MATH 151 Calculus I for the Mathematical and Physical Sciences
General Information for Summer 2018 Semester

Meeting Times: Sec. F2 Lecture MTWTh 12:20pm - 2:20pm TIL-103A (LIV)

Lecturer: Joseph Guadagni (email: joseph.guadagni@rutgers.edu OR joseph.guadagni@gmail.com)
Office: Hill-215 (BUS) Office hours: after class in TIL-226 at 2:30pm
Text: Phone number is on Sakai course site

Yes, you may text me with questions. I find that many students find that more convenient
than office hours or email. I put my phone on “do not disturb” mode when I go to bed, so if you text
too late you may not get a response until the next day. Same rules for email. Please identify
yourself the first time you text me. Do not worry: I will not text you except in response to your
questions. Questions by email are also welcome.

SAS Core: This course fulfills both the Quantitative Information (QQ) and Mathematical or Formal Reasoning (QR) learning goals of the SAS Core Curriculum:

QQ: Formulate, evaluate, and communicate conclusions and inferences from quantitative information.
QR: Apply effective and efficient mathematical or other formal processes to reason and to solve problems.

Prerequisites: There are no official prerequisites for this course. However, you should have taken an online placement exam which placed you in this course. It is very important that you have taken the placement exam on your own and honestly, or else you will not be placed in the correct course. It is your responsibility to make sure you are capable of succeeding in this course. In particular, if you have not taken Pre-calculus or a similar course either at Rutgers or in high school, I strongly discourage you from taking this course.

Deadlines: All deadlines regarding dropping this course (with or without a grade of W) can be found here:

https://summersession.rutgers.edu/important-dates

Before adding or dropping a class, always speak to an academic adviser and double check all deadlines.

Regardless of whether you decide to buy a hard copy of the textbook, you must purchase a WebAssign code which will let you access online homework assignments. The WebAssign code also gives you access to an electronic copy of the textbook, but only for the semester for which you buy the WebAssign license.

TA’s: There is no separate TA for this course during the summer sessions. I will be teaching both the lectures and the recitations.

Web page: All general course materials can be found on the Mathematics Department course page:

http://www.math.rutgers.edu/academics/undergraduate/courses

Navigate to “01:640:151 - Calculus I for the Mathematical and Physical Sciences”.
Information specific to my sections, e.g., syllabus, quiz solutions, and announcements, will be found on the respective Sakai course site. Note: You must access WebAssign through the Sakai course site. If you have never used Sakai before, you can sign in using your netID at
You should then have access to all Sakai sites of those course for which you are enrolled.

**Format:** During the fall and spring semesters, Math 151 has a workshop-format recitation meeting separate from the regular lectures. During the recitation, students work in small groups on challenging problems. The emphasis is on problem-solving strategies, critical thinking skills, and writing clear and complete solutions.

During the summer, it is not feasible to hold the workshops in a separate meeting, and so workshops will be seamlessly integrated into the lecture. In a typical class meeting, we may start with a quiz and then transition into a lecture on new material, followed by a short workshop session, with the meeting finished by a continuation of the lecture. Over the course of a week, you will work through about 3-4 workshop problems in total, mimicking what you might expect over the course of two weeks in the fall or spring semester.

**Schedule:** A full schedule for all class meetings is found at the end of this document. To ease reading the schedule, lecture days have been highlighted in white, quiz days in green, exam days in red, and holidays (no classes) in black. This is a tentative schedule and subject to change at my discretion. I will announce any changes to quiz or exam dates in a reasonable amount of time.

**Assessment:** Your course grade consists of a total of 550 points, weighted by the following five categories: WebAssign (30), Workshop (60), Quizzes (60), Midterm #1 (100), Midterm #2 (100), Final Exam (200). As grades are calculated, you may find them on Sakai.

**WebAssign:** You must buy a WebAssign code and you must access WebAssign through the Sakai course site. WebAssign is an online service through which you will complete your homework. Problems are based on textbook questions and all students get different versions of these problems. Upcoming assignments and their due dates are indicated clearly in WebAssign. For the summer semester, WebAssign assignments are due at the start of the class immediately following the corresponding lecture. So, for example, if the lecture on Section X is on Tuesday, then the corresponding WebAssign assignment is due at the start of class on Wednesday.

You have limited attempts per problem, so do not waste them. Your final WebAssign grade is based on whether you eventually get the correct answer; the number of attempts taken is irrelevant.

*Late submissions will not be accepted.* The “Extension Request” in WebAssign is reserved only for those students with truly compelling reasons for not completing their work on time. I am giving you fair warning now that all requests must have a documented reason. Neither procrastination nor forgetting a due date is a valid excuse, and all such requests will be denied.

