Lecture 1 (section 1–3)
Time & Location: MWF 9:00-9:50, COB 120
Instructor: Prof. Michael Sprague (office SE 332)
e-mail: msprague@ucmerced.edu
Phone: 209-228-4179

Lectures 2&3 (sections 5–7,9–11)
Time & Location (L2): MWF 9:00-9:50, COB 116
Time & Location (L3): MWF 10:00-10:50, COB 116
Instructor: Dr. Yue Lei (office SE 292)
e-mail: ylei2@ucmerced.edu
Phone: 209-228-4063

Discussion Sections

Section 1:	M 1:00-2:50	COB 270	Mr. Matthew Pettengill, mpettengill@ucmerced.edu
Section 2:	M 3:00-4:50	COB 270	Mrs. Hajra Meeks, hajrameeks@gmail.com
Section 3:	T 1:00-2:50	COB 272	Ms. Elibet Ambrocio, eambrocio@ucmerced.edu
Section 5:	W 12:00-1:50	COB 262	TBA
Section 6:	W 10:00-11:50	COB 266	Mr. Matthew Pettengill, mpettengill@ucmerced.edu
Section 7:	R 8:00-9:50	COB 266	Mr. Steven Hill, shill2@ucmerced.edu
Section 9:	T 8:00-9:50	COB 260	Mr. Steven Hill, shill2@ucmerced.edu
Section 10:	T 11:00-12:50	COB 265	TBA
Section 11:	R 1:00-2:50	COB 272	Mrs. Hajra Meeks, hajrameeks@gmail.com

Office Hours – students are welcome to attend any and all office hours

Monday:	11:00 am – noon (Sprague – SE 332)
	2:00 – 3:00 pm (Sprague – SE 332)
	3:00 – 4:00 pm (Pettengill – COB 3^{rd} floor table)
Tuesday:	10:00 – 11:00 am (Hill – COB 3^{rd} floor table)
	3:00 – 4:00 pm (Ambrocio – COB 200)
Wednesday:	noon – 1:00 pm (Pettengill – COB 3^{rd} floor table)
	2:00 – 3:00 pm (Sprague – SE 332)
	3:00 – 4:00 pm (Lei,Yue – SE 292)
Thursday:	10:00 – 11:00 am (Hill – COB 3^{rd} floor table)
	3:00 – 5:00 pm (Meeks – COB 362)
Friday:	noon – 1:30 pm (Lei,Yue – SE 292)

Course Goals: (1) Learn the concepts and techniques of differential and integral calculus, (2) improve your problem-solving and critical-thinking skills, and (3) learn how to present mathematical ideas.

Text: Chapters 1–5 & 7 in *Calculus*, 6^{th} ed., by James Stewart

Grade Determination: Your final grade in the course will be based on a total of 600 points: homework assignments (75 points), discussion-section participation and quiz (75 points), three midterm exams (100 points each), and a cumulative final exam (150 points). If you obtain 90% of the total points, you will receive an A in the course. If you obtain less than 55% of the total points, you will receive an F. For everything in between, letter grades will be given in the **approximate** framework: A: 90-100%, B: 80–90%, C: 70–80%, D: 60–70%. Please be aware that you need a C– or better to proceed to Calculus II (Math 22).

Discussion Sections: Discussion sections meet for two hours each week where you will develop and practice your problem-solving skills by working with your classmates to solve challenging problems. Your discussion-section grade will be based on your attendance, participation, and quiz scores. The discussion section quiz will be one problem taken from one of six HW problems due during the previous week; these six problems are boxed in the schedule. Discussion sections will not be graded (and there will be no quiz) during weeks 2, 12 and 13, which are weeks with holidays. If your Discussion Section is cancelled due to a holiday, you are encouraged to attend another section during that week.

Discussion sections will be centered around group work on worksheets with problems considerably more challenging than HW problems. Worksheets will be posted on the course web page under *Resources* on the Friday before the discussion section. **It is your responsiblity to print a copy of the worksheet before coming to dicussion section.**

Homework: Homework is given after each lecture and is typically due at the **start** of the following lecture (see class schedule). Late homework will **not** be accepted or graded. 50% of each homework score will be based on completion and presentation; 50% will be based on the correctness of one randomly selected problem.

