

# Course Information

Math 3322–001

Fall 2006

September 6, 2006

**Instructor:** Prof. Lance D. Drager. Office: Math 236. Office Phone: 742–2580, Ext. 242. If you let the office phone ring long enough, you'll get me or a voice mail system you can leave a message on. My e-mail address is [lance.drager@ttu.edu](mailto:lance.drager@ttu.edu).

Course materials will sometimes be posted on my web page, which is <http://www.math.ttu.edu/~drager>.

**Office Hours:** MWF 10:00–11:00, 3:00–4:00. I am often in my office at other times in the afternoon. You can come by outside of formal office hours; I'll usually have time to talk to you. Please feel free to come by if you need help.

**Other Sources of Help:** The PASS center offers free tutoring. The Mathematics Department Office has a list of people who offer tutoring for pay. Forming informal study groups with other students can be very helpful.

**Text:** Kuhfittig, **Technical Calculus with Analytic Geometry, 4th Edition**. We will cover Chapters 9–13.

**Learning Outcomes:** The students will develop the necessary skills from pre-calculus, calculus, and differential equations required to be successful in their engineering technology programs. Students will understand infinite series and differential equations. In particular, students will: Understand the concept of multiple integration and learn to solve real-world problems involving multiple integrals; understand sequences gain proficiency in determining convergence; understand series gain proficiency in determining convergence; solve first order and higher order differential equations; understand and become proficient using Laplace transforms.

**Calculator:** The use of a calculator is assumed on all exams. A symbolic calculator like the TI-89 or TI Voyage 200 is required.

**Assessment of Learning Outcomes:** The assessment of student's mastery of the skills and concepts as specified in the expected learning outcomes will occur, with appropriate course grades assigned, as follows:

1. Three in-class exams.

2. The final exam.
3. Exam corrections.
4. Homework and Quizzes: occasional written homework and brief quizzes. All assignments and quizzes equally weighted.

The in-class exams and the final exam will all be equally weighted. I will drop the lowest of these four scores (which could be the score on the final). If you are satisfied with your grades on the three in-class exams, you can skip the final and let that be the dropped exam grade.

The homework will count for 15% of the final grade and Exam corrections will count for 15% of the final grade.

Exams will be announced well in advance. Quizzes will be announced at least one class in advance.

For each exam, I will determine a grade range for the A's, B's, C's, D's and F's. I will then linearly rescale the grades in the A range to the interval  $[90, 100]$ , the grades in the B range will be rescaled to the interval  $[80, 89]$ , and so forth.

At the end of the course, I will average the grades and assign letter grades with cutoffs 90% for A, 80% for B, 70% for C and 60% for D; I might lower these a little, but not much. Thus, with this system, you can determine your standing at any time.

For example, consider a hypothetical exam with the raw scores as in Table 1. The grade ranges might hypothetically be chosen as indicated. The numerical scores would then be rescaled as indicated in the table, using the formulas on the right and then rounding to the nearest point. The grade rescaling function would be as graphed in Figure 1.

A similar curve will be applied to the homework average at the end of the course.

**Final Exam:** The final is Friday, December 8, from 7:30 a.m. until 10:00 a.m. It will be given in our usual classroom.

**Makeups:** If you miss an exam you can, at your option, take that as the exam score to be dropped. If you are absent from an exam and convince me that your reason was legitimate, I will give a makeup exam. Late homework will only be accepted with a serious, legitimate excuse.

**Formative Assessment:** Continuous formative assessment of the progress of the course will occur via ongoing communication between the instructor and the students. To this end, all students are encouraged to ask questions during class and to seek the instructor's help out of class when needed. Other activities in support of student-instructor communication will include: practice exams and quizzes, review of homework, and personal interviews with students doing poorly on work assigned at the beginning of the course.

**Class Attendance:** I will not count class attendance for the grade, except that poor attendance is not likely to impress me with your diligence. Experience shows that it is important to attend class. I may occasionally pass around a sign-up sheet to check the official role, and just to keep track of what's happening.

