Instructor: Dr. Chris Lee Trexler 270D clee@roanoke.edu

Office Hours: Zoom office hours are available Monday – Thursday by appointment. To see availability and make an appointment please use the link: https://drchrislee.youcanbook.me

Intended Learning Outcomes: This course introduces both theoretical and applied mathematical topics not covered in a calculus course and introduces the ideas and techniques of formal logic and mathematical proofs. By the end of this course, successful students will be able to produce mathematical proofs, understand the different types of proofs, and critique proofs on correctness. Successful students will also understand the basics of graph theory and recursion.

Required Text: Textbook: Discrete Mathematics with Applications, 5th edition; Susanna Epp.

Attendance: Attendance is critical to the understanding of the material in the course; it is both required and expected. Any absence that is not discussed with the instructor prior to the missed class is considered unexcused. If you accumulate 3 unexcused absences you will be dropped from the class with a grade of DF recorded. When absent, you are responsible for all material covered in class. Missing class has no effect on assignment due dates.

If you have a temperature of 100.4 or higher or other COVID symptoms, don't come to class. Call Health Services IMMEDIATELY. Do not come to class or go to any public area on campus. For your absence to be excused, you must give Health Services permission to notify me that you have consulted them about COVID symptoms. If Health Services informs you that you should isolate and not attend class for multiple days, inform me so that we can make a plan to keep you current in the course. All absences caused by consultation with Health Services about coronavirus symptoms or isolation ordered by Health Services will be excused but you will need to do the work and graded assignments even if we extend a deadline for you.

Reading and Participation: The key to learning a topic in mathematics is participation. We will strive to have an active, rather than passive, classroom environment. The last page of the syllabus is a day-by-day outline of the chapters that will be discussed in class. You are fully expected to have read the upcoming chapter before the class meeting! This does not mean you need to understand everything, but rather you should be familiar with the definitions and concepts from the sections; having read the section will allow you to ask better questions and follow along better in class.

Expected Hours of Work: This course expects at least 12 hours of work inside and outside of class from you each week.

Academic Integrity: Students are expected to follow the integrity policy detailed in the handbook *Academic Integrity at Roanoke College*. Additionally, if you are ever uncertain as to how the College's policy pertains to any assignment or exam in this course, please ask me for clarification. The bottom line is that all work that a student submits for a grade must be ***solely*** the work of that student unless the instructor has given explicit permission for students to work together. You will have the opportunity on occasion to collaborate with another as you work in pairs. It is critical that you understand that collaboration means both parties are contributing equally and meaningfully to the assignment. Adding your name to the work of another, as well as using a divide-and-conquer approach, are both examples of seeking credit for work that is not your own.

Late Work: Unless specific permission is given in advance of the due date, no late work will be accepted.

Missed Work: I will not give make-up work unless arrangements have been made in advance.

Tests: Tests will assess students understanding of material covered in class, the textbook, and homework problems. There are three tests spaced throughout the semester, currently schedule for Sept 24th, Oct 15th, and Nov 22nd. These tests will be open-book, open-notes. You will have all day to work the test and will work from a comfortable location of your choosing, not our classroom. Tests will be available for download via Inquire and your .pdf format solutions must be uploaded to Inquire by the due time.

Final Exam: The final exam will be cumulative and will be at 2:00pm on Wednesday Dec 15.

Video Reflections: On most Mondays throughout the semester you will be submitting short (4-6 minute) video reflections of the happening of the course the prior week. You will be showing your HW problems, demonstrating understanding of concepts vs. simple memorization, or addressing a different specific prompt for that week. These MUST be done using the (free) software Loom with links shared through the assignment on our Inquire page.

Attendance / Class Engagement: We will strive to have an active classroom - key to this is attending all sessions and engaging in the conversations. This is reflected in a portion of your grade.

Course Grade: Components of a student's grade will be weighted as follows:

Tests: 35% Video Reflections: 35% Final Exam: 15% Class Engagement: 15%

A scale will for final grades will not be lower than the scale given below.

0	*60*	*63*	*67*	*70*	*73*	*77*	*80*	*83*	*87*	*90*	*93*	
	F	*D-*	*D*	*D+*	*C-*	*C*	*C+*	*B-*	*B*	*B+*	*A-*	*A*