

# MONTGOMERY COLLEGE

## Course Syllabus

Mathematics, Statistics, and Data Science Department

### I. Contact Information

Professor: Zhou Dong

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Phone: (240) 567-7810

Office: HT 134 Germantown campus

Office Hours:

Monday 10:30 am – 12:30 pm	Drop-in or appointments
Wednesday 10:30 am – 12:30 pm	Drop-in or appointments
Friday 10:30 am – 12:30 pm	By appointment only

[Click here to book an appointment](#)

### II. General Course Information

Discrete Structures Honors Module – CMSC/MATH 207HM Attached to CMSC/MATH 207 CRN 31948/31947

HONORS ELIGIBILITY:

- SAT score of 600 or above on each section  
OR
- Completion of at least 12 Montgomery College credits
- Cumulative 3.4 grade point average or higher
- Grade of A or B in ENGL 101/011 or Eligible for ENGL 102

### III. Honors Course Outcomes

Upon course completion, a student will be able to:

- Explain the context and significance of at least one of the mathematical concepts studied in the course.
- Demonstrate at least one proof technique or algorithm through a computer program.
- Discuss the role of logic in computer science.

### IV. Grading

#### A. Requirements

Honors Project Math Option:

*The professor reserves the right to make changes to this syllabus.*

*Last Updated January 24, 2024*

1. The student will complete one full-length or two mini “Primary Source Projects” (PSPs) in consultation with the instructor from these two repositories:
  - Transforming Instruction in Undergraduate Mathematics via Primary Historical Sources (TRIUMPHS)  
<https://blogs.ursinus.edu/triumphs/>
  - Learning Discrete Mathematics and Computer Science via Primary Historical Sources <https://www.cs.nmsu.edu/historical-projects/>
2. The student will learn the basics of typesetting in LaTeX using Overleaf (<https://www.overleaf.com/>). Each PSP’s tasks and exercises must be typeset in LaTeX and students must submit both the .tex file and the compiled .pdf file.
3. The student will create a 15-20 minute presentation along with an annotated bibliography based on their PSP(s). The presentation will be delivered during the last week of classes.

#### Honors Project Programming Option:

1. The student will create a website similar to <https://www.coursicle.com/>
2. The website should pull Montgomery College’s course listing information and have a user-interface similar to the Coursicle page.
3. The student will create a 15-20 minute presentation demonstrating their website with descriptions of the process and programming tools used to create the website. The presentation will be delivered during the last week of classes.

## B. Honors Coursework Schedule

Honors students will have meetings with the professor outside of regular class meetings. The meeting time will be mutually agreed upon by the student and professor. Meetings will usually take 30 to 60 minutes. Honors Coursework Schedule:

Date	Math Option	Programming Option
Fri 2/2	PSP Selection Due	Preliminary website plan
Fri 2/9	PSP Check-in 1	Progress Check 1
Fri 2/23	PSP Check-in 2	Progress Check 2
Fri 3/8	PSP Check-in 3	Progress Check 3
Fri 3/22	PSP Check-in 4	Progress Check 4
Fri 4/5	Presentation & Bibliography – first draft	Website Testing Round 1
Fri 4/19	Presentation & Bibliography – second draft	Website Testing Round 2
Fri 4/26	Presentation rehearsal	Presentation rehearsal
Fri 5/3	Presentations	Presentations

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### C. Honors Projects Grade

The honors module work will make up 15% of the student's overall grade for the course.

Regular coursework 85%	Homework	5%
	Quizzes	10%
	Exam 1	15%
	Exam 2	15%
	Exam 3	15%
	Final Exam	25%
Honors coursework 15%	Project	10%
	Presentation	5%
	Total	100%