

Repetitio est mater studiorum
(*Repetition Is the Mother of Learning*)
Latin wisdom

Interest increases as a result of success,
and success is the outcome of hard work
Professor Yaroslav Tagamlizki

Eastern Connecticut State University
MAT 230-02, Discrete Structures, Spring 2026

Instructor: Christian Yankov

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Time and Place: MWF 11:00-11:50 am, Science 231.

Text: Kolman, Busby, and Ross, *Discrete Mathematical Structures, 6th ed.*, published by Pearson, *ISBN-13: 9780134696447*.

Office hours: MF: 8:00-9:00 am and 12:00-1:00 pm, W: 12:00-1:00 pm.

Prerequisites: MAT 155, or MAT 155P, or MAT 195.

Course topics: Chapter 1. Fundamentals: sets, subsets, operations on sets, sequences, basic properties of the integers, matrices, mathematical structures. Chapter 2. Logic: propositions and logical operations, conditional statements, methods of proof, mathematical induction, mathematical statements, logic and problem solving. Chapter 3. Counting: permutations, combinations, the pigeonhole principle, elements of probability, recurrence relations. Time permitting, material from other chapters will be included.

Goals and Objectives: By the end of the class you should:

- Learn the fundamental concepts of set theory;
- Learn the basic properties of integers and matrices as examples of mathematical structures;
- Learn the basic notions of logic and the concept of a mathematical proof. Achieve a certain level of mastery of constructing rigorous mathematical proofs through problem solving.
- Learn the basic notions of counting and combinatorics.

Class format: Each class meeting will consist of a lecture and include related problem solving.

Attendance: It is expected that you be there on time for each and every class. If for some reason you should miss a class, then it is your responsibility to find out from a friend what has been covered and assigned and make it up.

Homework: After each class you will get a homework assignment. It will not be collected and graded, but must be completed and should prepare you for the quizzes. I cannot stress enough the importance of doing the homework. It is a critical factor in building and reinforcing your knowledge, as well as helping you identify your weak points.

Quizzes: Quite often at the beginning of class time there will be a short quiz, often unannounced in advance. This should keep you alert and following the material carefully, closely and timely.

Exams: There will be two longer exams throughout the semester. Their dates will be announced at least a week in advance.

Final Exam: There will be a cumulative final on **Friday, May 15, 2026, 11:00-1:00 pm.**

Evaluation: Quizzes will account for 15% of your grade, the two longer exams will account for 25% each, and the final exam will account for the remaining 35%.

Grades: The ranges for the grades are the following:

A-, A	90% and above	B-, B, B+	80% - 89%
C-, C, C+	70% - 79%	D, D+	60% - 69%

How to get help: You should come see me during my office hours, if you have difficulties with the subject matter. You can also get free tutoring at the Mathematics Achievement Center (MAC). It is a part of the Academic Success Center (ASC), which is located on the first floor of the E. J. Smith Library, Room 130. Please visit

www.easternct.edu/mathematical-sciences/mathematics-achievement-center.html

or call 465-0383 for the schedules of the MAC. If you feel you need help, do not wait until an exam is imminent.

Make-ups: There will be no make-ups for quizzes, since I will drop the lowest one (or, two). Make-ups for exams are strongly discouraged and might be allowed for truly exceptional reasons only, and with my prior permission.

Inclement weather: For cancellation of classes due to bad weather follow the messages on the university weather hot line at (860) 465-4444, or 1-800-578-1449, or visit the website

www.easternct.edu/easternalert/

Eastern uses also the local radio and TV station broadcasts to announce cancellations. If you are subscribed to Eastern Alert, you should also be notified via that channel, as well.

Weather Closing Policy: In the event of a delayed opening of the University, any class that would have at least 45 minutes of meeting time remaining after the announced opening time will meet starting at the announced opening time. Any class meeting that would have fewer than 45 minutes of meeting time after the announced opening time will not meet. For example, if opening the campus is delayed until 10 a.m., classes running from 9:30-10:45 a.m. would meet from 10-10:45 a.m.

In the event of an early closing of the University, any class that would have at least 45 minutes of meeting time prior to the announced closing time will meet until the announced closing time. Any class meeting that would have fewer than 45 minutes of meeting time before the announced closing time will not meet. For example, if we were to close the University early at 3 p.m., classes running from 2-3:15 p.m. would meet from 2-3 p.m.

Students with disabilities: Eastern Connecticut State University is committed to following the requirements of the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. If you are a student with a disability (or think you may have a disability), and require adaptations or accommodations, or assistance evacuating a building in the case of an emergency, please contact the Office of AccessAbility Services (OAS) at 860-465-0189 to discuss your request further. Any student registered with the OAS should contact the instructor as soon as possible for assistance with classroom accommodations. Please note that accommodations are not retroactive, and must be communicated through a Letter of Accommodation which is drafted by the OAS.

Classroom Etiquette: The use of cell phones, or headphones is inappropriate in class. Cell phones should be turned off (or on vibrate for emergencies) and stored off the class desk. No food is allowed during class.

Health Related Provisions: Students are expected to adhere to current health and safety protocols (if any) implemented by Eastern.

Academic Misconduct: Students should read and understand Eastern's Academic Misconduct Policy, which can be found in the student handbook or at the following website:

www.easternct.edu/academic-misconduct/index.html

All violations will be handled under the procedures established in this policy.

Disclaimer: *The instructor reserves the right to make changes to this syllabus during the semester as necessary.*