MATH 131 Section 1
Calculus
Spring 2005

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*While these are the official office hours, I am available at other times as well. If you want to meet at a time outside of office hours, the best option is to set up an appointment with me. You can also just drop by any time, but you may want to call first to see if I’m there.

A graphing calculator may be useful for checking answers on homework, exploring concepts, etc., but calculators may not be used on exams or quizzes in this course.

Prerequisites. A grade of “C” or better in MATH 113 (Elementary Functions) or consent of the instructor. The instructor will consent to the enrollment of any student with a firm grasp of the material from MATH 113, which encompasses algebra and trigonometry.

Catalog Description. Functions, limits and continuity, derivatives, applications of the derivative, the integral, conic sections.

Course objectives. The purposes of this course for the student include (1) Developing an understanding of the fundamental definitions and concepts of analysis, (2) Developing computational skills in real analysis, (3) Improving reasoning, critical thinking, and problem-solving skills, (4) Sampling some of the many application areas of continuous mathematics, (5) Acquiring an appreciation of the concepts that form the foundation of twenty-first century science and technology, and (6) Learning to communicate mathematical ideas, arguments, and results. Strong communication skills are crucial in most mathematics-intensive vocations. We will place special emphasis on clear communication of mathematical ideas.
Content and Methodology. The course will cover the material from the beginning of the book through Section 5.5, with selected omissions. Typically, we will cover a section of the text in one to two meetings. The beginning of each class period will be reserved for discussion of the homework and other questions. Up to 1/3 of the period, or even more if the discussion is led by students, may be used for this purpose. Most of the remaining time will be used for presentation of new material. Sometimes the instructor will lecture. At other times students will present examples or other material. Students are encouraged to ask questions and make relevant comments at any time. There will also be brief quizzes and other activities, which may include group work or board work.

Homework. Homework will be assigned from each section, but will usually not be collected. However, projects and other special assignments will be collected and graded. Also, on occasion I may specify a few exercises for you to hand in. In these cases due dates will be specified, and no late work will receive full credit, except when required by university regulations on absences. (See the Attendance Policy section below.) I define work to be late if it is handed in after the beginning of the class period following the due date. Late work can still be handed in and graded, but will receive credit for only 50% of the points earned. No late homework may be handed in after the last day of class or more than one month after the original due date.

Do the homework! How well you do in the class is directly related to how much homework you do. If you don’t do the homework, you probably won’t pass. It is also to your advantage to ask questions about homework problems that give you difficulty. You may also find it helpful to read the sections in the textbook.

Exams. The purpose of the exams is to determine your level of mastery of the concepts of the course. They will test not only your ability to memorize, but also your ability to think. There will be three 50 minute in-class exams and a 110 minute comprehensive final examination. The tentative dates of the in-class examinations are February 21, March 16, and April 19. The final exam will be given on Friday, May 13, at 8:00am.

Normal make-up exams will be given only in serious and unavoidable circumstances (or in other situations sanctioned by the University) and only if your request to make up an exam is approved by the instructor within 72 hours of the in-class exam. Make-up exams must be taken within two class periods following the day of the exam. If these conditions are not satisfied, it is understood that the opportunity to make up the examination at that time is voided. In this case, exams may still be made up during the special make-up exam period during finals week. The special make-up exam period is 5:00pm-6:50pm on Thursday, May 12.
Quizzes and Presentations. There will be several announced or unannounced quizzes given during class time, each of which you will have about 5 to 15 minutes to complete. The quizzes will cover assigned homework and the lecture material. QUizzes MAY NOT BE MADE UP, except when university regulations dictate otherwise. (See the Attendance Policy section below.) Missed quizzes will result in a grade of zero.

Each student will be expected to present both predetermined examples and solutions to homework problems to the class. Students will have opportunity to sign up for examples in advance and to discuss the example with the instructor before presenting it. Each student will present at least five examples during the semester. Additional examples may be presented for extra credit if time permits. One student will be assigned “homework duty” for each class period and should be ready to answer any question about the homework posed by his or her classmates. Other students are also encouraged to volunteer to work homework problems. Each student will present solutions to at least 10 homework problems during the semester. Additional homework problems may be presented for extra credit.

Grading and Evaluation. Performance in this course will be evaluated on a percentage system. Each of the three 50-minute exams is worth 100 points, the final exam is worth 150 points, and homework presentations and example presentations are worth 50 points each. The final grades will be based on approximately 700 points, with the remainder coming from quizzes and special assignments. To obtain your percentage at any time during the course, divide the number of points you have earned by the total number of points available at that point and multiply by 100. I will also update these totals and have them available for your reference at various times during the semester.

Letter grades will be assigned as follows based on a student’s final percentage:


The instructor reserves the right to lower the grade ranges. The grade ranges will not be raised.
**Attendance Policy.** We will follow the attendance policy of the University. (See pp. 57-58 of the current ULM catalog.) Attendance is not officially a part of the grade. However, you probably won’t be able to pass the course if you do not attend regularly. Learning calculus is a cumulative experience. If you miss class even once, you may have difficulty catching up. If you must be absent, please notify the instructor ahead of time. An attendance sheet will be passed around each time the class meets. **It is your responsibility to sign this sheet** each period in order for your attendance to be official.

The university policy defines excused absences. In a nutshell, you have a university excuse if you are participating in an official university function, hospitalized, at a doctor’s appointment, or attending the funeral of a close relative. In these cases alone, missed work can be made up with full credit possible. The appropriate documentation must be provided to the instructor within three days of returning to classes.

For this course, the University considers six unexcused absences to be excessive. If a student accumulates excessive absences, the instructor may choose to recommend to the dean that the student lose the right to continue in the course and be given a grade of “F.”

**Special Accommodations.** “Any student with a physical disability or learning disability who needs accommodations should inform the instructor at the beginning of the course. Students with special needs are encouraged to contact the Counseling Center at 342-5220” (p. 65, ULM Catalog 2004–2005).

**Withdrawal Policy.** The drop policy for this course will be that of the University. (See the ULM Catalog.) **IT IS YOUR RESPONSIBILITY TO KNOW AND COMPLY WITH ALL DEADLINES.** The last day to drop this course or resign from the university with an automatic grade of “W” is Thursday, April 7.

**Academic Dishonesty/Misconduct.** The University has explicit rules governing academic dishonesty and academic misconduct. The policies are detailed in the ULM Catalog under the heading “Academic Cheating and Plagiarism” (pp. 76–78). The university policies will be followed in this class. The minimum penalty for an act of academic dishonesty will be the assignment of a grade of zero on the examination, quiz, or homework assignment.

You are encouraged to work together on homework and in learning the material. While working with another person or in study groups is permitted, **all written work submitted must be your own.** Copying someone else’s problem solution or showing your written solution to someone else is prohibited. In order to be successful in learning the material and preparing for the examinations, you need to try to work out the homework problems yourself as much as possible before discussing them with anyone else.

**Any changes to this syllabus will be communicated in class by the instructor.**