

# MATH 161, Fall 2011

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

**Common Office Hours:** Times and locations as listed on the web pages. Advice about individual performance by appointment **only**.

**Prerequisite:** MATH 124, MATH 160

**Course Coordinator:** Dr. A. Hulpke (office hours for MATH 161 by appointment only)

**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 and a homework assignment sheet are 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.

**Textbooks:** • Weir, Hass and Giordano: Thomas' Calculus, 12<sup>th</sup> edition.

We have worked hard to make this book available in an unbound, 3-hole punched edition, ISBN 978-0-558-74569-1 at 2/3 the price of the hardcover edition.<sup>1</sup>

If you prefer you may also use the hardcover edition (ISBN 978-0321-587992) or a paperback “international edition” (available at foreign online stores, e.g. [amazon.co.uk](http://amazon.co.uk)) We will not use any online features bundled with certain edition and you will not need any special “access codes”.

- Ziliak, Hulpke: Supplemental Notes for Calculus II. Available for free download on the course webpages.

**Calculator:** TI83 or better. There is 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 cloud service Wolfram alpha in the laboratories, this system is accessed via a web browser.

**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. **This might be different from how you were treated in school and comes with more responsibility on your side.** In particular we expect you to attend class regularly (not reading the newspaper, doing sudoku puzzles, listening to music or holding social conversations during class) and to complete the homework problems regularly. If you have to miss a class it is your responsibility to find out from fellow students what material was covered. Do not complain 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 or quizzes<sup>2</sup>.

**We assume that you have read and understood the course policies as outlined in this sheet and on the course web pages under the “Policies” tab and are aware of all announcements made in class.**

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<sup>1</sup>It is recommended that you get a 3-hole binder to carry the relevant chapters of the book. Chapters used in this course are listed in the enclosed day-by-day syllabus. You do not need to carry with you chapters that are not used that day in class. We also will not use chapters of the book not listed in the syllabus. If you do not plan to take MATH 160 or MATH 261, you can split the book with students from these courses.

<sup>2</sup>and adjust the number of required homework points accordingly

**Examinations:** Due in the first week is a gateway exam which tests material from prerequisite courses (which we assume you know already). This exam is administered in WebWorK (see below) and has only limited partial credit.

There will be three evening exams (Thursday evenings on 9/15, 10/13, and 11/10 from 5:05-6:20 pm) and a final (Wednesday 12/14, 7:30-9:30 am). 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 these exams on the same day at alternate times of either 4.05pm or 7pm. To ensure room availability, you must register in class in written form for these alternate exams. You also 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). There is no alternate time for the final.

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 may 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: 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 (e.g. after the regular time for exam 2, exam 1 cannot be contested any more).

**Exam conflicts/Alternate arrangements:** The **only** excused absences from exams are official university approved absences<sup>3</sup>. If a CSU event conflicts (at both the regular and the alternate times) with an exam or the final, or if you are ill, 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 exam (or, in the case of sudden illness, as soon as reasonably possible). If you have a conflict for the final (which could be only due to taking two calculus courses, or to having more than three final exams on the same day) you **must** contact your instructor **before the first midterm** for us to make alternate arrangements.

If you need alternate exam arrangements through Resources for Disabled Students, submit the RDS qualification letter (you do not need to bring the RDS exam form, we have copies) at least 10 days before the first exam to your section teacher. Alternate exam requests are processed once per exam, failure to submit requests *including documentation* in time can mean that no alternative arrangements will be possible!

If you have questions concerning 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 gateway exam (40 points, given in increments of 8 points for every full exam point beyond 11: I.e. 0 points for 11 correct problems, 8 points for 12 correct problems, 40 points for 16 correct problems; fractionally correct problems do not accumulate points), three common exams (100 points each), the final (200 points), homework (130 points), technology labs (30 points), for a total of 700 points. The grade scale will generally be 90%-100% (630-700): A; 80%-90% (560-629): B; 70%-80% (490-559): C; 60%-70% (420-489): D; below 60%

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<sup>3</sup>see section I.12.4 of the faculty manual,  
<http://facultycouncil.colostate.edu/files/manual/sectioni.htm#I.12.4>

(0-419): F. The ranges of the grades may be scaled depending on any curves given for particular exams but will not be worse than the numbers given here. The grades in each of the ranges will include + and - (apart from C-, D+, D- or F+). An Incomplete will only be given in extenuating circumstances (beyond the student's control and which could not have been anticipated or avoided) and will need to be approved by the Course Coordinator and the Undergraduate Director.

**Homework, Quizzes:** Homework is listed on the syllabus sheet. Assignments can be found on the enclosed syllabus. It consists of problems to be done in WebWorK (see below) as well as problems from the *Supplemental Notes* book that are to be handed in on paper in class. Late homework will not be accepted. The same holds for lab reports.

Due to budget problems and severe understaffing, we are not able to collect homework every week; homework will be collected only some weeks. (These weeks will not be announced in advance and might differ between sections.) 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.

A complete solution to a written homework problem must include not only the final answer but also the (legible!) work needed to obtain the solution. 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  $1.1^9/(4 - 19^7)$ , 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.

All homework and webwork problems carry equal weight.

In total it will be possible to get (at least) 190 points in the category of homework/webwork. We will consider 160 points to be 100% (i.e. no points beyond 160 will be given). This grace policy is also to make up for missed homework, etc.; we therefore do not offer any makeup for missed homework. (In case of long term illness – over two weeks – please contact the course coordinator.)

**WebWorK** We will be using the system WebWorK (there is no relation to the University's RamCT and you **cannot** access it through RamCT) for part of the homework assignments as well as the gateway exam. If you have problems with the syntax, there is a "Preview" button to check the mathematical interpretation. On multiple choice type problems there is only one submission. On the gateway exam you have three submission attempts (without penalty for wrong first answers) in case of technical difficulties. In the homework we otherwise allow for infinitely many attempts. You may use a calculator to help with basic arithmetic.

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

Your user name is set to your university eName. This is typically your university email name, e.g. the address `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).

Webwork homework is due at 8pm on the day indicated, however there is a grace period until midnight (on the server!) that is to make up for clock drift or network issues.

We initialize the data base for WebWorK with the students registered the weekend before classes start. If you registered for the course late, you might not yet have been added to WebWorK. In this case talk ASAP to your section instructor to be added. You **must** provide your CSU eName and your

CSU-ID, otherwise we will not be able to transfer grades correctly. Also talk to your section instructor in case you cannot log into WebWorK or have forgotten your password.

## 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.

**Office Hours** We are running common office hours, at times listed on the course web pages. You can come to any of the offered hours.

**Free Tutoring** Courtesy of the College of Natural Sciences, free tutoring for MATH161 is available in the TILT Building 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.natsci.colostate.edu/tutoring/>

**Practice Problems:** We recommend that you try additional problems beyond the assigned homework problems. The syllabus lists a range of such problems.

Practice problems cannot be submitted for grading, but you can get information about them in office hours or at the tutorials.

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!