MONTGOMERY COLLEGE

Course Syllabus
Mathematics, Statistics, and Data Science Department

I. Contact Information

Professor: Zhou Dong
Email: Zhou.Dong@MontgomeryCollege.edu
Phone: (240) 567-7810
Office: HT 134 Germantown campus

Office Hours:

Monday & Wednesday 10:30 am – 12:50 pm	Drop-in Office Hours in HT 134 & Online Appointments
Fridays 10:30 am – 1:00 pm	Appointments only Click here to book an appointment

II. General Course Information

Discrete Structures Honors Module
CMSC 207HM CRN 34628 attached to CSMC 207 CRN 31761
MATH 207HM CRN 34630 attached to MATH 207 CRN 31760

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:

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 CURM Option:

1. The student will write proofs as part of their research in the CURM project.
2. The proofs must be typed in LaTeX.
3. The student will present their proof(s) in class or as a math department talk (depending on length and availability of class time). 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 usually take 30 to 60 minutes. Honors Coursework Schedule:

Date	Math Option	CURM Option
Fri 2/7	PSP Selection	Set goal for proof writing
Fri 2/14	PSP Check-in 1	Progress Check 1
Fri 2/28	PSP Check-in 2	Progress Check 2
Fri 3/14	PSP Check-in 3	Progress Check 3
Fri 3/28	PSP Check-in 4	Progress Check 4
Fri 4/11	Presentation & Bibliography – first draft	Proof writeup - draft
Fri 4/25	Presentation & Bibliography – second draft	Proof writeup - final
Fri 5/2	Presentation rehearsal	Presentation rehearsal
Fri 5/9	Presentations	Presentations

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/Proof	10%
	Presentation	5%
	Total	100%