	Raw (x)	Rescaled (y)	
A	95	96	$y = \frac{100 - 90}{100 - 86}(x - 86) + 90$
	92	94	
	<b>86</b>	90	
B	83	86	$y = \frac{90 - 80}{86 - 78}(x - 78) + 80$
	82	85	
	<b>78</b>	80	
C	75	76	$y = \frac{80 - 70}{78 - 70}(x - 70) + 70$
	73	74	
	72	73	
(cut off at <b>70</b> )			
D	66	67	$y = \frac{70 - 60}{70 - 55}(x - 55) + 60$
	64	66	
	61	64	
	58	62	
F	<b>55</b>	60	$y = \frac{60}{55}x$
	50	48	
	48	52	
	47	45	
	40	44	

Table 1: Grade rescaling

Remember, you are responsible for all material covered in class and all announcements made in class. If you have to miss a class, you should check with me or a classmate to see what happened.

**Identification:** You should be prepared to show your Texas Tech picture ID at any quiz or exam.

**Accommodations for Disabilities:** Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructors office hours. Please note instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, you may contact the Student Disability Services office at 335 West Hall or 806-742-2405.

**Religious Holy Days:** Texas House Bill 256 requires institutions of higher education to excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day. The student shall also be excused for time necessary to travel. An institution may not penalize the student for the absence and allows for the student to take an exam or complete an assignment from which the student is excused. NO prior notification of the instructor is required. See <http://www.depts.ttu.edu/officalpublications/catalog/AcademicsRegulations.html>

**Academic Misconduct:** It is the aim of the faculty of Texas Tech University to foster a spirit of complete honesty and a high standard of integrity. The attempt of students to present as their own work any work that they have not honestly preformed is regarded by the faculty and administration as a serious offense and renders the offenders liable to serious consequences, possibly suspension.

For more information, and a description of what is considered to be misconduct, see <http://www.depts.ttu.edu/officalpublications/catalog/AcademicsRegulations.html>

**Civility in the Classroom:** Students are expected to assist in maintaining a classroom environment that is conducive to learning. In order to assure that all students have the opportunity to gain from time spent in class, unless otherwise approved by the instructor, students are prohibited from engaging in any form of distraction. Inappropriate behavior in the classroom shall result, minimally, in a request to leave class.

For more information, see <http://www.studentaffairs.ttu.edu/vpsa/publications/civility.htm>

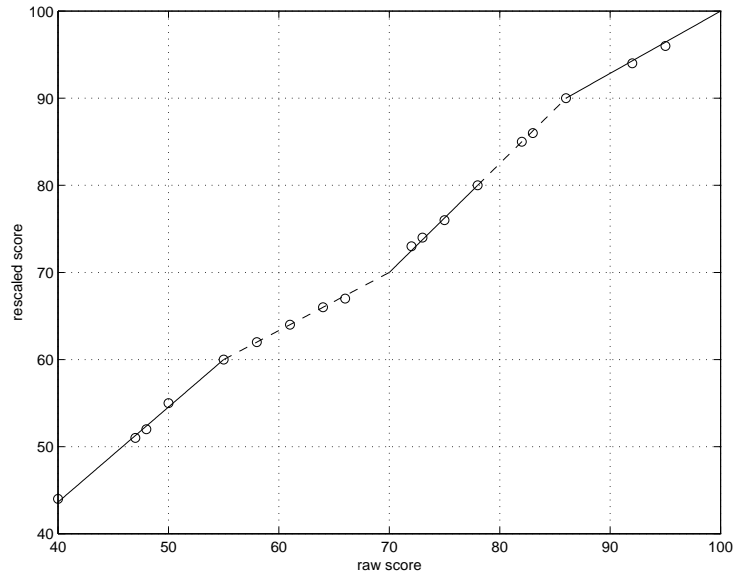


Figure 1: Graph of the grade rescaling function