Committee Approval Date	No	Version Number		

Relation with other Modules			
Prerequisite module	Web ProgrammingI	Semester	1 st
Co-requisites module		Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	1. Understand static vs dynamic websites

	<ol style="list-style-type: none"> 2. Implement dynamic behavior using JavaScript 3. Manipulate the DOM and handle events 4. Develop server-side applications using Node.js 5. Connect and manage MySQL databases 6. Build dynamic applications integrating frontend and backend
Module Learning Outcomes	<ol style="list-style-type: none"> 1. Design dynamic web pages using JavaScript 2. Apply JavaScript programming concepts 3. Manipulate web page elements using DOM 4. Develop server-side applications with Node.js 5. Perform database operations using MySQL 6. Integrate frontend and backend components

Learning and Teaching Strategies

Strategies	<ul style="list-style-type: none"> • Lectures and Demonstrations Deliver core theoretical concepts supported by live coding and real-world web application examples. • Hands-on Practical Labs Provide continuous coding practice to develop students' skills in building dynamic and interactive web applications. • Project-Based and Collaborative Learning Engage students in individual and group projects to simulate real industry development environments. • Continuous Assessment and Feedback Use assignments, quizzes, and project evaluations with regular feedback to improve learning outcomes.
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا

Structured SWL (h/sem)	64	Structured SWL (h/w)	
Unstructured SWL (h/sem)	36	Unstructured SWL (h/w)	
Total SWL (h/sem)	100		

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

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction to Dynamic Web Design
Week 2	Review of Static Web Design (HTML, CSS, JS Basics)
Week 3	JavaScript Fundamentals
Week 4	Control Structures (Conditions & Loops)
Week 5	Functions and Scope
Week 6	Arrays and Objects
Week 7	DOM Manipulation and Events
Week 8	Client–Server Concepts
Week 9	Introduction to Node.js
Week 10	Node.js with MySQL (Database Basics)
Week 11	Node.js with MySQL (Database Basics)
Week 12	Node.js MySQL Database Operations (CRUD via Node.js)
Week 13	Node.js MySQL Database Operations (CRUD via Node.js)
Week 14	Final Project Implementation
Week 15	final Exam

Delivery Plan (Weekly Lab. Syllabus)

	Material Covered
Week 1	HTML & CSS review project
Week 2	JavaScript exercises
Week 3	DOM manipulation tasks
Week 4	Node.js programming
Week 5	MySQL database operations
Week 6	Full dynamic application implementation
Week 7	JavaScript exercises

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	<ol style="list-style-type: none"> 1. Duckett, J. JavaScript and JQuery: Interactive Front-End Web Development 2. Flanagan, D. JavaScript: The Definitive Guide 3. Node.js Official Documentation 4. MySQL Official Documentation 	Available in the electronic library
Recommended Texts	Web Development with Node & Express — Ethan Brown Node.js Web Development — David Herron Node Cookbook — Bethany Griggs	Available in the electronic library
Websites	MDN – Express / Node.js Learning Path Official Node.js Documentation (General Reference) Community / Learning Lists (GitHub Node Books Collection)	

Grading Scheme

Group	Grade		Marks %	Definition
Success Group (50 - 100)	A - Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors
	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail		(45-49)	More work required but credit awarded

	F – Fail		(0-44)	Considerable amount of work required

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

Module Information					
Module Title	Business statistics			Module Delivery	
Module Type	Core			☒ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☒ Practical ☐ Seminar	
Module Code	CSIT0207				
ECTS Credits	6				
SWL (hr/sem)	148				
Module Level	2	Semester of Delivery			
Administering Department	CSIT0207	College	CSIT		
Module Leader	Hadeel Ismail Mustafa		e-mail	hadeelismu@gmail.com	
Module Leader's Acad. Title	Lecturer		Module Leader's Qualification	Ph.D.	
Module Tutor	Name (if available)		e-mail	E-mail	
Peer Reviewer Name	Name		e-mail	E-mail	
Scientific Committee Approval Date	1/06/2025		Version Number	1.0	
Relation with other Modules					
Prerequisite module	None			Semester	
Co-requisites module	None			Semester	
Module Aims, Learning Outcomes and Indicative Contents					
Module Objectives	<ul style="list-style-type: none"> - Learn the basics of applied statistics - Learn the basics of tabulating data - Learn the basics of methods for describing data, analyzing it statistically, and eliciting decisions - The ability to criticize websites and discover design errors with graphical and functional interfaces - Learn the basics of some basics of mathematical statistics - Learn the basics of the statistical programmer spss 				

Module Learning Outcomes	1 - The student learns the basic principles of descriptive statistics 2 - The student learns to deal with data 3 - The student learns to choose the appropriate statistical measures for any statistical study 4 - The student learns to use statistical software
Indicative Contents	<p><u>Introduction</u></p> <ul style="list-style-type: none"> - Meaning and definition of statistics - Types of data and data sources - Types statistics - Scope of statistics - Importance of statistics in business - Limitations of statistics <p><u>Central tendency</u></p> <ul style="list-style-type: none"> - Arithmetic mean - Median - Mode <p><u>Central tendency</u></p> <ul style="list-style-type: none"> - Relationships of mean, median and mode - The best measure of central tendency <p><u>Central tendency</u></p> <ul style="list-style-type: none"> - Geometric mean - Harmonic <p><u>Dispersion</u></p> <ul style="list-style-type: none"> - Meaning and definition of dispersion - Significance and properties Of measuring Variation - Measures of dispersion - Mean deviation - Standard deviation <p><u>Dispersion</u></p> <ul style="list-style-type: none"> - Skewness: meaning of definition - Test of skewness - Measures skewness <p><u>Dispersion</u></p> <ul style="list-style-type: none"> - Moments - Kurtosis <p><u>Random variable</u></p> <ul style="list-style-type: none"> - Principles of probability theory - Definition of Random variable - Types of Random variable - Function of Random variable <p><u>Random variable</u></p> <ul style="list-style-type: none"> - Moment generating function - Joint distribution and distribution and marginal distribution <p><u>Distribution</u></p> <ul style="list-style-type: none"> - Discrete Distributions

	<ul style="list-style-type: none"> - Binomial distribution - Bernoulli distribution Poisson distribution <u>Distribution</u> - Continuous distribution - Uniform distribution - Gamma distribution normal distribution <u>Simple Linear Regression</u> - Simple Linear Regression Model - Regression Model and Regression Equation - Correlation Coefficient
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Learning and Teaching Strategies

Strategies	Providing distinguished educational and research services that keep pace with local and international quality standards in the fields of computer and informatics, allowing for the preparation of a distinguished, competitive graduate, in addition to the completion of high-end projects and reports, and the active participation in community service.
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Student Workload (SWL)

Structured SWL (h/sem)	60	Structured SWL (h/w)	2
Unstructured SWL (h/sem)	88	Unstructured SWL (h/w)	
Total SWL (h/sem)	148		

Module Evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	4 and 12	
	Assignments	2	10% (10)	6 and 9	

	Projects / Lab.	-	-	-	-
	Report	1	10% (10)	12	
Summative assessment	Midterm Exam	2hr	20% (20)	8	
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	Introduction
Week 2	Central tendency
Week 3	Central tendency
Week 4	Central tendency
Week 5	Dispersion
Week 6	Dispersion
Week 7	Exam
Week 8	Dispersion
Week 9	Random variable
Week 10	Random variable
Week 11	Distribution
Week 12	Distribution
Week 13	Simple Linear Regression
Week 14	Exam
Week 15	

Delivery Plan (Weekly Lab. Syllabus)

	Material Covered
Week 1	An introductory lecture on SPSS
Week 2	Methods of entering data into the program according to their types
Week 3	Central tendency
Week 4	Dispersion
Week 5	Data analysis (parametric and nonparametric tests)
Week 6	Simple Linear Regression Model
Week 7	Exam

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	“Statistics for business and economics 12e” By David R. Anderson, Dennis J. SWEENEY, Thomas A. Williams. 2014	YES(E-copy)
Recommended Texts	“Introduction to Real World Statistics With Step-by-Step SPSS Instructions” by Edward T. Vieira, Jr. 2017	YES(E-copy)
Websites		

