

Welcome to Math 377 Differential Equations 2 – Spring 2020

ONLINE

Instructor: Dr. Jean Marie Linhart Webpages: (course) http://canvas.cwu.edu	E-mail: JeanMarie.Linhart@cwu.edu http://www.cwu.edu/math/jean-marie-linhart
Office hours: Mon and Thursday 2:20pm and by appointment on BlackBoard Ultra on Canvas times may be modified on Canvas	

COVID-19 has caused a lot of upheaval in our world in the past weeks. I'm new to online teaching, and you may be new to online learning. I will make mistakes, you will make mistakes, and things will just go wrong. I am going to do my best to help you out when you make mistakes and when things just go wrong. I would appreciate your kind criticism and help when I'm the one who is making mistakes and having things go wrong. I'm trying my best ask you to do things that will be helpful to your learning and that will also create a sense of community for our class. Your constructive criticism and praise are welcome.

Please check in with our course three times a week – the expectation is that you should be spending about 9 hour per week on the course (1 hour class time, 2 hours homework per class day.)

To help me cut down on answering the same question multiple times, please post questions that others might share to the relevant content discussion, or if your question is not covered by a content discussion, please post it to the *Ask an Instructor* discussion on Canvas. I am monitoring discussions daily.

If your question is personal then the best way to contact me is by email (JeanMarie.Linhart@cwu.edu). Please put “[Math 377]” and a descriptive subject in the subject line. I'm really good at following up to email, but I do occasionally put something off for later and forget about it. So if you haven't gotten a response within one business day, please send your question again. **You should also check your university email address daily.**

Please contact me ASAP if you are sick or if there's a reason why you need special consideration or an extension of due dates.

This syllabus is subject to modification. Students will be notified of changes in class and on Canvas.

Prerequisite: Math 376 with a grade of C or higher.

Technology & support: This is an online course that will rely on the Canvas learning platform. Make an effort to become familiar with Canvas and seek support for technical issues. If you are having technical issues with Canvas, click the Help icon in Canvas to contact the 24/7 support hotline. You will find additional Canvas support and technology requirements on the CWU online learning website (<http://www.cwu.edu/online-learning>). Additionally the CWU Servie Desk can assist you with MyCWU network and login issues (servicedesk@cwu.edu): 509-963-2001

Text: I was originally planning to teach this course from *Ordinary Differential Equations* by Virginia W. Noonburg, MAA Textbook Series, but students coming from different Math 376 courses might have different books. I will be trying to teach without a specific book, but assuming you have access to a reasonable differential equations text. We will also be using a variety of online resources.

Course Goals: Math 377 is a second course in differential equations. A solid knowledge of Calculus and Linear Algebra is required, and I will be assuming proficiency of some basic topics taught in Math 376. Critical thinking and communication are two highly prized skills in the workplace, and I will be asking you to develop and display your skills by explaining your reasoning using complete sentences.

Planned topics of study:

- I. Review of 1st order Linear Equations, Separation of variables, 2nd order Equations, and Numerical methods.
- II. Systems of linear first-order equations
- III. Susceptible-Infected-Recovered models for disease (highly topical this term)
- IV. Geometry of Autonomous Linear Systems of Equations
- V. (As time and interest permits) Laplace transforms

Grades: Grades will be based on the following weighting system:

Weekly homework and discussion assignments: 60%

Exams (2, take-home) 40% (20% each)

And the following scale:

93-100	A	80-82.9	B-	67-69.9	D+
90-92.9	A-	77-79.9	C+	63-66.9	D
87-89.9	B+	73-76.9	C	60-62.9	D-
83-86.9	B	70-72.9	C-	Below 60	F

Homework: Expect weekly homework assignments and discussions, and expect to have homework due during the last week of class. I assign homework to hold you accountable for doing the things that will help you learn the material for the course. Due dates are to keep you on a schedule so that you will be able to successfully complete the course. If you are sick or have another special circumstance and need an extension, please ask.

You may work with others on homework, but what you hand in should reflect your own understanding of the material, and it should be written in your own words. When you work with others, or looking things up in reference materials, you should be taking notes on scratch paper. Study your notes and other materials, but then put these away and write up your final result from what you know. If you must copy from another student or source, carefully reference this on your paper.

Communication and critical thinking are two important skills to polish in this class. Use words to describe what you are doing. e. For example, if you are calculating the eigenvalues for a matrix, you should write: "Finding eigenvalues: [appropriate calculations here]". Think of your solutions like directions, and good directions are a combination of writing and good diagrams, with a clear logical flow through the material.

Reading: Since we are all online this term, your ability to read and understand material presented in a book or in online material will be more important than ever. Reading math, however, is not like reading a novel. My best technique for reading complicated technical information is to make an outline of the most important points being made as I am going along, working my way from the Big Main Ideas into the details in the calculations. I will often skip computational details until a time when I need to understand them, and then I try to do the calculations myself.

Tests: Tests are to be done individually and should reflect your understanding of the material. If you find yourself copying material from another source, this should be carefully referenced on your paper.

Late Policy: Contact me ASAP if you are sick or if there's a reason why you need special consideration of an extension of due dates. Discussion assignments may not be handed in late. Otherwise, all assignments are subject to a 10% per day penalty for being late, and will not be accepted more than 48 hours after the due date.

Office Hours and Getting Help: Online office hours (using BlackBoard Ultra on Canvas) are scheduled to make sure there is a time that you can talk to an instructor directly. I also regularly monitor the discussions about course material and the discussion *Ask an Instructor*. Please post questions to these discussions so that they can benefit everyone. If you need additional time to talk to an instructor, please email and ask for an appointment to meet in BlackBoard Ultra or via a telephone or Skype call. Please suggest at least 3 possible times that will work for you.

Academic Integrity: You may collaborate with others on homework, but what you hand in should reflect your own understanding and should be written in your own words. If you need to copy from a source or from someone else, you should carefully make a note of it in your work. Take-home tests are meant to be done solo, demonstrating your own understanding and your own words.

Consult university policies (CWUP 5-90-040(22), CWUR 2-90-040(22), and WAC 106-125-020) for student conduct, cheating, plagiarism, and other academic expectations. CWU's policies and recommendations for academic misconduct will be followed, leading to disciplinary action up to and including failing the course.

Students with Disabilities: Central Washington University is committed to creating a learning environment that meets the needs of its diverse student body. Students with disabilities should contact Disability Services to discuss a range of options to removing barriers, including accommodations: Hogue Hall 126, (509) 963-2214, DS@cwu.edu

Diversity: As a member of a peer learning community, a high degree of professionalism is necessary. CWU expects every member of the university community to contribute to an inclusive and respectful classroom culture.

Mandatory Reporting: I am a mandatory reporter for sexual assault. If you disclose a sexual assault to me, I am required to report it to the University administration.

Important Dates

April 14	Change of schedule period ends	May 13	Midnight First Take-home test due
May 18	Uncontested Withdrawal Deadline	June 10	Midnight 2nd Take-home test due