Course Number: MATH 2070 – 03
Classroom Info: MTWRF 8-8:50am, STURM 187

Instructor Information
Dr. Lori Alvin
Office: Aspen 716B
Phone: 303-871-3138
Email: lalvin@du.edu
Office Hours: M 9-10am
. T 10-11am
. W 11:30am - 1:30pm

Teaching Assistant Information:
Name: Drew Ash
Email: dash3@du.edu
Office: Aspen 715A
Office Hours: W 9-10am
. R 11am - 1pm

Course Description: The study of differential equations is an application of the ideas and techniques of calculus within our daily lives. We study systems that evolve over time and the rules that explain the evolution of the quantities can be written as differential equations. One of our goals is to use differential equations to model systems and predict future values of quantities within those systems.

Course Objectives: Upon completion of this course, students should be able to

• apply analytic techniques to solve differential equations;
• use qualitative techniques to visualize differential equations and their solutions;
• employ numeric means to understand the long term behavior of differential equations;
• model physical phenomena using differential equations;
• incorporate appropriate software to understand the meaning of a differential equation and its solution;
• apply the Laplace transform to solve differential equations.


Website: Students are responsible for all material posted on the course website, including announcements, assignments, and any other coursework; I will not be maintaining a Blackboard or Canvas site for this class. The course website is [http://web.cs.du.edu/~loribeth/Math2070/Math2070.html](http://web.cs.du.edu/~loribeth/Math2070/Math2070.html).

Calculators: Only scientific calculators that do not perform symbolic manipulation will be permitted on exams. You may not use graphing calculators or other electronic devices on exams.
Grading/Evaluation:
Worksheets and Quizzes – 10%
Lab Reports – 15%
Midterms – 45%
Final – 30%

Final Grades:
A: 90 - 100%  
Plus and Minus grades will be assigned
B: 80 - 89.9%  
at the instructor’s discretion; i.e., 90%
C: 70 - 79.9%  
does not guarantee an A, but you will
D: 60 - 69.9%  
not receive lower than an A-
F: 0 - 59.9%

Policy on Attendance and Class Expectations: Mathematics is a subject that requires explanation, discussion, and working problems for a mastery of the material; come to class prepared to be an attentive student. It is expected that you do not miss class, and you will be responsible for all material covered in class, regardless of whether or not you were present. Any dates on which you will not be able to attend class must be discussed with the instructor in advance. Please arrive to class on time and do not leave early; unless arrangements have been made with the instructor. Please do not use any electronic devices in class (unless specifically for note taking, in which case this must be discussed with the instructor in advance). The use of cell phones in class is considered completely disrespectful, and doing so will result in your being asked to leave the classroom. Cell phones must be silenced in the classroom; if you have an emergency situation or other concern for which your phone needs to be accessible, please let the instructor know in advance.

Make-up Policy: There will be NO makeups provided for worksheets and/or quizzes, as the lowest two grades will be dropped. Makeups for exams will only be provided with a valid documented conflict (illness with a doctor’s note, University sponsored event, religious observance, etc.), and notice must be given to the instructor prior to the start of the exam.

Written Homework: Written Homework will be assigned throughout the quarter, but it will not be collected for a grade. It is in your best interest to complete the homework assignments, as this material will appear on weekly worksheets and exams. Solutions for the assignments will be posted on the website to aid in your studying.

Worksheets: Worksheets and other activities will be administered weekly; no makeup worksheets will be given. Worksheets will be used to gain new insights to the material presented in class and will review previous material and/or introduce new material.

Exams: There will be three midterm exams administered throughout the quarter, in addition to a cumulative final exam. The midterms will be held on Friday, January 23, Monday, February 9, and Friday, February 27 during the normal class period; the final exam will be Thursday, March 12 from 8-9:50AM. All exams are closed book and closed note.

Students are responsible for obtaining any updated exam information through class and on the course website. If a student has a valid, documented reason for which he/she will miss a midterm, then this must be discussed with the instructor as early as possible in the
quarter. Your final exam must be taken at the designated time; no early final exams will be administered.

**Lab Reports:** There will be two lab reports this quarter. These reports are meant to be hands-on assignments that will allow you to explore a problem in depth and communicate your findings. Each group consisting of 2-3 students will be assigned a different problem and will be graded on both the solution and the explanation of the solution.

**Quizzes/Attendance:** Attendance quizzes may arise at any time throughout the quarter, and no make-ups will be granted. These quizzes may be as simple as checking attendance, may involve solving a problem, or could involve writing a written explanation of concepts/materials presented in class. No quiz will last more than 10 minutes, and the frequency and style of quizzes may vary throughout the quarter.

**Students with Disabilities Statement:** If you qualify for academic accommodations because of a disability or medical issue please submit a faculty letter to me from Disability Services Program (DSP) in a timely manner so that your needs may be addressed. DSP determines accommodations based on documented disabilities/medical issues.

DSP is located on the 4th floor of Ruffatto Hall, 1999 E. Evans Ave, 303.871.2278. Information is also available online at [http://www.du.edu/disability/dsp](http://www.du.edu/disability/dsp); see the Handbook for Students with Disabilities.

**Academic Integrity Statement:** As a DU student, you have committed to abide by the Honor Code and maintain academic integrity. Incidents of academic dishonesty will be taken seriously. The minimum penalty for cheating will be failure of the assignment and referral to the Office of Student Conduct. Cheating on an exam will result in automatic failure of the class.

Follow the [Honor Code](#) in all activities related to this course. Incidents of academic misconduct will be reported to and investigated by the office of [Student Conduct](#).

*Any changes to this syllabus will be announced in class and posted on the course website.*