

Summer 2018

MATH 2250.002 Differential Equations and Linear Algebra (4 credits)

Lecture: M,T,W,F 12:00 - 1:00pm LCB225

Lab: R 12:00 - 1:00pm LCB 225

Instructor: Laura Strube

Office: LCB 317

Phone: 801-585-1635

Email: strube.laura@utah.edu

Office Hours: W 1:00pm - 3:00pm

(Other times by appointment)

Office Hours Location: LCB 317

EMAIL POLICY: I am happy to answer homework questions but **I do not answer homework questions via email**. If you have a homework question (or any other question) please begin a discussion on the course *Canvas* page or drop by my office hours. If you would like to meet at another time send me an email through *Canvas* mail.

COURSE DESCRIPTION:(<http://catalog.utah.edu/>)

This is a hybrid course which teaches the allied subjects of linear algebra and differential equations. These topics underpin the mathematics required for most students in the Colleges of Science, Engineering, Mines & Earth Science.

COURSE PREREQUISITES: Prerequisites: "C" or better in (MATH 2210 OR MATH 1260 OR MATH 1280 OR MATH 1321 OR MATH 1320 OR ((MATH 1220 OR MATH 1250 OR MATH 1270 OR MATH 1311 OR AP Calculus BC score of 5) AND PHYS 2210 OR PHYS 3210)).

TEXTBOOK:*Differential Equations and Linear Algebra, 4th Edition*, by C. Henry Edwards, David E. Penney, and David Calvis. ISBN-13: 978-0134497181;

Important Purchasing Information: <http://www.math.utah.edu/schedule/bookInfo/index.html>

CANVAS (<https://utah.instructure.com>): In this course we will use *Canvas* for communicating announcements, grades, and an up-to-date course schedule. Online class discussion capabilities will also be available through *Canvas*.

WEEKLY SCHEDULE AND WORKLOAD: This will be a homework intensive class. According to the University of Utah, a 4-unit course should have about 4 hours of lecture and 8 hours of outside study/homework time during the spring and fall terms. This means that in our class, it will take the average student about 9-10 hours per week for homework and studying plus 1 hour in lab each week. Some students will be able to get by on less, and some students will need more depending on their math background and desired grade. Please note that if you miss a lecture this time will go up considerably.

Each week, we cover specific sections. These sections, along with any other assignments or information for the week will be listed in the course modules by date.

CLASS PREPARATION – In order to get the most out of this class you will be expected to read through each section in the textbook before the corresponding lecture. You do not have to understand everything that you read the first time! Even if the concept feels confusing while you are reading it, this pre-reading will significantly improve your understanding of the ideas when we discuss them in class.

CALCULATORS AND TECHNOLOGY: Calculators will not be allowed on exams. However, they may be helpful in completing the homework and lab assignments. Students are not expected to have prior programming experience, but will be required to run portions of code that will be provided in lecture and lab. The code will use the following programs: MATLAB, Maple, and Mathematica which are available in the *T. Benny Rushing Mathematics Students Center*. These programs are great resources to check homework assignments.

EXAM DATES: There will be absolutely no makeup/alternate exams
(For University-mandated exceptions to this policy see “MIDTERM EXAMS” below.)

Midterm 1: Friday, 15 June 2018 12:00pm - 1:00pm

Midterm 2: Friday, 13 July 2018 12:00pm - 1:00pm

Final Exam: Thursday, 02 August 2018 10:00am - 12:00pm

OTHER IMPORTANT DATES:

May 18th: Last day to add without a permission code

May 23th: Last day to add, drop, audit, elect CR/NC

May 25th: Last day to schedule University approved alternate exams for this course.

Jun 22nd: Last day to withdraw from classes

Jul 27th: Last day to reverse CR/NC option

Aug 14th: Course grades available on *Canvas* and in CIS.

MATHEMATICS TUTORING CENTER:

Located in the *T. Benny Rushing Mathematics Students Center* on the basement level between JWB & LCB

Summer Hours: Monday thru Thursday: 8 am - 8 pm; Friday: 8 am - 6 pm

Center Website: <http://www.math.utah.edu/undergrad/mathcenter.php>

They also offer group tutoring sessions - see center website

PRIVATE TUTORING: University Tutoring Services: 330 SSB (inexpensive tutoring) There is also a list of tutors available in the Math Department Office (JWB 233).

