Math 110B  Calculus II

INSTRUCTOR: Aaron Schusteff  TIME/PLACE: 9:10–10:00 Daily in Batmale 613
OFFICE: Batmale 730  OFFICE HOURS: TuTh 10:30-11:30, or by appt.
PHONE: 239–3656  WEB PAGE: http://fog.ccsf.edu/~aschustef

PREREQUISITES: Math 110A (Calculus I) with a final grade of “C” or higher.

Prerequisites are intended to ensure sufficient preparation for a positive and successful learning experience. Mastery of Algebra, Trig, and Geometry are essential for learning Calculus and passing this course! Some people think they can “save time” by skipping prerequisite math courses. Almost invariably they end up dropping or withdrawing from the course. Thus they lose a semester rather than gain one—an unnecessarily unproductive, and discouraging experience. Be wise and avoid that path!

REQUIRED TEXT: Calculus – Early Transcendentals by James Stewart, 7th Edition. We’ll use the text daily, covering most of chapters 6, 7, 8, 10, and 11. The pace will be roughly one or two class meetings per section of text. It is best to read the upcoming section before we cover it in class. That way you’ll get more out of lectures and will be better prepared to ask focused questions during class about particular items giving you difficulty. Be aware that math books aren’t intended for speed-reading. Read slowly and carefully. Be an active reader—have pencil and paper in hand so you can work out missing details and jot down unresolved questions. Brief questions can be asked in class the next day—more involved questions should be pursued during office hours.

HOMEWORK: Homework exercises will be assigned daily and collected on Mondays. Late homework will not be accepted. Your understanding of concepts and mastery of skills will depend in large part on the effort and concentration you put into working through the homework assignments. This in turn will effect your performance on exams and your course grade. Homework also provides an essential opportunity to familiarize yourself with important terminology and notation—and to practice their proper usage.

To help develop “math writing skills” each student may occasionally be asked to present solutions to homework problems on the board. Students will be assigned specific problems ahead of time. These presentations will contribute at most 10% of a students course grade.

Discussing exercises and working with classmates is highly encouraged!! Different people bring different approaches and insights. This can significantly increase your understanding and appreciation of the subject. Just be sure that, after working with others, you can think through and write up the solutions yourself.

In writing up your homework the quality and organization of your presentation is important. Strive for neatness and clarity in form and content. You should show a reasonable number of steps for each solution. Generally this means writing more than just “the answer”. Solutions will often require brief explanations (in English) as well as mathematical notation. Strive to understand not just the “mechanics” of a given problem, but also the correct use of related concepts, terminology, and notation. This will help you develop habits of clarity and care in analytic thinking—one of the most valuable and lasting benefits you can gain from a math class. And remember—before attempting each homework assignment you should READ THE CORRESPONDING SECTION OF THE TEXT!

QUIZZES AND EXAMS: There will be three or four 50-minute exams (worth 100 points each) and possibly a number of short quizzes (worth 10-15 points). Exams dates will be announced approximately one week ahead, but quizzes may be given unannounced at any time. The final exam (worth 200 points) will cover the whole course. No makeup exams or quizzes will be given. The lowest exam and quiz scores will be dropped in computing your point total for the course—provided your homework assignments are completed in a satisfactory manner and submitted on time! Missed exams or quizzes will be assigned 0 points.

All exams will be “closed book” with no calculators allowed (nor cell phones, iPads, etc.). Students must bring their CCSF Student ID to exams. The final exam is currently scheduled for Friday, May 20, from 8:00am–11:00am. Unless modified on the CCSF online Schedule of Classes, that exam date/time will not be changed. So if you are flying somewhere far away for the semester break, book your tickets after that date! If a student misses the final exam, their final exam score will be 0.
GRADING: Your course grade will be based on total points earned according to the following scale:

- 100%—90% = A;
- 89%—80% = B;
- 79%—65% = C;
- 64%—50% = D;
- 49%—0% = F.

Cheating on any exam or quiz will result in an F (0 points) on the exam or quiz, possibly an F in the course, and will be subject to further administrative action by the Dean of Students—including possible expulsion from the college. In response to prior problems with cheating, during exams students are expected to remain in the classroom until they finish and turn in their exam. If you often need to visit the restroom, plan on doing so before and/or after, and not during, the exams.

DROPS AND WITHDRAWALS: February 11 is the last day to Drop a course (i.e. avoid a “W” on your record). April 14 is the last day to Withdraw from a course (and receive a “W”). It is the student’s responsibility to file petitions for Drops and Withdrawals on time.

ATTENDANCE: Regular attendance is required. Class begins at 9:10. Plan to arrive on time—late arrivals disrupt class. We have a lot of material to cover and generally continue until the end of the hour. If you have 2 or more unexcused absences days during the first two weeks; 4 or more days during the first four weeks; or 6 or more throughout the semester you may be dropped from the class. However, do not assume that you will be dropped if you simply stop coming to class—if you want to drop, file the appropriate paperwork at Admission and Records. Otherwise you may receive an F in place of a W.

STUDY HABITS: Good study habits are the most essential ingredient for success in a math class. Keep up, don’t fall behind! You should plan to schedule at least two or more hours of study time for each hour of class. This time should be spent: reading the text; working on homework exercises; reviewing your notes; rereading the text; working with others in study groups; and consulting with me during office hours or with tutors in the Learning Assistance Center (L 207). It may also include exploring course-related topics by using computer software; consulting other texts in the library; or perusing relevant sites on the internet.

STUDENT LEARNING OUTCOMES: A detailed outline of course content and Student Learning Outcomes (SLO’s) for this course can be found on our class web page. Among the major student learning objectives for Math 110B are the following. Upon completion of this course a student will be able to:

- A. Evaluate definite, indefinite, and improper integrals by employing standard techniques of integration.
- B. Estimate definite integrals using numerical techniques.
- C. Apply integration to solve problems involving geometric calculations, applications to physics, and other problems involving total change of a function.
- D. Describe, graph, compare, contrast, and apply polar and parametric representations of curves using the tools of calculus.
- E. Evaluate limits involving indeterminate forms.
- F. Determine the convergence or divergence of sequences, series, and improper integrals.
- G. Apply convergence tests to infinite series.
- H. Calculate and interpret the interval of convergence of power series.
- I. Calculate, interpret, and apply power series representations of functions.

IN THE CLASSROOM: Students are expected to maintain a classroom environment conducive to learning—showing respect for each other and for the instructor. Please remember that there are many students in the classroom, and they’ve all enrolled for the purpose of learning the course material. Off-topic chatting and socializing is distracting and should take place outside of class time.

One last important comment: A positive attitude and good sense of humor can go a long way towards helping you and everyone else in the class have a successful and enjoyable learning experience. Calculus really does involve a lot of interesting ideas, and can be fun! Give it a good go.

GETTING HELP: Please don’t hesitate to come see me during office hours if you get stuck or have any questions regarding homework, lecture, the text, or the course in general. In addition, tutoring is available at the Learning Assistance Center (Rosenberg Library 207) from 8am—8:45pm Monday through Thursday, 8pm—4:45pm Friday and 9pm—4:45pm Saturday. (These hours may have changed . . . check with the LAC.)

POLICY CHANGES: I reserve the right to change any of these policies as necessary during the semester and will inform you of any changes.

Calculus is a multicultural legacy that belongs to us all. Exercise Your Mind, Learn, and Enjoy!