Math 125-001: Discrete Mathematics I

Fall 2022

George Mason University

Course meetings:

10:30 am - 11:45 am MW, Horizon Hall 1014

Instructor: Harry Bray, he/him/his, hbray@gmu.edu,
Exploratory Hall, Room 4219

Learning Assistants (LAs):
Andy Miller, he/him/his, amille97@gmu.edu
Eileen Nolan, she/her/hers, enolan8@gmu.edu

Office hours: Office hours are specific drop-in times with the instructor or learning assistants. These are opportunities for students to receive additional support with the course content outside of classtime. Office hours times are to be announced on Blackboard. There will be both in-person and virtual (via Zoom) office hour options.

Office hours by appointment can be arranged with the instructor, Professor Harry Bray, by email.

Prerequisites: At least one of the following is required:

- A C/XS or better in Math 105, 108, or 113.
- A minimum score of 13 in 'Math Placement Algebra I'

Course materials: Discrete Mathematics with Applications by Susanna Epp, fifth edition **with WebAssign software**.

To purchase, students must go to the WebAssign link through Blackboard. The option through the bookstore DOES NOT include the WebAssign online homework. The WebAssign online homework is a required component of the course.

Technology

Students are expected to have reliable internet connection to engage with some aspects of the course, or in the event of a mandated quarantine due to COVID-19. The following software is required for all students:

- Blackboard
- WebAssign
- Gradescope
- Zoom

We may also use Jamboard for any virtual activities such as office hours.

Course topics and goals:

Introduces ideas of discrete mathematics and combinatorial proof techniques including mathematical induction, sets, graphs, trees, recursion, and enumeration. The course requires a serious time commitment, both in attendance and outside time for homework and studying.

Structure of the course:

Unless communicated otherwise by the instructor or the University, the instructor will host class meetings during the scheduled class meeting time at the designated meeting place. During class time, students will receive support with the material and course work. In general, these meetings will involve a combination of traditional lecture and nontraditional student engagement. At times students will have the opportunity to work either individually or in small groups on problems posed by the instructor. Some of these problems may appear as part of other assessments.

Grading:

Each student receives a final numerical score based on the following breakdown:

Assessment	Percentage of final grade
Homework average	20%
Quiz average	15%
Midterm 1	20%
Midterm 2	20%
Final	25%

A student's numerical grade is then converted to a final letter grade based on the following grade intervals:

A: $[89.5, 100]$ B: $[79.5, 89.5)$ C: $[69.5, 79.5)$ D: $[59.5, 69.5)$ F: $[0, 59.5)$

Assignments of $+/-$ will be based on grade distribution.

Exams. There will be **no make-up exams**. A missed exam counts as a zero unless a valid excuse from a physician or the Dean's Office is presented to your instructor and accepted. You need to contact your instructor as soon as possible regarding your extenuating circumstance for consideration of an exception.

Exams are scheduled as follows: (dates updated and finalized on Monday 8/22)

Midterm 1	Wednesday Oct 5, 10:30-11:45am
Midterm 2	Wednesday Nov 2, 10:30-11:45am
Final	Wednesday Dec 7, 10:30am-1:15pm

Exams will have both a take-home WebAssign component, as well as a written in-class component. Students will be able to view their written exam scores and feedback on Gradescope.

Homework. There will be weekly online homework assigned via the WebAssign platform. Students can access the course WebAssign via the Blackboard tab titled **WebAssign and Ebook**. Students who need support with WebAssign are encouraged to review the WebAssign and Ebook tab on Blackboard, where there are numerous resources available.

Quizzes. There will be short weekly quizzes at the start of class each Wednesday, reviewing content from the previous two class meetings. Students will be able to view their feedback on Gradescope.

Important dates

As listed here: `https://registrar.gmu.edu/calendars/fall_2022/#dates`:

Last day to add	Mon Aug 29
Last day to drop with 100% tuition refund	Tues Sept 6
Last day to drop with 50% tuition refund	Tues Sept 13
End of withdrawal period for undergraduates	Mon Oct 24

Conduct, collaboration, and academic integrity:

You are expected to follow the GMU Honor Code:

`https://oai.gmu.edu/mason-honor-code/`

For individual assessments, although students are encouraged to discuss homework problems to generate ideas, **it is your responsibility to complete the final assignment on your own.** No collaboration is allowed on tests or quizzes. Any indication that you have copied, or allowed fellow student(s) to copy your work for these assessments is a violation of the GMU Honor Code.

Some of the behaviors that will be considered cheating include:

- Communicating with another person during an assessment which does not allow for collaboration.
- Copying material from another person for **any assignment being graded** and submitting it as if it is your own individual work.
- Allowing another person to copy from any assignment being graded.
- Use of unauthorized assistance on any assignment being graded.
- Use of unauthorized notes, books, calculators or cellphones during an assessment.
- Providing or receiving a copy of a quiz or exam used in the course.

Services and accommodations: If you have a learning or physical difference that may affect your academic work, please see me and contact the Office of Disability Services (ODS) at 993-2474, `http://ods.gmu.edu`. All academic accommodations must be arranged through the ODS.

Counseling and Psychological Services are available for GMU students: `http://caps.gmu.edu` / 703-993-2380

Inclusivity and equity: George Mason University is an intentionally inclusive community that promotes and maintains an equitable and just work and learning environment. We welcome and value individuals and their differences including race, economic status, gender expression and identity, sex, sexual orientation, ethnicity, national origin, first language, religion, age, and disability. I invite students to come to me with any concerns about inequitable access or treatment in this course.

University policies: The University Catalog, `http://catalog.gmu.edu`, is the central resource for university policies affecting students, faculty and staff conduct in university academic affairs. Other policies are available at `http://universitypolicy.gmu.edu/`. All members of the university community are responsible for knowing and following established policies.