## Hunter College of the City University of New York Department of Mathematics and Statistics

# MATH 155 Calculus II Fall 2019 4 hrs., 4 cr.

Time: TuTh 7:35pm - 9:25pm Room: Thomas Hunter Hall 408

**Instructor:** Benjamin Spinale

Email: bspinale@gradcenter.cuny.edu

Office Hours: Tuesday 5:00pm-6:00pm room 924HE, or by appointment

## Prerequisites

MATH 150 with a grade of C or better or MATH 15100

#### Textbook

Stewart, James. Essential Calculus. 2nd ed. with WebAssign

#### Course Overview

This is the second semester of a calculus sequence which is an introduction to differential and integral calculus, suitable for all students majoring in science or mathematics, or any other course of study requiring calculus. The student will be expected to differentiate and manipulate transcendental functions, evaluate definite and indefinite integrals using substitution, integration by parts, trigonometric substitution, and partial fractions, approximate definite integrals using numerical techniques, compute arc lengths of curves and areas of surfaces of revolution in rectangular and polar coordinates, evaluate the convergence of infinite series, and compute and manipulate power series representations of functions.

## Exams

There will be three in-class exams and a cumulative final. The final will be counted twice for a total of five exam scores. The lowest score will be dropped. If the final is your lowest score it will only count once. If you miss an exam, that score will be dropped. No make-up exams will be given.

## Homework

Homework will be completed online via WebAssign. You will receive instructions on how to access the homework. There is one assignment per section covered. Assignments are due the night before the exam which covers the corresponding material. After the exam has passed you may still do old problems for practice but no credit will be given. No extensions will be given and no late work will be accepted. Please note that all students are required to purchase access to WebAssign in order to complete the homework.

#### Attendance

It is important to attend every class as each lecture builds on previous material. If you miss a class, please reach out to one of your classmates or the instructor to find out what was covered that day and read the appropriate sections to stay caught up.

## **Grading Policy**

Exams and Final	90%
Homework	10%

Score	Letter Grade
97.5 - 100	A+
92.5 - 97.4	A
90.0 - 92.4	A-
87.5 - 89.9	B+
82.5 - 87.4	В
80.0 - 82.4	В-
77.5 - 79.9	C+
70.0 - 77.4	С
60.0 - 69.9	D
0 - 59.9	F

Since your lowest exam score will be dropped, your total exam score is the sum of your four highest scores which accounts for 90% of your grade. If you miss more than one exam you will be at a high risk of failing the course. You may earn extra points towards your total exam score by attending the calculus workshops at the Math Learning Center. One point will be awarded for every two workshops attended. You may earn up to three extra points in this way.

If you stop attending class and do not withdraw you will receive a grade of WU. Students wishing to receive a grade of Credit/No Credit (CR/NC) must have completed at least two exams with a grade of 40 or better before the final. Students on academic probation are not eligible for CR/NC. In order to receive a grade of incomplete students must have a justified absence from the final exam and must have taken at least 2 exams with an average of 70 or better.

No make-up exams will be given. No homework extentions will be given and no late work will be accepted.

## Course Content and Lecture Schedule

Below is a tentative schedule of the material to be covered. This will likely change as the semester progresses.

Date	Lecture	Topic
08/27	1	5.1 Inverse functions
8/29	2	5.2 The natural logarithmic function
9/3	3	5.3 The natural exponential function
9/5	4	5.5 Exponential growth and decay
9/10	5	5.6 Inverse trigonometric functions
9/12	6	5.8 Indeterminate forms and L'Hopitals rule
9/17	7	6.1 Integration by parts
9/19	8	6.2 Trigonometric integrals and substitutions
9/24	9	EXAM I
9/26	10	6.3 Partial fractions
10/3	11	6.5 Approximate integrals
10/10	12	6.6 Improper integrals
10/15	13	7.4 Arc length
10/17	14	7.5 Area of a surface of revolution
10/22	15	7.6 Applications to physics and engineering
10/24	16	8.1 Sequences
10/29	17	8.2 Series
10/31	18	8.3 The integral and comparison tests
11/5	19	EXAM II
11/7	20	8.4 Other convergence tests
11/12	21	8.5 Power series
11/14	22	8.6 Representing functions as power series
11/19	23	8.7 Taylor and Maclaurin series
11/21	24	8.8 Applications of Taylor polynomials
11/26	25	9.1 Parametric curves
12/3	26	9.2 Calculus with parametric curves
12/5	27	9.3 Polar coordinates
12/10	28	EXAM III
12/12	29	Review

## **Academic Integrity**

Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The College is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures.

## Disability

In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical and/or Learning) consult the Office of AccessABILITY located in Room 1214B Hunter East to secure necessary academic accommodations. For further information and assistance please call (212- 772-4857)/TTY (212-650-3230).

## Hunter College Policy on Sexual Misconduct

"In compliance with the CUNY Policy on Sexual Misconduct, Hunter College reaffirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as certain intimate relationships. Students who have experienced any form of sexual violence on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College. a. Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, or contacting the College's Public Safety Office (212-772-4444). b. All Other Forms of Sexual Misconduct: Students are also encouraged to contact the Colleges Title IX Campus Coordinator, Dean John Rose (jtrose@hunter.cuny.edu or 212-650-3262) or Colleen Barry (colleen.barry@hunter.cuny.edu or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123. CUNY Policy on Sexual Misconduct Link: http://www.cuny.edu/about/administration/offices/la/Policy-on- SexualMisconduct-12-1-14-with-links.pdf