MATH2250 DIFFERENTIAL EQUATIONS AND LINEAR ALGEBRA COURSE
LEARNING OBJECTIVES

The Basic Topics

Upon successful completion of this course, a student should:

- Be able to model dynamical systems that arise in science and engineering, by using general principles to derive the governing differential equations or systems of differential equations. These principles include linearization, compartmental analysis, Newton's laws, conservation of energy and Kirchoff's law.
- Learn solution techniques for first order separable and linear differential equations. Solve initial value problems in these cases, with applications to problems in science and engineering. Understand how to approximate solutions even when exact formulas do not exist. Visualize solution graphs and numerical approximations to initial value problems via slope fields.
- Become fluent in matrix algebra techniques, in order to be able to compute the solution space to linear systems and understand its structure; by hand for small problems and with technology for large problems.
- Be able to use the basic concepts of linear algebra such as linear combinations, span, independence, basis and dimension, to understand the solution space to linear equations, linear differential equations, and linear systems of differential equations.
- Understand the natural initial value problems for first order systems of differential equations, and how they encompass the natural initial value problems for higher order differential equations and general systems of differential equations.
- Learn how to solve constant coefficient linear differential equations via superposition, particular solutions, and homogeneous solutions found via characteristic equation analysis. Apply these techniques to understand the solutions to the basic unforced and forced mechanical and electrical oscillation problems.
- Learn how to use Laplace transform techniques to solve linear differential equations, with an emphasis on the initial value problems of mechanical systems, electrical circuits, and related problems.
- Be able to find eigenvalues and eigenvectors for square matrices. Apply these matrix algebra concepts to find the general solution space to first and second order constant coefficient homogeneous linear systems of differential equations, especially those arising from compartmental analysis and mechanical systems.
- Understand and be able to use linearization as a technique to understand the behavior of nonlinear autonomous dynamical systems near equilibrium solutions. Apply these techniques to non-linear mechanical oscillation problems and other systems of two first order differential equations, including interacting populations. Relate the phase portraits of non-linear systems near equilibria to the linearized data, in particular to understand stability.

MATH2250 DIFFERENTIAL EQUATIONS AND LINEAR ALGEBRA COURSE
LEARNING OBJECTIVES (cont.)

The Basic Topics (cont.)

- Develop your ability to communicate modeling and mathematical explanations and solutions, using technology and software such as Maple, Matlab or internet-based tools as appropriate.

Problem Solving Fluency

- Students will be able to read and understand problem descriptions, then be able to formulate equations modeling the problem usually by applying geometric or physical principles. Solving a problem often requires specific solution methods listed above. Students will be able to select the appropriate operations, execute them accurately, and interpret the results using numerical and graphical computational aids.
- Students will also gain experience with problem solving in groups. Students should be able to effectively transform problem objectives into appropriate problem solving methods through collaborative discussion. Students will also learn how to articulate questions effectively with both the instructor and be able to effectively convey how problem solutions meet the problem objectives.

LAB (5+15 = 20%): This course meets 5 days a week. Lecture will be M-W,F and Thursday will be a “lab” day. During lab students will work in groups on a set of thought provoking problems designed to further develop understanding of the topics covered in this course.

Lab assignments will be due at the beginning of lab on the following Thursday. The lab grade will be composed of both attendance (5 points) and completion of the assignment (graded for correctness - 15 points). To receive attendance points you must arrive in lab within 5 minutes of the start time and must stay until the end of class.

Clear communication is an important part of this course. Because of this **disorganized or unclear lab writeups will not receive full credit**. For full credit, handwriting should be clear, work presented in a step-by-step manner with annotations to explain thought processes, and solutions must be boxed.

There will be no makeup labs, but each student will receive two lab drops at the end of the semester, *provided* all labs have been completed and submitted.

HOMEWORK (10%): Mathematics, like music or sports, requires practice to develop understanding of the topic and problem solving skills. Students should plan on spending an average of 9-10 hours a week on the homework, lab assignments, and studying outside of class to pass this course. Homework will be assigned for each section of the textbook covered in class (3-5 sections a week), collected weekly, and graded for completion.

Assignments can be found on the *Canvas* site for this course.

Late homework will not be accepted under any circumstances. Instead each student will be given 3 homework (section) “drops” at the end of the semester. If a student misses the first homework assignment due on Thursday, May 17th this will count toward the semester homework drops.