**Workshop:** As stated above, you will work through about 3-4 workshop problems per week. You will then be assigned at least 2 of those problems to write up officially as your weekly written homework. (This is done to mimic the total workload required in the fall or spring semester.) The assigned problems will be announced on Thursday of each week and the write-up will be due on Wednesday of each week. You are strongly encouraged to work out all of the workshop problems and come to office hours for help. Do not procrastinate.

Your grade on these write-ups will depend on both mathematical content and accuracy and exposition. You must write complete English sentences and you must explain your work and reasoning concisely but clearly. Do not neglect this aspect of workshops! Clear, mathematical and/or scientific writing is a skill that you must learn if you want to be successful in any STEM-related career. This is especially important if you must explain technical aspects of a particular project or research to a general or lay audience. Write-ups which contain only mathematical symbols will receive no credit. Write-ups which are written in columns, e.g., one for math and another for short explanations, will receive no credit. The textbook contains a sample of what is expected.
**No late work will be accepted. No exceptions.** There will be a total of 5-6 workshop assignments.

*Note:* Many problems require you to use a computer algebra system and/or graphing program. So it is imperative that you have such tools available to you, both at home and during workshops. There are several options:

- you may buy and use your own graphing calculator (a calculator at least as powerful as a TI-83 shall suffice)
- you may use WolframAlpha on your laptop ([https://www.wolframalpha.com/](https://www.wolframalpha.com/)) for free or mobile device (Wolfram app for about $5)
- you may download and install Mathematica and/or MATLAB and/or Maple on your computer for free via [https://software.rutgers.edu/](https://software.rutgers.edu/)

**All work submitted must be your own!** You should not quote results from a calculator or a computer algebra system unless a problem explicitly says you may do so. Of course, you may use computer-generated graphs to support your solutions, but you must solve all problems analytically.

**Quizzes:** All quizzes will be given in class on designated days (these days are highlighted in green on the class schedule). There will be a total of 11 quizzes throughout the semester, and your lowest quiz grade will be dropped. *There are no make-ups for quizzes except for medical emergency or religious observance. No exceptions.*

**Midterms:** The first exam will be held in class on July 16. The second exam will be held in class on August 1. All exams are closed book. That means no formula sheets, no notes, no textbook, no calculator, no phones (or any other electronic device), etc.

*Please note that it is unacceptable to miss an exam for anything less than a truly compelling and documented reason.*

**Final exam:** The final exam is cumulative and will be held on Wednesday, August 15. The location and time will be announced at a later date. The final exam date and time is determined by the university and cannot be changed.

You cannot be excused from the final exam. There are only some very specific conditions under which you are allowed to reschedule the final exam (e.g., you have finals in 3 consecutive exam periods). In particular, you will not be excused from the final or allowed to reschedule because of travel arrangements.

**Letter Grades:** Your final letter grade will be determined by your course grade (percentage out of 550 points) and a letter grade conversion that I set for the class. In past semesters of teaching this course, I have tended to use the following cutoffs for grades:

- A (at least 90%)
- B (at least 78%)
- C (at least 66%)
- D (at least 60%)

The final distribution may have different cutoffs but they will only go down. In other words, these cutoffs are the harshest cutoffs possible and any changes to them will only help you. You can use these cutoffs to judge your own performance throughout the course.

**Integrity:** All students in the course are expected to be familiar with and abide by the academic integrity policy, which can be found at

[http://academicintegrity.rutgers.edu/academic-integrity-at-rutgers](http://academicintegrity.rutgers.edu/academic-integrity-at-rutgers)

Violations of the policy are taken very seriously.
**Accommodations:** Full disability policies and procedures are indicated at

http://ods.rutgers.edu

Students with disabilities requesting accommodations must present a Letter of Accommodations to me as early in the term as possible. See

https://ods.rutgers.edu/my-accommodations/letter-of-accommodations

For students on the autism spectrum, Rutgers University has several services that offer support for social skills, academic skills, self-care, etc. through the College Support Program (CSP). More information can be found at

http://rhscaps.rutgers.edu/services/autism-spectrum-college-support-program/

**Mental Health:** College is a very stressful time for many of you, and not everyone has a good support system. Unfortunately, a lot of new students also often do not know the resources available to them. Many of you will also cope by self-medicating, usually with alcohol. If you are looking for support, you can check the many resources at

http://rhscaps.rutgers.edu/

Some of the services offered:

(a) For students concerned about their drinking or substance abuse (or that of a friend):
http://rhscaps.rutgers.edu/services/alcohol-and-other-drug-assistance-program-adap/

(b) For students seeking counseling services:
http://rhscaps.rutgers.edu/services/counseling/

If you are looking for emergency support, you can also call the National Suicide Prevention Lifeline at 800-273-TALK.