MODULE DESCRIPTION FORM نموذج

وصف المادة الدراسية

Module Information معلومات المادة الدراسية				
Module Title	Computer Networks II		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	CSIT0309			
ECTS Credits	7			
SWL (hr/sem)	175			
Module Level	3	Semester of Delivery		2
Administering Department	CSIT0309	College	CSIT	
Module Leader	Dr. Muslim Mohsin Khudhair		e-mail	Muslim.khudhair@uobasrah.edu.iq
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Ph.D.	
Module Tutor	Name (if available)		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date	01/02/2026	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
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<p>Module Objectives</p> <p>أهداف المادة الدراسية</p>	<ol style="list-style-type: none"> 1. Explain the network devices. 2. Medium access control 3. Switching in networks 4. Routing, internet working 5. Explain LAN Technologies. 6. Explains the IP addressing. 7. Explain the IP subnetting. 8. Explain the principles of routing.
<p>Module Learning Outcomes</p> <p>مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1. This course provides a technical and operational overview of digital computer networks, the foundation for all modern information systems and services. 2. It will learn about the major software and hardware technologies used on home and enterprise computer networks as well as the global Internet. 3. It will learn how information is encoded into digital packets, how it is transported across local networks like the one at SU, and how SU and other organizations interconnect over the Internet backbone. 4. This course will emphasize the critical importance of open network standards and protocols, which allow software and hardware from a variety of vendors to interoperate while also driving down the cost of network systems. 5. In addition to exploring the capabilities and limitations of today's most popular networks, including Ethernet, Wi-Fi, and Cellular, we'll also cover topics closely related to networks.

<p>Indicative Contents المحتويات الإرشادية</p>	<p>Routing Principles:</p> <ul style="list-style-type: none"> • General Routing Concepts • Link State and Distance Vector Protocols • Split Horizon • Summarization • Classful and a Classless routing protocol • Routing decision criteria • Routing Information Base (RIB) and Routing Protocols Interaction • Administrative Distance • Routing Table • RIB and Forwarding Information Base interaction • Redistribution • Redistribution between routing • Troubleshooting routing loop <p>IP Routing</p> <ul style="list-style-type: none"> • OSPF • Standard OSPF area • Stub area • Totally stub area • Not-so-stubby-area (NSSA) • Totally NSSA • Link State Advertisement (LSA) types • Adjacency on a point-to-point and on a multi-access (broadcast) • OSPF graceful restart • Troubleshooting failing adjacency formation to fail • Troubleshooting of external route installation in the RIB • EIGRP • Best path • Loop free paths • EIGRP operations when alternate loop free paths are available and when it is not available • EIGRP queries • Manual summarization • Auto-summarization • EIGRP Stubs • Troubleshooting of EIGRP neighbor adjacencies <p>LAN Switching</p>
	<ul style="list-style-type: none"> □ Trunks □ VLAN Trunking Protocol (VTP) administrative functions □ Ethernet □ Speed □ Duplex □ Ethernet □ Fast Ethernet □ Gigabit Ethernet

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	In a computer network course, students will learn strategies to know the basic concepts of communications and computer networks, and identifies their basics, benefits, shapes, architectures, layers, functions, and possible services, in addition to how to network them.
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Student Workload (SWL) الدرايس للطالب محسوب ل ١٥ أسبوعا			
Structured SWL الحمل الدرايس المنتظم للطالب خلال الفصل	60	Structured SWL (hr/w) الحمل الدرايس المنتظم للطالب أسبوعيا	4
Unstructured SWL (hr/sem) الحمل الدرايس غرت المنتظم للطالب خلال الفصل	115	Unstructured SWL (hr/w) الحمل الدرايس غرت المنتظم للطالب أسبوعيا	6
Total SWL (hr/sem) الحمل الدرايس الكلي للطالب خلال الفصل	175		

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

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوي ع النظري

	Material Covered
Week 1	Routing Principles <ul style="list-style-type: none"> • General Routing Concepts • Link State and Distance Vector Protocols • Split Horizon • Summarization
Week 2	Routing Principles <ul style="list-style-type: none"> • Classful and a Classless routing protocol • Routing decision criteria • Routing Information Base (RIB) and Routing Protocols Interaction
Week 3	Routing Principles <ul style="list-style-type: none"> • Administrative Distance • Routing Table • RIB and Forwarding Information Base interaction
Week 4	Routing Principles <ul style="list-style-type: none"> • Redistribution • Redistribution between routing • Troubleshooting routing loop
Week 5	IP Routing <ul style="list-style-type: none"> • OSPF • Standard OSPF area • Stub area
Week 6	IP Routing <ul style="list-style-type: none"> • Totally stub area • Not-so-stubby-area (NSSA) • Totally NSSA
Week 7	IP Routing <ul style="list-style-type: none"> • Link State Advertisement (LSA) types • Adjacency on a point-to-point and on a multi-access (broadcast) □ OSPF graceful restart
Week 8	IP Routing <ul style="list-style-type: none"> • Troubleshooting failing adjacency formation to fail • Troubleshooting of external route installation in the RIB • EIGRP
Week 9	IP Routing
	<ul style="list-style-type: none"> • Best path • Loop free paths • EIGRP operations when alternate loop free paths are available and when it is not available

Week 10	IP Routing <ul style="list-style-type: none"> EIGRP queries Manual summarization
Week 11	IP Routing <ul style="list-style-type: none"> Auto-summarization EIGRP Stubs Troubleshooting of EIGRP neighbor adjacencies
Week 12	LAN Switching <ul style="list-style-type: none"> Trunks VLAN Trunking Protocol (VTP) administrative functions
Week 13	LAN Switching <ul style="list-style-type: none"> Ethernet Speed
Week 14	LAN Switching <ul style="list-style-type: none"> Duplex Ethernet
Week 15	LAN Switching <ul style="list-style-type: none"> Fast Ethernet Gigabit Ethernet
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوي للمختات	
	Material Covered
Week 1	Study different types of Network cables and practically implement the cross-wired cables and straight-through cables using a clamping tool.
Week 2	
Week 3	Study of Network Devices in Detail.
Week 4	Study of Network addressing.
Week 5	Connect the computers in LAN.
Week 6	Packet Tracer Program.
Week 7	Basic Switch & Router Configuration.
Week 8	Router Configuration in Small Network.
Week 9	Address Resolution Protocol ARP and Reverse Address Resolution Protocol RARP.
Week 10	Domain Name Service (DNS)
Week 11	Dynamic Host Control Protocol (DHCP).
Week 12	Virtual Local Area Network (VLAN).
Week 13	Comprehensive testing laboratory procedures.

Delivery Plan (Weekly Tutorial Syllabus)

المنهاج الاسبوعي

	Material Covered
Week 1	Examples and exercises on the topic1
Week 2	Examples and exercises on the topic1
Week 3	Examples and exercises on the topic2
Week 4	Examples and exercises on the topic2
Week 5	Examples and exercises on the topic3
Week 6	Examples and exercises on the topic3
Week 7	Examples and exercises on the topic3
Week 8	Examples and exercises on the topic4
Week 9	Examples and exercises on the topic4
Week 10	Examples and exercises on the topic5
Week 11	Examples and exercises on the topic5
Week 12	Examples and exercises on the topic6
Week 13	Examples and exercises on the topic6

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	<p>Textbook:</p> <ol style="list-style-type: none"> Behrouz A. Forouzan - Data Communications and Networking with TCP_IP Protocol Suite-McGraw Hill (2021) James F. Kurose, Keith W. Ross - Computer Networks A Top-Down Approach -Laxmi Publications (2017) Tanenbaum Andrew S., Wetherall David J. - Computer Networks-Prentice Hall (2011) 	Yes (E-copy)

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
	A - Excellent	امتياز	90 - 100	Outstanding Performance

Success Group (50 - 100)	B - Very Good	جيد جدا	80 - 89	Above average with some errors
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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Operating Systems		Module Delivery
Module Type	Core		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code	CSITCIS0302		
ECTS Credits	6		
SWL (hr/sem)	150		
Module Level	3	Semester of Delivery	
Administering Department	CSITCIS0302	College	CSIT
Module Leader	Dr. Abbas H. Hassin Alasadi	e-mail	abbas.hassin@uobasrah.edu.iq
Module Leader's Acad. Title	Professor	Module Leader's Qualification	Ph.D.
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/09/2025	Version Number	2.0

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	<ol style="list-style-type: none"> Understand the purpose and functions of an operating system: <ul style="list-style-type: none"> Learn about the role of an operating system in managing computer hardware and software resources. Understand how an operating system provides a user interface and facilitates communication between applications and hardware. Study process management: <ul style="list-style-type: none"> Understand the concept of a process and its components.

