Learning and Teaching Strategies
استراتيجيات التعلم والتعليم

Strategies	1. Convergent and divergent thinking. 2. Project-based learning. 3. Experiential learning. 4. Peer teaching. 5. Inquiry-based learning. 6. Problem-based learning. 7. Reciprocal teaching.

Student Workload (SWL)
الحمل الدراسي للطالب

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	45	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	80	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	5.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Module Evaluation
تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	3	15% (15)	2, 5, 10	LO #1, 2, 8 and 9
	Assignments	3	15% (15)	3,6, 12	LO # 3, 4, 6 and 7
	Projects / Lab.				
	Report	1	10% (10)	13	LO # 5, 7 and 9
Summative assessment	Midterm Exam	2 hr	10% (10)	7	LO # 1-8
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

	Material Covered

Week 1	Sets, Types of set, Operations on sets
Week 2	Set identities, Computer Representation of Sets (multi-sets, fuzzy sets)
Week 3	Sequences and Summations
Week 4	Properties of Integers and Applications of Number Theory
Week 5	Propositional and Logical Operations, Conditional Statements
Week 6	Mathematical reasoning and Induction, Recursive
Week 7	Mathematical proofs: Methods of Proving Theorems
Week 8	Mid-term Exam
Week 9	Relations: Properties of Relations, Operations Relations, Computer Representation of Relations
Week 10	Functions: Properties of Functions, Functions types
Week 11	Trees: Types of trees, Trees as Models, Properties of Trees
Week 12	Tree Traversal, Universal Address Systems , Traversal Algorithms
Week 13	Infix, Prefix, and Postfix Notation of tree
Week 14	Graph: Types of graphs, Some Special Simple Graphs
Week 15	Representing Graphs, Isomorphism and Isomorphic of graphs
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Essential Discrete Mathematics for Computer Science, by Harry Lewis and Rachel Zax, Princeton University Press , ASIN: B07H5384J5, 2019.	No
Recommended Texts	Discrete Structures, Logic, and Computability by James L. Hein, Jones & Bartlett Learning; 4 edition, 2015.	No
Websites	https://www.cs.cornell.edu	

Grading Scheme
مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group	**A -** Excellent	امتياز	90 - 100	Outstanding Performance

(50 - 100)	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.