

Discrete Math
Math 230
 Fall 2015; MTWF 9:30-10:20

Instructor: Dr. Jennifer Nordstrom

Phone: x2654

Course Web Page: https://catfiles.linfield.edu/People/Faculty/jfirkins/public/M230/230F15_main.html

Office Hours: MF 2:00-3:30, T 2:00-3:00, TWF 8:30-9:30; but feel free to stop by anytime!

Office: Taylor 205

Email: jnordstrom@linfield.edu

Text: *Discrete Mathematics, an Introduction to Mathematical Reasoning*, Susanna S. Epp.

Tentative Daily Schedule

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|--------|-------------------------------|--------|--------------------------------|---------|--------------------------------|---------|--|
| Week 1 | 1.1 1.2 1.3 2.1 | Week 5 | 4.6 4.6 Review Exam 1 | Week 9 | Review Exam 2 7.1 7.2 | Week 13 | No Class No Class No Class No Class |
| Week 2 | No Class 2.2 2.3 3.1 | Week 6 | 5.1 5.2 5.3 5.3 | Week 10 | 8.1 8.2 8.3 8.4 | Week 14 | 10.1 10.2 10.3 10.3 |
| Week 3 | 3.2 3.3 3.4 4.1 | Week 7 | 5.4 5.5 5.6 6.1 | Week 11 | 9.1/9.2 9.3 9.4 9.5 | Week 15 | 7.4 7.4 Review Reading Day |
| Week 4 | 4.1 4.2/4.3 4.4 4.5 | Week 8 | 6.2 6.2 6.3 6.3 | Week 12 | 9.6 9.6 Review Exam 3 | Week 16 | Final Exam Monday, 10:30 am |

Course Objectives:

1. To introduce the student to the basic discrete mathematical structures and the theory and techniques associated with these structures.
2. To continue the student's growth in the use of mathematical language and the use of logic.
3. To improve the student's ability to write precise, valid, mathematical arguments.
4. To increase the student's confidence in working through mathematical challenges.
5. To continue the growth of the student's abilities in the appreciation and use of abstract reasoning.
6. To improve the student's problem-solving abilities.
7. To increase the student's mathematical maturity.

Homework: Homework will be collected approximately twice a week. Assignments will have two parts: starred (*) problems are to be turned in separately- these will be graded individually, while the remaining problems will be checked for general understanding of the topics. Part of doing homework is reading the text. You are expected to read the section in the text before it is discussed in class. I expect you to work on this course outside of class daily! Late homework will not be accepted without prior approval.

Class Participation: Attendance is important to your success. You are be expected to be an active member of this class.

Daily Questions: At the start of class almost every day you will be asked to answer (and turn in your answer to) the Daily Questions. These will be a questions on previous material. The purpose of these is primarily diagnostic, not evaluative! They will be graded on a pass/ no pass (P/NP) basis. You may receive a NP on five Daily Questions with no penalty, after that, your will lose 3% of the Daily Question grade for each NP. There are absolutely no make-up questions. A missed Daily Question counts as a NP. It is important to arrive to class on time as these will only take a few minutes!

Exams: There will be three exams and a final. Tentative dates:

- Exam 1: Friday, October 2
- Exam 2: Tuesday, October 27
- Exam 3: Friday, November 20
- Final Exam: Monday, December 14, 10:30 am

If you are not present for an exam, you will receive a 0 on that exam unless you have made arrangements with me PRIOR to the exam to take it at an alternate time.

Grading:

- Homework: 25%
- Daily Questions: 10%
- Midterm Exams: 45%
- Final Exam: 20%

Letter grades correspond to the following percentages:

- A-, A: 90-100%
- B-, B, B+: 80-89%
- C-, C, C+: 65-79%
- D: 55-64%

Cell Phone Policy: Cell phones must be off and put away during class. Laptop computers are only permitted at the instructor's discretion. A student using a laptop for an activity not directly related to the course will no longer be allowed use of one during class.

Advising Information: The prerequisite is MAT 170, Calculus I. This course is especially designed to serve the needs of students interested in computer science. Students majoring in areas outside the physical sciences such as economics and business will find the course of interest as well. This course carries credits toward a major or minor in mathematics and serves as good preparation for advanced courses such as abstract algebra, combinatorics, graph theory, and topology. It is also recommended for math majors interested in secondary education.

Academic Honesty: (From the Linfield College Course Catalog) "Academic work is evaluated on the assumption that the work presented is the student's own, unless designated otherwise. Anything less is unacceptable and is considered academically dishonest." Academic dishonesty includes all forms of cheating, such as using or attempting to use unauthorized materials, information, or study aids in any work submitted for credit; changing answers after graded work has been returned; making unauthorized changes to an exam, quiz, or assignment. Knowingly helping or attempting to help another violate the College's policy on academic work is a form of academic dishonesty. Any form of academic dishonesty will result in a 0 on that assignment/ quiz/ exam. Additionally, academic dishonesty may result in a failing grade in the course. See the Course Catalog for information on the procedure to be used in dealing with academic dishonesty.

Disability Statement: Students with disabilities are protected by the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. If you are a student with a disability and feel you may require academic accommodations please contact Learning Support Services (LSS), as early as possible to request accommodation for your disability. The timeliness of your request will allow LSS to promptly arrange the details of your support. LSS is located in Melrose Hall 020 (503-883-2562). We also encourage students to communicate with faculty about their accommodations.