	<ul style="list-style-type: none"> • Learn about process scheduling algorithms, process synchronization, and inter-process communication mechanisms. <ol style="list-style-type: none"> 3. Explore memory management: <ul style="list-style-type: none"> • Understand the concept of memory hierarchy and memory organization in a computer system. • Learn about memory allocation techniques, virtual memory, and memory protection mechanisms. 4. Study file systems: <ul style="list-style-type: none"> • Understand the concept of a file and file system organization. • Learn about file operations, directory structures, and file system implementation techniques. 5. Explore input/output (I/O) management: <ul style="list-style-type: none"> • Understand the principles of I/O devices and their interaction with the operating system. • Learn about I/O device drivers, buffering, and I/O scheduling algorithms. 6. Study deadlock handling: <ul style="list-style-type: none"> • Understand the concept of a deadlock and its causes. • Learn about deadlock prevention, avoidance, detection, and recovery strategies. 7. Understand security and protection mechanisms: <ul style="list-style-type: none"> • Learn about access control mechanisms, authentication, and authorization. • Study different security threats and techniques for protecting the operating system and user data. 8. Explore distributed systems: <ul style="list-style-type: none"> • Understand the concepts and challenges of distributed systems. • Learn about network protocols, distributed file systems, and synchronization algorithms in distributed environments. 9. Analyze case studies: <ul style="list-style-type: none"> • Study real-world operating systems like Unix, Linux, Windows, or macOS. • Understand these operating systems' design principles, architectural components, and functionalities.
<p>Module Learning Outcomes</p> <p>مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1. Set up, configure, and utilize a modern Java development environment on the Windows operating system for systems-level programming. 2. Execute Java programs both from an Integrated Development Environment (IDE) and the Windows command-line interface. 3. Demonstrate process creation and control by programmatically launching and managing external Windows applications using Java's ProcessBuilder and Runtime classes. 4. Design and implement multithreaded Java applications to achieve concurrency, demonstrating an understanding of the thread lifecycle. 5. Implement solutions to classic synchronization problems (e.g., Producer-Consumer, Dining Philosophers) using Java's concurrency utilities (synchronized, ReentrantLock) to prevent race conditions and deadlock. 6. Simulate, analyze, and compare core CPU scheduling algorithms (FCFS, SJF,

	<p>Round-Robin) and evaluate their performance based on metrics like average waiting time.</p> <ol style="list-style-type: none"> 7. Simulate, analyze, and compare memory allocation strategies (First-Fit, Best-Fit, Worst-Fit) and page replacement algorithms (FIFO, LRU, Optimal), evaluating their impact on performance and fragmentation. 8. Simulate, analyze, and compare disk scheduling algorithms (FCFS, SSTF, SCAN, C-SCAN) and calculate total head movement to evaluate efficiency. 9. Apply Java's New I/O (NIO) API to perform advanced file system operations on Windows, including directory traversal, file copying, and directory monitoring. 10. Develop a simple distributed application using TCP socket programming in Java to understand the principles of inter-process communication (IPC) across a network. 11. Synthesize multiple operating system concepts (processes, threads, synchronization, scheduling, memory management) into a single, comprehensive final project. 12. Critically evaluate the trade-offs involved in the design and implementation of different operating system algorithms and strategies.
<p>Indicative Contents</p> <p>المحتويات الإرشادية</p>	<ol style="list-style-type: none"> 1. Introduction to Operating Systems: <ul style="list-style-type: none"> • Purpose and types of operating systems. • Evolution and history of operating systems. 2. Process Management: <ul style="list-style-type: none"> • Processes, threads, and scheduling. • Process synchronization and communication. 3. Memory Management: <ul style="list-style-type: none"> • Memory organization and allocation techniques. • Virtual memory and paging. 4. File Systems: <ul style="list-style-type: none"> • File system structure and operations. • Directory structures and file allocation methods. 5. I/O Management: <ul style="list-style-type: none"> • I/O devices, drivers, and operations. • I/O buffering and scheduling. 6. Deadlocks: <ul style="list-style-type: none"> • Deadlock concept, prevention, detection, and recovery. 7. Security and Protection: <ul style="list-style-type: none"> • User authentication, access control, and security threats. 8. Distributed Systems: <ul style="list-style-type: none"> • Concepts, challenges, and synchronization in distributed systems. 9. Case Studies: <ul style="list-style-type: none"> • Analysis of real-world operating systems and their features.

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	Employing these strategies can create a comprehensive and engaging learning experience in an operating system module, such as lectures, interactive discussions, hands-on lab sessions, case studies, assignments, projects, guest lectures, online resources, assessments, group projects, and continuous support.
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Student Workload (SWL)

الحمل الدراسي للطلاب محسوب لـ ١٥ أسبوعا

Structured SWL (hr/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	60	Structured SWL (hr/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	4
Unstructured SWL (hr/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	90	Unstructured SWL (hr/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	6
Total SWL (hr/sem) الحمل الدراسي الكلي للطلاب 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	#1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	#3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	#5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	#1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
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Week 1	Introduction to Operating Systems <ul style="list-style-type: none"> Lecture: Purpose and types of operating systems Discussion: Evolution and history of operating systems
Week 2	Process Management <ul style="list-style-type: none"> Lecture: Processes, threads, and scheduling Lab Session: Implementing process scheduling algorithms
Week 3	Process Synchronization <ul style="list-style-type: none"> Lecture: Process synchronization and inter-process communication Lab Session: Implementing synchronization mechanisms
Week 4	Memory Management <ul style="list-style-type: none"> Lecture: Memory Organization and allocation techniques Lab Session: Simulating memory allocation strategies
Week 5	Virtual Memory <ul style="list-style-type: none"> Lecture: Virtual memory concepts and demand paging Lab Session: Implementing a basic virtual memory system
Week 6	File Systems <ul style="list-style-type: none"> Lecture: File system structure and Operations Lab Session: Implementing file operations and directory structures
Week 7	I/O Management <ul style="list-style-type: none"> Lecture: I/O devices, drivers, and operations Lab Session: Simulating I/O buffering and scheduling algorithms
Week 8	Deadlocks <ul style="list-style-type: none"> Lecture: Deadlock concept and necessary conditions Lab Session: Implementing deadlock detection and recovery algorithms
Week 9	Security and Protection <ul style="list-style-type: none"> Lecture: User authentication, access control, and security threats Discussion: Case studies on security vulnerabilities and countermeasures
Week 10	Distributed Systems <ul style="list-style-type: none"> Lecture: Concepts, challenges, and Synchronization in distributed systems Lab Session: Simulating distributed file systems and synchronization algorithms
Week 11	Case Study: Unix <ul style="list-style-type: none"> Lecture: Analysis of Unix architecture and features Group Project: Analyzing Unix file system and process management

