Welcome to Math 308 Section 200 – Summer 2011

Instructor:	Dr. Jean Marie Linhart	**Phone:**	(979) 845-5321 (office)
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Office hours:	1:30 - 2:30 am MTWR and by appointment		
Instructor's website:	`http://www.math.tamu.edu/~jmlinhart`		
eLearning website:	`http://elearning.tamu.edu`		
Class time:	MTWRF 10 – 11:35 am	**Location:**	Blocker 128

Important course information and updates/modifications to the course schedule are kept current on the web:
`http://www.math.tamu.edu/~jmlinhart/m308`

Required text: *Differential Equations: an introduction to modern methods and applications* by James R. Brannan and William E. Boyce, Wiley and Sons, Inc. Copyright 2007, 2011

Recommended text: *Ordinary Differential Equations Using MATLAB* by Polking

Catalog Title and Description: (CREDIT 3.0) *Differential Equations.* Ordinary differential equations (ODEs), solutions in series, solutions using Laplace transforms, systems of differential equations. Prerequisites: MATH 251 or equivalent; knowledge of computer algebra systems.

A note on prerequisites: Integration is used repeatedly in solving ODEs. We will review basic calculus integrals and techniques such as trigonometric, logarithmic and exponential integrals, integration by substitution, integration by parts, and integration by partial fractions. Energy put into mastering these will reward you throughout the course.

Course Learning Outcomes: The main course learning outcome is to be able to solve ODEs and apply methods learned in this class to other mathematics, physics, engineering and science classes. You will be able to classify ODEs, you will know multi-step methods for solving different classes of ODEs, and given a specific solvable ODE, you will be able to apply the correct method step-by-step to find solutions.

Grading policy: Grades will be based on some or all of the following elements:

class participation – 0% to 10% (if applied other elements reduced proportionately)
homework and writing exercises – suggest 10-15% (willing to skip and increase quiz % and exam %)
quizzes – suggest 10-15% (willing to skip and increase HW % and exam %)
MATLAB assignments – suggest 5-10%
two in-class exams – suggest 25% each
a final exam – suggest: may reduce lowest exam grade up to only 10% of grade and the other exam proportionally so that exams make up ∼50% of the final grade

Exact percentages for these elements of the grade will be determined during the first week of class by the students and the instructor jointly; the instructor has veto power and power to decide by fiat if consensus cannot be reached. When consensus has been reached, this syllabus will be updated and reposted on the web for all.

Class participation will only be used to help a student's grade, and it will be determined by judgment of the instructor. If class attendance and participation are insufficient, the final grade will be averaged without. The percentages for the other elements will be reduced proportionately if class participation is averaged in.

The final exam is optional for students performing sufficiently well in the class; it will replace the lowest exam grade.

Grading scale: The following grading scale represents minimal grades that will be awarded; grades may be slightly higher than those indicated.

A = 90-100%, B = 80-89% , C = 70-79%, D = 60-69%, F = below 60%
S = 70-100%, U = below 70%

Because of privacy rights, I cannot discuss grades over email or telephone.

Course topics and schedule: The intended course schedule is posted on
`http://www.math.tamu.edu/courses/math308/currentsched.html`.
We will have to accelerate this schedule substantially and we will likely not have time to cover this much material in the 5 week summer course. We will start with Chapter 1, 2, 3 as listed on the official schedule, material from Appendix A may be worked in while covering other material. We will figure out how we want to proceed from there based in part on student interest and on instructor intelligence on how the material best fits together.

What we are working on and what is coming up will be updated regularly on our course website.

The learning process: Mathematics is not a spectator sport. You learn through practice and participation. Since this is an accelerated summer course, plan on budgeting at least 15 hours a week for work outside of the classroom.

- Actively listen to the lecture, think, ask questions.
- Work homework problems, read the book, ask questions.
- Do MATLAB assignments, ask questions.
- Take a quiz, ask questions.
- Take an exam, reflect on what you were able to do or not, and why, ask questions.

Homework: A thorough understanding of the homework handed in or suggested is essential for doing well in the course.

Homework problems and MATLAB assignments can be found on my web page. Homework may be collected as often as daily. Late homework may be accepted at the discretion of the instructor; an early request is more likely to receive a positive response.

Working with others on the homework and MATLAB assignments is encouraged. There are some guidelines on my website for working together. I will also set up a discussion board on eLearning to facilitate finding study partners.

Quizzes: Quizzes will be based on the homework.

Exams: There will be two in-class exams and a comprehensive final.

Tentative Exam Schedule	**Final Exam**
Exam 1: Friday, Jul 22	Wednesday, Aug 10
Exam 2: Friday, Aug 5	10:30 am - 12:30 pm

If a change needs to be made to the exam schedule, an announcement will be made in class, and information will be updated on my website.

Any questions regarding grading/scoring of exams must be made before the exam leaves the room or no change in grade will be made. If you need more time to look at an exam and do not want to lose your right of protest, hand it back to me at the end of class, and arrange to come to office hours.

Communication: Email is the preferred way to leave messages for me. I usually respond within 24-48 hours. When writing to me, please include your full name and course. There are some email writing tips on my website.

Use the office phone primarily to see if I am in the office or to call during office hours.

Course information is sent out by email. Check your university email daily.

Make-ups and Excused Absences: Please try to avoid putting yourself in a position of needing a make-up. Make-ups are inconvenient for everybody. Make-ups are only given if written evidence of an official University excused absence is provided in a timely manner. (See *University Student Rules.*, `http://student-rules.tamu.edu/`). Let me know what is going on in writing, in advance, if possible. If there is an accident or an emergency that precludes advance notice, call me immediately and get me documentation of the emergency in writing as soon as you can. If I don't hear from you within 2 working days of the absence, I will not allow a make-up. You need to take the make-up examination or assignment within three days of missing it (unless the excused absence is prolonged). It is your responsibility to schedule a make-up!

The "explanatory statement for absence from class" form is not sufficient written documentation for an excused absence. If you are ill or injured, you need to provide me with a note from a health care professional excusing you from work or school. You may go to your own doctor or to the Student Health Center in Beutel and obtain such a note.

The note should provide me with all information I need to confirm that your absence is excused, i.e., phone numbers and email addresses.

Scholastic Dishonesty: You are encouraged to work together on the suggested homework problems, but do not copy another student's work. If you are unsure of what this means with regards to scholastic dishonesty, guidelines for working together are available on my website, and I will be happy to answer questions about this.
Always abide by the Aggie Code of Honor.

AGGIE HONOR CODE:

> "An Aggie does not lie, cheat, or steal or tolerate those who do"

When you accepted admission to Texas A&M University you assumed a 0 to uphold the Honor Code.

For additional information please visit `http://www.tamu.edu/aggiehonor/`.

Extra help: The Mathematics Department offers help sessions. The help sessions are from 4 pm - 6:30 pm Mondays through Thursdays in Blocker 113. These are drop in hours where you can get help on your homework and other problems. Also feel free to ask questions in class, to come by my office hours, or to make an appointment to see me.

Americans with Disabilities Act (ADA) Policy Statement: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Cain Hall or call 845-1637.

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