

Introduction to Calculus
TRIO Upward Bound Project
The University of Iowa
Summer 2019

Instructor: Mr. Camacho (“Cuh-macho”)

Email: nicholas-camacho@uiowa.edu

Meeting Location: MLH 218 (MacLean Hall)

Meeting Times: June 24 – July 26

MWF 11:30am-12:30pm.

Instructor’s Study Hall

Hours: Monday’s, 1:45pm-3:15pm

Study Hall Location: Language Media
Center in Phillip’s Hall

Instructor’s Website:

<https://nicholascamacho.weebly.com>

Objectives/Goals of the Course: The main goal of this course is to prepare the student for the first course in the Calculus sequence by focusing on techniques of differentiation. The derivative rules are a main component of Calculus, and mastering these rules before the first Calculus course will allow the student to focus on the various *applications* of derivatives one learns in Calculus I.

Prerequisites: High School Algebra, including: rules of exponents, adding and multiplying polynomials, and functions. However, we will *quickly* review this material in the first few course meetings.

Tentative Schedule:

Week of	Monday	Wednesday	Friday
June 24	Introduction; 1.1 – Exponents	1.2 – Polynomials	1.3 – Functions
July 1	1.3 – Functions	2.1 – Basic Derivatives	Holiday – No Class
July 8	2.1 – Basic Derivatives	Review	Midterm Exam
July 15	2.2 – The Product Rule	2.3 – The Quotient Rule	2.4 – The Chain Rule
July 22	Review	Review	Final Exam

Course Binder: Each student will be provided a course binder which will include all course notes, homework assignments, and the Pre-Test. The student is expected to bring this binder to each class meeting, and to follow along in the course notes.

How to Use Course Notes: Using the schedule above, the student is expected to read the appropriate sections of the course notes before the class meeting. During the class meetings, we will discuss the material, go over many examples together, and then the student will be given an opportunity to complete problems directly in the course notes. The problems given in the course notes are for the student’s benefit alone. The only way to learn mathematics is to do mathematics, and this is the purpose of the problems in the course notes. The problems provide the student the opportunity each class to study and practice with the instructor’s help. So use this time wisely.

Pre-Test: The Pre-Test is included in your course binder. The Pre-Test should be completed outside of class and will be due at the start of class on the second meeting, Wednesday, June 26th. The student is expected to spend 1 hour outside of class completing the Pre-Test, without consulting any resource whatsoever (including other people/classmates). While the Pre-Test will be reviewed by the instructor, this assignment will not affect the student's final letter grade (See "Calculation of Grade" below). It will only be used as a reference for the instructor, and to track each student's progress during the course.

Exams: There will be one Midterm Exam and one Final Exam. The Midterm will be on Friday, July 12 in class, and will cover all material discussed up to that point. The final Exam will be on the last day of class, Friday, July 26, and will be comprehensive.

Homework: There are 3 graded homework assignments. These are included in your course binder.

Calculation of Grade:

- Attendance/Participation: 25%
- Homework: 25%
- Midterm Exam: 25%
- Final Exam: 25%

Course Policies:

- *Cheating:* There is absolutely no tolerance for cheating of any kind. You know what cheating is. Do not copy a classmate's homework; do not copy a solution from any textbook, phone app, website, or other resource; do not have someone else do your homework for you; do not look at another student's exam; etcetera. **Any form of cheating will result in all student's involved receiving an failing grade in the course.**
- *Attendance:* Attendance will be taken regularly. Absences will only be excused for medical or family emergency reasons, or the observance of a religious holiday. Let the instructor know as soon as possible if you will be missing a class.
- *Timely completion of assignments:* There will be 20% per day penalty for late homework assignments.
- *Calculators:* No calculators or other hand-held electronic devices are allowed on homework or exams. Homework and exams are written in such a way that a calculator is not necessary.
- *Pens:* You are not allowed to write in pen. Homework and exams written in pen will not be accepted. Make sure you write in pencil.
- *Online Resources:* There is an incredible amount of examples, videos, worksheets, etc. that can be found online for the material in this course. While this will not be necessary or required, the student is encouraged to find and utilize these resources as needed.

- *Student Collaboration:* The homework for this course is designed to help you master your knowledge related to the topics covered during lecture. As such, you may work on the homework problems with others or use online resources. However, please be aware that to master the skills needed for this class, practice is required and that to do well on the exams you will need to work many of these problems multiple times without help. Be sure to test your knowledge by doing much of the homework on your own.
- *Make-up policies for exams:* The make-up exams will be given only under exceptional circumstances (e.g. illness, mandatory religious obligations, official University activities, or unavoidable circumstances).
- *Usage of technology:* All cell phones (and similar devices) must be set to vibrate or turned off during class. Texting, phone calls, etc. are not permitted during class. Note-taking on tablets, laptops, etc. is acceptable (with Instructor's approval). Unauthorized use of any of the above devices may be considered as disruptive conduct and result in the student being asked to leave the classroom for the day.