Week 12	Case Study: Linux <ul style="list-style-type: none"> Lecture: Analysis of Linux architecture and features Group Project: Comparing Linux and Unix system calls and utilities
Week 13	Case Study: Windows <ul style="list-style-type: none"> Lecture: Analysis of Windows architecture and features Group Project: Exploring Windows Registry and security mechanisms
Week 14	Review and Exam Preparation <ul style="list-style-type: none"> Review of key topics and concepts Exam practice and preparation
Week 15	Project Presentations and Wrap-up <ul style="list-style-type: none"> Group project presentations Discussion and reflection on the course
Week 16	A preparatory week before the Final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Laboratory Introduction & Environment Setup Set up the Java development environment on Windows and understand the lab's scope. JDK installation, IDE setup.
Week 2	Understand process creation and management using Java's ProcessBuilder and Runtime classes. Write a program using ProcessBuilder to launch a command (e.g., dir, ping) and read its output stream.
Week 3	Multithreaded Programming I - Basics Create multiple threads by extending the Thread class and implementing the Runnable interface. Demonstrate a simple multithreaded program where each thread prints a unique identifier.
Week 4	Multithreaded Programming II - Concurrency Control Create a program that simulates the "Producer-Consumer" problem without synchronization, demonstrating a race condition.
Week 5	CPU Scheduling Simulation Write a Java program that simulates a CPU scheduler. The program should accept a list of processes with arrival time and burst time. Implement and compare the output (average waiting time, turnaround time) for: First-Come, First-Served (FCFS) Shortest-Job-First (SJF) Round-Robin (RR) with a given time quantum
Week 6	Midterm Project Review / Catch-up Week
Week 7	Process Synchronization - The Dining Philosophers

	Implement the Dining Philosophers problem with 5 philosophers. First, implement a solution that leads to a deadlock.
Week 8	Memory Management Simulation Write a Java program to simulate dynamic memory allocation. Implement the following algorithms for allocating memory blocks to processes: First-Fit Best-Fit Worst-Fit
Week 9	Page Replacement Algorithm Simulation Write a Java program that simulates a page replacer. FIFO (First-In-First-Out) LRU (Least Recently Used) Optimal (OPT)
Week 10	File System Operations in Java Write a program that recursively traverses a directory tree and prints file names and sizes (a simple tree command). Write a program that copies a file from one location to another, demonstrating byte-stream operations.
Week 11	Disk Scheduling Simulation Write a Java program to simulate a disk scheduler. Implement and calculate the total head movement for: FCFS SSTF (Shortest Seek Time First) SCAN (Elevator) C-SCAN
Week 12	Final Project Workshop
Week 13	

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Textbook: 1. "Operating System Concepts" by Abraham Silberschatz, Peter B. Galvin, and Greg Gagne, 2020 2. "Modern Operating Systems" by Andrew S. Tanenbaum and Herbert Bos, 2014.	Yes (E-copy)
Recommended Texts	"Operating Systems: Internals and Design Principles" by William Stallings.	Yes (E-copy)
Websites	GeeksforGeeks: https://www.geeksforgeeks.org/	

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 is required, but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

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

Course Description: Network Protocols and E-Commerce

1. Course Name:	
Network Protocols and E-Commerce	
2. Course Code	
3. Semester / Year	
First	
4. Description Preparation Date	
1/2/2026	
5. Available Attendance Forms	
Regular attendance	
6. Number of Credit Hours (Total) / Number of Units (Total)	
4 hours/3 units	
7. Course administrator's name (mention all, if more than one name)	
Name: Dr. Muslim Mohsin Khudhair Email: muslim.khudhair@uobasrah.edu.iq	
8. Course Objectives	
Course Objectives	<p>A- Cognitive Objectives</p> <ul style="list-style-type: none"> 1- Learn about e-commerce and how it works. 2- Learn about network protocols. 3- Communicate with the beneficiary and be able to identify the objectives and reasons for advertising and e-commerce. 4- Be able to build an e-commerce business correctly. <p>B- Course Skill Objectives</p> <ul style="list-style-type: none"> 1- The ability to manage and administer e-business. 2- Work within a team, understand assigned tasks, and complete them within a specified timeframe. 3- Be able to understand how e-commerce works and the risks associated with it.

9. Teaching and Learning strategies

Strategy	<ol style="list-style-type: none"> 1. Deliver lectures and present the topic using a data show. 2. Discuss by asking questions, opening the door to dialogue, and interacting with students.
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	<ol style="list-style-type: none"> 3. Assign students to design and conduct studies on the labour market and link it to e-commerce, in line with labour market requirements. 4. Assign students to prepare brief reports on selected topics. 5. Assign students to prepare preliminary projects for building e-commerce websites. 6. Assign students to conduct optional lectures on topics related to networks, communications, and e-commerce.
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10. Course Structure

Week	Hours	Required Outcomes	Unit or Subject Name	Learning Method	Evaluation Learning
1-2	6	Theoretical	Introduction to electronic commerce	Lecture using data show	Questions and Discussion
3-4	6	Theoretical	Business Models for ecommerce	Lecture using data show	Questions and Discussion
5	3	Theoretical	Electronic Marketing vs. traditional marketing	Lecture - Explanation	Laboratory and Theoretical Exam
6-7	6	Theoretical	Enabling technologies of the World Wide Web	Lecture using data show	Theoretical Exam
8	3	Theoretical	Electronic security	Lecture - Explanation	Questions and Discussion
9-11	6	Theoretical	Electronic payment systems	Lecture - Explanation	Questions and Discussion
12-13	6	Theoretical	E-payment security issues	Lecture - Explanation	Laboratory and Theoretical Exam
14-15	6	Theoretical	<ul style="list-style-type: none"> • Mobile Commerce • .Customer effective web design. • Legal and ethical issues in e-business. 	Lecture - Explanation	Discussion, questions, and technical solutions to some ecommerce problems

11. Course Evaluation

1. Weekly laboratory and monthly theoretical tests.
2. Practical projects and e-commerce websites using web development languages.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	Rana Tassabehji - Applying E-Commerce in Business-Sage Publications Ltd
	(Advanced Studies in E-Commerce) - E-Commerce_ Concepts, Principles, and Application-Springer
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information				
معلومات المادة الدراسية				
Module Title	Operations Research		Module Delivery	
Module Type	Core		☒ Theory ☒ Lecture ☐ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	CSITCIS307			
ECTS Credits	6			
SWL (hr/sem)	150			
Module Level	3	Semester of Delivery		6
Administering Department	CIS	College	CSIT	
Module Leader	Ass. Lecture . Zainab B. Dahoos		e-mail	zainab.dahoos@uobasrah.edu.iq
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification		
Module Tutor			e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail	
Scientific Committee Approval Date		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	<ol style="list-style-type: none"> 1. Modeling realistic problems with different mathematical formulas. 2. Finding a solution to any problem available in the labor market after modeling it using different methods of solution. 3. Searching for the best solution to the problem and searching for the best method used to deliver the product to the labor market.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<p>Cognitive goals</p> <ol style="list-style-type: none"> 1. Enable the student to identify problems in the labor market. 2. The student's ability to model realistic problems. 3. Enabling the student to solve any problem he encounters in the labor market by converting it into a mathematical model and solving it in one of the solutions. <p>Skill objectives for the course</p> <ol style="list-style-type: none"> 1. Work as a member of a team to solve any problem in the market. 2. Understanding mathematics through practice
Indicative Contents المحتويات الإرشادية	<p>Indicative content includes the following.</p> <p>Part A – Linear Programming Constructing Linear Programming Models, Forms of Linear programming model, The formulation of linear programming Model, Method of solution of Linear programming Model. [8hrs]</p> <p>Part B - Method of solution of Linear programming Model Graphical method , Simplex Method. [8 hrs]</p> <p>Part C - Artificial Variable Technique, Duality in Linear Programming Two Phase Method, Duality and simplex method [9 hrs]</p> <p>Part D – Transportation Problems Method for Initial Basic Feasible Solution to a transportation problems, North-West Corner Rule, Least Cost Method, Vogel's Approximation Method, Testing initial basic feasible solution and obtain by it the optimal solution, Stepping Stone Method, Modified Distribution method. [10 hrs]</p> <p>Part E – Assignment Problems [6 hrs]</p>

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	Providing distinguished educational and research services that keep pace with local and international quality standards in the fields of computer and informatics. These services allow preparing a distinguished, competitive graduate. In addition to that, the completion of high-end scientific research and effective participation in community service and building a knowledge-based economy.
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	47	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	103	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	6.5
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	2	10% (10)	3 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	4 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	9	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction – Linear programming Models, Forms of Linear programming Models
Week 2	Application Examples , Graphical Methods for Solving Linear Programming Models
Week 3	Simplex Method
Week 4	Solving Linear Programming Problems by Simplex Method
Week 5	Artificial Variable Technique
Week 6	Duality in Linear Programming Problem
Week 7	Duality and Simplex Method
Week 8	Assignment 1
Week 9	Transportation Problems
Week 10	Initial Basic Feasible Solution of Transportation problems
Week 11	Optimal Solution of Linear Programming Problems
Week 12	Unbalanced Transportation Problem
Week 13	Assignment 2
Week 14	Assignment Problems
Week 15	The Hungarian Method for Assignment Problem
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

