

Faculty of Computers and Information Technology

Discrete Mathematics

Information :

Course Code : BMT 112

Level : Undergraduate

Course Hours : 3.00- Hours

Department : Faculty of Computers and Information Technology

Instructor Information :

Title	Name	Office hours
Associate Professor	Khaled Ahmed Mohamed Elshafey	2
Lecturer	Esam eldeen fawzy Elfagharany	
Teaching Assistant	Linah Mohammed Ibrahim Elsayed Ahmed Elnaghi	
Teaching Assistant	Hoda Ashraf Mohamed Mohamed Mostafa	
Teaching Assistant	Warda Mustafa Saied Mahmoud	
Teaching Assistant	Farah Ashraf Wafaa Mahmoud	
Teaching Assistant	Tasnim Salah Abdelraaouf Mahmoud Kandil	

Description :

The course provides the concept of Preliminaries. Topics covered in this course are sets, binary relations, functions, summations, matrices; Logic: language of logic, quantifiers, advanced induction; Formal Logic: propositional calculus, Boolean algebra; Algorithms: pseudo-code language, recursive algorithms; Graph Theory: graphs, digraphs, paths, cycles, adjacency matrices, connectivity, trees, graph algorithms; Enumeration: permutations, combinations, inclusion/exclusion, Binomial Theorem, combinatorial identities; Group Theory: groups, subgroups, cosets, Lagrange's Theorem, quotient groups; Difference Equations/Recurrence Relations: basic types of recurrences/difference equations and solution methods.