Ministry of Higher Education and Scientific Research - Iraq
University of WARITH ALANBIYAA
College of Sciences
Department of Information Technology

MODULE DESCRIPTOR FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	SYSTEM ADMINISTRATION			**Module Delivery**	
Module Type	CORE			**Theory ✓**	
Module Code	IT1204			**Lecture ✓**	
ECTS Credits	7			**Lab✓**	
SWL (hr/sem)	175			**Practical ✓**	
Module Level	1		**Semester of Delivery**	2	
Administering Department	Information technology		**College**	College of Sciences	
Module Leader	Maki Hussein Abd Alraheem		**e-mail**	Maky.h@uowa.edu.iq	
Module Leader's Acad. Title	Dr		**Module Leader's Qualification**	PhD in Software Engineering	
Module Tutor	Nabeel Sadeq Al-Shreefy		**e-mail**	nabeel@uowa.edu.iq	
Peer Reviewer ame	-		**e-mail**	-	
Review Committee Approval	-		**Version Number**	1	

Relation With Other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	IT111	**Semester**	1
Co-requisites module	None	**Semester**	
Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية			
Module Aims أهداف المادة الدراسية	1. To provide a comprehensive understanding of command-line interfaces, programming languages, open-source software and software licenses, data backup, and data encryption. 2. To differentiate and compare various elements within each topic, such as CLI types, elements of programming languages, different software licenses, backup methods, and encryption types. 3. To understand and evaluate the role and importance of these elements in the field of computer science and daily computing.		
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Understand and articulate the concept of command-line interfaces, their types, and their comparison with graphical user interfaces. 2. Understand the basic elements of programming languages, including syntax, type systems, standard libraries, specifications, and implementations. 3. Understand the concept of open-source software and be able to distinguish between open-source and proprietary software licensing models. 4. Comprehend the importance of data backup and different backup methods. 5. Understand the fundamental principles of data encryption, the different types, and their application in operating systems and third-party programs.		
Indicative Contents المحتويات الإرشادية	1. Command-line interfaces: Definition, types, comparison with GUI, shell CLI. 2. Programming languages: Basic elements, syntax, type systems, standard libraries, specifications, and implementations. 3. Open-source software and software licenses: Definition of open-source software, comparison of open-source licenses, proprietary software licensing models, software cracking and piracy. 4. Data backup: Importance of data backup, data backup concepts, backup methods, backup media management. 5. Data encryption: Introduction to data encryption, importance of encryption, basics of encryption, types of data encryption on PC, OS built-in and thirdparty encryption programs.		

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	The learning and teaching strategies for studying the database subject in an IT department involve a balanced approach of theoretical understanding and practical application. Lectures, interactive discussions, and case studies provide the necessary theoretical foundation. Practical exercises, group work, and projects enable hands-on experience with database management systems. Workshops, demos, and industry examples offer real-world insights. Online resources, assessments, and feedback aid in reinforcing learning. Virtual labs and continuous learning emphasize practical skills development and staying updated with industry trends. These strategies ensure a comprehensive understanding of databases and their relevance in the IT field.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	112	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	47
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	4	3,10	1,2,4
	Lab	4	5	3,5,7,10	1,2,3,4
	Project	1	4	13	all
	Homework	4	2	6,11	all
Summative assessment	**Midterm Exam**	1	10	7	
	Final Exam	1	50	15	
Total assessment			100		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction, types of CLI, operating system command-line interfaces, application command-line interfaces.
Week 2	Comparison between CLI and GUI, shell CLI.
Week 3	Introduction to programming languages, elements of programming languages, syntax.
Week 4	Type systems, standard library.
Week 5	Specification and implementation in programming languages.
Week 6	Introduction to open-source software, common open-source licenses.
Week 7	Introduction to common open-source licenses.
Week 8	Proprietary software licensing models, software cracking and piracy.
Week 9	Introduction to data backup, data backup concepts, backup methods.
Week 10	More on backup types
Week 11	Backup media management. Backup media management.
Week 12	Introduction to encryption, the importance of encryption, basics of encryption.
Week 13	Introduction to encryption, the importance of encryption, basics of encryption.
Week 14	Types of data encryption on PC, OS built-in encryption programs.
Week 15	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الأسبوعي للمختبر	
weeks	**Material Covered**
Week 1	Familiarize with the Command Prompt and basic CLI commands such as dir, cd, copy, del, move.
Week 2	Practice creating, navigating, renaming, and deleting directories and files using CLI.
Week 3	Learn advanced file operations like finding files, comparing files, and using wildcards.
Week 4	Understand the concept of input and output redirection, learn to use pipes to combine commands.
Week 5	Introduction to batch files, create simple batch scripts.
Week 6	Learn to use variables in batch programming, receive input from users.
Week 7	Understand and implement if-else logic in batch programming.
Week 8	Understand and implement loop structures such as for and while loops in batch programming.
Week 9	Learn to create and use functions in batch programming.
Week 10	Understand error handling and exception management in batch programming.
Week 11	Write advanced batch scripts combining learned elements
Week 12	Learn how to automate repetitive tasks using batch scripts.
Week 13	Understand and use CLI commands for network operations such as ping, ipconfig, and netstat.
Week14	Learn to create batch scripts for network operations.
Week 15	Finalize and present a self-created project utilizing learned skills, review key learning points.

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	"Computer Organization and Architecture" by William Stallings	no
Recommended Texts		
Websites	https://www.tutorialspoint.com/basics_of_computer_science/index.htm	

APPENDIX:

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	مقبول بقرار	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note:

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

ملاحظة: هذا النموذج تم وضعه وتقديمه من قبل مديرية ضمان الجودة في وزارة التعليم العالي والبحث العلمي