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

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Makebest Decisions Through Operations Research, S.D.SHARMA	Yes
Recommended Texts	Prem Kumar Gupta, D.S. HIRA, S.CHAND بحوث العمليات ((مفهوما وتطبيقا) تأليف الدكتور حامد سعد نور الشمري	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

2025\2026

Module Information					
Module Title	Software Engineering		Module Delivery		
Module Type	Core		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar		
Module Code	IMS303				
ECTS Credits	6				
SWL (hr/sem)	150				
Module Level	3	Semester of Delivery		5	
Administering Department	IMS	College	CSIT		
Module Leader	Dr. Hayder Mahdi Al-maneea		e-mail	Hayder.abdullah@uobasrah.edu.iq	
Module Leader's Acad. Title	Lecturer		Module Leader's Qualification	Dr.	
Module Tutor	Dr. Hayder Mahdi Al-maneea		e-mail	E-mail	
Peer Reviewer Name	Dr. Hayder Mahdi Al-maneea		e-mail	E-mail	
Scientific Committee Approval Date	8/2/2026		Version Number	3.0	

Relation with other Modules			
Prerequisite module	No	Semester	No
Co-requisites module	No	Semester	No

Module Aims, Learning Outcomes and Indicative Contents

Module Objectives	<ol style="list-style-type: none"> 1. Understanding the fundamentals of the software lifecycle, from requirements and design to programming, testing, and development. 2. Applying the principles of object-oriented programming. 3. Understanding teamwork and fostering a collaborative spirit. 4. Equipping students with the skills necessary to produce and manage large-scale application software. 5. Learning how to schedule and create a clear work plan for the software system to be developed. 6. Understanding the importance of software engineering and its role in meeting the demands of the job market.
Module Learning Outcomes	<ol style="list-style-type: none"> 1. Explain software engineering principles, models, and methodologies. 2. Describe the phases of the software development life cycle. 3. Understand quality assurance, testing, and maintenance concepts. 4. Analyze user requirements and produce software requirement specifications. 5. Design software systems using UML and architectural principles 6. Implement software collaboratively using version control tools. 7. Apply basic testing techniques to verify software quality. 8. Work effectively in a team to deliver a software project. 9. Communicate technical ideas through documentation and presentations. 10. Reflect on professional and ethical responsibilities in software development.

Learning and Teaching Strategies

Strategies	<ol style="list-style-type: none"> 1- Using Brain Storm and Critical Thinking techniques in Software Engineering. 1- Lectures (conceptual foundations and theory). 2- Practical laboratory sessions. 3- Project-Based Learning (team software project). 4- Case studies and real-world examples. 5- Group discussions and peer learning. 6- Flipped classroom activities (selected topics).
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا

Structured SWL (h/sem)	60	Structured SWL (h/w)	4
Unstructured SWL (h/sem)	90	Unstructured SWL (h/w)	6
Total SWL (h/sem)	150		

Module Evaluation					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	1	10% (10)	6	All
	Assignments	1	5% (5)	3	All
	Project	1	10% (10)	Continuous	All
	Lab	1	15% (15)	Continuous	All
Summative assessment	Midterm Exam	2hr	10% (10)	7	All
	Final Exam/Lab	3hr	15% (15)	15	All
	Final Exam		35% (35)	16	
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Using Brain Storm Critical Thinking and Team-Work techniques in Software Engineering.
Week 2	Introduction to Software Engineering, Software Crisis.
Week 3	Using Brain Storm and Critical Thinking techniques in Software Engineering.
Week 4	Software process Software Development Life Cycle (SDLC) Models.
Week 5	Software Requirements and Specification.
Week 6	Functional modelling .
Week 7	System Modelling (Structure and Behaviour).
Week 8	Software Design Concepts and Principles .
Week 9	User Interface Design
Week 10	Software design based on GRASP principles.
Week 11	Software verification and validation.
Week 12	Software Testing Fundamentals.
Week 13	Software Maintenance and Evolution.
Week 14	Implementation Practices and Coding Standards.
Week 15	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)

	Material Covered
Week 1	Lab 1: Introduction to Data Visualisation.
Week 2	Lab 2: Data Types and Data Cleaning
Week 3	Lab 3: Visual Encoding and Colour: Colour, scales and legends
Week 4	Lab 4: Introduction to Basic Charts: Bar chart
Week 5	Lab 5: Coding Bar chart
Week 6	Lab 6: Introduction to Line chart
Week 7	Lab 7: Line chart
Week 8	Lab 8: Introduction to Pie chart
Week 9	Lab 9: Coding Pie chart
Week 10	Lab 10: Introduction to Map chart
Week 11	Lab 11: Coding Map chart
Week 12	Lab 12: Introduction to Dashboards and Multiple Views
Week 13	Lab 13: Dashboards and Multiple Views: Subplots
Week 14	Lab 14: Dashboards and Multiple Views: Coordinated views
Week 15	Lab 15: Lab final Exam

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	Main Textbook	Available in the electronic library
Recommended Texts	Ian Sommerville, Software Engineering, 9th Edition	Available in the electronic libraries
Websites	Online documentation and tutorials	

Grading Scheme				
Group	Grade		Marks %	Definition
Success Group (50 - 100)	A - Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors
	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail		(45-49)	More work required but credit awarded
	F – Fail		(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.				

نموذج وصف المادة الدراسية لسنة 2025/2024

معلومات المادة الدراسية				
طرق إيصال المادة العلمية	بحوث العمليات في الاعمال		عنوان الوحدة	
<ul style="list-style-type: none"> • نظري • محاضرات مفتوحة للطلاب • مختبرات • أفلام علمية • سمينارات • سفرات علمية للمستشفى 	مادة رئيسية	نوع الوحدة		
	CSITCIS307	نموذج Code		
	6	الساعات المعتمدة ضمن النظام الأوربي		
	150	SWL (hr/sem)		
2	فصل الدراسي	الثالثة	المرحلة الدراسية	
كلية علوم الحاسوب وتكنولوجيا المعلومات	الكلية	نظم المعلومات الحاسوبية	القسم الإداري	
zainab.dahoos@uobasrah.edu.iq	e-mail	زينب باقر دهوس	مدرس المادة	
ماجستير	المؤهلات	مدرس مساعد	اللقب العلمي	
E-mail	e-mail	ماجستير	مدرس مادة	
E-mail	e-mail		المصادر	
	رقم الاصدار		تاريخ موافقة اللجنة العلمية	

العلاقة مع المواد الدراسية الأخرى			
لا يوجد	الفصل الدراسي	لا يوجد	متطلبات الأساسية للوحدة
لا يوجد	الفصل الدراسي	لا يوجد	متطلبات الوحدة الأخرى

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
أهداف المادة الدراسية	<p>• فهم المفاهيم الأساسية لبحوث العمليات وأهميتها في دعم اتخاذ القرار.</p> <p>• صياغة المشكلات العملية في صورة نماذج رياضية قابلة للتحليل والحل.</p> <p>• تطبيق الأساليب التحليلية والخوارزميات مثل البرمجة الخطية، بحوث الشبكات، الطوابير، ونماذج</p>
مخرجات التعلم للمادة الدراسية	تعريف مفاهيم بحوث العمليات وبيان أهميتها في دعم اتخاذ القرار الإداري.

