Math 271 for Croft/Honors

Spring Semester 2020

Class meets TT 1:00-2:15 in Croft Room 107

Welcome to Calculus of Decision Making I for the Croft and the Honors College. There are three goals for this class besides making you better prepared for courses you will take in completing the International Studies major and becoming ***an independent thinker and problem solver.***

I.   By the end of this class, you will be able to maximize certain functions of one variable as well as functions of several variables subject to a constraint, using the **Lagrange method**. This approach, as does calculus overall, has many interesting applications as well as a strong philosophical appeal. **In addition, you will apply Calculus to Game Theory and Economics.**

II.   An overarching goal is to show the usefulness and playfulness of the mathematical method in general. We will conduct class projects on logic/math puzzles, prime numbers, encryption, solving equations in the tradition of the ancient Greeks, include some mathematical history and do calculus.

III.   We will also make a **connection between thinking, calculating and articulating**

(orally and on paper) mathematical concepts.

Offices, phone numbers, e-mail addresses, and office hours:
Buskes: Hume Hall 105, 915-7425, mmbuskes@olemiss.edu, MW 10:00-11:00 and by appointment with the TA.
Text Book:
   Essential Calculus with Applications, by Wright, Hurd, and New, Second Edition, available at the bookstore: **DO NOT BUY THE SOFTWARE CODE**

Grading System: The grading scale will be A (90%-100%), B (80%-90%), C(70%-80%), D(60%-70%),F(<60%)

Daily class work	10 %
5 to 10 homeworks	20 %
Special Project	10%
2 mid term exams	20%+10%=30%
Final Exam	30%

Some Key Dates:

Disability Access and Inclusion: The University of Mississippi is committed to the creation of inclusive learning environments for all students. If there are aspects of the instruction or design of this course that result in barriers to your full inclusion and participation, or to accurate assessment of your achievement, please contact the course instructor as soon as possible. Barriers may include, but are not necessarily limited to, timed exams and in-class assignments, difficulty with the acquisition of lecture content, inaccessible web content, and the use of non-captioned or non-transcribed video and audio files. If you are registered with SDS, you must log in to your Rebel Access portal at **https://sds.olemiss.edu/rebel-access-portal** to request approved accommodations. If you are NOT registered with SDS, you must complete the process to become registered. To begin that process, please visit our website at **https://sds.olemiss.edu/apply-for-services**. SDS will:

1. Complete a comprehensive review to determine your eligibility for accommodations,

2. If approved, disseminate to your instructors a Faculty Notification Letter,

3. Facilitate the removal of barriers, and

4. Ensure you have equal access to the same opportunities for success that are available to all students.

If you have questions, contact SDS at 662-915-7128 or **sds@olemiss.edu**.

Attendance

Attendance roll will be taken at each class meet. Late arrivals will count as absent after the roll has been read. You are allowed to have two absences, excused or unexcused. Any absences beyond two will lower your grade.

Approximate schedule of topics

WEEK	DATE	SECTION	EXAMPLES	HOMEWORK
Week 1		Introduction		Sections 1.2 and 1.3
			Logic and Puzzles	Sections 1.2 and 1.3
Week 2			Logic and Puzzles	Sections 1.2 and 1.3
		Section 2.1		20-37, 72-77
Week 3		Section 3.1		
		Section 3.2		
Week 4		Section 3.3	Game Theory	
		Section 3.4		
Week 5		Section 4.1		
		Section 4.2	Game Theory	
Week 6				
		First Midterm		
Week 7		Section 4.3		
		Puzzles		
Week 8		Section 5.1		
		Section 5.2		
Week 9		Section 5.3		
		Section 5.4		
Week 10		Section 8.1		
	\	Section 8.2		
Week 11		Section 8.3		
		Section 8.4		
Week 12		Encryption		
		Encryption		
Week 13		Encryption		
		Second Midterm		
Week 14				