MATH 377 Differential Equations II
Dr. Boersma
Winterl 2014

Goals: This course will continue the study of differential equations – primarily focusing on linear and non-linear systems. We will approach the study of linear systems from a matrix viewpoint and describe the behavior of solutions by analyzing eigenvalues and eigenvectors of the associated matrix. The course will conclude with a study of Laplace Transforms and their uses in solving initial value problems. We will cover chapters 6, 4, and parts of 5 and 7.

Office: Bouillon 107E, phone: 963-1395, email boersmas@cwu.edu. Office hours will be announced in class shortly. You may of course drop by anytime. If I'm not busy I'll be glad to talk with you.

Required Materials **Text:***A First Course in Differential Equations*, by J. David Logan (second edition).

Your Grade: Your final grade in this course will depend on one fifty-minute midterm, one final exam and regular graded homework assignments.

Exams The midterm exam will be given in class, thus making attendance <u>mandatory</u> on this day. The midterm is scheduled for Friday February 14th. If you anticipate a conflict, please see me at least one week **before** the date of the exam. The final exam is scheduled for **MONDAY March 17**, 8:00 – 10:00 a.m. This time is scheduled by the registrar's office and cannot be changed!

Graded Homework Many "problems" in differential equations take time to set up, analyze, and solve. Additionally, there may be a variety of resources one might use to help investigate the behavior of solutions to systems of differential equations, thus making it difficult to capture the flavor of this course in a few short exam problems. Therefore, every week or so I will assign a few problems to be turned in and graded. Please take advantage of this opportunity to show me what you have learned in this course! These are your chances to show me the best work you are capable of. Please hand in complete solutions to all problems I assign. All turned in homework should be neat and all steps and conclusions should be clearly explained. Every effort should be made to check (and double-check) your solutions and provide me with any relevant work that helped you solve the problem. I will make it very clear when homework is to be handed in for a grade.

Homework There will also be **daily** homework assignments from the textbook. It is **your responsibility** to keep up with these assignments. Although these

problems will not be collected or graded, they will provide you with a variety of practice before attempting the graded homework problems.

Attendance   I will assume that everyone attends every class meeting. If you happen to miss a day, be advised that you are still responsible for any assignments that were given or turned in. Feel free to come by my office to discuss the day's activities that you may have missed.

Final Grades: As mentioned in part above, your final grade will depend on

Graded Homwork	100	pts.
One Midterm	100	pts.
Final Exam	100	pts.
TOTAL	**300 pts.**	

While I reserve the right to "curve" final grades as I deem appropriate, your grade will be no lower than:

A :300– 277	C+:237– 229
A–: 276– 268	C :228– 217
B+:267– 259	C–:216– 208
B :258– 247	D+:207– 199
B–: 246– 238	D :198– 187
	D– : 186– 178

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DATES TO REMEMBER

Midterm: February 14   Final: March 17