	<p>تحليل المشكلات الكمية وصياغتها في نماذج رياضية مناسبة.</p> <p>بناء نماذج البرمجة الخطية وتطبيق الأساليب العلمية لحلها.</p> <p>تفسير نتائج الحلول الرياضية وربطها بالتطبيقات العملية الواقعية.</p> <p>استخدام التفكير التحليلي والمنهجي في اختيار الحل الأمثل للمشكلات الإدارية والاقتصادية.</p>
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استراتيجيات التعلم والتعليم	
الاستراتيجيات	يعتمد المقرر على المحاضرات التفاعلية، حل التمارين العملية، استخدام البرمجيات التطبيقية، دراسة الحالات العملية، والمشاريع الفردية والجماعية لتعزيز الفهم النظري والتطبيق العملي للطلبة

الحمل الدراسي للطلاب محسوب لـ ١٥ أسبوعا			
الحمل الدراسي المنتظم للطلاب خلال الفصل	64	الحمل الدراسي المنتظم للطلاب أسبوعيا	4
الحمل الدراسي غير المنتظم للطلاب خلال الفصل	36	الحمل الدراسي غير المنتظم للطلاب أسبوعيا	2
الحمل الدراسي الكلي للطلاب خلال الفصل	100		

تقييم المادة الدراسية					
		الوقت/العدد	(الوزن)/ الدرجات	الأسابيع	نتائج التعلم ذات الصلة
التقييم التكويني	اختبارات يومية	1	%10	5 من 10	LO #1, #2 and #10, #11
	واجبات	1	%10	2 من 12	LO #3, #4 and #6, #7
	المشروع	1	%10	مستمر	All
	تقرير	1	%10	13	LO #5, #8 and #10
التقييم النهائي	امتحان النصف	2 ساعة	%10	7	LO #1 - #7
	امتحان النهائي	3 ساعات	%50	16	All
المجموع الكلي للتقديرات			100% درجات		

المناهج الأسبوعي النظري

المواد التي يغطيها	
مقدمه في بحوث العمليات	الأسبوع 1
البرمجة الخطية	الاسبوع 2
النماذج الرياضية	الأسبوع 3
طريقة الرسم البياني	الأسبوع الرابع
حل تمارين بطريقة الرسم البياني	الأسبوع 5
طريقة السمبلكس	الأسبوع 6
حل تمارين بطريقة سمبلكس	الاسبوع 7
تقنية المتغيرات الاصطناعية	الاسبوع 8
نظرية النموذج المقابل	الاسبوع 9
Assignment 1	الاسبوع 10
Transportation Problems	الاسبوع 11
Initial Basic Solution of Transportation problems	الاسبوع 12
Unbalanced Transportation Problem	الاسبوع 13
Assignment 2	الاسبوع 14
Assignment Problems	الاسبوع 15

المناهج الاسبوعي للمختبر

المواد التي سيتم تغطيتها بالمنهج	
	الاسبوع 1
	الاسبوع 2
	الاسبوع 3
	الاسبوع 4
	الاسبوع 5
	الاسبوع 6
	الاسبوع 7

مصادر التعلم والتدريس

متوفر في المكتبة؟	المصدر	
متوفر في المكتبة	Makebest Decisions Through Operations Research, S.D.SHARMA	المصدر المطلوب
متوفر في المكتبة	Prem Kumar Gupta, D.S. HIRA, S.CHAND بحوث العمليات ((مفهوما وتطبيقا) تأليف الدكتور حامد سعد نور الشمرتي	المصدر الموصى بها
		موقع الكتروني

مخطط الدرجات				
المجموعة	Grade	التقدير	الدرجات %	التعريف
مجموعة النجاح 100(-50)	أ (الامتياز)	امتياز	90 - 100	الأداء متميز
	ب- جيد جدا	جيد جدا	80 - 89	أعلى من المتوسط مع بعض الأخطاء
	ج (جيد)	جيد	70 - 79	عمل سليم مع أخطاء ملحوظة
	د (مرضي)	متوسط	60 - 69	متوسطة ولكن مع عيوب كبيرة
	هـ- مقبول	مقبول	50 - 59	الاداء يلبي الحد الأدنى من المعايير
مجموعة الفشل 49(-0)	الفشل (رسوب)	راسب (قيد المعالجة)	(45-49)	مطلوب المزيد من العمل ولكن تم منح الائتمان
	الرسوب	راسب	(0-44)	يحتاج للمزيد من العمل والجهد لنيل متطلبات النجاح
<p>ملاحظة: العلامات سيتم تقريب الأماكن العشرية أعلى أو أقل من 0.5 إلى العلامة الكاملة الأعلى أو الأدنى (على سبيل المثال، سيتم تقريب العلامة 54.5 إلى 55، بينما سيتم تقريب العلامة 54.4 إلى 54. لدى الجامعة سياسة عدم التفاضل عن "فشل النجاح القريب" لذا فإن التعديل الوحيد على العلامات التي تمنحها العلامة (العلامات) الأصلية سيكون التقريب التلقائي الموضح أعلاه.</p>				

MODULE DESCRIPTION FORM

Module Information				
Module Title	Business information system		Module Delivery	
Module Type	BASIC		<ul style="list-style-type: none"> ☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar Scientific trips to the institution 	
Module Code	IMS212			
ECTS Credits	4			
SWL (hr/sem)	100			
Module Level	2	Semester of Delivery		4
Administering Department	IMS	College	CSIT	
Module Leader	Teacher Doctor Arafat Naser Jasim alyousuf		e-mail	arafat.alyousuf@uobasrah.edu.iq
Module Leader's Acad. Title	Assistant lecturer		Module Leader's Qualification	M.Sc
Module Tutor	No		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date	No		Version Number	4.0

Relation with other Modules			
Prerequisite module	No	Semester	No
Co-requisites module	No	Semester	No

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	1. 1- Learn about service information systems within institutions

	<ol style="list-style-type: none"> 2. 2- Identify data, its types, and the difference between it and information 3. 3- Emphasizing the importance of technology infrastructure within institutions 4. 4- Learn about business information systems and what their purpose is 5. 5- Reasons for resistance to change from traditional systems to computer systems 6. 6- The role of business systems in enhancing other administrative functions 7. 7- Learn about the types of business information systems 8. 8- Explaining the role of business intelligence in the life of organizations
Module Learning Outcomes	<p>Below are brief learning outcomes for business information systems:</p> <ol style="list-style-type: none"> 1. Develop a comprehensive understanding of business information systems in the life of organizations 2. Gain practical skills in how, what type and what importance of data is collected 3. Explore ethical, legal and security considerations related to business information systems. 4. Applying knowledge to enhance administrative operational systems, including marketing and managing human and financial resources. 5. Scheduling work according to importance and path of work to achieve results 6. Improve data flow to the system periodically with continuous updating 7. Flow information in the correct path while maintaining the security of information from hacking

Learning and Teaching Strategies

Strategies	<ol style="list-style-type: none"> 1- Blended learning for practical efficiency by setting specific, measurable, achievable, relevant and time-bound learning objectives (SMART) for each part of the unit. 2- Combine online resources, video lectures, readings, and interactive activities to achieve a balanced learning experience. 3- We combine in-person or virtual classroom sessions for discussions, collaborative activities, and practical workshops. 4- Enabling learners to apply the acquired concepts to business systems management challenges in the real environment 5- Seeking intellectual development between study, understanding and practical applications
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Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا			
Structured SWL (h/sem)	64	Structured SWL (h/w)	4
Unstructured SWL (h/sem)	36	Unstructured SWL (h/w)	2
Total SWL (h/sem)	100		

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

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction to Business Information Systems
Week 2	Definition of business information systems
Week 3	The role of business information systems
Week 4	Description of the data and types of data that must be entered into the system
Week 5	System infrastructures of solid materials such as computers, networks, devices and equipment

Week 6	What are networks and their components
Week 7	Exam 1
Week 8	The relationship between business information systems and the functions of administrative institutions
Week 9	The role of business information systems in developing traditional businesses and making them electronic
Week 10	e-commerce
Week 11	Ways to obtain information
Week 12	Ready-made programs, benefits and disadvantages
Week 13	How we develop software
Week 14	Software development within the life cycle of organizations
Week 15	Rapid application development

Delivery Plan (Weekly Lab. Syllabus)

	Material Covered
Week 1	Lab 1: introduction
Week 2	Lab 2: Give the student an introduction to how to begin designing the application program
Week 3	Lab 3: We learn how to collect data and analyze it statistically
Week 4	Lab 4: Data categorized by department you work in
Week 5	Lab 5: Learn how to enter and tabulate data
Week 6	Lab 6: Learn how to update expired data
Week 7	Lab 7: : Learn how to extract previous reports to make decisions

