

Discrete Structures

POLICIES/SYLLABUS

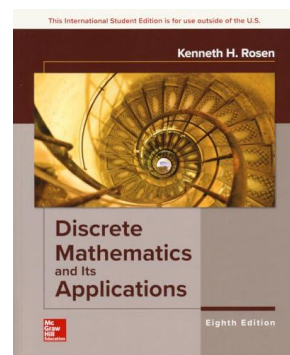
Instructor: Eric Moorhouse, Ross Hall 6³ = 216,
<https://ericmoorhouse.org>, email moorhous@uwyo.edu.



Class Meeting: TR 9:35 –10:50 am in CR 314 . I try to record classes and post pdf slides and audio/video recordings of classes on the course website (see below) for your future reference as an aid to reviewing and studying. However, this is *not* an invitation to skip class. Moreover, sometimes the technology fails to record properly, or I forget to hit the ‘record’ button. You are expected to attend class regularly. *Students who consistently attend class perform on average a full letter grade better than students who do not.* Classroom behavior is relaxed: use your laptops and devices as needed, as long as you are not disturbing me or others. If you arrive late or leave early, or need to excuse yourself during class, I will assume you have a good reason for doing so and this should not bother me. We will only revisit this policy if the need arises.

Prerequisite: Grade of C or better in COSC 1030, and in either MATH 2200 or 2350.

Textbook: Kenneth H. Rosen, *Discrete Mathematics and Its Applications*, 8th ed., McGraw-Hill, 2019. You are required to prepare by reading relevant sections of the textbook before coming to class.



Grading Scheme:

I will assign grades (A, B, C, D, F, W) *at the end of the semester* according to the scale: A=exceptional, B=very good, C=adequate, D=poor, F=fail, W=withdrawal. I always encourage students to consult me at any time during the semester with questions, including (but not restricted to) questions about your progress in the course. You may ask questions by email, at your own risk (remember that email is not secure); but questions asked in person typically receive more prompt and complete answers. Raw numerical grades for the test and homework may be checked on WyoCourses, but *WyoCourses does not supply letter grades for the*

30%	Written Homework
15%	Quizzes
20%	Midterm Test
35%	Final Exam
100%	Total Grade

course. For further information regarding assignment of letter grades, refer to the FAQ (see below) and consult with the instructor.

Office Hours: My office hours are currently scheduled at MWR 2:30–3:50pm, TR 11:00–11:50am (subject to change with or without advance notice; my current schedule is posted at <https://ericmoorhouse.org/schedule.html>). In addition to my regularly scheduled office hours, please feel free to see me at other times, either by appointment or at other times if I am not busy.

Homework: Homework assignments will be assigned approximately twice per month, and will be submitted to me through WyoCourses by specified due date (usually after 2–3 classes) by 5:00pm. The following expectations apply to submitted homework:

- Write clearly. Part of the grade reflects organization and clarity of presentation.
- Most solutions require sentence answers. Correct use of vocabulary, spelling, grammar, and punctuation is expected for full credit.
- There is no need to re-write questions.

It is fine for you to discuss the homework with other students. However, please do not copy anyone else's work directly, whether or not they are in the class. Copying may adversely affect your grade; but more importantly, of course, you won't be adequately preparing yourself for the tests in this way. **Do not use Chegg, ChatGPT or other AI.** *If I suspect you are using such aids then you will receive a zero on the question or entire assignment, according to the extent you have used these external sources.* If you wish to contest receiving a zero in such a situation, you will have one week to meet with me to contest my reaction and have your work re-graded; and you will need to convince me in person that you sufficiently understand the work you have written. I cannot give you credit for work that is not your own. For further information, consult the FAQ (see below).

Quizzes: We will have bi-weekly quizzes (each 12-15 minutes in duration) on alternate Thursdays, beginning in the second week of the semester. The quizzes will be completely 'closed book' with no aids allowed. Each quiz will be on a topic or section of material that you have been advised of during the previous class. Make-up quizzes (for authorized absences) will be held during the last two weeks of semester and will be based on my random selection of topics, so you are well advised to take quizzes in class as originally scheduled.

Tests: There will be one mid-term test during class time, on a date to be announced later; and one final exam (1:15–3:15pm on Thursday, December 17). Both will be closed book, but you will be permitted to use a handheld calculator and one 'cheat sheet' (one 8½×11 inch sheet with information written on one side in your own handwriting). Sharing of calculators or other aids during the test and the exam is not permitted. No other devices are permitted. Cell phones must be switched off (and in particular cannot

be used as calculators). The test will cover a specified unit of material only; but the final exam will be comprehensive, with somewhat greater emphasis on the later material.

Make-up tests for those who miss tests, will only be granted in cases of verifiable illness or the most extreme circumstances (at my discretion). Please contact me in advance of such a situation if possible. Even in legitimate cases, the make-up test will be harder than the original test.