Homework must be presented according to the **Homework Presentation Requirements and Guidelines**. Only the first page of *unstapled* multiple-page homework will be graded. Graded homework will be returned during the next discussion section. Your lowest two homework scores will be dropped when determining your final grade.

Students are encouraged to work in groups, however, **all work turned in must be written up in your own words.** At the end of your written homework, you must explicitly identify all individuals with whom you worked. You must also **explicitly list any outside sources employed** (websites, *Mathematica*, book other than course text, etc.). This does not mean that you are allowed to copy a solution should you find it posted elsewhere. Please see "Academic Integrity" below.

Exams: The three midterm exams will be given during class on Sept 28, Nov 2 and Dec 5. There will be **no** make-up exams or early exams. If you are sick during an exam, please bring a note from your doctor verifying your illness. Your course grade will then be determined by the rest of your course work. Please bring your student ID to each exam. Calculators and crib sheets are not allowed on the exams. A special needs room for people with documented disabilities will be provided for each exam. See your instructor and the course web page for more information.

On **exam days**, students in the 9:00 am lectures are **strongly encouraged** to be in their seats **5 mintues before** the beginning of class. Students in the 9:00 am lectures are **required** to remain in their seats until 9:50 am. Students in the 10:00 am lecture are **required** to be in their seats before 10:00 am. Students in the 9:00 am lectures who leave early and students in the 10:00 am lecture who arrive late will **receive a score of zero** on that exam.

Old Math 21 exams are posted at http://appliedmath.ucmerced.edu

Portable Electronic Devices: All portable electronic devices (*e.g.*, cell phones, pagers and laptops) must be turned off and put away during exams, lectures, and discussion sections. Calculators are the exception; they may be used in lectures and discussion sections, but **not** in exams.

Calculators & Computers: We recommend that you obtain a graphing calculator or other computational tool (*e.g.*, *Mathematica, Maple, Matlab, Octave*) to aid in your completion of homework assignments. A free alternative, which is well suited to this course, is the *Mathematical Visualization Toolkit (MVT)* available at http://amath.colorado.edu/java/index.php. Such tools are required on certain homework problems and are very effective in helping students understand the fundamental concepts of Math 21. Remember, however, that there will be no calculators or crib sheets allowed in the exams.

Dropping the Course: After Friday, Sept. 14, dropping the course is possible only with a petition approved by the Dean's office. Please see the instructor if you wish to drop after Friday, Sept. 14.

Course Web Page: *https://my.ucmerced.edu/*

Extra Help: You are encouraged to get extra help whenever you need it. The instructor and section leaders each have office hours, which are posted at the top of this document. You may go to the posted office hours of any Calculus 1 instructor or section leader, even if they are not your regular instructor or section leader. In addition, review sessions are scheduled just before each exam. Other helpful items are posted on the Course Web Page. You are welcome to send questions to your instructor via e-mail at any time.

Free Tutoring is available through the Student Advising and Learning Center (http://learning.ucmerced.edu/). The Center also provides **Student Success Workshops**.

Blue Books: Each student is required to purchase **five** blue books and give them to their section leader by the second recitation. These will be distributed for the exams, so please do not write anything (not even your name) on the front of the blue books.

Special Accommodations: If you qualify for accommodations because of a disability, please submit a letter from Disability Services to the instructor in a timely manner so that your needs may be addressed. Student Affairs determines accommodations based on documented disabilities.

The instructor will make every effort to accommodate all students who, because of religious obligations, have conflicts with scheduled exams, assignments, or required attendance. Please speak with the instructor during the first week of class regarding any potential academic adjustments or accommodations that may arise due to religious beliefs during this term.

Beyond Calculus I: You must receive a grade of C– or better in this course in order to advance to Math 22.

Homework Preparation Requirements & Guidelines (taken from http://www.math.hmc.edu/teaching/homework):

Learning mathematics involves learning how to communicate your ideas effectively. As a student, much of this communication will be in the form of homework. Therefore, so that I may provide you with meaningful and worthwhile feedback, it is important that you put your homework in an easy to read, easy to navigate format. After all, how you present your work should enhance the ideas you are trying to communicate, not impede them.

It is good practice to first work out the solutions to homework problems on scratch paper, and to then neatly write up your solutions. This will help you to turn in a clean finished product.

