Hunter Collegeof the City University of New York Department of Mathematics and Statistics

COURSE SYLLABUS Math 152– Calculus for the Life and Social Sciences 4 Hrs – 4 Credits

TK/F18

Prerequisites

A grade of C or better in Math 125 or the appropriate score on the Compass Exam or ACCUPLACER College Level Math Exam.

Course Description

This is a one semester introduction to differential and integral calculus, intended for students majoring in biology, economics, accounting, pre-med, or any other major at Hunter College that requires one semester of calculus. The course will have more of an emphasis on applications, with specific applications tailored to the life and social sciences.

Students will not be allowed to obtain credit for both Math 152 and Math 150. Students planning on taking more than one semester of calculus should take Math 150 instead, since Math 152 cannot be used as a prerequisite for Math 155.

Textbook

Calculus for Business, Economics, Life Sciences and Social Sciences Plus NEW MyMathLab, Raymond A. Barnett, Michael R. Ziegler, Karl E. Byleen.

The textbook can be purchased at The Hunter College Online Bookstore or at Shakespeare and Company (Lexington Avenue between 68 and 69 streets). You will need to purchase a textbook with a MyMathLab access code. All homework is done on MyMathLab.

Expected Learning Outcomes

- Interpret and evaluate limits of algebraic, exponential, and logarithmic functions
- Analyze and apply the notions of continuity and differentiability to algebraic functions.
- Calculate derivatives of algebraic, exponential, and logarithmic functions, applying various rules of derivatives.
- Apply derivatives of exponential and logarithmic functions to solve business and life science applications.
- Use derivatives to construct graphs of selected functions.
- Apply derivatives to problems involving optimization.
- Calculate antiderivatives of functions involving algebraic, exponential, or logarithmic functions.

- Solve exponential growth and decay problems, using basic differential equations, arising from biology, physics, chemistry, and other sciences.
- Compute definite integrals by applying the Fundamental Theorem of Calculus, and apply definite integrals to find the area under a curve and between two curves.

Grading Policy

Your final average is calculated as follows:

80% Exams

- 10% Quizzes
- 10% MyMathLab Homework

To receive an incomplete, you must have taken at least two of the in-class exams, have a C average on those exams, and have a legitimate excuse for missing the final exam. To request a CR/NC you must attend class and take the exams including the final exam. If you stop attending the course and do not withdraw, you will receive a grade of WU. The letter grade is determined as follows:

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

Exams

There will be 3 in-class exams and a final exam. The final exam will count as 2 exams. Of these 5 parts, the lowest is dropped, and the remaining 4 parts are averaged to obtain the exam average. Since an exam is dropped, there are **no make-up exams.** These is 80% of your course grade.

Quizzes

There will be 6 short, 15 minute quizzes given throughout the semester. The lowest of the quiz scores will be dropped. The average of the remaining 5 quizzes is 10% of your course grade.

Homework

There will be weekly homework assignments on MyMathLab. A new textbook will come with a MyMathLab access code, which will give you access to the online homework system. Alternatively, you can buy the e-book with the MyMathLab access code. Check MyMathLab regularly for upcoming assignments. The course code for this course is:

If you cannot purchase a textbook immediately, you can still create an account for MyMathLab by going to <u>www.pearsonmylab.com</u>. You will have 14 days to enter your access code.

Calculators

A scientific calculator is required for the exams. Graphing calculators, cell phones, iPads, laptops, etc. are not permitted for the exams. Sharing of calculators is not allowed.

Tutoring

Table tutoring and audiovisual materials are available at The Dolciani Mathematics Learning Center, located at the Silverstein Student Success Center 7th Floor Hunter East. Review materials to be prepared for this course are available for Math 150 (10N02) on the Dolciani website <u>www.hunter.cuny.edu/dolciani</u>by clicking on Brush-Up Skills. The Dolciani Mathematics Learning Center is also a very good place to work on your MyMathLab assignments.

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 College's 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