	Ministry of Higher Education and Scientific Research. University of Anbar. Department of Information System.	

MODULE DESCRIPTOR FORM

Module Information					
Module Title	Discrete Mathematics		**Module Type**	TYPE B	
Module Code	CCIT061		**ECTS Credits**	6	
Module Level			**Semester of Delivery**	Two	
Administering Department	IS		**Faculty**	CSIT	
Module Leader	Akeel A Thulnoon		**e-mail**	akeelalhadithy@uoanbar.edu.iq	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	PhD.	
Module Tutor			**e-mail**		
Peer Reviewer Name	/		**e-mail**	/	
Review Committee Approval	25/02/2024		**Version Number**	2.0	

Relation With Other Modules	
Pre-requisites	/
Co-requisites	/
Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	The aim of studying of discrete mathematics equips you with the tools to analyze and solve problems involving distinct, countable objects. It builds foundational skills in logical reasoning, counting techniques, and analyzing relationships between structures. Mastering these concepts empowers you to tackle problems in various fields, including computer science, cryptography, information theory, and areas of mathematics itself. By understanding the fundamental properties of discrete structures, you gain the ability to model and analyze real-world scenarios with precision and efficiency.

Module Learning Outcomes	A1. Enhanced problem-solving skills A2. Strong foundation in logical thinking A3. Proficiency in counting techniques. A4. Understanding of discrete structures B. Ability to model real-world scenarios
Indicative Contents	

Learning and Teaching Strategies

Strategies	The main strategy that will be adopted in delivering this module are: 1. Power point presentation (Data show). 2. Explanation on the white board using different color markers. 3. Discussions with the student during teaching. 4. Interaction with students through daily problems practice through lecture. 5. Solve different problems with more exercises. 6. Submit assignment that develop student learning.

Module Delivery

Structured workload (h/w)	2.34
Unstructured workload (h/w)	4.34
Total workload (h/w)	6.68

Module Evaluation

	Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Quizzes	2	6% (6)	5 and 10	
Assignments	2	6% (6)	2 and 12	
Projects / Lab.		5% (5)	Continuous	
Report	1	5% (5)	13	
Midterm Exam	2 hr	18% (18)	7	
Final Exam	3 hr	60% (60)	16	
Total		100% (100 Marks)		

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts		Yes/No
Recommended Texts		Yes/No
Websites		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction, Sets
Week 2	Relations, Practice
Week 3	Mathematical Logic (Propositional logic, Propositional calculus)
Week 4	Mathematical Logic (Predicate logic, Practice)
Week 5	Group Theory (Basic Concept)
Week 6	Group operations
Week 7	**Mid-Term Exam**
Week 8	Counting Theory (counting principles)
Week 9	Pigeonhole principle
Week 10	Probability (Basic concepts)
Week 11	Counting techniques, Bayes' theorem
Week 12	Mathematical Induction and Recurrence Relations
Week 13	Graph Theory and Trees
Week 14	Boolean Algebra

Week 15	**Preparatory Week**
Week 16	**Final Exam**

APPENDIX:

UNIVERSITYof Anbar				
GRADING SCHEME				
Group	**ECTS Grade**	**% of Students/Marks**	**Definition**	**GPA**
Success Group (50 - 100)	**A** - Excellent	Best 10%	Outstanding Performance	**5**
	B - Very Good	Next 25%	Above average with some errors	**4**
	C - Good	Next 30%	Sound work with notable errors	**3**
	D - Satisfactory	Next 25%	Fair but with major shortcomings	**2**
	E - Sufficient	Next 10%	Work meets minimum criteria	**1**
Fail Group (0 – 49)	**FX** – Fail	(45-49)	More work required but credit awarded	
	F – Fail	(0-44)	Considerable amount of work required	
Note:				

NB 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.