Course Syllabus

Spring 2024

CS 2305.001 Discrete Mathematics for Computing I

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Office Hours: 1 – 2 pm TR + by appointment

Course Description (Catalog):

CS 2305 (MATH 2305) Discrete Mathematics for Computing I (3 semester credit hours) Principles of counting. Boolean operations. Logic and proof methods. Recurrence relations. Sets, relations, functions. Elementary graph theory. Elementary number theory. Prerequisite: Score of at least 75% in ALEKS or MATH 2312 with a grade of C or better. (Same as CE 2305) (3-0) S

Course Objectives

Upon completion of this course, students will have:

(a) Ability to use and apply basic logic
(b) Ability to use and apply basic definitions and properties of sets, functions, relations.
(c) Ability to understand what an algorithm is, algorithmic complexity;
(d) Ability to understand and construct proofs including proofs by induction;
(e) Ability to use basic counting techniques
(f) Ability to understand and use basic number theory
(g) Ability to understand and use basic graph theory.

Course Information - Textbook:

"Discrete Mathematics and its Applications" with MGH Connect. Kenneth H. Rosen, 8th ed., McGraw Hill.

MGH Connect is required (Homework will be mostly from MGH Connect)

Material to be covered:

Chapters 1, 2.1-2.3, 3.1-3.3, 4.1-4.3, 5.1-5.2, 6.1-6.3, 7.1, 9.1-9.3, 10.1-10.5, 11.1-11.3

Important Dates:

Last Day to Drop without W:	January 31, 2024
Last Day to Drop (WL):	April 3, 2024
Last Day of Classes	May 3, 2024
Exam 1	March 7, 2024
Exam 2	May 3, 2024

University Closings:

MLK Day	January 15, 2024
Spring Break	March 11-17, 2024

Grading Policy

Exams (2)	30% each
Homework	40%

Grading Scale:

Best of {85-100 or top 25%) - A's
Best of {70-84 or next 30%) - B's
Best of {50-69 or next 30%) - C's