

# Math 141 - Calculus in the Management Sciences – Spring 2013

Section 001: MWF, 10:00 – 10:50 in Clark A101, Hilary Smallwood, smallwoo@math.colostate.edu

Section 002: MWF, 11:00 – 11:50 in Clark A101, Hilary Freeman, freeman@math.colostate.edu

Section 003: MWF, 12:00 – 12:50 in ENGRG 100, Patrick Ingram, ingram@math.colostate.edu

**Office Hours:** To be announced in class and on RamCT

**Calculator:** A graphing calculator such as the TI-83 or TI-84 is recommended and may be used on exams. Advanced calculators such as the TI-89 are **not** allowed on exams.

**Textbook:** Calculus and Its Applications (10th edition) by M. Bittenger and D. Ellenbogen

**MyMathLab:** Course announcements, online help, quizzes and OPTIONAL homework are available on MyMathLab. Quiz scores will be posted on MyMathLab.

**Quizzes:** Quizzes for this course are conducted online via MyMathLab at [www.MyMathLab.com](http://www.MyMathLab.com).

To register for MyMathLab: (directions are also posted in RamCT)

1. Go to [pearsonmylabandmastering.com](http://pearsonmylabandmastering.com).
2. Under Register, click Student.
3. Enter your instructor's course ID:
  - smallwood52257 for section 001, 301
  - freeman98963 for section 002
  - ingram98765 for section 003and click Continue.
4. Sign in with an existing Pearson account or create an account:
  - If you have used a Pearson website (for example, MyITLab, Mastering, MyMathLab, or MyPsychLab), enter your Pearson username and password. Click Sign In.
  - If you do not have a Pearson account, click Create. Write down your new Pearson username and password to help you remember them.
5. Select an option to access your instructor's online course:
  - Use the access code that came with your textbook or that you purchased separately from the bookstore.
  - Buy access using a credit card or PayPal.
  - If available, get 17 days of temporary access. (Look for a link near the bottom of the page.)
6. Click Go To Your Course on the Confirmation page. Under MyLab / Mastering New Design on the left, click Math 141 Spring 2013 Section (1,2,or 3) to start your work.

The MyMathLab quizzes will be due throughout the weeks, so you must be checking it daily. Each quiz question is worth 1 point. Only the attempt with the highest score counts. At the end of the semester, the quiz points you have earned will be summed to get your quiz point total, which will then be scaled to 100 points.

Here are examples of how it works:

Suppose that your quiz point total is 120 and there are 125 assigned points. Your scaled quiz score would then be  $100 \times (120/125) = 96$ .

Bonus quizzes will be assigned. Suppose that your quiz point total is greater than 125 and there are 125 assigned points, then your scaled quiz score would be 100.

QUIZ SCORES WILL BE POSTED ON MyMathLab, NOT RAMCT.

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**Exams:** The exams are multiple choice/scantron. There will be four exams for this course on the following dates

- Friday February 15 (in class, regular time and place)
- Wednesday March 13 (in class, regular time and place)
- Wednesday April 17 (in class, regular time and place)
- Friday May 17 (Common Final Exam, 9:40-11:40am, place TBA).

EXAM SCORES WILL BE POSTED ON RAMCT, NOT MyMathLab.

NO ALTERNATE EXAMINATIONS WILL BE GIVEN EXCEPT IN THE CASE OF A DOCUMENTED EMERGENCY OR DOCUMENTED, UNIVERSITY APPROVED ABSENCE. Notify your instructors within 24 hours if you have a medical emergency, and one week in advance otherwise.

**Grades:** The course grade is based entirely on four one-hour exams and MyMathLab Quizzes. The exams are multiple choice/scantron. Exam scores will be posted on RAMCT. University policy dictates that instructors are not allowed, by law, to email grades or snail mail grades. Please do not ask us to do this.

For each student, the top three exam scores are doubled. For example, suppose your four exam scores have values A, B, C, and D. Also suppose that your scaled MyMathLab quiz score has the value E. If D denotes your lowest exam score, then your grade will be determined by the formula:  $(2A+2B+2C+D+E)/8$ . For example, let's say the exam scores are 63, 86, 52, and 100 and the scaled MyMathLab quiz score is 88. Note that 52 is the lowest exam score. Compute  $2(63)+2(86)+1(52)+2(100)+88$  to get the total number of course points. You should get 638. Divide by 8. The final grade is 79.75, which is a B because we will round the final grade to the nearest percentage.

The grading scheme is traditional; no plus-minus grades are given:

A: 90 - 100, B: 80 - 89, C: 70 - 79, D: 60 - 69, F: 0 - 59.

## Schedule:

1. Introduction to course (R.4, 1.3 Rates of Change, Difference Quotient)
2. 1.1, 1.2 Limits and Continuity
3. 1.4 Difference Quotient
4. 1.5 Power Rule, Sum and Difference Rule
5. 1.7 Chain Rule
6. 1.6 Product Rule, Quotient Rule
7. 2.6 Marginals
8. 2.1 First Derivative Test for Local Extrema
9. 1.8, 2.2 Higher Order Derivatives, Second Derivative Test
10. 2.4 Absolute Extrema
11. 2.5 Optimization
12. 2.7 Implicit Differentiation and Related Rates
13. 3.1, 3.2 Exponential and Logarithmic Functions
14. 4.2 Antidifferentiation
15. 4.1, 4.3 Area and Definite Integrals
16. 4.5 Integration using Substitution
17. 3.3, 3.4, 5.2 Integration of the Growth Model
18. 5.1 Consumer's Surplus and Producer's Surplus
19. 6.1 Functions of Several Variables
20. 6.2 Partial Derivatives

## Tutoring:

Free tutoring is available for this course through the **Arts & Sciences Tutoring Program**. The program is located in the Russell George Great Hall in The Institute for Learning and Teaching (TILT), and runs 5 p.m. to 10 p.m., Sunday-Thursday evenings during the academic year. No appointment is necessary and all students are welcome. For more information and tutoring schedule, please visit:

<http://tilt.colostate.edu/learning/tutorialPrograms/artSciences.cfm>