All homework must adhere to the guidelines described in the document *Homework Guidelines*

[http://www.math.utah.edu/~strube/2018_Spring_MATH2250/HomeworkGuidelines]

Clear communication is an important part of this course. Because of this **disorganized or unclear homework writeups will not receive full credit**. For full credit, handwriting should be clear, work presented in a step-by-step manner with annotations to explain thought processes, and solutions must be boxed.

MIDTERM EXAMS (20% each; 40% total): This course will have two midterm exams

You will be required to show your ID at all exams.

There will be **absolutely no makeup/alternate exams**. Students are expected to evaluate their schedules at the beginning of the semester and switch to a different section of the course if an exam conflicts with events in their personal lives.

Exceptions to this policy include University mandated exceptions such as sports games (for athletes only) and religious holidays. Oversleeping, work schedule, family social events etc. will not be sufficient reason for a makeup exam.

Alternate exams for University of Utah obligations must be scheduled with me by

Friday, 25 May 2018

Rescheduling will require supporting documentation. Alternate exams will be administered by the University Testing Center and given in advance of the regularly scheduled exam. Except for absences resulting from required U of U obligations, make-ups are granted only in the most extreme cases and at the sole discretion of the instructor.

At the end of the semester, each student's lowest midterm exam grade will be replaced with their grade on the corresponding portion of the final exam - if this replacement is in their favor.

FINAL EXAM (30%): The final exam will be comprehensive.

You will be required to show your ID at the final exam.

There will be **absolutely no** makeups or alternates for the final exam. The only exception to this policy is University mandated absences. The final exam date and time is determined by the University:

<http://registrar.utah.edu/academic-calendars/final-exams-summer.php>

Thursday, 02 August 10:00am - 12:00pm

Location: JWB 335

EXTRA CREDIT: In order to maintain a class that is fair to all students, it is my policy *not* to give individualized extra credit assignments to students.

COURSE GRADES:

Course grades available on *Canvas* and in CIS on **Tuesday, 14 August 2018**.

CLASS POLICIES:

1. **You will be required to show your ID at all examinations.**
2. **Cell phones and smart watches during exams:** Cell phones and smart watches will not be allowed during exams - If you have either on your desk or wrist you will be suspected of cheating and the situation will be handled accordingly.
3. **Cell phones during class:** Phones must be turned off or set to vibrate for the duration of the class.
4. **Laptops and tablets:** Laptops will not be allowed during lecture. In general it is very difficult to take notes for a math course using a computer and the potential distraction to yourself and to the students around you outweighs any benefits you might have by using one. You may use a tablet to take notes or to reference the digital textbook. Internet surfing during class will result in a loss of tablet privileges.
5. **Late homework:** Late homework will not be accepted for any reason.
6. **Makeup exams:** There will no makeup exams for any reason - exceptions to this policy are listed above.
7. **Group work:** Students are encouraged to work with each other on homework assignments, but each student must submit their own assignment, in their own handwriting. Copying someone else's work will not be tolerated. In contrast, each lab group will submit one assignment.
8. **Respect:** You will be expected to treat this course, your classmates and your instructor with respect. This means that you should come to class prepared to learn, refrain from texting, chatting with your neighbors, reading magazines, and any other disruptive behavior during class. Disruptive students will be asked to leave the lecture.
9. **Language:** Cursing or ranting on homework, quizzes, exams, or verbally during class will result in a deduction of the corresponding grade and may result in a grade of "0" on the assignment. If you are having trouble with an assignment please come to my office hours or schedule a separate time to meet with me. I would be more than happy to help you with any concepts that you find confusing.
10. **Email:** - You *need* to have an email address registered with Campus Information System (CIS). I will send announcements via email and *Canvas* mail on a regular basis and **you will be responsible** for any information communicated in this manner.
11. **Personal Crisis:** If you have a crisis-level extenuating circumstance that requires flexibility it is your responsibility to contact me. The longer you wait to discuss your situation with me the less likely I will be able or willing to help.

CHEATING AND ACADEMIC MISCONDUCT - Cheating will not be tolerated and will result in a zero on the assignment/quiz/exam in question and in severe cases will result in a failing grade for the course.

