Math 1C (11:30 – 12:20 M-F) Calculus - Syllabus

Winter 2018

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Office Hours	Monday through Thursday 12:30 – 1:20 or by appointment

Prerequisite: MATH 1B with a grade of C or better, or equivalent.

Course Description: Infinite series, lines and surfaces in three dimensions, vectors in two and three dimensions, parametric equations of curves. Derivatives and integrals of vector functions.

Course Materials:

- Textbook: Stewart, James. Calculus: Early Transcendentals, Eighth Edition. Cengage Learning, 2016
- A graphing calculator: I recommend TI-84 Plus, or TI-84, or TI-83
    - If you do not own one already and can't afford to buy one, you may rent one from a site such as http://www.rentcalculators.org or borrow one for short periods from De Anza Library
    - TI-89, TI-92 and similar calculators that do symbolic calculations will not be allowed on quizzes and exams

Homework: The best way to succeed in any math class is doing all of the assigned homework correctly and in a timely manner, making sure you really understand what you are doing! Time spent on the homework will directly benefit you on quizzes and exams.

We will have two types of homework assignments:

1. **Practice problems from the textbook**: You should work on these every day to stay on top of the material. These will not be collected, except for extra credit at the end of the quarter at the final exam. IMPORTANT: If you wish to do these for extra credit, you MUST do them in a bound notebook (wirebound, for example) for ease of submission at the end of the quarter. Each section and each problem must be clearly labeled. Each section must start on a new page. If I can't follow your organization, you won't get extra credit. Total available extra credit: 15 points

2. **Problems sets for submission**: Three times during the term, I will send out a problem set to be written up and submitted. These sets will include problem solving, critical thinking and applications exercises. Write your homework out in full detail, as modeled in the textbook and in class. A subset of these exercises will be graded for correctness and the set will be graded for completeness.

    Problem Sets Guidelines:
    - *Write your full name in the top right hand corner of the first page*
    - *Do the problems in order, showing all work neatly, clearly and completely*
    - *Label each problem clearly – use highlighter to mark the number*
    - *STAPLE your homework – no "dog ears" or paperclips*

Any assignments will be due at the beginning of class. Late homework will not be accepted. If you cannot be in class on a day that the homework is due, send it in with a classmate or email it to me before the class starts. If there's an unusual situation out of your control, let me know.

Homework questions (both types) with enough demand will be answered at the beginning of every class.. Please put the problems up on the board before class. If a problem you need help on is already on the board, put a check mark next to it.

Attendance: In any math class, attendance is extremely important! I expect students to be in class at each class meeting and on time. I will take attendance every day. If you miss a class, it is your responsibility to find out what you missed. Let me know if you need help. If you stop attending, it is your responsibility to drop yourself from the course. If you fail to do so, you will receive an 'F' in the course.

Participation: I expect all students to be active participants in class. Even though this is primarily lecture-based class, the students are a very important part of the class. You are strongly encouraged to ask questions during class. I will also randomly call on students during class with questions on a regular basis.

Entrance Cards: We will have several unannounced in-class entrance cards with problems similar to what has recently been done in class or on the homework. You will need to provide your own half sheet of paper for these. **Keep a few neatly cut half sheets ready in your binder!**

Quizzes: We will have several regular in-class quizzes (see the calendar). You will be able to use a calculator, but no notes, on the quizzes. IMPORTANT: There will be NO MAKEUPS for any of the quizzes – either before or after. Your lowest quiz score (which could be a 0 if you missed a quiz) will be dropped.

Exams: We will have 3 midterm exams and a cumulative final exam. Please see the calendar for the dates. There will be NO MAKEUPS for any of the exams – either before or after the exam*. If you miss a midterm exam, your final exam percentage will replace your score for that midterm. If your final exam score is higher than the score of your lowest midterm, the lower midterm score will be replaced**.

* In case of an unforeseen emergency or illness after the 'W' deadline due to which you cannot complete the course, you will be given an 'Incomplete' provided that you supply me with a sufficient proof. In such a case, you will be assigned a final grade after missed assessments are completed.

** This policy will only apply in case there is no breach of academic integrity on the student's part. A low midterm exam score that results from cheating will NOT be replaced by the final exam percentage.

