

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	1
Teaching Assistant	Nada Mohamed Saied Shoaib	

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.