Academic Misconduct:

(From the Student Code: <http://www.regulations.utah.edu/academics/6-400.html>)

“A student who engages in academic misconduct as defined in Part I.B. may be subject to academic sanctions including but not limited to a grade reduction, failing grade, probation, suspension or dismissal from the program or the University, or revocation of the students degree or certificate. Sanctions may also include community service, a written reprimand and/or a written statement of misconduct that can be put into an appropriate record maintained for purposes of the profession or discipline for which the student is preparing.”

“Academic misconduct” includes, but is not limited to, cheating, misrepresenting one’s work, inappropriately collaborating, plagiarism, and fabrication or falsification of information, as defined further below. It also includes facilitating academic misconduct by intentionally helping or attempting to help another to commit an act of academic misconduct.

1. “Cheating involves the unauthorized possession or use of information, materials, notes, study aids, or other devices in any academic exercise, or the unauthorized communication with another person during such an exercise. Common examples of cheating include, but are not limited to, copying from another student’s examination, submitting work for an in-class exam that has been prepared in advance, violating rules governing the administration of exams, having another person take an exam, altering one’s work after the work has been returned and before resubmitting it, or violating any rules relating to academic conduct of a course or program.
2. Misrepresenting one’s work includes, but is not limited to, representing material prepared by another as one’s own work, or submitting the same work in more than one course without prior permission of both faculty members.
3. “Plagiarism” means the intentional unacknowledged use or incorporation of any other person’s work in, or as a basis for, one’s own work offered for academic consideration or credit or for public presentation. Plagiarism includes, but is not limited to, representing as one’s own, without attribution, any other individual’s words, phrasing, ideas, sequence of ideas, information or any other mode or content of expression.

STUDENT RESPONSIBILITIES: All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. Students have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, plagiarism, and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully and know they are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, and I will do so, beginning with verbal warnings and progressing to dismissal from and class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee. <http://regulations.utah.edu/academics/6-400.php>

ADA STATEMENT: The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability & Access, 162 Olpin Union Building, 801-581-5020. CDA will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in alternative format with prior notification to the Center for Disability & Access.

ADDRESSING SEXUAL MISCONDUCT: Title IX makes it clear that violence and harassment based on sex and gender (which Includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veterans status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

STUDENT NAMES AND PRONOUNS Class rosters are provided to the instructor with the student's legal name as well as preferred first name (if previously entered by you in the Student Profile section of your CIS account). While CIS refers to this as merely a preference, I will honor you by referring to you with the name and pronoun that feels best for you in class, on papers, exams, group projects, etc. Please advise me of any name or pronoun changes (and update CIS) so I can help create a learning environment in which you, your name, and your pronoun will be respected. If you need assistance getting your preferred name on your UIDcard, please visit the LGBT Resource Center Room 409 in the Olpin Union Building, or email bpeacock@sa.utah.edu to schedule a time to drop by. The LGBT Resource Center hours are M-F 8am-5pm, and 8am-6pm on Tuesdays.

WELLNESS STATEMENT: Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness at www.wellness.utah.edu or 801-581-7776.

GRADING: Grades will be posted on the *Canvas* page for this course. *Canvas* may be accessed through CIS. Grades will be calculated as follows:

Lab Attendance	5%
Labs	15%
Homework	10%
Midterms (total)	40%
Final	30%

While late work and alternate\make-up exams will not be allowed in this course, each student's three lowest homework grades and two lowest labs will be dropped at the end of the semester *provided* they have completed and submitted all of the lab assignments. Additionally, each student's lowest midterm score will be replaced with their grade on the corresponding section of the final exam (if this is to the student's benefit). This policy is designed to give fair treatment to students across the class regardless of their personal extenuating circumstances and to allow students to balance their academic and personal responsibilities.

Students should not anticipate a grading curve for this course.

GRADING SCALE: It is unlikely that the grades for this course will be curved. The standard grade distribution is as follows:

A	93 - 100
A-	90 - 92
B+	87 - 89
B	83 - 86
B-	80 - 82
C+	77 - 79
C	73 - 76
C-	70 - 72
D+	67 - 69
D	63 - 66
D-	60 - 62
E	0 - 59

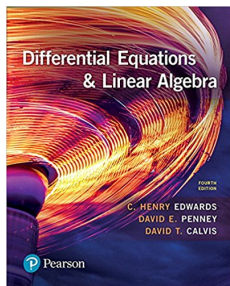
This syllabus is subject to change and may be revised at the instructor's discretion. All such changes will be made in writing on the course Canvas site and students will be notified via email. Students are responsible for any syllabus revisions communicated in this manner.

