MATH 141 Calculus in Management Sciences **Summer 2008**

Sec 1 1:30 – 3:30 PM MTWRF (5/19-6/15) **Wagar 232**

Instructor: Lori Ziegelmeier **Office:** Weber 10 **E-mail** ziegelme@math.colostate.edu

Course Coordinator: Dr. Kelly Chappell, Weber 111, 491-6416, chappell@math.colostate.edu

Course Website: http://www.math.colostate.edu/~ziegelme/M141/SM08.html

Office Hours: Check website for times and locations.

Registration Deadlines: Last day to add or "free" drop: May 21

Last day to W-drop: June 2

Textbook: Bittinger. *Calculus and Its Applications*. 9th edition.

A copy of the text is on reserve in the library. Bring your textbook to class every day.

Calculator: A graphing calculator is recommended. The instructor will use a TI-83 or TI-83 Plus during lecture and office hours. These calculators as well as the TI-82, TI-83, TI-84, or TI-86 are allowed to be used on exams.

Not allowed: TI-89, cell phones, laptops, or any calculator with a QWERTY keypad.

Some questions on exams will require a calculator. Bring your calculator to class every day.

Homework: Doing regular homework is essential to your success in this course. You need to invest quite a bit of your time in practicing problems, and you need to do it on a regular basis. Keep up with the syllabus and the lectures. This means that you will have some homework every day. A set of selected homework problems is on the website. In addition to these selected problems, you are encouraged to work additional problems from the relevant text section as needed to have a thorough understanding of the material. Answers to the odd-numbered problems are given at the back of the book, starting on page A-1. You should compare your own answers with the answers given in the book, and be sure to clear up any discrepancies.

NOTE: Exams are based largely on MathXL and textbook homework!

Quizzes*:* In-class quizzes will be given regularly. They are designed to encourage attendance and completion of homework. Questions for the quizzes will be closely related to homework problems. There will be about 13 quizzes worth 5 points apiece. The top 10 quiz scores will be used for grading purposes. Thus, quizzes will be worth a total of 50 points in the course.

Exams: There will be four exams given, three in-class exams and one final exam. The exam dates are tentatively set for May 23, May 30, June 6, and June 13. See the website for Exam Rules *before* the first exam.

Exam Time Conflicts: If you have an ***unavoidable, documentable*** conflict with an exam, notify Course Coordinator and the Instructor *in writing* at least one week before the exam. Include your e-mail address and phone number. If your request to take the exam at another time is approved, another time will be arranged when you may take the exam.

Special Needs: Students who have special needs, including special accommodations for taking exams, should discuss their situation as soon as possible with their instructor. Students who have used RDS (Resources for Disabled Students) for other classes find that their services are very helpful for MATH141. If you use RDS, please make arrangements as soon as possible.

Grading Standards: Your grade in this course depends entirely on the four exams and quiz points. Exams are 100 points each. For each student, the three highest-score exam values are doubled. There is a total of 50 quiz points. See the course website for an example. Final grades will be determined from point totals using the following grading scale:

675 – 750	A
600 – 674	B
525 – 599	C
450 – 524	D
0 – 449	F

Academic Appeals: Concerns about the course or any of the instructor's decisions that affect your participation in the course should first be discussed with the instructor. Issues that cannot be resolved with the instructor should be discussed with the Course Coordinator. Concerns regarding the course may also be discussed with the Prof. Gerhard Dangelmayr, Undergraduate Director of the Mathematics Department, WB 101.

How hard is the course? The course does require a definite commitment of time and effort, but it is not too hard, provided you have the required command of algebra, keep up in class, do homework problems every day, clear up questions and difficulties as soon as they arise. Of course, some students find the course harder than others, but serious grade trouble usually arises either from poor preparation in algebra, lack of attendance, or falling behind (including homework).

If something is unclear in lecture:	If you have other questions about the course:
1. Ask during class 2. Ask during office hours 3. Email Lori	1. Check the course/section website 2. Ask during office hours 3. Email Lori

MATH141 Topic Outline & Tentative Schedule
Syllabus of Lectures

Date	Day	Topic
5/19	1	Introduction to course (1.3, 1.4 Rates of Change, Difference Quotient, Derivative)
5/20	2	1.1, 1.2 Limits and Continuity 1.4 Difference Quotient (more examples using limits)
5/21	3	1.5, 1.6, 1.7 Differentiation Techniques (Rules)
5/22	4	2.6 Marginals, Differentials Review for Exam I
5/23	5	Exam I 2.1 First Derivative Test for Local Extrema
5/26		**No Class! Memorial Day**
5/27	6	1.8, 2.2 Higher Order Derivatives, Second Derivative Test
5/28	7	2.4 Absolute Extrema 2.5 Optimization
5/29	8	2.7 Implicit Differentiation and Related Rates
5/30	9	Review for Exam II Exam II
6/2	10	3.1, 3.2 Exponential and Logarithmic Functions 3.3, 3.4 The Growth Model
6/3	11	4.2 Anti-differentiation 4.1, 4.3 Limits of Sums, Area and Definite Integrals
6/4	12	4.1, 4.3 Limits of Sums, Area and Definite Integrals (Continued) 4.4 Area Between Curves
6/5	13	4.5 Integration Technique: Substitution Review for Exam III
6/6	14	Review for Exam III Exam III
6/9	15	5.1 Consumer's Surplus and Producer's Surplus 5.2 Integration of the Growth Model
6/10	16	5.4 Probability 5.5 Expected Value
6/11	17	6.1-6.2 Functions of Several Variables, Partial Derivatives 6.3 Higher Order Partial Derivatives
6/12	18	6.4 Max-Min Problems Review for Exam IV
6/13	19	Review for Exam IV Exam IV