You can also feel free to come to me if you are having difficulty, and I can help you find the proper support. (Anything you tell me is kept in confidence.)

*Please let someone know if you are in crisis.*
FAQ: *How can I reach you with questions?*

The best way to get help is to see me in person during office hours. You do not need to make an appointment during regular office hours. Just show up during the allotted time any time that is convenient for you. If you cannot make office hours, you should email or text me with general questions. If you have a question about a specific WebAssign problem, simply click on “Ask Your Teacher” for that problem and send your question (you should explain your confusion and describe any work you have already done). This message goes directly to me, and I will be able to answer your question directly within WebAssign. I can also see your exact version of the problem, the correct answer, and your previous responses.

*When is WebAssign due? Can I get an extension on WebAssign?*

Each section in the textbook we cover in lecture has an accompanying assignment on WebAssign, which is due *at the beginning of the next class meeting.* (There may be rare exceptions.) These due dates are very clearly indicated within WebAssign. Since WebAssign should be used a study tool to keep up with the material and study for quizzes and exams, extensions will generally not be granted. If you would like to request an extension for a particular assignment, you should not email or text me directly, but rather use the built-in WebAssign feature “Request An Extension”. I am warning you now: the overwhelming majority of requests will be denied. You should have a compelling reason for the extension.

*Is this class graded on a curve? What does that even mean?*

Grading on a curve means that a fixed percentage of students taking the course get each letter grade. For instance, for a grading curve, it may be decided that the top 10% of students get A’s, the next top 15% get B+, and so on. (These are just example numbers.) Grading on a curve does not mean students get “extra points” for poor grades.

This class is *not graded on a curve.* I have set absolute achievement goals for each letter grade as described above. In principle, every single student could earn a grade of A if they all do well enough. Conversely, it is possible for every single student to earn a grade of F. If you earn at least 90% of the points in this course, you are guaranteed a grade of A. If you earn at least 78% of the points in this course, you are guaranteed a grade no worse than B. And so on.
<table>
<thead>
<tr>
<th>Week 5</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 25 –</td>
<td>1.1</td>
<td>1.4</td>
<td>2.1</td>
<td>2.4</td>
</tr>
<tr>
<td>June 28</td>
<td>1.2</td>
<td>1.5</td>
<td>2.2</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>1.3</td>
<td>1.6</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>Week 6</td>
<td>Limits (part 1)</td>
<td>Limits (part 2)</td>
<td>NO CLASSES</td>
<td></td>
</tr>
<tr>
<td>July 2 –</td>
<td>2.5, 2.6, 2.7</td>
<td>2.5, 2.6, 2.7</td>
<td>INDEPENDENCE DAY</td>
<td>2.9</td>
</tr>
<tr>
<td>July 5</td>
<td></td>
<td></td>
<td>NO CLASSES</td>
<td></td>
</tr>
<tr>
<td>Week 7</td>
<td>3.1</td>
<td>3.4</td>
<td>3.7</td>
<td>3.8</td>
</tr>
<tr>
<td>July 9 –</td>
<td>3.2</td>
<td>3.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>July 12</td>
<td>3.3</td>
<td>3.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 8</td>
<td>EXAM #1 (80 minutes)</td>
<td>3.9</td>
<td>3.10</td>
<td>4.5</td>
</tr>
<tr>
<td>June 25 –</td>
<td>4.2</td>
<td>4.3</td>
<td>4.6</td>
<td>4.7</td>
</tr>
<tr>
<td>July 26</td>
<td>4.3</td>
<td>4.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>July 23 –</td>
<td>4.1</td>
<td>5.1</td>
<td>EXAM #2 (80 minutes)</td>
<td>5.2</td>
</tr>
<tr>
<td>July 26</td>
<td>4.8</td>
<td>4.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>July 30 –</td>
<td>5.3</td>
<td>5.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>August 2</td>
<td>5.4</td>
<td>5.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 11</td>
<td>5.5</td>
<td>5.6</td>
<td>5.7</td>
<td>5.8</td>
</tr>
<tr>
<td>August 6 –</td>
<td>5.6</td>
<td>5.7</td>
<td>5.8</td>
<td>5.9</td>
</tr>
<tr>
<td>August 9</td>
<td>5.7</td>
<td>5.8</td>
<td>5.9</td>
<td></td>
</tr>
<tr>
<td>Week 12</td>
<td></td>
<td>Catch-up and/or review</td>
<td>FINAL EXAM (180 minutes)</td>
<td></td>
</tr>
<tr>
<td>August 13 –</td>
<td>6.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>August 15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>