Last update: 05/11/2018 - Updated office hours **Last update: 05/11/2018** -
Corrected title of syllabus from *Calculus 1* to *Differential Equations and Linear Algebra*

MATH 2250 Textbook for Differential Equations and Linear Algebra

Textbook: *Differential Equations and Linear Algebra*, 4th Edition, by C. Henry Edwards, David E. Penney, and David Calvis.

ISBN-13: 978-0134497181



There are several options to acquire both e-book and paper versions of the text:

- (A) **The Inclusive Access Program:** This is least expensive option to acquire a digital e-textbook. The e-textbook will be accessed/viewed within the Canvas course page and so viewing it requires internet access.

The price will vary depending on semester but will be below market rate for any other e-book rental option (see below).

An email will go out to all Math 2250 students prior to the first day of class with information on what Inclusive Access is and instructions on how to access their digital course materials. If the student decides they don't want the instant access to the course materials they will have the option to OPT OUT and will be refunded accordingly. Students still need to pay for the course materials cost along with their tuition, but once they OPT OUT during the first two weeks of class they will receive a full refund of the course material (i.e., the e-textbook) cost. They will then be responsible for obtaining their own course material/textbook for that course.

For more information: <http://www.campusstore.utah.edu/inclusiveaccess/>

- (B) **A special order at the U of Utah Bookstore:** If students want/need a paper hardcopy purchased via the bookstore.

- (C) **VitalSource E-book rental/purchase:** 180-day (\$83.99) or lifetime (\$122.99).

<https://www.vitalsource.com/products/differential-equations-and-linear-algebra-henry-edwards-v9780134661735>

The VitalSource Bookshelf e-book application provides anytime, anywhere access on any laptop, tablet, or smartphone with 100% offline capability. This option is more expensive than Inclusive Access, but provides expanded usability on multiple device types and offline.

- (D) **Any online retailer:** For paper copy and e-books, for both purchase and rental, some examples are amazon.com, chegg.com, campusbookrentals.com (a local Utah company).

HOMEWORK AND LAB ASSIGNMENT GUIDELINES
MATH2250.002
Instructor: Laura Strube
Summer 2018

ASSIGNMENTS: Homework will be assigned for each of the textbook sections discussed in class with between 3-5 sections due each week. Homework assignments can be found on *Canvas* in the module corresponding to the week they are due or on the assignments page. They will not be announced in class.

DUE DATES: Assignments will be due on **Thursdays by 12:00pm** each week. They may be submitted at the beginning of class on Thursday, or in the box outside my office door (LCB 317). The only exception to this pattern will be the Week 12 assignment which will be due on **Wednesday, 01 August 2018 at 5:00pm**. Also, there *will* be a homework assignment due on Thursday, May 17th.

Students who choose to submit their homework at the end of class on Thursday may forfeit their lab attendance grade for the week.

EARLY OR ELECTRONIC SUBMISSION **Late Homework will not be accepted.** If for some reason you anticipate being unable to attend class, you may submit a scanned pdf (not a photograph) of your work by including it as an attachment on the corresponding assignment in *Canvas* by 12:00pm on the day it is due. It is your responsibility to verify that the submitted scan is of sufficient quality to be graded.

Electronic submissions will close automatically at 12:00pm. For those of you without scanners at home, there are free scanners in the Marriott Library and there are also cell phone apps that create good quality scans of documents. Please be careful to submit your homework as a single document instead of an individual pdf for each page.

To be accepted, digitally submitted homework must include a coversheet (see below) as it's first page.

CALCULATORS, STUDY PARTNERS, AND GRADING

- Homework assignments will be graded on completion and quality of communication. Perfect answers with illegible work or without supporting work will receive a reduced grade up to and including zero.

- Calculators will not be allowed on exams. While you may find a graphing or scientific calculator helpful in studying for this course, you are highly encouraged not to rely on them for your homework.

- You are encouraged to work with your classmates on homework problems. However each student must write up and turn in their own assignment.

- Please be aware that clear communication of math ideas will be an important component of this course, you *must* show your work to receive credit for a problem. Failure to show your work may result in a zero on the assignment.

HOMEWORK EXPECTATIONS

1. Cover Sheet

A blank cover sheet is posted in the *Canvas* modules. Print and fill out this cover sheet and attach to the front of your assignment. Your class number will be assigned during the second week of class and will be used on all of your assignments throughout the course.

