

## MATH 161, Fall 2008

**Lecturer:** YOURNAME, YOUROFFICE, ETC

**Office Hours:** Your office hours

**Prerequisite:** MATH 124, MATH 160

**Textbooks:**

- Weir, Hass and Giordano: Thomas' Calculus, 11<sup>th</sup> edition <sup>1</sup>. ISBN 0-321-48987-X. The book was reissued in a "Media Upgrade" edition. The 11<sup>th</sup> edition (without "media upgrade") does not differ as far as this course is concerned and can be used as well. We will not use any online features bundled by the publisher and you will not need any special "access codes".  
This book also exists in a paperback "international edition", ISBN 0-321-52679-1, priced at about 2/3 the price of the US edition<sup>2</sup> and only differing in the cover picture and the soft cover binding! The publisher does not want to sell this edition within the US and we have been unable to get the university book store to order it from overseas. You can order it however from online bookstores<sup>3</sup> by searching for the ISBN.
- Ziliak, Hulpke: Supplemental notes for Calculus II. Available for free download on the course webpages.

**Calculator:** TI83 or better. There will be no calculator use in the exams, so you won't need to buy a particular model of calculator. We will be using the computer algebra system MAPLE in the laboratories, this system is installed on the machines in the departmental lab.

**Course Webpage:** <http://www.math.colostate.edu/~calc/M161>

**Course Coordinator:** Dr. A. Hulpke

**Course Content:** Inverse Functions, Exponentials and logarithms, Integration, Sequences, Series, Power Series and Taylor series, Polar Coordinates, Complex Numbers. A tentative day-by-day Syllabus with homework due each day is enclosed and can also be found on the course webpages. On the web pages you will also find an extended syllabus with comments about each section.

**Expectations:** This is a college course and you are grown up. You can expect to be treated as adults but we expect adult behavior from you. In particular we expect to see you regularly in class and to regularly hand in solutions to the homework problems. If you have to miss a class it is your responsibility to find out from fellow students what material was covered. Don't come complaining about a bad grade if you did not attend class or do homework.

All audible signals of cell phones must be turned off at the start of class. If a cellphone rings during class we might assign extra homework<sup>4</sup>.

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<sup>1</sup>The web site <http://www.addall.com/> offers price comparison amongst online book stores

<sup>2</sup>As of early August, about \$100 new

<sup>3</sup>For example, searching for the ISBN (not the title) will find this edition on [amazon.com](http://amazon.com). The UK version of the web site, [amazon.co.uk](http://amazon.co.uk), has even chapter copies used (about GBP25=\$50, but you will pay about \$15 for shipping)

<sup>4</sup>and adjust the number of required homework points accordingly

**Examinations:** There will be three evening exams (September 18, October 16 and November 13, 5:05-6:20pm). You must attend these exams. If these exam times overlap with regularly scheduled CSU courses (work or hobbies are not a valid excuse!) you may take the exam on the same day at alternate times of either 4.05pm or 7pm. No registration is necessary but you must bring to the alternate exam a printout of your schedule showing the conflict with the regular exam time (or Doctor's note or similar).

The final exam for this course will be given on Wednesday, December 17: 1:30-3:30pm. (There is no alternate time for this exam. In particular it is not possible to take the final exam at different times for purposes of travel or graduations of friends or relatives!) The rooms for the exams will be assigned later and announced on the course webpages and in class.

The exams will test any or all of the material listed on the course schedule, including the problems and material introduced through homework, WebWorK, the technology labs and the listed practice problems. Problems will include multiple choice problems as well as "classical" written problems.

Calculators will not be allowed on the exams. Cellphones must be turned off during the exam and must remain in a bag during the entire exam. A ringing cellphone or use of an unauthorized electronic device (in any form: As clock, calculator, camera, notepad, toy, ...) during the exam will lead to disqualification (0 points) from the exam. Exam scores cannot be contested after the following exam.

**Exam conflicts/Alternate arrangements:** The only excused absences from these exams are official university approved absences<sup>5</sup>. If a CSU event conflicts with an exam or if you are ill, you must submit exam (at the regular and the alternate times) or the final you must submit the alternate exam form that you can find on the course webpages (under 'Policies' or at <http://www.math.colostate.edu/~calc/M161data/pdf/makeupexam.pdf>), *together with supporting documentation* (e.g. a letter from the athletics department) to your section teacher. This request, including documentation, must be submitted at least 10 days before the start of the conflicting period.

If you need alternate exam arrangements through Resources for Disabled Students, submit the RDS qualification letter and the RDS exam form at least 10 days before the first exam to your section teacher.

Failure to submit alternate exam requests *including documentation* in time might mean that no alternative arrangements will be possible!

If you have questions about alternate exams, please contact the course coordinator Dr. Hulpke ([hulpke@math.colostate.edu](mailto:hulpke@math.colostate.edu)).

**Grading Procedures:** The grades in class will be based on the three common exams (100 points each), the final (200 points), homework (60 points), and technology labs (30 points) for a total of 590 points. The grade scale will not be worse than 531-590, A; 472-530, B; 413-471, C; 354-412, D; below 354, F. The grades in each of the ranges will include + and - (apart from C-, D+, D- or F+).

Note that if you do not do either the homework or labs, you will lower your grade almost one grade. Do not come in complaining after the fact.