COSC 2300 Course Website:

Course-related announcements, links, handouts, homework solutions, etc. will be posted at the course website <https://ericmoorhouse.org/courses/2300/> (not to be confused with WyoCourses). The WyoCourse site will be reserved for materials deemed private or sensitive (including Zoom links, course grades, and any documents we don't want to spread beyond our class). The course website however will provide much more capacity for posting homework, instructional videos and documents, while also demanding much less time for me to regularly update than WyoCourses which is designed with security in mind.

Submitting Homework on WyoCourses: Electronic homework submissions on WyoCourses are due on specified days by 5:00pm. Submit your work on time; no work can be accepted after the solutions have been posted. Please submit your work in pdf format (not of excessive file size). You are responsible for making sure your document uploads correctly. Popular options for generating your pdf are

- Write on blank paper and scan it using a mobile device or flatbed scanner, then export save as pdf. *Do not use your camera app*; rather, use a dedicated scanner app which crops your document and avoids glare, shadows, etc., optimizing the images as documents (unlike the camera app which optimizes for faces etc.)
- To avoid paper, use a tablet and stylus with a good note-taking app (Notability is a popular and highly recommended choice). Write either on a blank new page; or in our case, annotating the pdf copy of the worksheet from our course website. Export as pdf.
- Some assignments may be typed on your laptop (e.g. in MS Word or LaTeX) and then exported as pdf.

Frequently Asked Questions: For more detail on policies of course administration, learning progress, etc. please refer to <https://ericmoorhouse.org/courses/FAQ.html>. Most questions students ask me are already answered in this document.

Tentative List of Topics Covered:

- Logic and Proofs
- Sets, Relations, Cardinality

- Functions and their Growth
- Integers, Divisibility, Congruences
- Mathematical Induction and Recursion
- Discrete Probability
- Graphs and Trees

Students with Disabilities: If you have a physical, learning or psychological disability and require accommodations, please let me know as soon as possible. You will need to register with, and provide documentation of your disability, to the University Disability Support Services (UDSS) in SEO, Knight Hall.

Academic Freedom and Institutional Discrimination: UW Regulation 2-15 on Academic Freedom states, “Academic freedom in teaching protects the rights of Academic Personnel to teach according to their expertise. Academic Personnel are entitled to freedom in discussing their subject. Academic Personnel have a responsibility to ensure that their teaching is effective and consistent with the standards of the discipline, understanding that disciplines may have diverse points of view on any given subject. Teaching may involve controversial material; however, with academic freedom in the classroom, Academic Personnel also have the responsibility to respect others’ freedom to express disagreement and alternative opinions.” Additionally, “Academic freedom does not negate the rights of students and the public to disagree with Academic Personnel’s work, although students are expected to learn material with which they may disagree.” Also adopted by UW in its Academic Freedom policy, “Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.”

Green Dot Program at UW: Here at The University of Wyoming, we are committed to reducing and preventing power-based personal violence such as sexual assault, relationship violence, and stalking. Green Dot is a bystander intervention program to reduce these forms of violence with one thought: If everyone does one thing, no one will have to do everything. A Green Dot is your choice at any moment to make campus safer by promoting safety for everyone and letting others know that you will not tolerate violence. A Green Dot is any behavior, choice, word or attitude that sends a clear message that (1) Violence is not okay with you; and (2) Everyone is expected to do their part. Additional information on Green DOT training and resources are available at <https://www.uwyo.edu/greendot/>

Duty to Report: UW faculty are committed to supporting students and upholding the University’s non-discrimination policy. Under Title IX, discrimination based upon sex and gender is prohibited. If you experience an incident of sex- or

gender-based discrimination, we encourage you to report it. While you may talk to a faculty member, understand that as a “Responsible Employee” of the University, the faculty member MUST report information you share about the incident to the university’s Title IX Coordinator (you may choose whether you or anyone involved is identified by name). If you would like to speak with someone who may be able to offer privacy or confidentiality, there are people who can meet with you. Faculty can help direct you or you may find info about UW policy and resources at <https://www.uwyo.edu/reportit>

Academic Honesty: Academic dishonesty will not be tolerated in this class. Cases of academic dishonesty will be treated in accordance with UW Regulation 2-114. The penalties for academic dishonesty can include, at my discretion, an “F” on an exam, an “F” on the class component exercise, and/or an “F” in the entire course. Academic dishonesty means anything that represents someone else’s ideas as your own without attribution. It is intellectual theft (stealing) and includes (but is not limited to) unapproved assistance on examinations, plagiarism (use of any amount of another person’s writings, blog posts, publications, and other materials without attributing that material to that person with citations), or fabrication of referenced information. Facilitation of another person’s academic dishonesty is also considered academic dishonesty and will be treated identically.

Syllabus Changes: This syllabus is subject to change. Updates to this syllabus will appear electronically on the course website, and you will be alerted by email.