2. **Instructions:** Due to the size of this class, it is imperative that you follow these instructions.

Homework Assignments *must*

- have a cover sheet
- have clean edges (not ragged or torn)
- be stapled.

Assignments not following these criteria will not be accepted and will result receive a zero grade.

3. Content:

- Copy the problem and instructions from the textbook for each problem.
- Write up should be professional: Neat and clear, without excessive “scratch outs”.
- Show your work in logical order (steps).
- **Show your work!** *Do not* use erasing as a solution method on submitted homework or exams. Problems with no/insufficient work will receive a reduced grade and may receive a “0” grade. - Use written explanations as necessary
- Homework answer should be indicated clearly by **boxing** or **circling** the solution

4. Graphs:

- Graphs **must** be drawn on graph paper and should be labeled clearly. Graphs not on graph paper may receive zero credit.
- The problem number should be indicated clearly for each graph.
- Graph axes should be labeled with the appropriate variable.
- Points and lines should be labeled with the appropriate coordinates and equations.

The following rubrics will be used to determine a homework's score:

Completion Rubric (15 pts possible):

+0pts	0% <	problems completed	≤ 20%	+15pts	50% <	problems completed	≤ 75%
+5pts	20% <	problems completed	≤ 30%	+20pts	75% <	problems completed	≤ 90%
+10pts	30% <	problems completed	≤ 50%	+25pts	90% <	problems completed	≤ 100%

For a problem to be counted as completed the following criteria must be met:

- Enough work is shown to determine that a reasonable attempt has been made.
- Enough information is shown to understand which problem is being solved without looking it up in the book.
- Calculations presented in a clear and professional write up.

Note: If the grader can't tell whether you did the problem or just wrote down the answer from the back of the book, the problem will **not** be counted as complete.

Completion Homework Grade Rubric

Qty of Problems in the Assignment
Qty of Problems Completed

Points

	1	2	3	4	5	6	7	8	9	10
0	[0 , 0)	[0 , 0)	[0 , 0)	[0 , 0)	[0 , 1)	[0 , 1)	[0 , 1)	[0 , 1)	[0 , 1)	[0 , 2)
5	[0 , 0)	[0 , 0)	[0 , 0)	[0 , 1)	[1 , 1)	[1 , 1)	[1 , 2)	[1 , 2)	[1 , 2)	[2 , 3)
10	[0 , 0)	[0 , 1)	[0 , 1)	[1 , 2)	[1 , 2)	[1 , 3)	[2 , 3)	[2 , 4)	[2 , 4)	[3 , 5)
15	[0 , 0)	[1 , 1)	[1 , 2)	[2 , 3)	[2 , 3)	[3 , 4)	[3 , 5)	[4 , 6)	[4 , 6)	[5 , 7)
20	[0 , 0)	[1 , 1)	[2 , 2)	[3 , 3)	[3 , 4)	[4 , 5)	[5 , 6)	[6 , 7)	[6 , 8)	[7 , 9)
25	[0 , 1)	[1 , 2)	[2 , 3)	[3 , 4)	[4 , 5)	[5 , 6)	[6 , 7)	[7 , 8)	[8 , 9)	[9 , 10)
	11	12	13	14	15	16	17	18	19	20
0	[0 , 2)	[0 , 2)	[0 , 2)	[0 , 2)	[0 , 3)	[0 , 3)	[0 , 3)	[0 , 3)	[0 , 3)	[0 , 4)
5	[2 , 3)	[2 , 3)	[2 , 3)	[2 , 4)	[3 , 4)	[3 , 4)	[3 , 5)	[3 , 5)	[3 , 5)	[4 , 6)
10	[3 , 5)	[3 , 6)	[3 , 6)	[4 , 7)	[4 , 7)	[4 , 8)	[5 , 8)	[5 , 9)	[5 , 9)	[6 , 10)
15	[5 , 8)	[6 , 9)	[6 , 9)	[7 , 10)	[7 , 11)	[8 , 12)	[8 , 12)	[9 , 13)	[9 , 14)	[10 , 15)
20	[8 , 9)	[9 , 10)	[9 , 11)	[10 , 12)	[11 , 13)	[12 , 14)	[12 , 15)	[13 , 16)	[14 , 17)	[15 , 18)
25	[9 , 10)	[10 , 12)	[11 , 13)	[12 , 14)	[13 , 15)	[14 , 16)	[15 , 17)	[16 , 18)	[17 , 19)	[18 , 20)
	21	22	23	24	25	26	27	28	29	30
0	[0 , 4)	[0 , 4)	[0 , 4)	[0 , 4)	[0 , 5)	[0 , 5)	[0 , 5)	[0 , 5)	[0 , 5)	[0 , 6)
5	[4 , 6)	[4 , 6)	[4 , 6)	[4 , 7)	[5 , 7)	[5 , 7)	[5 , 8)	[5 , 8)	[5 , 8)	[6 , 9)
10	[6 , 10)	[6 , 11)	[6 , 11)	[7 , 12)	[7 , 12)	[7 , 13)	[8 , 13)	[8 , 14)	[8 , 14)	[9 , 15)
15	[10 , 15)	[11 , 16)	[11 , 17)	[12 , 18)	[12 , 18)	[13 , 19)	[13 , 20)	[14 , 21)	[14 , 21)	[15 , 22)
20	[15 , 18)	[16 , 19)	[17 , 20)	[18 , 21)	[18 , 22)	[19 , 23)	[20 , 24)	[21 , 25)	[21 , 26)	[22 , 27)
25	[18 , 21)	[19 , 22)	[20 , 23)	[21 , 24)	[22 , 25)	[23 , 26)	[24 , 27)	[25 , 28)	[26 , 29)	[27 , 30)