There will be a sample grade spreadsheet on the course webpages (similar to what we will use at the end of the semester) to help you with estimating your grade.

After each exam we will post in RAMCT midterm grades as well as a "grade predictor" based on student performance in previous semesters. This predictor gives the percentages (rounded to multiples of 5, due to rounding errors percentages might not add up to 100) of grades of students in previous semesters performing in a similar range of scores as yourself. For example, a predictor 0A 15B 55C 30D 0F means that amongst students with similar exam performance, 15% ended up with a B, 55% with a C and 30% with a D; under

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<sup>5</sup>see section I.12.4 of the faculty manual, <http://facultycouncil.colostate.edu/files/manual/sectioni.htm#I.12.4>

3% each had an A or F<sup>6</sup>. (In rare circumstances, in particular wide oscillation of exam grades, not sufficient data might be available to make a prediction.) These percentages are given solely as an aid to help with self-evaluation of your performance and do not guarantee any grades.

**Homework:** Homework will be assigned in class. (Tentative assignments can be found on the enclosed syllabus.)

Homework will consist of problems to be done in WebWorK (see below) as well as problems from the book that are to be submitted on paper in class. Late homework will not be accepted. (Due to budgetary restrictions on graders, some homework problems might be graded only cursorily.)

The answer book for the textbook will be available on course reserve at the library. We therefore cannot give homework credit for answers to paper problems that do not show work.

All homework problems carry equal weight, there will be at least 200 problems assigned this semester. We will consider 150 problems to be 100% (i.e. each problem is worth 0.4 points with a maximum of 60 point achievable on homework). As some midterm and final problems will be based on homework assigned in the course it is in your own interest to do all homework.

You are welcome to use a calculator for arithmetic in the homework as long as this does not render the problem trivial. (For example you may use a calculator to evaluate  $\frac{1.1^9}{4-19^7}$ , but not to find an antiderivative of  $\int \sin(x)^3 \cos(x)^3 dx$ .)

Do **not** leave it until the evening before the due date to work on the homework problems — you will likely run into time problems.

**WebWorK** We will be using the system WebWorK (there is no relation to the University's RamCT and you **cannot** access it through RamWEB) for some homework assignments. Problems of this type will count as part of the homework assignment. If your submitted solution is wrong, you have (unless the problem is multiple choice) further chances to submit a correct solution. (There is no penalty for submitting a wrong solution first.) You may use a calculator to help with arithmetic.

To do these problems you have to log in via the course homepage <http://www.math.colostate.edu/~calc/M161>. Select the "WebWorK" link and then select your section.

Your user name is set to your university eName. This is typically your university email name, e.g myname@simla.colostate.edu has eName myname. Your initial password is set to your CSU ID number (this is the 9-digit number on your university ID card, starting with '8'). Please as a first step change your password. As the login is not encrypted do **not** choose the same password as used for any important login (such as banking or email).

The first WebWorK "assignment", set0, consists of some exercises about how to interact with the program.

We initialize the data base for WebWorK with the students registered the thursday before classes start.

If you registered for the course after Thursday, January 17 you might not have been added to WebWorK. In this case talk to your section instructor. Also talk to your section instructor in case you cannot log into WebWorK or have forgotten your password.

**Technology Labs:** The labs will be assigned as indicated in the syllabus. The labs are based on the Maple software package. The write ups of these labs will generally be due one week after the lab days.

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<sup>6</sup>Course withdrawals, W on the transcript, are counted as F here.

## Help and Support

**Work Load:** Students in general consider MATH161 a hard course. We assume that you know the material covered in the prerequisite courses well. As a rough estimate your time commitment *in addition to the 4 classes a week* is likely to be 8-12 hours a week just for review, homework and learning. Plan this time into your semester schedule now.

M161 is a course in which you need to work continuously — if you think you can learn the material just in the week before each exam you are setting yourself up to failure.

The following sections list further resources available to you.

**Free Tutoring** Courtesy of the College of Natural Sciences, free tutoring for MATH161 is available at Ingersoll Hall most evenings. Tutors will be able to both help you with current homework or to show you solutions for homework past. More information is available at: <http://www.colostate.edu/Depts/NatSci/html/Tutorial.html>

**Practice Problems:** Unless you find the assigned homework a zip through you might want to do further problems for practice: The syllabus lists such problems under ‘P:’. Try a range of these! (We will have in each exam problems that are taken from homework, webwork or practice problems.)

Practice problems cannot be submitted for grading, but you can get information about them in office hours or at the Ingersoll tutorial. We will also put the “Answer book” for the textbook (solutions for all problems but not worked out) on course reserve in the library.

You can expect that each exam will contain problems that are taken from homework, webwork or practice problems.

**Other Books** Depending on your style of learning you might be looking for books beyond the assigned textbook. The following book is written more in a “how to” style:

- A. Banner: *The Calculus Lifesaver*, Princeton, 2007, ISBN-13 978-0-691-13088-0 (Compared with our textbook this book covers less theory and not every topic, but it gives more concrete “recipes”.)
- Mueller, Brent, *Just-In-Time Algebra and Trigonometry*, Addison-Wesley, ISBN 0321269438.

A review of the algebra and trigonometry needed for calculus, organized along how material is needed in calculus. It might be a useful refresher if you are struggling with prerequisite material. A copy is on course reserve at the library.

We wish you a good semester and success in this course!