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

MODULE DESCRIPTOR FORM

Module Information								
Module Title	DECISION S	UPPORT SYSTEM Module Type			TYPE B			
Module Code			ECTS Credits		5			
Module Level		Three	Semester	ester of Delivery Six		Semester of Delivery Six		Six
Administering D	dministering DepartmentISFacultyCSIT							
Module Leader	Mazin Abed	Mohammed Abed	e-mail	Mazinalshujeary@uoanbar.edu.iq				
Module Leader's Acad. Title		Assistant Professor	Module Leader'sPh.DQualificationPh.D		Ph.D			
Module Tutor	Mazin Abed	Mohammed Abed	e-mail <u>Mazinalshujeary@uc</u>		oanbar.edu.iq			
Peer Reviewer N	er Reviewer Name / e-mail /							
Review Committee Approval		DD/MM/YY	Version N	sion Number 2.0				

Relation With Other Modules				
Pre-requisites				
Co-requisites				
Modu	le Aims, Learning Outcomes and Indicative Contents			
Module Aims	Students should learn a particular set of mathematical facts and how to apply them; more importantly, this course teaches students how to think logically and mathematically. To have broad knowledge of propositions, sets, and relations between objects leading to function and relation definition. These together with trees, graphs and other tools make an entry to computer science subjects such as logic design, computation theory.			
Module Learning	The mathematics of modern computer science was built almost entirely on discrete			

Outcomes	moth in portionion combinations and erough the own. This means that in order to be me
Outcomes	main, in particular combinatory and graph theory. This means that in order to learn
	the fundamental algorithms used by computer programmers, students need a solid
	background in these subjects. In this course, we study different topics of Discrete
	Structures such as Sets and Statements: Definitions Examples, Symbolic Logic,
	Combined Statements, Truth Sets, and Methods of Proof. Relations: Definition,
	Properties, Types of Relations such as Symmetric, Transitive, Reflexive, Irr-
	Reflexive, Equivalence relation, and Recurrence Relation. Trees and Graphs:
	Definition, Trees: Introduction, Binary Trees, Spanning Trees, and Weighted
	Graphs All these subjects represent mathematical base for computer science
	subjects such as data structures digital logic and artificial intelligence
	subjects such as data structures, digital logic, and artificial intelligence.
Indicative Contents	
	Learning and Teaching 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.
Strategies	3. Discussions with the student during teaching.
Strucefies	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)	4.5		
Unstructured workload (h/w)	8		
Total workload (h/w)	12.5		

Module Evaluation					
	Time/NumberWeight (Marks)Week DueRelevant Learning Outcome				
Quizzes	1 or 2	6% (6)	5 or 5, 10		
Assignments	2	6% (6)	At the start		
Projects / Lab.	1	5% (5)	Continuous		
Report	1	5% (5)			
Midterm Exam	2 hr	18% (18)	8		

Final Exam	3 hr	60% (60)	16	All
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	Definition of a statements: Symbolic statements, Logical connectives Compound statement. Simplification. Conditional connectives			
Week 2	Truth tables. Tautology and contradiction statements. Definition of a set laws of Boolean Algebra			
Week 3	Symbolic logic Truth, equivalence and implication			
Week 4	Nested Quantifiers Rules of Inference			
Week 5	What is a proof and Direct proof Proof by contradiction and by counter example			
Week 6	Proof by Contraposition Mistakes in Proofs			
Week 7	Mid-Term Exam			
Week 8	Set Theory Sets Operations			
Week 9	Sequences Summations			
Week 10	Recurrence Modelling with Recurrence			

Week 11	Definition of Relations Symmetric and transitive reflexive, equivalent relations
Week 12	Partial Ordering Relations Total Ordering Relations
Week 13	Graphs and operations on functions Graphs. Relations as graphs
Week 14	Drawing Graphs Weighted Graphs, Trees and Types of Graphs
Week 15	Preparatory Week
Week 16	Final Exam

APPENDIX:

UNIVERSITY of Anbar					
GRADING SCHEME					
Group	ECTS Grade	% of Students/Marks	Definition	GPA	
	A - Excellent	Best 10%	Outstanding Performance		
a a	B - Very Good	Next 25%	Above average with some errors	4	
Success Group	C - Good	Next 30%	Sound work with notable errors		
(50 - 100)	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.