

MONTGOMERY COLLEGE - Germantown Campus**Mathematics & Statistics Department****Course Syllabus****I. Instructor Information**

See syllabus for MATH181 Calculus I CRN31874

See syllabus for MATH182 Calculus II CRN22026

II. General Course Information

PREREQUISITE:

~ 3.2 or higher GPA

~ minimum 12 academic credits at MC

~ B or A in EN 101 or EN 101A

Calculus I Honors Module – MATH181HM (Attached to MATH181 CRN22999)

Fall 2019: CRN 25509

Class Times: MWF 12:00 pm – 1:40 pm

Class Room: HT 403

Calculus II Honors Module – MATH182HM (Attached to MATH182 CRN22026)

Fall 2019: CRN 24582

Class Times: TR 10:00 am – 12:10 pm

Class Room: HT 403

III. Grading**A. Requirements**

The student is required to

- Select a project topic in consultation with the instructor
- Identify at least 3 reference sources to be approved by the instructor
- Present the project at the end of the semester
- Produce an annotated bibliography of the resources used

B. Honors Module Grade

The Honors Module standards:

Core	HM.MC	Mathematical content – accuracy and robustness of the mathematics involved in the project
Advanced	HM.PM	Presentation materials – quality of materials used for presentation (e.g. slides, handouts, models, poster, etc.)
Advanced	HM.PD	Presentation delivery – quality of the delivery of the presentation (e.g. preparedness, organization, clarity, etc.)

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

Last Updated June 29, 2021

Core	HM.AB	Annotated Bibliography – all sources cited with a summary
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C. Standards

See syllabus for MATH181 Calculus I CRN22999

See syllabus for MATH182 Calculus II CRN22026

Reading List:

1. Group Reading: *Mathematics Illuminated* Unit 9 Game Theory, Annenberg Learner (<https://www.learner.org/courses/mathilluminated/units/9/>)
2. Individual Reading:
 - a. Nick
 - i. “Computer Science and Game Theory” by Yoav Shoham.
 - ii. TBD
 - b. Xavier
 - i. Beautiful Game Theory: How Soccer Can Help Economics by Ignacio Palacios-Huerta
 - c. Olivia
 - i. “Undergraduate Research Opportunities in Combinatorial Games” by David Wolfe
 - ii. “Combinatorial Game Theory” by Alan Chang
 - iii. TBD
3. Experiment
 - a. Classroom Games for Teaching Economics (<https://economics-games.com/>)

Schedule:

Meeting Date	Group Reading	Nick	Xavier	Olivia
September 25/27	9.1 Introduction			
October 2/4	9.2 Origins of Game Theory	Shoham	Ch. 1	Wolfe
October 9/11	9.3 Piece of Cake	Shoham	Ch. 2	Chang: 1 – 3
October 16/18	9.3 Truel	TBD	Ch. 3	Chang: 4 – 7
October 23/25	9.3 A Penny Saved	TBD	Ch. 4	TBD
October 30/November 1	9.4 Prisoner’s Delimma	TBD	Ch. 5	TBD
November 6/8	9.4 Déjà vu	TBD	Ch. 6	TBD
November 13/15	Presentation - draft			
November 20/22	Presentation - final			
December 4/6	Presentation - delivery			

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