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	Grefen, P. W. (2025). <i>Business information system architecture</i> . G. DBA.	Available in the electronic library
Recommended Texts	Chowdhury, R. H. (2025). <i>Digital leadership and organizational learning: Technologies for business transformation and operational excellence</i> . Deep Science Publishing.	Available in the electronic libraryyes
Websites	https://www.sciencedirect.com/science/article/pii/S1467089525000041	

	https://www.google.com/search?q=business+information+systems&oq=&gs_lcrp=EgZjaHJvbWUqCQgGEEUYOxjCAzIJCAAQRRg7GMIDMgkIARBFGDsYwgMyCQgCEEUYOxjCAzIJCAMQRRg7GMIDMgkIBBBFGDsYwgMyCQgFEEUYOxjCAzIJCAYQRRg7GMIDMgkIBxBFGDsYwgPSAQk2ODg4ajBqMTWoAgiwAgHxBSiTnWC-8eIJ&sourceid=chrome&ie=UTF-8
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Grading Scheme				
Group	Grade	assessment	Marks %	Definition
Success Group (50 - 100)	A - Excellent	Excellent	90 - 100	Outstanding Performance
	B - Very Good	Very Good	80 - 89	Above average with some errors
	C - Good	Good	70 - 79	Sound work with notable errors
	D - Satisfactory	Satisfactory	60 - 69	Fair but with major shortcomings
	E - Sufficient	Sufficient	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	Fail	(45-49)	More work required but credit awarded
	F – Fail	Fail	(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.				

Course Description Form

1. Course Name:					
Data Mining & Warehouse					
2. Course Code:					
3. Semester / Year:					
2/4					
4. Description Preparation Date:					
7-2-2026					
5. Available Attendance Forms:					
6. Number of Credit Hours (Total) / Number of Units (Total)					
64/3					
7. Course administrator's name (mention all, if more than one name)					
Name : Dr. Salma abdulbaki Mahmood Email : salma.mahmood@uobasrah.edu.iq					
8. Email: Course Objectives					
Course Objectives			<ul style="list-style-type: none"> Learn about Data Warehouse Learn about the ETL Learn how to analysis data Learn about data mining Learn how to find patterns in data Evaluate the results for decision making 		
9. Teaching and Learning Strategies					
Strategy		Explain the concepts of data warehouse and data mining in full details through theoretical lectures, so the students can understand and acquire the ability to understand data, analysis data, find the trends and patterns The theoretical knowledge will be applied in the laboratory corresponds to each lecture.			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1	2	Learn about the basic concepts	Introduction to data warehouse	Theoretical & Laboratory	Discussion
2	2	Understand the infrastructure of DW	DW implementation	Theoretical & Laboratory	Discussion
3	2	Understand the process of DW	ETL-1	Theoretical & Laboratory	Discussion and questions
4	2	Understand the process of DW	ETL-	Theoretical & Laboratory	Discussion and questions
5	2		First Exam		
6	2	Learn about the analysis of the data	OLAP-1	Theoretical & Laboratory	Discussion and questions
7	2	Learn about the analysis of the data	OLAP-2	Theoretical & Laboratory	Discussion and questions
8	2	Learn about DM	Introduction to DM	Theoretical & Laboratory	Discussion

9	2	Understand the preprocess of DM	DM preprocessing	Theoretical & Laboratory	Discussion
10	2	Understand the different operations of DM	Decision tree and naïve bayes	Theoretical & Laboratory	Discussion and questions
11	2	Understand the different operations of DM	NeuralNetwork	Theoretical & Laboratory	Discussion and questions
12	2	Understand the different operations of DM	Association	Theoretical & Laboratory	Discussion and questions
13	2	Understand the different operations of DM	Clustering	Theoretical & Laboratory	Discussion and questions
14	2	Modern Topics: Generative AI, Cloud Data Warehouses,	Clouding	Theoretical & Laboratory	Discussion and questions
15		Modern Topics: Real-time Processing, AutoML and MLOps	Real time	Theoretical & Laboratory	Discussion and questions
11. Course Evaluation					
Exams, discussions					
12. Learning and Teaching Resources					

Required textbooks (curricular books, if any)	
Main references (sources)	<p>The Data Warehouse ETL Toolkit Practical Techniques for Extracting, Cleaning, Conforming, and Delivering Data. - 2. The Data Warehouse Toolkit: The Definitive Guide to Dimensional Modeling, Third Edition</p> <p>Data Mining, Edition 4 Concepts and Techniques By Jiawei Han, Jian Pei and Hanghang Tong, 2022</p>
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course description template

Geographic Information Systems

2026 – 2025

This course description provides a concise overview of the key characteristics of the course and the expected learning outcomes, demonstrating how students can make the most of the available learning opportunities. It must also be linked to the program description.

1. Educational institution	University of Basra / College of Computer Science and Information Technology
2. Academic department/center	Computer Information Systems
3. Course name	Geographic Information Systems
4. Available attendance formats	Lectures divided into groups for students
5. Semester/Year	First Semester / Fourth Year
6. Total number of course hours	3 hours (including semester exams)
7. Date this description was prepared	September 29, 2025
8. Course Objectives	
Learn the concept of GIS and other related concepts.	
Explore GIS applications and how they are used.	
Learn how to collect and analyze spatial data.	
Design and integrate databases with GIS systems.	
Learn statistical analysis techniques for spatial data.	
6. Total course hours	

9. Course outcomes, teaching and learning methods, and assessment

<p>A- Cognitive Objectives:</p> <ul style="list-style-type: none"> .1Learn the concept of Geographic Information Systems (GIS). .2Learn applications such as ArcGIS that are used for GIS. .3Learn statistical analysis techniques. .4Integrate some applications with the ArcGIS Desktop software package.
<p>B- Skills-Based Objectives of the Course:</p> <ul style="list-style-type: none"> 1. Ability to design and program GIS applications. 2. Ability to work effectively in a team, understanding assigned tasks and completing them within the given timeframe.
Teaching and Learning Methods
<ul style="list-style-type: none"> 1. Delivering lectures and presenting topics using a data projector. 2. Facilitating discussion by asking questions, encouraging dialogue, and engaging students. 3. Assigning students to develop software programs that meet industry requirements. 4. Assigning students to prepare short reports on specific topics. 5. Assigning students to develop initial project proposals and create basic application designs. 6. Assigning students to present optional lectures on topics related to application design.
Assessment Methods
<ul style="list-style-type: none"> 1. Weekly lab quizzes and monthly theoretical exams. 2. Practical projects and websites designed using content management systems and Bootstrap.
<p>C- Affective and Value-Based Objectives</p> <ul style="list-style-type: none"> 1. Understanding professional ethics and maintaining high standards of professionalism. 2. Fostering a spirit of cooperation and teamwork. 3. Encouraging creativity and developing competitive skills among students.
Teaching and Learning Methods
<p>Our mission is to provide high-quality educational and research services that meet both local and international standards in the fields of computer science and information technology, enabling us to produce highly qualified and competitive graduates, while also undertaking high-level projects and reports and actively contributing to community service.</p>
Assessment Methods
.9Course Outcomes, Teaching and Learning Methods, and Assessment

A- Learning Objectives

1. Understand the concept of Geographic Information Systems (GIS).
2. Learn to use GIS software applications such as ArcGIS.
3. Learn statistical analysis techniques.
4. Integrate selected applications with the ArcGIS Desktop software package.