The following are the **requirements** for submitting homework in Math 21:

- Your handwriting should be legible.
- Homework with multiple pages *must be stapled* in the upper left-hand corner.
- In the upper right-hand corner you must write (in this order)
  - First and Last Name
  - "Math 21", followed by your Discussion Section Number
  - Homework Set Number (Text Section)
  - Due Date of the Homework
- Problems should be clearly labeled and numbered on the left-hand side of the page. Write out the problem (paraphrasing is acceptable). When you are finished, start the next problem on a new page.
- Solutions to problems should be presented in the order that the problems are assigned.
- Any graphs should have clearly labeled axes.

Academic Integrity: Academic integrity is the foundation of an academic community and without it none of the educational or research goals of the university can be achieved. All members of the university community are responsible for its academic integrity. Existing policies forbid cheating on examinations, plagiarism and other forms of academic dishonesty. The current policies for UC Merced are described under *Student Judicial Affairs* at http://studentlife.ucmerced.edu/
Examples of academic dishonesty include:

- receiving or providing unauthorized assistance on examinations
- using unauthorized materials during an examination
- plagiarism - using materials from sources without citations
- altering an exam and submitting it for re-grading
- fabricating data or references
- using false excuses to obtain extensions of time or to skip coursework

The ultimate success of a code of academic conduct depends largely on the degree to which the students fulfill their responsibilities towards academic integrity. These responsibilities include:

- Be honest at all times.
- Act fairly toward others. For example, do not disrupt or seek an unfair advantage over others by cheating, or by talking or allowing eyes to wander during exams.
- Take group as well as individual responsibility for honorable behavior. Collectively, as well as individually, make every effort to prevent and avoid academic misconduct, and report acts of misconduct which you witness.
- Do not submit the same work in more than one class. Unless otherwise specified by the instructor, all work submitted to fulfill course requirements must be work done by the student specifically for that course. This means that work submitted for one course cannot be used to satisfy requirements of another course unless the student obtains permission from the instructor.
- Know what plagiarism is and take steps to avoid it. When using the words or ideas of another, even if paraphrased in your own words, you must cite your source. Students who are confused about whether a particular act constitutes plagiarism should consult the instructor who gave the assignment.

- Know the rules – ignorance is no defense. Those who violate campus rules regarding academic misconduct are subject to disciplinary sanctions, including suspension and dismissal.

Tips for Success: Everything that we will do in this class is to help you learn mathematics, but you need to take control, ownership and responsibility of your academic career. At some point in college, most students discover that their study habits from high school don't work well anymore. Don't be discouraged! This is an encouraging sign that you are growing intellectually. Try to figure out what does work for you.

Many students consider Math 21 to be a difficult course. Even those who have taken Calculus in high school are likely to be surprised by the amount of work that we require.

Problem solving. The goal of this course is to help you continue to learn calculus as well as you can. Learning calculus means *doing* calculus. Just as a violinist must practice scales and a basketball player must practice free-throws, a calculus student needs to practice solving problems.

To succeed in this course, you need to learn (1) *how* to solve calculus problems and (2) *why* calculus works the way it does. To learn these two things, you need to gain experience by solving many problems. Along these lines, we suggest the following tips for success.

- ▷ Manage your time wisely! Plan to spend *at least* two hours outside of *each* lecture and discussion section working with Math 21 material.
  - *Before Lecture:* Read (at least scan) the day's section. Work through the example problems in that section and identify in them what you know already and what is new and different.
  - *After Lecture:* Review the day's textbook section *and* lecture notes. Go over the example problems done in class to warm up. Ask yourself, "What is the big picture here?" Try to answer that question as best as you can. Then start the homework problems.
- ▷ Be mindful of the time it takes to complete a problem. Speed is not the most important factor in your success in this course. However, there is a time limit to every homework assignment and exam. So, to some extent, you are graded based on your ability to solve problems in a timely manner. Practice through solving many problems is the key.
- ▷ Be engaged in the class and discussion sections. Attend all lecture and discussion sections, and ask questions when you have them – don't wait until later.
- ▷ As you practice solving problems, always try to understand the "why" behind the methods you use. Exams will be written to test your understanding of the methods, not your ability to follow a "recipe" for solving a particular problem.
- ▷ Homework will consist of even-numbered problems for which there are no solutions in the book. If you are stuck on a problem, try the odd-numbered problems on either side, for which the solution is in the back of the book.
- ▷ Use office hours to both aid in completion of homework **and** to understand topics that are not clear.