Math 242 Applied Calculus II

Spring 2004 MWF 8:10 – 9:00 (Section AA/AH)

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Office hours: M, W 12:10 – 1:30; Tu,Th 12:30 – 1:30 and by appointment

Prerequisite: Math 241 or equivalent with C or better, or appropriate score on placement test and Math 130.

Important Details: 1) This course is designed (and transfers for) Life science and Business majors. **Do not** take this course if you are a Chemistry, Physics, Engineering, or Math major.
2) Transfer: UC, CSU (B4)

Text: Waner, Stefan, and Steven R. Costenoble. *Applied Calculus*. 3rd ed. Belmont: Brooks/Cole, 2004. (white cover, *Not* the one with the bridge).

Materials: A TI–83 graphing calculator is required for this course. Other graphing calculators may perform the same functions and may be acceptable but see me about this. There will be quizzes and tests or portions of each where you may not be allowed to use technology.

Important Dates:

Last day to Add this course:	Monday, February 2
Last day to Drop this course without a W:	Tuesday, February 17
Last day to Withdraw from class:	Thursday, April 29
Holidays:	2/13 –> 2/16; 4/12 –> 4/18
Last regular class	Friday, May 21
Final Exam (comprehensive):	Wednesday, May 26 8:10 – 10:40 (am)

Assignments: Homework is due at the beginning of the second class of each week (usually Wednesday) unless otherwise stated. Full credit will be assigned if the assignment is (1) complete, (2) on time, and (3) boxed problems have been checked and initialed by a TLC/MESA tutor or by me. If you use a TLC or MESA tutor, have them sign one of the duplicate tutoring forms and staple it to the assignment. Most test and quiz problems will be taken directly from homework assignments or from other problems in the text or class. Keep up with the assignments!

Grading: Homework and in–class assignments (10%) [Honors assignments apply]
Quizzes (15%)
3 – 5 Tests (55%)
Final (20%)
I will drop your worst test score (*Not* the final). There will be no makeup tests. If you are late for a test you will have only the remaining time to complete the test (so don't be late). If you know you are going to miss a test date, contact me at least <u>three</u> days in advance and we can arrange an alternate test prior to the test date.
I will give quizzes often. I will drop your worst quiz. There will be no makeup quizzes.

Grading Scale:
$A \geq 90\%$
$80\% \leq B < 90\%$
$70\% \leq C < 80\%$
$60\% \leq D < 70\%$
$F < 60\%$

over

Attendance Policy: You will not be graded directly on your attendance. However, your involvement in class and your participation in the process of discovering concepts will be fundamental in your understanding of calculus. Material covered in class is typically (1) not found in the text and (2) found in the unit exam.

Withdrawal Policy: If you decide to drop this class you must do so formally either by using WebSMART or by filing the correct form with the registrar's office. If you miss more than ten hours of class and still desire to remain in the class you must meet with me and convince me that you can learn the material necessary to pass the class.

Course Objectives: We will cover the majority of Chapters 6 through 9, as well as some supplemental materials. By the completion of the course you will be able to demonstrate the following skills:

- Apply *substitution* and *integration by parts* to determine antiderivatives.
- Recognize and apply the geometric, analytical, numerical, and contextual interpretations of the definite integral.
- Apply the Fundamental Theorem of Calculus (and the Second FTC) to solve problems in Business, Economics, Social Science and Science contexts.
- Apply integration to find the average value of a function over an interval.
- You w ill be able to use the graphing calculator to help you analyze complex functions, derive formulas from data, and perform various calculus–related analyses on a function.
- You will set up and solve applied problems in differential equations.
- You will solve optimization problems in several variables using partial derivatives and Lagrange Multipliers.
- You will apply double integrals to problems in several variables.
- You will recognize trigonometric relationships in context and derive appropriate functions. You will be able to apply calculus to these functions in order to derive further mathematical and contextual insight.

Tutoring: The Learning Center (TLC) is an outstanding resource for free tutoring in all of your classes. You should visit TLC at the slightest sign of confusion or just as a place to sit and work in a supportive environment. The Learning Center staff is well trained and dedicated solely to your success, so don't waste this resource!

Internet: There are hundreds of internet sites with calculus assistance offered - though many will ask you for money first. This book comes with a free internet support site: www.appliedcalc.com
One important reason for visiting this site is to access the corrections page where they show all of the errors they have found in the text. You can get there from the main website by going to the Instructor's page and then to Corrections. You can also get there by entering the following:
http:///www.ohaganbooks.com/StudentSite/corrections/corrcalc2.html/
There are a number of resources at this site including worked examples and practice quizzes.

Assistance: If you need any assistance please let me know what I can do to accommodate you. A wide range of services is available through the Disabled Students Program and Services (DSPS) at 738–4280 in Building 2.

Plagiarism etc.: I strongly encourage you to form study groups and to work together to understand the material covered in this class. Explaining a concept is a valuable way for you and the listener to develop insight and skill. Simply copying work, whether it is from an assignment or a test, is of no value to you academically. Consequently, if I find that you are submitting any part of another's work as your own, you will not receive credit for this course. The same holds true for any other kind of academic dishonesty. There is no situation that could arise in this class that would justify risking expulsion. If you are having any difficulty, PLEASE see me about it so that we can work together in resolving the issue.