

Course Information

Math 3351–010

Fall 2007

August 30, 2007

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.

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

Office Hours: MWF 11:00–12:00, 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 Mathematics Department Office has a list of people who offer tutoring for pay. Forming informal study groups with other students can be very helpful.

Lab Sessions: There is a lab session to accompany this course. The course number is Math 3351–710 and registration for this lab is mandatory. The lab session meets Tuesdays at 1:00 in EE 222. This should be considered a regular part of the course, which you should attend.

Text: The text is Erwin Kreyszig, **Advanced Engineering Mathematics, 9th Edition**. We will cover material from Chapters 7, 8, 4, 12 and 13, in that order.

Learning Outcomes: The students will extend their knowledge of differential equations by studying the concept of partial differential equations and their solutions and applications. They will also gain a thorough knowledge of linear algebra and a basic understanding of complex numbers and functions. In particular, the students learn: elementary linear algebra; computation and application of eigenvalues; techniques of analyzing systems of ODEs; computation and application of solutions of partial differential equations; and computations with complex numbers

Calculator: A symbolic calculator like the TI-89 or TI Voyage 200 is **highly** recommended.

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.

Homework assignments will be made in class, with a due date.

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.

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 exam is Tuesday, December 12, 7:30am–9:30am. It will be 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.

Computer Labs: We will occasionally use the computer lab in Math 109. You will need your eraider name and password to use the computer lab.

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

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

Table 1: Grade rescaling

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.

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 course requirements should contact the instructor as soon as possible to make necessary accommodations. Students should present appropriate verification from Disabled Student Services, Dean of Students Office (AccessTECH). No requirement exists that accommodations be made prior to completion of this approved University process.

Religious Holy Days: Which days are "religious holy days" is defined by Texas Law. A student who intends to observe a religious holy day should make that intention known to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to

take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student excused for a religious holy day may not be penalized for the absence; however, the instructor may respond appropriately if the student fails to complete the assignment satisfactorily. See <http://www.depts.ttu.edu/opmanual/OP34.19.pdf>.

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 other 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>

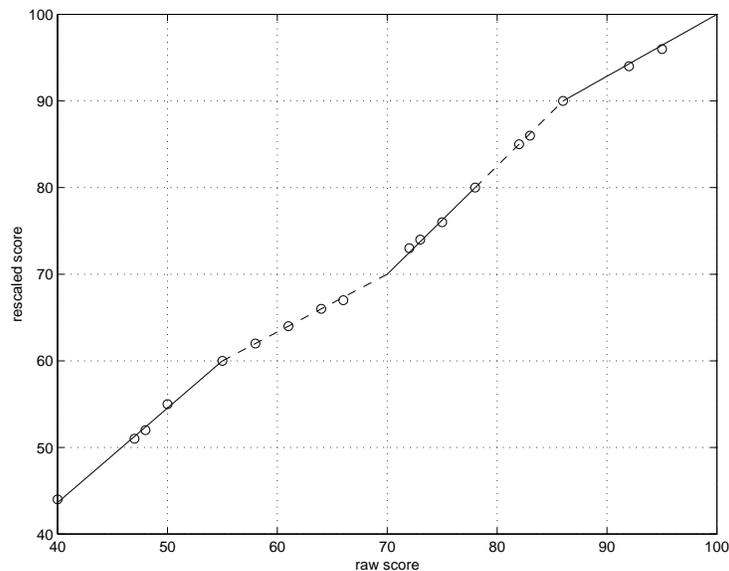


Figure 1: Graph of the grade rescaling function