0 points: [0,20%]
 5 Points: [20,30%]
 10 points: [30%, 40%)

15 points: [50%, 75%]
 20 points: [75%, 90%]
 25 points: [90%, 100%]

CLASS ID:

Preferred Name: _____

THIS SIDE TOP FOR STUDENT GRADE PRIVACY

MATH2250.002

Instructor: Laura Strube

Week: _____

Due Date: _____

(Class ID can be found in the *Canvas* gradebook)

Class ID: _____

Week: _____

Preferred Name: _____

Due Date: _____

Student	HW Chapter:	Problem List: _____ Please X problems which you did not complete. See the <i>Canvas</i> assignment for any special instructions	Grader: Completion Grade
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Student	HW Chapter:	Problem List: _____ Please X problems which you did not complete. See the <i>Canvas</i> assignment for any special instructions	Grader: Completion Grade
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Student	HW Chapter:	Problem List: _____ Please X problems which you did not complete. See the <i>Canvas</i> assignment for any special instructions	Grader: Completion Grade
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Student	HW Chapter:	Problem List: _____ Please X problems which you did not complete. See the <i>Canvas</i> assignment for any special instructions	Grader: Completion Grade
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11 May 2018

Dear Students,

Welcome to the summer semester!

You are enrolled in Math 2250.002, Differential Equations and Linear Algebra. The semester will start on Monday, 14 May 2018. This is what you should do BEFORE class starts:

- Learn more about the course and think about whether its format matches you. To help you do this, you may view the syllabus for Math 2250-002 at:

http://www.math.utah.edu/~strube/2018_Summer_MATH2250/MATH2250_Section002_Syllabus.pdf.

Be aware that this will be a homework heavy course requiring approximately 9-10 hours of homework each week beginning the first week. (The first homework assignment will be due on Thursday, May 17th at 12:00pm).

- Think about whether or not you want to take advantage of the “inclusive access” textbook option. Please review the purchase options here:
<http://www.math.utah.edu/schedule/bookInfo/M2250TextInclusiveAccess.pdf>
If you choose to order a hardcopy text and must wait for it to arrive, the inclusive access text is available to all students free of charge for the first two weeks of class.
- Confirm that you can take exams. Please note that there will be no alternate exams except for University mandated exceptions to this policy. Students are expected to evaluate their schedules at the beginning of the semester and switch to a different section of the course if an exam conflicts with events in their personal lives.

Midterm 1: Friday, 15 June 2018 12:00pm - 1:00pm

Midterm 2: Friday, 13 July 2018 12:00pm - 1:00pm

Final Exam: Thursday, 02 August 2018 10:00am - 12:00pm

When class starts, you will find all the information about and materials for our class on *Canvas*, (<https://utah.instructure.com>). This website will be made available to students on Monday and I will send out an email once it is live.

If you have any questions, please e-mail me at strube.laura@utah.edu.

I look forward to meeting you on Monday.

Best,

Laura Strube