

University of Montana

## ScholarWorks at University of Montana

---

University of Montana Course Syllabi

Open Educational Resources (OER)

---

Fall 9-1-2021

### M 225.02: Introduction to Discrete Mathematics

Cory T. Palmer

*University of Montana, Missoula*, [cory.palmer@umontana.edu](mailto:cory.palmer@umontana.edu)

Follow this and additional works at: <https://scholarworks.umt.edu/syllabi>

**Let us know how access to this document benefits you.**

---

#### Recommended Citation

Palmer, Cory T., "M 225.02: Introduction to Discrete Mathematics" (2021). *University of Montana Course Syllabi*. 12363.

<https://scholarworks.umt.edu/syllabi/12363>

This Syllabus is brought to you for free and open access by the Open Educational Resources (OER) at ScholarWorks at University of Montana. It has been accepted for inclusion in University of Montana Course Syllabi by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact [scholarworks@mso.umt.edu](mailto:scholarworks@mso.umt.edu).

## M 225 -- Introduction to Discrete Mathematics, Fall 2021

### Contact information

- Instructor: Cory Palmer
- Office: 004E
- E-mail: [cory.palmer@umontana.edu](mailto:cory.palmer@umontana.edu)
- Office hours: Monday and Friday (primary) 2-3 PM in 004E

### Course description

Mathematical concepts used in computer science with an emphasis on mathematical reasoning and proof techniques. Elementary logic, sets, functions and relations, combinatorics, mathematical induction, recursion and algorithms. Writing and understanding proofs will be an important part of this course.

### Learning outcomes

1. To gain an in-depth look at several central themes of discrete mathematics;
2. To learn to reason mathematically and communicate ideas in a clear and concise manner;
3. To use induction and other techniques of mathematical proofs.

### Class schedule

MWF: 12:00-12:50 PM in MATH 103

### Textbook

*Discrete Mathematics – Elementary and Beyond* by Lovász, Pelikán, Vesztergombi. We will cover chapters 1-7 and selected topics from the remaining chapters as time permits.

### Homework

Homework will be assigned (roughly) every week. You may work in groups on the homework, but be sure to write up your own answers. Late homework will only be given partial credit and may not be given feedback. As a courtesy for unforeseen circumstances one homework grade will be dropped. Homework missed due to illness, etc (with proper documentation) will also be dropped. Homework will be graded both on correctness and clearness of arguments. Work that is too difficult to follow may be marked off. Homework will be submitted online through: <https://gradescope.com> (entry code in email).

### Exams

There will be three exams one of which will serve as the final exam.

### Final exam

The final exam is scheduled for 8:00-10:00 AM, Friday, December 17.

## Grading

Your grade will be composed of: 30% homework and 70% from the three exams. Letter grades and +/-s will be assigned according to the standard scale.

## Class website

Homework assignments will be posted to gradescope.

## COVID-19

- Mask use is required within the classroom or laboratory.
- If you feel sick and/or are exhibiting COVID-19 symptoms, please don't come to class and contact the Curry Health Center at (406) 243-4330.
- If you are required to isolate or quarantine, you will receive support in the class to ensure continued academic progress.
- UM recommends students get the COVID-19 vaccine. Please direct your questions or concerns about vaccines to Curry Health Center.
- Where social distancing (maintaining consistent 6 feet between individuals) is not possible, specific seating arrangements will be used to support contact tracing efforts.
- Class attendance and seating will be recorded to support contact tracing efforts.
- Drinking liquids and eating food is discouraged within the classroom.

## Accommodations

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and the Office for Disability Equity (ODE). If you anticipate or experience barriers based on disability, please contact the ODE at: (406) 243-2243, [ode@umontana.edu](mailto:ode@umontana.edu), or visit [www.umt.edu/disability](http://www.umt.edu/disability) for more information. Retroactive accommodation requests will not be honored, so please, do not delay. As your instructor, I will work with you and the ODE to implement an effective accommodation, and you are welcome to contact me privately if you wish.

## Academic honesty

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. You can find it in the [A to Z Index](#) on the UM home page.

## Registration deadlines

Full registration deadlines can be found online on the [registrar calendar](#) (<http://www.umt.edu/registrar/calendar.php>).