



Math 253 Series Calculus/Linear Algebra Winter 2021

Instructor Information

Name: Claire Burke

Email: burkec@linnbenton.edu

Virtual Office: Link to Claire's Virtual Office is in Moodle

Q&A Drop in Hours: Mondays 11am - 12 pm and 1pm-2pm, Tuesdays 11am-12pm, Wednesdays 11am-12pm, Thursdays 10am - 12pm, Fridays 11am - 12 pm, or email for an appointment.

When contacting your instructor you can expect a response within one business day.

Course Description

The third course in the calculus sequence for students majoring in mathematics, science and engineering. Topics include sequences and series of real and complex functions, matrix algebra, linear dependence and independence, eigenvalues and eigenvectors. This course satisfies the OSU requirement of MTH 306 for engineering programs.

Prerequisite: MTH 252 or equivalent with a grade of C or better.

What will you learn in this class?

- Determine whether a sequence or series converges or diverges.
- Calculate exactly (if possible) or approximate the sum of a convergent series.
- Understand and utilize power series to perform mathematical calculations.
- Apply vector and matrix operations to systems of equations and transformation matrices.

What do you need for this class?

- Daily access to a computer and the internet
- Webcam for testing and class meetings
- Edfinity Student Access Code (\$29 through the Edfinity website)
- Matrix and Power Series Methods 5th edition by Lee and Scarborough (free early edition available as a pdf in Moodle)
- [Interactive Linear Algebra by Dan Margalit, Joseph Rabinoff](#)

How will your grade be calculated?

Your grade will be calculated using a weighted average based on the following:

Category	Percent
Lectures	10%
Edfinity Practice Problems (Online Homework)	20%
Write-Ups (Written Homework)	10%
Projects	20%
2 Quizzes	10%
2 Final Exams	30%

Letter grades will be assigned based on:

A	90%-100%
B	80%-89%
C	70%-79%
D	60%-69%
F	59% or below

“Y” or “WP” grades will NOT be given.

Overall grades will be rounded UP to the nearest whole percent. (ie 79.1% rounds to up to 80%)

What exactly is in each category? How will the class work?

For this class, we will use [Moodle](#) together with Edfinity online math homework platform embedded into Moodle. This means you will not have to leave moodle to access all assignments for the class.

Each week you will have several items in Moodle to complete in addition to some practice problems. You will need to log into Moodle daily to participate in the course lessons and activities.

Lectures (Live or Pre-Recorded)

Each textbook section covered in this class will have 1 or 2 lectures. You can attend the live lecture on the corresponding class day at 10am OR you can complete the pre-recorded lecture in Moodle (choose one). Each lecture will contain a combination of lecture/videos and activities to help you explore and build the concepts. Your grade for this category will be calculated by taking the average of the lecture scores.

Edfinity Practice Problems (Online Homework)

There will be practice problems assigned for each topic covered in the lectures. The practice problems will be embedded in Moodle. Your grade for this category will be calculated by taking the average of the problem set scores.

Write Ups (Written Homework)

Each week along with your online practice problems you will have one write-up homework problem to be completed and uploaded in Moodle.

Projects

Specific guidelines for each project will be given and explained when the appropriate material has been covered in the course. You can expect about one small project every 2 weeks. Projects will be completed and uploaded in Moodle. You will also make a short video presentation for each project. For most projects there will be a peer review activity that you can earn points for participating in.

Quizzes and Final Exams (Tests)

There are two Quizzes and two Finals that cover each of the two sections of the course (Power Series and Linear Algebra). The Finals will require virtual proctoring using a webcam. The tentative dates for these assessments are in the course calendar.

Class Resources

This class has resources to support your success!

Q&A Drop In Hours (Office Hours)

If you have questions, please ask me! I have scheduled office hours but you're welcome to drop in at other times too. You can also reach me through Discord or by email.

Study Group

Your classmates are an important resource for understanding and completing the work for the course. Often a fellow student can explain things in a different way than your instructor. Studies have shown there is a correlation between success in learning math and students who engage in study groups. It is strongly recommended that you study together with other students in small groups.

Learning Center

The Math Desk will be operating this term to support students working remotely via Zoom, with drop-in help available during their standard hours:

The link to connect to the remote Math Desk is <https://linnbenton.zoom.us/j/579890953>

The URL for the Learning Center Remote Resources site is:

<https://www.linnbenton.edu/current-students/study/learning-center/>.

Class Policies and Expectations

Late Work

The work in this course has been planned to help you learn. When work is completed late or last minute you miss out on fully engaging in the learning opportunity.

Completing the work on time also helps prepare you for the next topic.

If you miss an online practice problems deadline, you can still complete every assignment and earn up to 80% credit up until the day of the final exam covering that material. Edfinity practice problem sets will not be accepted after this deadline. Projects need to be timely so other students can benefit from your presentation. Other late work may be accepted at the discretion of the instructor.

Attendance

There is a strong link between good attendance and success in math courses.

Attending an online class means logging in and making some progress on the course most days, it also means that you participate in the class discussions and activities.

Your peers rely on your feedback and input.

If you do not attend the first class meeting or login to Moodle by Friday of the first week of classes (**January 8th**), you will be dropped for nonattendance. If there is a week that you will be unable to log in and participate, please let your instructor know. Students are responsible for any material, updates, or other information available in Moodle.

Academic Honesty

I assume that you are ethical and honest. Using sites like chegg.com (or similar) for solutions to your work is cheating, even on assignments where collaboration and getting help is encouraged. The goal of assigned work is for you to personally build a neural network of understanding, which copying and “seeing” the answer will not provide, since building neural networks require thinking hard and making mistakes.

If there is an incident of academic dishonesty (including but not limited to cheating, plagiarism, forgery, or aiding or abetting cheating or plagiarism), you will receive a score of zero for that test/assignment and the incident will be reported to the college administration for possible further disciplinary action. If there is a second offense, you will receive a grade of F for the course and the incident will be reported to the college administration with a recommendation for disciplinary action.

Special Circumstances or Accommodations

You should meet with your instructor during the first week of class if:

- You have a documented disability and need accommodations.
- Your instructor needs to know medical information about you.
- You need special arrangements in the event of an emergency.

If you have documented your disability, remember that you must make your request for accommodations through the Center for Accessibility Resources (CFAR) [Online Services webpage](#) every term in order to receive accommodations. If you believe you may need accommodations but are not yet registered with CFAR, please visit the [CFAR Website](#) for steps on how to apply for services or call (541) 917-4789.

Basic Needs

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the Roadrunner Resource Center for support at 541-917- 4877, or schedule an appointment on the web at www.linnbenton.edu/rrc . Our office can help students get connected to resources to help. It might be helpful to notify the instructor, if you are comfortable in doing so. This will enable them to provide any resources that they may possess.

LBCC Comprehensive Statement of Nondiscrimination

LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws.

Statement of Inclusion

The LBCC community is enriched by diversity. Each individual has worth and makes contributions to create that diversity at the college. Everyone has the right to think, learn, and work together in an environment of respect, tolerance, and goodwill. (related to Board Policy #1015)

Course Calendar

See the attached document for a tentative course calendar.