

## **3450:208 Introduction to Discrete Mathematics, 2023 Fall Syllabus**

Section 001: MTWF 11:50 a.m. – 12:40 p.m., Leigh Hall 408

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Office hours: Mon/Wed, 1–2 p.m. (13:00–14:00), or by appointment

**Prerequisites:** 3450:145/149 with a grade of C– or better, or placement. If you do not meet the prerequisites, you may be withdrawn from the course without refund.

**Course Objectives/Learning Outcomes:** Students will be expected to be able to

- communicate mathematical results through the proper use of mathematical notation and words;
- use symbolic logic and various proof-writing techniques, including Mathematical Induction;
- describe the basic properties and operations of sets, functions and relations;
- learn the basics of logic circuits, number systems, set theory, sequences, algorithms, and probability.

**Text:** *Discrete Mathematics with Applications*, 5th Edition, Susanna S. Epp, Cengage Learning. If you are registered for the class, you should have access to a digital version of the textbook through WebAssign, paid for by your “First-day Course Materials E-Content Fee”; this is provided to you via Brightspace, in the “Content Browser”, under “WebAssign and eBook Access”. If you would prefer to source your textbook elsewhere, or if you already have access by some other means, you can opt out of this program for a refund using the “Course Materials” link. See my website for more information.

**Calculator:** No calculators will be permitted on in-class assessments. All electronics must be silenced and stored out of sight during tests and exams.

Some out-of-class assignments and exercises will require the use of a calculator or computer, but there are plenty of free online tools that are sufficient for this purpose. Contact me if you have questions about where to find the necessary resources.

**Homework and Quizzes:** Assigned homework consists of three primary components:

Reading the textbook will be necessary to gain a full picture of the content of this course. The text is packed with more information than it is possible to present in class, so you should read each section before and/or after the corresponding lecture.

A list of recommended exercises from the textbook will be supplied. These exercises will not be collected, but they are important for your learning and mastery of the material. You may find it necessary to do more problems than those suggested. Without adequate practice, you are likely to find the tests and exams to be too long and difficult.

Several homework problems will be assigned to be submitted and graded; see my website for more information about these. We will also have several quizzes, roughly one every week

or two. (All quizzes will be announced in advance—there will be no “surprise” or “pop” quizzes.) Homework and quiz points will be combined into a single total.

Late work will not be accepted; however, a modest number of points will be omitted from the total “possible”, so you can miss an assignment or two without it hurting your grade. (If you do not miss any assignments, that adjustment will essentially convert a portion of your total into bonus points.)

**Exams:** Three midterm exams will be given throughout the course, announced approximately one week in advance. There will also be a comprehensive final exam administered during finals week, as dictated by the University’s schedule.

If you must miss an exam, contact me as soon as possible to discuss your options. Make-ups and other solutions will be permitted solely at my discretion, and if you lack adequate documentation, a penalty may be applied.

**Grades:** Your final grade will be based on the weighted average of your scores on assignments and assessments, with your homework and quiz total worth 30% of your grade, your midterms worth 15% each (45% total), and your final exam worth 25%. From that, your *minimum* grade in the course is shown in the table below. (I reserve the right to make small upward adjustments at my discretion. Also, I may weight the final exam more heavily if it will help your grade.)

<b>Percent:</b>	<60	60+	63+	67+	70+	73+	77+	80+	83+	87+	90+	93+
<b>Grade:</b>	F	D–	D	D+	C–	C	C+	B–	B	B+	A–	A

**Communication:** Aside from face-to-face discussion, the best way to contact me is by email. While lengthy or detailed discussion is best handled in person, I encourage you to ask me brief questions about course material—including homework—by email if it is feasible to do so. Aside from the convenience for you, it also makes it easier for me to send hints or clarifications to the entire class if I feel they are of general interest. Email is also the best way to schedule a meeting outside of class time or handle other administrative matters.

I will sometimes send important information or announcements to the class as a whole, or attempt to contact you directly if the need arises, using your UA email address. Make sure you check this account regularly.

My use of Brightspace is very limited; instead, information relevant to the course will be posted to my website, which you should check frequently. **Do not** attempt to contact me via the internal messaging systems of Brightspace or WebAssign, as I do not check those sites frequently—use regular email instead.

**Other policies:** All University rules and regulations are in effect, including those on attendance, discipline, academic dishonesty, and harassment. Avoid creating distractions and disruptions to the class: silence your phone, do not converse with your classmates during lecture, sit in the back of the room if you must use a laptop or tablet, etc.

You must be on the class list and properly enrolled in the course to participate in any way, including attending class or having work graded. See the University’s website for information

on add/drop deadlines. If you have a disability that requires accommodation, contact the Office of Accessibility immediately. Free tutoring is available in the University's tutoring centers: <https://www.uakron.edu/tutoring/>

**COVID statement from the University:** “COVID-19 is still present and serious. Before entering class, you should have completed your daily health assessment. You should not come to class if you fail your health check or feel ill. At that time, I also ask you to notify me that you will be absent. While you are in class on campus, you are required to: always cough or sneeze into your elbow or a tissue and adhere to other public safety protocols and directives for your specific classroom/lab/studio. Students who do not follow these health and safety requirements will be instructed to leave class immediately. Students who violate this protocol will need to leave the classroom and MAY be marked absent. Repeated violations of these health-saving protocols may lead to sanctions under the Student Code of Conduct, up to and including suspension or expulsion. Current guidelines can be found at: <https://uakron.edu/return-to-campus/>.”