

MAT 127: CALCULUS C, FALL 2014

Course Description

We begin by reviewing how to compute derivatives and antiderivatives. Then we examine first and second order differential equations: what are they; how can these differential equations be solved; of what use are they? We also study infinite sums of numbers (“series”) and polynomials of infinite degree (“power series”); when do infinite sums of numbers make sense; when does an infinite polynomial define a function; of what use are series and power series?

Text *Single Variable Calculus: Concepts and Contexts* by James Stewart; either the Stony Brook Edition or the 4th Edition – these two editions differ only by their cover. We will cover chapters 7 and 8 of this text.

Information about Course Teachers and Grader

Holly Chen: Lecture 03; email=holly@math.sunysb.edu; phone=632-9781; office=math tower room 5-125B; office hours are

Lowell Jones: Lecture 01; email=lejones@math.sunysb.edu; phone=632-8248; office= math tower room 2-111; office hours are 8:40am-9:40am on MWF.

Jaepil Lee: ; Lecture 04; email=jefflee@math.sunysb.edu; office= math tower room 5-125B; office hours are Monday 11:00am-1:00pm in office.

Ayse Sharland: Lecture 02; email=ayse@math.sunysb.edu; phone=632-8238; office=math tower room 3-107; office hours are Monday 2pm-3pm in MLC, and Wednesday 1pm-3pm in office.

Owen Sweeney; Grader; email=owen.sweeney@stonybrook.edu; office=math tower ; office hours are .

Homework

Homework is assigned each week. Each assignment will consist of between 10 and 15 “WebAssign” problems, assigned during the weekend before the relevant material is covered in Lecture. These problems should be completed

by 7am Wednesday in the week following the relevant lectures. For example the first homework assignment (HW 1) should be completed by 7am Wednesday 9/3/14. Late submissions will receive 0 points credit, except in the case of emergencies beyond your control. If you submit your completed homework by Sunday preceeding the week in which it is due then you will get 20% extra credit.

To find your homework assignments on our Blackboard websites just click on the link for your mat 127 Lecture, then click on “Tools” and finally click on “Access WebAssign”. You will find the first homework (HW 1) is already posted there.

When you first access your the WebAssign account, please go to the **My Options** page and enter your email address.

As they are assigned the online problems may be completed at anytime before the assigned deadline. You can look at problems online, print them out, work on them as long as you like, and then answer them in a later Internet session (before the deadline). The online problems are automatically graded with an instant feed back. If you get the answer wrong for a particular problem you can retry it. However with each wrong answer you lose points: if you get the answer correct on the first try you get full credit; if you get the correct answer on the second try you get 1/2 credit; if you get the answer correct on third try you get 1/3 credit; etc.

At the beginning of the semester there is a two week ‘grace period’ during which you may access WebAssign without an access code. But within the first 2 weeks you are required to purchase a WebAssign access code. If you purchase the course text book in our University book store it comes with an access code (just a string of letters and numbers) printed on a sheet of paper. If you buy the text book elsewhere, or buy a used text book, then you will need to purchase an access code (for WebAssign) separately: this can be one at www.webassign.net. Without a WebAssign access code, you will not be able to continue accessing WebAssign after the first two weeks of class. That means you will not be able to complete the WebAssign homework assignments.

Exams

There are two evening midterms beginning at 8:45pm and ending at 10:15pm on 9/22/14 and on 10/30/14. The final exam will take place on 12/10/14 from 11:15am to 1:45pm. The place of the exams will be announced in a timely fashion.

If you register for this course you must make sure that you have no schedule conflicts with the times of the midterms and final exam. Makeup exams will only be given in the event that circumstances beyond the student’s control do not allow the student to take the exams at the assigned times; in particular “schedule conflicts” are not reasons for a makeup to be given.

Grading

Homework=15%

Midterm I=25%

Midterm II=25%

Final exam =35%

Americans with Disabilities Act:

If you have a physical, psychological, medical or learning disability that may impact on your ability to carry out assigned course work, please contact Disability Support Services (DSS) at 632-6748. The DSS will review your concerns and determine, with you, what accommodations, if any, are necessary and appropriate. All information and documentation is confidential. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and with DSS. For procedures and information go to the following website:

<http://www.stonybrook.edu/ehs/fire/disabilities>

Academic Integrity:

Each student must pursue his or her goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, see the academic judiciary web site at

<http://www.stonybrook.edu/cinncms/academic-integrity/index.html>

Critical Incident Management Statement:

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn.

Master Quantitative Problem Solving (MQPS):

To satisfy the MQPS learning objective, students must pass a MQPS certified course with a letter grade of C or higher.

Learning Outcomes for MQPS:

- (1) Interpret and draw inferences from mathematical models such as formulas, graphs, tables, or schematics.
- (2) Represent mathematical information symbolically, visually, numerically, and verbally.
- (3) Employ quantitative methods such as algebra, geometry, calculus, or statistics to solve problems.
- (4) Estimate and check mathematical results for reasonableness.
- (5) Recognize the limits of mathematical and statistical methods.

Syllabus .

Week of 8/25-8/29: review basic derivative and antiderivative formulae from Calculus A and B; cover section 7.1 (introduction to DE); cover “notes1” (first order differential equations). You can find “notes1” by logging into the blackboard website for your lecture, going to “Documents” and then clicking on “notets1”.

Week of 9/1-9/5: no classes on Monday and Tuesday; cover section 7.2 (approximating solutions to a DE).

Week of 9/8-9/12: cover section 7.3 (solving a DE by separating the variables).

Week of 9/15-9/19: cover sections 7.4 (examples of DE); review sections 7.1-7.4 for Midterm I.

Week of 9/22-9/26: Midterm I on Monday 9/22, 8:45pm-10:15pm; cover sections 7.5,7.6 (more examples of DE).

Week of 9/29-10/3: cover “notes2” (second order DE). To find “notes2” log onto your blackboard website for your lecture, go to “Documents”, and click on “notes2”.

Week of 10/6-10/10: cover sections 8.1,8.2 (sequences and series).

Week of 10/13-10/17: cover section 8.3 (tests for convergence).

Week of 10/20-10/24: cover section 8.4 (more tests for convergence).

Week of 10/27-10/31: Midterm II on Thursday 10/30, 8:45pm-10:15pm; review sections 7.1-7.6 and 8.1-8.4 for midterm II; cover section 8.5 (power series).

Week of 11/3-11/7: cover sections 8.5,8.6.

Week of 11/10-11/14: cover sections 8.6, 8.7.

Week of 11/17-11/21: cover sections 8.7,8.8.

Week of 11/24-11/28: no classes Wed-Fri; catchup and begin reviewing for final exam.

Week of 12/1-12/5: last week of classes; review for final exam.