

Department of Mathematics - North Dakota State University
MATH 266 Introduction to Differential Equations - Spring 2008, 3 credits

SYLLABUS

INSTRUCTOR: Marian Bocea

OFFICE: Minard 305D, Phone 231-6471

E-MAIL: marian.bocea@ndsu.edu

OFFICE HOURS: MWF 9:00AM-9:50AM or by appointment

CLASS MEETS: MWF 11:00AM-11:50AM Room: Dolve Hall, Room 10

WEB PAGE: <http://math.ndsu.nodak.edu/faculty/bocea/Spring2008MATH266.html>

TEXTBOOK: RITGER, P.D. & ROSE, N.J., *Differential Equations with Applications*
Dover, 2000 ISBN: 0-486-41154-0.

COURSE DESCRIPTION: Linear first order ordinary differential equations (ODE) and applications, second (and higher) order ODE, Laplace transform, systems of first order linear ODE. We will cover selected topics from Chapters 1-5, 8, and 9 of the textbook. More details are available in the attached "Course Schedule".

Prerequisites: MATH 259 or 265. Corequisites: MATH 128, 129, or 429.

COURSE OBJECTIVES: The main goal of this course is to provide a solid understanding of some of the main ideas and methods in the field of Ordinary Differential Equations. Conceptual and computational skills will be developed, with an emphasis on understanding concepts. The students will be exposed to both theoretical and applied points of view.

HOMEWORK: Homework problems and their due dates will be posted on the course web page as we proceed, usually after each lecture. Selected homework problems will be collected and graded once a week. The homework scores will be averaged and their average will count toward your final grade as described below. You are strongly encouraged to work all the homework problems since this is the best way to ensure that you understand the material covered in lecture. If you have trouble with any of the assigned problems or any others in your textbook please see me as soon as possible.

EXAMS: There will be three in-class Exams (closed books and notes, no calculators) and a comprehensive Final Exam (closed books and notes, no calculators) which will be given according to the following schedule:

EXAM # 1 - WEDNESDAY, FEBRUARY 13, 2008

EXAM # 2 - WEDNESDAY, MARCH 19, 2008

EXAM # 3 - WEDNESDAY, APRIL 16, 2008

FINAL EXAM - FRIDAY, MAY 9, 2008, 8:00AM-10:00AM

GRADES: Your final score for the course will be computed using the following formula:

$$\text{Final Score} = \frac{1.5 \cdot E_1 + 1.5 \cdot E_2 + 1.5 \cdot E_3 + 2.5 \cdot H + 3 \cdot F}{10}$$

where

E_1, E_2, E_3 = the three exam scores (min = 0, max = 100 each)

H = homework average (min = 0, max = 100)

F = Final Exam score (min = 0, max = 100)

Your final grades for the course will be determined according to the following scale: Final Scores between 85 and 100 will be assigned an **A**; Final Scores between 75 and 84 will be assigned a **B**; Final Scores between 60 and 74 will be assigned a **C**; Final Scores between 50 and 59 will be assigned a **D**.

COURSE POLICIES

ACADEMIC HONESTY: All work in this course must be completed in a manner consistent with NDSU University Senate Policy, Section 335: Code of Academic Responsibility and Conduct (<http://www.ndsu.nodak.edu/policy/335.htm>).

SPECIAL ACCOMMODATIONS: The *Americans with Disabilities Act* requires that reasonable accommodations be provided for students with disabilities or other special needs. Students eligible for special accommodations are strongly encouraged to share their concerns or requests with me at the beginning of the semester, or as soon as possible thereafter. I will be happy to make appropriate arrangements.

CLASS ATTENDANCE: Class attendance is expected. You will be solely responsible for missed handouts or announcements made during lecture. If you cannot attend a particular lecture, make sure that you stay informed regarding the information provided during that lecture.

HOMEWORK: You are encouraged to discuss the homework problems with your fellow students. However, for obvious reasons, you should first attempt to solve these problems on your own.

EXAMS: The three exams and the final are to be written individually, any collaboration is prohibited. Makeup tests for the exams will be given only in case of a legitimate (documented) excuse. If for some reason you are not able to take a particular exam at the scheduled time, you are required to inform me in advance. **There will be NO makeup final exam.**

FEEDBACK AND GRADING ACCURACY: I view as very important that the students review every single graded homework and exam to check for feedback and grading accuracy. I will answer any questions that you might have regarding your homework and exams.

You are welcome to discuss with me any questions or concerns about the course during my office hours or by appointment.