

SYLLABUS – MATH 2200 – SECTION 3

DISCRETE MATHEMATICS

Description: This is a course on the fundamentals of discrete mathematics. It includes an introduction to proofs and rigorous analytic thinking; students will learn how to understand and write short proofs. We will introduce basic elements of mathematics such as fundamentals of logic, sets and relations, functions, number theory, modular arithmetic, combinatorics, and discrete probability. Math 2200 provides a foundation for higher mathematics or computer science courses.

- **Time:** Monday, Wednesday, Friday 9:40AM - 10:30PM
- **Location:** JTB 120
- **Instructor:** Karl Schwede
- **Contact information:**
 - email: schwede@math.utah.edu
 - office: JWB 315
 - website: <http://www.math.utah.edu/~schwede/math2200>
- **Office hours:** TBD. One in person, one on zoom.
- **Textbooks:**

A Concise Introduction to Pure Mathematics by Martin Liebeck, 4th edition

Grade: Your grade will be determined by the following formula.

35% Homework, in class worksheets, and quizzes. Homework will be approximately weekly.

Quizzes will be once every 1 or 2 weeks.

15% Midterm #1. Tentatively, Wednesday September 25th.

20% Midterm #2. Tentatively, Friday November 1st.

30% Final. Scheduled as per University guidelines.

A 93+ will be an *A*, 90-93 an *A*–, 87-90 a *B*+, 83-87 a *B*, 80-83 a *B*–, 77-80 a *C*+, 73-77 a *C*, 70-73 a *C*–, 67-70 a *D*+, 63-67 a *D*, and below will be an *E*. The final grading scheme may be more generous than this one.

If your homework will be late (or if you will miss an exam or quiz), for instance because you are sick, you must contact the instructor *prior* to missing the assignment in order to receive credit. There will be no negative impact on the grade for late homework where an arrangement was made prior to the due-date. More than two requests per student for making up late assignments might not be granted, such decisions will be made on a case-by-case basis (this is separate from ADA accommodations). If there is an emergency that makes it difficult or impossible to contact me before the assignment is due, that will also be handled on a case-by-case basis.

Gradescope: All assignments will be turned in and graded on gradescope.

Students are allowed, and even encouraged to work together when solving homework problems (although each student is responsible for their own write-up). Do not use artificial intelligence tools to solve homework problems without authorization.

Prerequisites: Prerequisites: "C" or better in Math (1220, 1250, 1260, 1270, 1311, 1320, 1321, or 2210) or an AP Calc BC score of 5.

Academic Integrity: All University of Utah policies regarding ethics and honorable behavior apply to this course.

Official matters

University Policies [The following statements are required on every course syllabus.]

1. The Americans with Disabilities Act. The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the Center for Disability & Access, 162 Olpin Union Building, (801) 581-5020. CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability & Access.

In compliance with ADA requirements, some students may need to record course content. Any recordings of course content are for personal use only, should not be shared, and should not be made publicly available. In addition, recordings should be destroyed at the conclusion of the course.

2. University Safety Statement. The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit <https://safeu.utah.edu>

3. Addressing Sexual Misconduct. Title IX makes it clear that violence and harassment based on sex and gender (which Includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 383 South University Street, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

4. Academic Misconduct Statement. It is expected that students adhere to University of Utah policies regarding academic honesty, including but not limited to refraining from cheating, plagiarizing, misrepresenting one's work, and/or inappropriately collaborating. This includes the use of generative artificial intelligence (AI) tools without citation, documentation, or authorization. Students are expected to adhere to the prescribed professional and ethical standards of the profession/discipline for which they are preparing. Any student who engages in academic dishonesty or who violates the professional and ethical standards for their profession/discipline may be subject to academic sanctions as per the University of Utah's Student Code:

<https://regulations.utah.edu/academics/6-410.php>

5. Drop/Withdrawal Policies. Students may drop a course within the first two weeks of a given semester without any penalties. Students may officially withdraw (W) from a class or all classes after the drop deadline through the midpoint of a course. A "W" grade is recorded on the transcript and appropriate tuition/fees are assessed. The grade "W" is not used in calculating the student's GPA. For deadlines to withdraw from full-term, first, and second session classes, see the U's Academic Calendar.

6. Other important information to consider including:

(a) Student Code: <http://regulations.utah.edu/academics/6-400.php>

(b) Accommodation Policy (see Section Q): <http://regulations.utah.edu/academics/6-100.php>

7. Supports for Students. Your success at the University of Utah is important to all of us here! If you feel like you need extra support in academics, overcoming personal difficulties, or finding community, the U is here for you. Please refer to the Student Support Services page for the U for updated information.

8. Basic Needs Student Support Statement. Success at The University of Utah includes learning about and using available resources. The Basic Needs Collective (BNC) is a coordinated resource referral hub. They educate about and connect students to campus and community resources to help them meet their basic needs. As a central location for resource referrals related to food, housing, health insurance, managing finances, legal services, mental health, etc., any student experiencing difficulty with basic needs is encouraged to contact them. Drop into their office located in the Union basement or schedule with them online for an in-person or virtual visit through their webpage: <https://basicneeds.utah.edu/>.