Mathematics 2310
Applied differential equations I.
Spring 2015

Instructor. Hakima Bessaih, Ross Hall 210, bessaih@uwyo.edu

URL: http://www.uwyo.edu/bessaih/

Office Hours: TWR 11:00pm-11:50am and by appointment.

Class time & room. TR 9:35am-10:50am in EN 3110.


Course Description. Differential Equations arise naturally in physics and engineering and many other areas. We will focus in this course on how to solve them explicitly and numerically. We will sometimes use the software package Maple for visualization in class.

Prerequisites. Grade C or better in Math 2205.

Tentative list of topics.

- Chapter 1: Introduction (Sect 1.1-1.3, 1 week).
- Chapter 2: First Order Differential Equations (Sect 2.1-2.9, 4 weeks)
- Chapter 3: Second Order Linear Equations (Sect 3.1-3.9, 4 weeks)
- Chapter 4: High Order Linear Equations (Sect 4.1-4.2, 3 weeks)
- Chapter 6: The Laplace Transform (Sect 6.1-6.6, 2 weeks)

Grading Policy.

- Final exam: The final exam takes place on 14-May-2015, 10:15am-12:15pm. The final exam counts for 30% of the final grade.
• **Midterms:** There will be two midterms exams tentatively scheduled for the **24-February-2015** and **09-April-2015**. Each midterm will count for 20% of the final grade.

• **Homework:** There will approximately weekly homework assignments. Most of the assignment will be performed online through WebWork: http://webwork.uwyo.edu/webwork2/Math-2310-03-bessaith/ A few homework problems will be assigned where you will be asked to write down complete solutions to problems. They will be downloaded from the course homepage: http://www.uwyo.edu/bessaith/. Homework problems are due on the assigned days prior to the lecture. No late homework will be graded. Homework counts for **30%** of the final grade.

• **Attendance/Participation:** I strongly recommend class attendance and participation and I will use this activity in determining borderline grades.

• **Make-up exams:** There will be **No** make-up exams for unexcused absences. In case that you are unable to attend an exam, you need to provide me with a University excused absence. Note that it is required to discuss any special arrangement prior to the absence. Make-ups for the exams will be given only in extraordinary cases.

• **Grading scheme for the final grades:** Grade A: 90-100, Grade B: 80-89, Grade C: 70-79, Grade D: 60-69, Grade F:<60.

• **Disability statement:** If you have a physical, learning, or psychological disability and require accommodations, please let me know as soon as possible. You will need to register with, and provide documentation of your disability to, University Disability Support Services (UDSS) in SEO, room 330 Knight Hall, 766-6189, TTY: 766-3073.

  The information in this syllabus is subject to change. If there are changes, they will be announced repeatedly in class.