Evaluation: Your final percentage will be computed as follows:

Homework Assignments	3 @ 20 points	60
Quizzes (lowest dropped)	Top 6 @ 20 points each	120
Entrance and exit cards	Top 5 @ 4 points each	20
Midterm Exams	3 @ 100 points each	300
Final Exam		150
TOTAL		**650**

Your final grade will be computed as follows:

Overall percentage	Your grade will be at least
97 % or greater	A+
91.5 – 97%	A
89.5 – 91.5 %	A-
87 – 89.5 %	B+
81.5 – 87 %	B
79.5 – 81.5 %	B-
77 – 79.5 %	C+
70 – 77 %	C
55 – 70 %	D
less than 55%	F

Academic Integrity: All students are expected to **exercise academic integrity** throughout the quarter. Any instances of cheating or plagiarism will result in disciplinary action, which may include recommendation for dismissal. You are encouraged to work together on homework but simply copying down answers from another student's homework is wrong! And, of course, doing so will be of no help to you on the quizzes and exams. Cheating on any assignment or assessment will result in getting a 0 on it, an 'F' in the course or dismissal from the class. Also, each incident of cheating will be reported to the Dean of the Physical Science, Mathematics and Engineering Division.

Disability Notice: If you feel that you may need an accommodation based on the impact of a disability, you should contact me privately to discuss your specific needs. Also, please contact Disability Support Services (864-8753) or Educational Diagnostic Center (864-8839) for information or questions about eligibility, services and accommodations for physical (DSS), psychological (DSS) or learning (EDC) disabilities.

Help and Miscellaneous Tips:

In any math class, your goal should be to get **ownership** of the material. Getting ownership means you understand the concepts, can demonstrate the skills, and explain the concepts and skills to someone who doesn't. You will need to practice a lot to develop intuition and problem-solving skills that you will absolutely need on exams. Don't treat the concepts as "plug-and-chug"! That will serve you poorly. Instead, take the time to understand the structure behind the concepts through practice.

1. As you advance in math classes, **definitions and theorems become of utmost importance**. **Memorize them!** The process of memorizing them will force a deeper understanding, which is necessary for some topics in this class. Organizing this information in a way that works for you is essential to your understanding and for doing well on quizzes and exams.

2. To succeed in any math class you must **do the homework diligently**. I am sure that there are many sources that can provide you with worked solutions to homework problems; however, such resources will be only be of so much use if you don't struggle to understand what you're doing. **Productive struggle** is critical to learning anything, especially mathematics. Working on the practice problems soon after class is also important because you progress efficiently when the material is still fresh in your mind.

3. **Form a study group!** Your classmates are probably your best resource in this class. Find at least 3 classmates with whom you can study and work on the homework. Keep each other informed and motivated to learn the most (and get the best grade!).

4. We have **group tutoring session** in S43. See details in your email. I am also available to help you throughout the term. Use the Drop-In tutoring services at S43 if you cannot make it to the group tutoring or for additional help.

5. I am here to help you. Feel free to check in with me before or after class, or during office hour, whenever you need clarification on something. E-mail is the best way to get in touch with me outside of class and office hours. Feel free to send me any questions over email and I'll make my best effort to answer them quickly. If you choose to do this, please remember to state your question clearly, and if it's a HW question, tell me briefly what you have tried and what your specific question is. Also, sign your name at the bottom of your email.

6. **Read the textbook**! Attending lectures is not enough to have a complete understanding of the material. I expect you to be familiar with the examples in the textbook in addition to in-class examples, which will often be different from the examples I do in class. They may show up on quizzes and exams even if they don't in lecture.

7. **Review your class notes** after class to make notes about any questions or comments about something in lecture. Feel free to ask me such questions before or at the beginning of the next class.

8. Make a point of taking care of any class-related issues that arise in a **timely manner**. The quarter moves fast and it's hard to catch up, especially towards the end.

Finally, **ask questions** during class! I will try my best to make sure you're following me during class, but I can't read your mind. Asking questions during class is especially important to make sure that you don't get stuck on a point while the rest of the class moves on. Also, some other students in the class will have the same question as you, so you'll be helping others by asking your question.

Student Learning Outcome(s):

*Graphically, analytically, numerically and verbally analyze infinite sequences and series from the perspective of convergence, using correct notation and mathematical precision.
*Apply infinite sequences and series in approximating functions.
*Synthesize and apply vectors, polar coordinate system and parametric representations in solving problems in analytic geometry, including motion in space.