

### Course Log Template

**INSTITUTION** Department of Computer Science, National University of Computer and Emerging Sciences, Karachi Campus

**PROGRAM (S) TO BE EVALUATED** BS Computer Science

**Course Name** Discrete Structures (Fall 2020)  
**Catalog Number** CS211  
**Instructor Name** Shoaib Raza (Shoaib.raza@nu.edu.pk)

Date	Duration	Topics Covered	Evaluation Instruments used	Signature
31-August, 2020	3 hours	Introduction: Discrete Structures and its applications, Propositional Logic, Applications of Propositional Logic, Propositional Equivalences	Quiz, Assignment and Mid Exam, Final	
	3 hours	Predicates and Quantifiers, Nested Quantifiers	Quiz, Assignment and Mid Exam, Final	
	3 hours	Rules of Inference	Quiz, Assignment and Mid Exam, Final	
	6 hours	Sets and Functions	Quiz, Assignment and Mid Exam, Final	
5-7 October	1 hour	<b>MID-I EXAMINATION (WEEK 6)</b>		
	6 hours	Relations	Quiz, Assignment and Mid Exam, Final	
	3 hours	Number Theory and Cryptography	Quiz, Assignment and Mid Exam, Final	
	3 hours	Mathematical Proofs, Mathematical Induction	Quiz, Assignment and Mid Exam, Final	
09-11 November	1 hour	<b>MID-II EXAMINATION (WEEK 11)</b>		
	6 hours	Graph Theory, graph theoretic algorithms	Quiz, Assignment and Final	



	<b>3 hours</b>	Trees and their applications	<b>Quiz, Assignment and Final</b>	
	<b>6 hours</b>	Combinatorics: Permutation, Combination, Inclusion-Exclusion Principle	<b>Quiz, Assignment and Final</b>	
	<b>2 hours</b>	Discrete Probability (introduction)	<b>Final</b>	
<b>22-31 December</b>	<b>3 hours</b>	<b>END-TERM EXAMINATION (WEEK 17)</b>		

**Instructor Name** Shoaib Raza

**Instructor Signature** \_\_\_\_\_

**Date** 26-08-2020