

SYLLABUS: MATH 158
APPLIED DIFFERENTIAL EQUATIONS

John Bardsley

Associate Professor of Mathematics

308, Math Building, 243-5328

bardsleyj@mso.umt.edu

<http://web.math.umt.edu/bardsley/courses/158/158.html>

Time and Place: MWF 12:10-1pm, MA312.

Text: Derrick and Grossman, *Elementary Differential Equations with Boundary Value Problems*, Fourth Edition, Addison-Wesley, 1997.

Prerequisites: Math 150 or 152.

Office Hours: My official hours are Monday, Wednesday and Friday 1-2pm, but I have an open door policy, so stop by anytime. If I'm too busy, however, I'll tell you and we'll reschedule.

LEARNING GOALS:

1. To learn elementary techniques for the integration of first and second order ordinary differential equations.
2. To conduct basic qualitative analysis of ordinary differential equations and systems.
3. To formulate simple models of real life phenomena in terms of differential and/or difference equations and to fit these models to data.
4. To be introduced to the use of computers for solving and analyzing differential equations.

ASSESSMENT: Your course grade will be determined as follows:

		Total points
Exam 1	E1	100
Exam 2	E2	100
Project	P	100
Final	F	100
Quizzes	Q	100

$$\text{percent} = (E1+E2+P+F+Q)/5.$$

The grades given on a particular exam will be determined by the *overall* performance of the class on that exam. The final quiz grade will also be determined in this fashion.

HOMEWORK, QUIZZES, and EXAMS: Homework will be given daily and you will be tested on the homework material with a quiz once a week. Exams will be based on homework and quiz material.

IMPORTANT NOTE: Announcements made in class are considered addenda to this

syllabus. Make sure you stay informed as to the progress of the class.

HOW TO BE SUCCESSFUL: Do the homework. When preparing for exams and quizzes, practice doing the homework and similar problems from the book until you are able to do them correctly without the aid of the book or notes. If you don't understand something, ask questions in class or during office hours immediately.

FOR ANY STUDENT WITH A DISABILITY: If you have a disability that has, or might have, an effect on your performance in this class, please let me know. I will do my best to accommodate you.

IMPORTANT DATES:

Feb. 13 (4:30 p.m.)	Last day to register for classes, add classes, change credit in variable credit courses, change grade options or drop classes on CyberBear with a partial refund. Last day to submit an Override form for adds. Last day to withdraw from the University (drop all courses) with a partial refund. Last day to change grading option to AUDIT.
Mar. 9 (4:30 p.m.)	Classes may be added and dropped; or grade options changed (except Audit) with a drop/add form.
May 8 (4:30 p.m.)	Classes may be added or dropped or grade options changed only by petition. No drops or grade options changes allowed after May 8.
May 15 (10 am - noon)	Final exam.