.10 The course syllabus

Assessment method	Teaching method	اسم الوحدة / أو الموضوع	Required learning outcomes:	Oclock	Week
Theory exam	Lecture using a data projector	Introduction: why does GIS matter? Data, information, evidence, knowledge, wisdom	An overview of the GIS concept and related terminology	2	1
Theory exam	Lecture using a data projector	Science, geography, and applications Representative application areas and their foundations	GIS applications and their representation	4	3-2
Theory exam	Lecture using a data projector	Spatial data properties and structure	Spatial data, its characteristics, and methods of organization	6	6-4
Theory exam	Lecture using a data projector	Spatial data management, geodatabase basics	Spatial data management	4	8-6
Theory exam	The lecture will use a data projector	Vector based spatial analysis	Spatial data analysis	4	10-9
Theory exam	The lecture will use a data projector	Spatial statistics and geo-statistics	Statistical methods for spatial and geographic data	4	13-11
Theory exam	The lecture will use a data projector	collection and data quality	Data collection and cleaning	4	15-14

11. Infrastructure

1. Required textbooks

. 12Course development plan

This plan involves students participating in preparing and presenting seminars on the theoretical material, and discussing the topics during each lecture, with the aim of simplifying the content and enhancing students' understanding and knowledge.

2. Main references (sources)	Paul A. Longley, Michael F. Goodchild, David J. Maguire, David W. Rhind-Geographic Information Systems and Science-Wiley (2005)ج
a. Recommended books and publications (scientific journals, reports, etc.)	Michael J. de Smith, Michael F. Goodchild, Paul A. Longley. 2015. <i>Geospatial Analysis: A Comprehensive Guide to Principles, Techniques and Software Tools</i> (http://www.spatialanalysisonline.com/). This book is a compressive, in-depth handbook of GIS analytical tools and methods.
b. Online resources, websites, etc.	

MODULE DESCRIPTION FORM

2025\2026

Module Information			
Module Title	organizational behavior		Module Delivery
Module Type			☒ Theory ☒ Lecture
Module Code			
ECTS Credits	2		
SWL (hr/sem)			
Module Level	4	Semester of Delivery	2
Administering Department	Computer Information Systems	College	CSIT
Module Leader	Reem qasim	e-mail	reem.qasim@uobasrah.edu.iq
Module Leader's Acad. Title	Assistant Lecturer	Module Leader's Qualification	Master of Public Administration
Module Tutor	No	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	No	Version Number	4.0

Relation with other Modules			
Prerequisite module	No	Semester	No
Co-requisites module	No	Semester	No

Module Aims, Learning Outcomes and Indicative Contents

Module Objectives	<ul style="list-style-type: none"> • Teaching students about organizational behavior. • Learning how to deal with people's feelings and emotions through psychoanalysis of their behavior. • Learning how to develop self-awareness and interpersonal skills, and how to influence others. • Learning how to interact effectively in the workplace..
Module Learning Outcomes	<ul style="list-style-type: none"> • Understanding the foundations and concepts of organizational behavior and the dimensions of human behavior in organizations • Helping students understand, interpret, and predict the behavior of individuals and groups within organizations • Understanding the impact of personality, motivation, leadership, and organizational culture on performance • Enabling the development of conflict management skills and enhancing job satisfaction • Cultivating awareness of work ethics and avoiding negative organizational behaviors

Learning and Teaching Strategies

Strategies	The strategy to be followed in presenting a topic will be in a positive way and will be presented through stories, real-life examples and sequential events, with the aim of helping students move away from stereotypical and traditional thinking and towards presenting creative and fruitful ideas.
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Student Workload (SWL)

الحمل الدراسي للطلاب محسوب لـ ١٥ أسبوعا

Structured SWL (h/sem)	30	Structured SWL (h/w)	2
Unstructured SWL (h/sem)		Unstructured SWL (h/w)	
Total SWL (h/sem)			

Module Evaluation

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

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	Introduction to Organizational Behavior
Week 2	Individual Behaviour, Personality, and Values
Week 3	Cognition and Learning in Organizations
Week 4	Organizational Health
Week 5	Organizational Burnout
Week 6	Emotions, Attitudes, and Stress in the Workplace
Week 7	Midterm Exam
Week 8	Fundamentals of Employee Motivation
Week 9	Decision-Making and Creativity
Week 10	Team Dynamics
Week 11	Power and Influence in the Workplace
Week 12	Organizational Culture
Week 13	Job Adaptation
Week 14	Negative and Deviant Behaviours in the Organization
Week 15	Preparatory Week Before the Final Exam

Delivery Plan (Weekly Lab. Syllabus)

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

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	McShane, S. L., & Von Glinow, M. A. (2024). <i>M: Organizational behavior</i> (6th ed.).	Available in the electronic library
Recommended Texts	Luthans, F., Luthans, B. C., & Luthans, K. W. (2021). <i>Organizational behavior: Anevidence-based approach</i> (14th ed.)	Available in the electronic library
Websites		

Grading Scheme

Group	Grade		Marks %	Definition
Success Group (50 - 100)	A - Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors
	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail		(45-49)	More work required but credit awarded
	F – Fail		(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.

Software Quality Assurance

Week	Hours	Required Learning Outcomes	Unit or Subject Name	Learning Method	Evaluation Method
1	3	Understand the concept, objectives, and importance of Software Quality Assurance	Introduction to Software Quality Assurance	Lecture + Discussion	Quiz
2	3	Explain software quality models and standards	Software Quality Models (ISO, McCall, Boehm)	Lecture + Case Study	Assignment
3	3	Identify SQA activities across SDLC phases	SQA in Software Development Life Cycle	Lecture	Quiz
4	3	Analyze software requirements for quality compliance	Quality in Requirements Engineering	Lecture + Practical Examples	Homework
5	3	Apply quality planning techniques	Software Quality Planning	Lecture + Group Discussion	Assignment
6	3	Understand software reviews and inspections	Formal Technical Reviews & Inspections	Lecture + Workshop	Practical Evaluation
7	3	Evaluate testing strategies and levels	Software Testing Fundamentals	Lecture + Case Study	Exam
8	3	Apply different testing techniques	Black-box & White-box Testing	Lecture	Assessment
9	3	Design effective test cases and test plans	Test Case Design & Test Planning	Lecture + Case Study	Assignment
10	3	Understand defect tracking and management	Defect Management Process	Lecture + Tool Demonstration	Quiz
11	3	Analyze software metrics for quality measurement	Software Quality Metrics & Measurement	Lecture + Examples	Assignment
12	3	Understand quality audits and compliance	Software Quality Audits	Lecture	Homework
13	3	Apply risk management concepts in SQA	Risk Management in Software Projects	Lecture + Case Study	Project Evaluation
14	3	Use automated tools for quality assurance	SQA Tools & Automation	Lecture + Examples	Evaluation
15	3	Integrate SQA practices in real projects	SQA in Real-world Projects	Seminar + Student Presentations	Final Project

16	3	Demonstrate comprehensive understanding of SQA	Final Review & Assessment	Discussion	Final Exam
11. Course Evaluation					
<ul style="list-style-type: none"> • Quizzes: 5% (to assess understanding of basic concepts). • Assignments / Reports: 10% (covering case studies and practical exercises). • first Exam: 15% (theoretical) • Class Participation & Activities: 5% (discussions, teamwork). • Final Exam: 15% (comprehensive assessment of all course outcomes). 					
12. Learning and Teaching Resources					
Required textbooks (curricular books, if any)		<p>Daniel Galin, Software Quality Assurance: From Theory to Implementation, Pearson, 2018.</p> <p>Jeff Tian, Software Quality Engineering: Testing, Quality Assurance, and Quantifiable Improvement, Wiley, 2005.</p>			
Main references (sources)		<p>Ian Sommerville, Software Engineering, 10th Edition, Pearson, 2016.</p> <p>Roger S. Pressman and Bruce Maxim, Software Engineering: A Practitioner's Approach, 9th Edition, McGraw-Hill, 2019</p>			
Recommended books and references (scientific journals, reports...)		<ul style="list-style-type: none"> • Capers Jones, <i>Applied Software Measurement: Global Analysis of Productivity and Quality</i>, McGraw-Hill, 2008. • IEEE Software Quality Standards Documentation. • ACM Digital Library articles on Software Quality Assurance 			
Electronic References, Websites		<ul style="list-style-type: none"> • EEE Xplore Digital Library (https://ieeexplore.ieee.org) • ACM Digital Library (https://dl.acm.org) • Software Testing Help (https://www.softwaretestinghelp.com) • ISTQB Resources (https://www.istqb.org) <p>https://nibmehub.com/opac-service/pdf/read/Software%20Quality%20Assurance%20From%20Theory%20to%20Implementation.pdf</p>			

