Instructor: Michael Jenkinson  
Office: Amos Eaton 412  
Email: jenkim2@rpi.edu  
Office Hours: Tuesday and Friday, 1:30pm-3:00pm, or by appointment.  
Course website:  
http://homepages.rpi.edu/~jenkim2/classes/math_1020_fall_2017/math_1020.html  

Recitation: with teaching assistant Colin Sutcher-Shepard,  
Recitation 01, Mondays at 12:00 pm - 12:50 pm in Low 3116,  
Recitation 02, Thursdays at 12:00 pm - 12:50 pm in Low 3039,  
Recitation 03, Mondays at 1:00 pm - 1:50 pm in Darrin 236,  
Recitation 04, Thursdays at 1:00 pm - 1:50 pm in Low 3130,  
Office Hours: Tuesday and Friday, 10am-11am, Amos Eaton 317.

Prerequisites: Mastery of basic calculus concepts covered in MATH 1010 including derivatives, limits, and integrals. Pre-calculus topics including trigonometry, geometry, and functions are also essential preparation for this course.

Outline and Text Reading: It is highly recommended to read the textbook sections before they are covered in lecture. The following are the approximate dates for the material which we will cover.

1. 9/1-9/26: Sections 7.1-7.3, 7.5-7.7, 8.1, 8.4  
2. 9/29-10/31: Sections 10.1-10.7, 11.1-11.4  
3. 11/3-11/28: Sections 12.1-12.6, 13.1-13.4  
4. 12/1-12/12: Sections 14.1-14.3  
5. 12/18-12/22: Finals

Grading: Grades for the course will be determined from the following components:

- **25% Quizzes:** There will be weekly quizzes each week when there is not a midterm. Your lowest two quiz scores will be dropped when calculating final grades so no make-ups will be given.
- **75% Three Midterm Exams:** Each exam will count for 25% of your total course grade. The approximate dates for the midterms will be Tuesday September 29, November 3, and December 1. Exact exam dates will be announced two weeks prior in class.
- **Comprehensive final exam:** Dec. 18-23. Location to be announced. Your final grade will be calculated in one of the two ways:
  - 80% of your current course grade and 20% using your final exam grade.
  - 60% of your current course grade and 40% using your final exam grade.

No external aids (books, notes, calculators, laptops, cell phones, etc.) are allowed during exams. The final course gradelines will be determined after the final. However, the course gradelines will not be raised from the following:
Midterm Exams: There will be three midterm examinations during the course. Each exam will last 80 minutes and is closed book, no calculators of any kind. Midterm exams may only be missed under exceptional circumstances. If you must miss a midterm, you should notify the instructor and your TA as soon as possible and provide written documentation or an excused absence from the Office of Student Experience (http://studentlife.rpi.edu/student-experience/excusedabsence). Failing to do so will result in a score of zero for that midterm. If you know you will be gone for a midterm date, you should speak to the instructor and your TA as soon as possible before the midterm to discuss arrangements.

Quizzes and Homework: There will be short quizzes taking place each week during recitation (starting the second week) when there is no midterm. These will be largely based on homework and recitation work. The lowest two quiz scores will be dropped in determining your final grade. Homework will be assigned as suggested exercises, which are not to be turned in. Though homework is not collected, failing to complete and understand the homework exercises will likely result in a very low grade.

Attendance: Attendance is mandatory for all quizzes and exams but is only highly encouraged (though not required) for all other lectures and recitation sections.

Student Learning Outcomes:

Upon successfully completing the courses, students will be able to to demonstrate:

- basic symbol manipulation skills.
- the ability to convert between Calculus concepts and their graphical, numerical and symbolic representations.
- the ability to make Calculus models of applied problems described in words.
- the ability to solve basic Calculus problems that model real world situations and recover the solutions.
- the ability to apply Calculus to selected problems in science, engineering and mathematics.
- the ability to apply certain fundamental theorems and rules from Calculus to solve symbolic and graphical problems.
- the ability to state and explain basic Calculus definitions and theorems and their applications.
- the ability to use, derive and/or prove some of the basic Calculus concepts, definitions and theorems.

Academic Integrity: See the Rensselaer Handbook of Student Rights and Responsibilities for general information. While students are permitted and encouraged to study and work together on homework, work on quizzes and exams is expected to be the student’s own. Academic dishonesty, including the use of an unapproved electronic device, will result in a report to the Dean of Students and penalties can include a grade of zero on the task in question and/or a failing grade in the course.

Appealing Grades: Appealing a grade on a homework, quiz, or exam is a straightforward thing to do. Simply stop by my office during office hours and we can discuss it. However, please appeal within two weeks of receiving the graded assignment.