Math 200X F61

Calculus I

Time: MTWRF: 10:00 – 12:30; CHAP 106

Prerequisites: Successful completion of Math 107X and Math 108 with a “C” or better or their equivalence.

Instructor Information:

Name: Jim Massa

Office 107 Chapman – UAF; phone: 474-7273

Email: jmassa@alaska.edu

Office Hours: M-F 9:00 – 10:00 and by appointment

Required Textbook: Calculus – Early Transcendental Functions, 5th ed. by Larson & Edwards. This is a custom edition which contains the web access code for web assign.

Course Description/Topics: In this course we will study: Limits including indeterminate forms, tangents, derivatives of polynomial, rational, exponential, logarithmic, trigonometric functions. We will also perform these derivatives utilizing the appropriate technique, e.g., product rule, quotient rule, chain rule. We will also examine the Mean Value Theorem. Applications of derivatives include graphing functions (not using graphing utilities), rates of change and optimization problems. The latter part of the semester will be spent learning about antiderivatives, definite and indefinite integrals, methods for substitution in integrals and the Fundamental Theorem of Calculus. We will also examine numerical integration and other integration techniques.

Course Evaluation:

There will be nearly daily assigned Homework each worth 20 points. There are a total of 24 required HW plus an extra credit HW assignment which is also worth 30 points and are all bonus points. Also, there will be 2 mid-term exams. These are worth 300 points each. There will be a cumulative final exam worth 400 points. Therefore: 24 HW @ 20 points = 480 points; 2 mid-terms exams each worth 300 points, plus a final exam worth 400 points. Thus, there are a total of 1480 possible points which does not include the points from the bonus homework. To determine your grade, simply divide your total points by 1480, then multiply by 100 to determine your final percentage for the class.

Thus:

99-100 % = A+
93-98 % = A
90-92 % = A-
87-89 % = B+
83-86 % = B
80-82 % = B- etc.

The above scale represents a guarantee. The instructor reserves the right to increase final grade standings.
Homework:

You will be using web assign for submittal of your homework. When you purchased your textbook, there should be an access code provided. In addition to this access code, you will need this code to specifically access the calculus material for this class and section. It is: uaf 4393 9392. You will have 4 attempts at each problem. Be sure to note the due dates for each HW. Please note that all HW must be completed and submitted by 11:59 pm of the day it is due. If you have not submitted your work, you will receive a zero for it. If you only partially completed the work, you will only receive credit for the work you did do. Web assign will not allow you to access the problems once the due dates have passed. You are responsible for ensuring that all deadlines are met and adhered to. Some people like to print out the problems and work on them by hand, others prefer to work at the computer. Do whatever works best for you.

There are excellent features within Web Assign that I call your attention to. Within each section, you will find mini video lectures explaining the concepts. I have made additional practice problems and quizzes available to you. Also, as you are working through problems, there is a feature that will walk you through a similar problem step by step so that you can learn how to solve such problems. To access these features, do the following:

Go to: http://www.webassign.net/user_support/student/. On this page you will find the WebAssign Quick Start Guide, as well as the more in-depth Student Guide that highlights how to access these various resources in the different chapters of the guide. There will also be several online “Webinars”/ training sessions that will help you navigate. Please refer to the attached flyer for the dates and times.

Course Objectives:

By the end of this course, students will be able to analyze the limits and for continuity of various functions. Students will also be able to find the rate of change using appropriate derivation techniques and apply them to solve related rate, optimization problems. Students will also be able to find the antiderivatives, indefinite and definite integrals of functions via use of the appropriate integration techniques and demonstrate thorough understanding of the Fundamental Theorem of Calculus. Students will be able to apply integration techniques to find accumulated change, average change as well as to problems involving distance, and other numerical integration methods.

Remarks:

1) Math 200X is the first course in the calculus series. This course is designed for students majoring in the sciences, engineering and computer science. We will be examining the concepts presented in rigorous fashion as the various topics are covered.

2) Regular attendance is highly recommended for success in this course. If, for whatever reason, you cannot be in class, it is your responsibility to find out what was covered. Remember to stay on top of the due dates for the HW. This is your responsibility. Keep in mind that for the summer session, the course runs for only 6 weeks with each day meeting for 2.5 hours. Missing one day is the equivalent of missing a week’s worth of lectures. It is vital that you are here every day.

3) The HW will reflect the material being covered and will come from the problems in the book (or problems very similar to those in the books). One gets good at math by practice, practice, practice. You should also work on the other problems in the book starting with the odd numbered problems as these problems contain the solutions in your book. Keep working on these problems until you are comfortable with how to do them before attempting the web assign problems. Work on the practice problems provided for you in Web Assign as well. You can never do too many problems!

4) My policy is that NO makeup of tests will be given. I will consider a makeup ONLY in extreme emergencies, e.g. a death in the family. There is no guarantee that I will provide a makeup test. Basically, be here every day.
5) Getting help: see me during my office hours or set up an appointment. Also, USE the Math Lab (located in Chapman 305). If you are having difficulties with a topic or a certain type of problem, then make arrangements either with me, or go to the math lab for help.

6) Calculators: I do NOT allow use of calculators. I am not concerned with how well you can push buttons. Rather, I am concerned with you demonstrating sufficient comprehension of the material, concepts and techniques through analytical methods.

7) Cell Phones, Blackberries, iPhones, etc.: turn these things OFF when you come into class. Unless your job requires you to be on call, then place it on vibrate, otherwise, there is no reason for these items to be on. Calls and text messages going off in the middle of class is disruptive and rude. Please be courteous to others.

**Important Dates:**

First day of instruction: Tuesday 5/28/13
Deadline for 100% refund: Thursday 6/3/13
Deadline for withdrawal ("W"): Wednesday 6/19/13
Last day of instruction: Monday 7/3/13
Final Exam: Tuesday 7/3/12

**UAF Grading Policies:** (the following can be found on UAF website)

W: Withdrawn —— Indicates withdrawal from a course after the first two weeks of a semester. This can be initiated by the student or faculty.

I: Incomplete —— Indicates that you have not been able to complete the course during the scheduled time. An incomplete is a temporary grade used to indicate that the student has satisfactorily completed (C or better) the majority of work in a course but for personal reasons beyond the student's control, such as sickness, has not been able to complete the course during the regular semester. Normally, an incomplete is assigned in a case when the student is current in the class until at least the last three weeks of the semester or summer session. Negligence or indifference are not acceptable reasons for an "I" grade. Instructors include a statement of work required of the student to complete the course at the time the "I" grade is assigned and a copy of the notice of the incomplete grade will be sent to the dean of the school or college in which the course is given. An incomplete must be made up within one year or it will automatically be changed to an "F" grade. The "I" grade is not computed in the student's grade point average until it has been changed to a regular letter grade by the instructor or until one year has elapsed, at which time it will be computed as an "F." A senior cannot graduate with an "I" grade in either a university or major course requirement. To determine a senior's grade point average at graduation, the "I" grade will be computed as a failing grade.

NB: No Basis —— Instructors may award a No Basis (NB) grade if there insufficient student progress and/or attendance for evaluation to occur. No credit is given, nor is "NB" calculated in the GPA. This is a permanent grade and may not be used to substitute for the Incomplete (I). It can't be removed by later completing outstanding work.

Final Exams must be taken when scheduled. They CANNOT be taken at an earlier time.
**Schedule:** The following is a tentative schedule of the sections in the book that will be covered this semester. This is merely to serve as a guide and is subject to change without prior notice.

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