Math 201 Syllabus Summer 2022
Text: Essential Calculus Second Edition by Stewart
Homework Management System: WebAssign
Calculator: TI-83 or TI-84

This course satisfies the Mathematical and Quantitative Reasoning (MQR) requirement of the Pathways General Education Required Core. Below is the Learning Outcomes that all MQR courses satisfy:

MQR 1: Interpret and draw appropriate inferences from quantitative representations, such as formulas, graphs, or tables.
MQR 2: Use algebraic, numerical, graphical, or statistical methods to draw accurate conclusions and solve mathematical problems.
MQR 3: Represent quantitative problems expressed in natural language in a suitable mathematical format.
MQR 4: Effectively communicate quantitative analysis or solutions to mathematical problems in written or oral form.
MQR 5: Evaluate solutions to problems for reasonableness using a variety of means, including informed estimation.
MQR 6: Apply mathematical methods to problems in other fields of study.

The chapter sections given below are in Essential Calculus, Second Edition. The suggested number of classes for each chapter represent 100 minute units, 2 classes/week for 14 weeks = 28 classes, 4 classes are reserved for tests & review. The calculus committee recommends 3 in-class exams equally spaced in the semester. Math 201 is using a homework management system, WebAssign which is optional for instructors. See notes below.

Chapter 9   9.1   Parametric Curves
               9.2   Calculus with Parametric Curves
               9.3   Polar coordinates
               9.4   Areas and Lengths in Polar Coordinates
                                                                    (3 classes)

Chapter 10   10.1   3-Dimensional Coordinates
               10.2   Vectors
               10.3   Dot Product
               10.4   Cross product
               10.5   Equations of Lines and Planes
               10.6   Cylinders and Quadric Surfaces
               10.7   Vector functions and space curves
               10.8   Arc length & curvature
               10.9   Motion in Space   (7 classes)

Chapter 11   11.1   Functions of Several variables
               11.2   Limits & Continuity
               11.3   Partial derivatives
               11.4   Tangent Planes and Linear Approximation
               11.5   Chain Rule
               11.6   Directional Derivatives and the gradient vector
               11.7   Max and Min Values
               11.8   Lagrange Multipliers   (7 classes)

Chapter 12   12.1   Double Integrals over rectangles
               12.2   Double Integrals over general regions
               12.3   Double Integrals in Polar Coordinates
               12.4   Applications
               12.5   Triple Integrals
               12.6   Triple Integrals in Cylindrical Coordinates
               12.7   Triple Integrals in Spherical Coordinates
                                                                    (7 classes)

Textbook

The physical bookstore at Queens College has closed and been replaced with an on-line service here: http://qc.textbookx.com/institutional/index.php   This site sells textbooks without the WebAssign HMS.

The publisher of our textbook (Cengage) offers sales direct to students here https://www.cengage.com/c/essential-calculus-2e-stewart/9781133112297PF/ (reportedly more affordable.)

HMS Guidelines

Website: http://webassign.net/   Instructors can get logins here: http://webassign.net/

In addition to online homework, the web site offers an e-book version of our text, a personal study guide for students, and videos of lectures linked to each section of the book. All students self-enroll in WebAssign.

If you are using WebAssign for on-line homework you will need to create a Course in your account for your section. Once you create this section the system will give you a class key, which your students will use to enroll in your section. Later you can find this code in Class View by clicking on "class key settings" in the Class Tools menu.

To create your section: Choose "Create" in the top left menu below "Home", then "Course", and select the textbook. Click "enable personal study plan" and the textbook certification. Once you set the start date of the course, students have a 2-week grace period after that date during which they can log in without having paid for access. After you save the course settings, set "How will students be placed on your roster" to self-enrollment.