<div align="center">

University of Connecticut
Calc β, BRIDGE 2018

Instructor Information

</div>

Instructor: Noah Hughes

Webpage: http://www.math.uconn.edu/∼hughes/

Email: noah.hughes@uconn.edu (Expect responses only between the hours of 9am and 6pm.)

Office: Monteith, Room 322

<div align="center">

Course Webpage

</div>

This document and all other course materials will be hosted at the following website:

<div align="center">

http://www.math.uconn.edu/∼hughes/math1131sum18/

Course Description

</div>

Calculus is the mathematics of change. The ability to formalize the idea of "change over time" and "total change" via the differential and integral calculus are the bedrock of our modern science. In this course we will cover the first idea and touch upon the second: that is, we will define the derivative of a function (loosely, a function which discusses the change of another) and study some of it's applications. Towards the end of the course we will define the integral of a function and connect these two ideas via the fundamental theorem of calculus.

To do this, we will cover the majority of chapters 1 through 5 and a selection of sections from chapters 6 and 7 of the text. A detailed but tentative schedule is given below. This course is based heavily on Math 1131Q, Calculus I at UConn.

Departmental course description: Limits, continuity, differentiation, anti-differentiation, definite integrals, with applications to the physical and engineering sciences.

<div align="center">

Materials

</div>

Text: *Calculus: Early Transcendentals* 7th ed., by James Stewart

Note that this book is available to you via loan for the duration of BRIDGE 2018. If you wish to purchase a Calculus text, email me.

Calculators: You are welcome to use calculators while working on homework, though they should not be necessary. They will *not* be allowed during exams or quizzes.

Assessments

Homework: (worth 35% of your grade)

There will be a homework assignment due at the beginning of every class meeting. You are encouraged to work in groups but each student must submit their own solutions.

These will be distributed in the class meeting before they are due. You do not need to print these: if for some reason you misplace your assignment you can find another copy on the course page under homework. You may submit your solutions on a separate sheet of paper. The problem sheet is not required.

Exams:

There will be two exams:

- Midterm Exam (Wednesday, July 18, worth 30% of your final grade)
- Final exam (Date to be announced (August 1 or 2), cumulative, worth 35% of your final grade)

Make-Up Work

Late work will not be accepted without previous notice. You may arrange with me in advance if accommodations are needed.

Tentative Schedule

A tentative outline for the course can be found on the following page. The schedule for this course is somewhat flexible, and the pace may change based on mid-course results.

Academic Integrity

Integrity is a vital to a successful and rewarding academic experience. You are expected to observe the University's Academic Integrity Policy while participating in this course.

Special Accommodations

If you are accustomed to special accommodations for assessments please contact me early in the course so we may decide what will be suitable for this course.

Disclaimer

I reserve the right to make changes to this document in partiality or entirety at any point during the semester.

Tentative Schedule:

Week	Date	Section	Topic
1	7/2	1.1–1.6	Essentials of Functions
	7/3	2.2, 2.3, 2.5	Limits and Continuity
	7/5	2.4	The Precise Definition of a Limit
2	7/9	2.2, 2.6	Infinite Limits and Limits at Infinity
	7/10	2.7, 2.8	The Derivative
	7/11	3.1–3.4, 3.6	Derivative Rules
	7/12	3.7, 3.8	Applications of the Derivative
3	7/16	3.6, 3.9	Implicit Differentiation and Related Rates
	7/17	3.10	Linear Approximations
	7/18		**Midterm Exam**
	7/19	4.1, 4.2	Extreme Values and the Mean Value Theorem
4	7/23	4.3–4.5	Curve Sketching
	7/24	4.7	Optimization
	7/25	5.1, 5.2	Integration
	7/26	4.9, 5.3, 5.4	The Fundamental Theorem of Calculus
5	7/30	5.5, 7.1	Substitution and Integration by Parts
	7/31	6.1, 6.2	Areas and Volumes
	8/1		**Finals Day 1**
	8/2		**Finals Day 2**