

Tuesday, Thursday 6:30 PM to 8:45 PM, Via Zoom. (04/08/2024- 06/28/2024)

### **Instructor Information:**

Instructor:	Neelam R Shukla
Email:	shuklaneelam@fhda.edu
Office Location:	Via Zoom
Office Hours:	Wednesday 7:30 pm-8:30 pm

Homework assignments must be completed on WebAssign. The due dates follow Pacific Standard Time (PST). If you are living outside of this time zone, please find out the difference. For example, 7:00 AM in California is 10:00 AM in New York.

### **Course Description:**

Students in this course will learn about infinite series, lines, and planes in three dimensions, vectors in two and three dimensions, parametric equations of curves, derivatives, and integrals of vector functions.

#### **Prerequisite:**

MATH 1B or MATH 1BH (with a grade of C or better) or equivalent. Advisory: EWRT 211 and READ 211 (or LART 211), or ESL 272 and 273

#### **Required Textbook**

Calculus: Early Transcendental 9th Edition by James Stewart.

**Important Notes**: You will register WebAssign via canvas and you will get access to the e-book along with. It is not necessary to purchase a hard copy of this book because you will not be asked to solve textbook problems on paper. For self-study you can use any edition 8<sup>th</sup> or 9<sup>th</sup>. Graphing calculator is recommended for the course. TI-84 Plus or Plus CE is highly recommended. This calculator is widely used in math, science, and engineering courses. You are required to bring a physical calculator to the exam, and sharing calculator is considered as cheating incident. Using the calculator apps on your phone is strictly prohibited on the exam.

TI-83 Plus TI-84 Plus TI-84 Plus CE

• Your Email: Please check your email regularly. If possible, see-technical requirements connect your email with an App in your smartphone. You are welcome to ask me any questions related to lecture, homework, or personal emergency through email. Please following the format of the subject line stated below.



You write your inquiry after the colon.

- WebAssign (Work System): Homework, quizzes will be assigned and graded on WebAssign or Canvas. Exams will be online. If an assignment is required to be completed on paper, you are required to scan your work and upload it to Canvas. WebAssign is not free. You must pay for your own account before the free trial period ends via canvas. Otherwise, you will not be able to complete any assignments until you make a payment.
- Scanning Your Paperwork.
- If an assignment is expected to finish on paper, you must download

the assignment from Canvas, print the assignment, or write on the paper with a pen and completed the assignment. If you do not have a scanner at home, use a free app called Genius Scan.



- It allows you to take pictures of your work and merge. multiple pictures into one PDF document.
- Lectures and Expected Preparation.
- Attend the lectures in Class and via zoom. Please take a couple minutes to explore the modules on Canvas. Students are expected to take. Most importantly, this is a transferred-level math course. Do not expect your instructor to explain all the homework problems in lectures. When you encounter problems that require profound thoughts and interpretation, think before you ask. Each weekly module has links to your weekly assignments (homework, Labs), including exams.

## **Canvas:**

There are a few places that you must visit frequently on Canvas.

- Modules
- Homework Assignments
- Discussion

### Attendance

The course is synchronous mode. You are expected to maintain a good self-discipline to attend the classes and to finish the assignments on time because late works will receive 5% deductions.

### Homework, 15% of the Course Grade:

Problems will be assigned from each section taught in lecture. You are required to finish most of the homework on WebAssign.

### Quiz, 20 % of the Course Grade:

A quiz will be assigned and graded on WebAssign or Canvas. Quiz is an individual assignment. Lowest score will be dropped. Students can request auto extension for homework it does not apply to midterms, final exam. More importantly, your one-time extension must be redeemed within 7 days after the due date. For example, if homework 1 is due on October 1st at 11:59pm, the deadline to request an extension is October 8th at 11:59pm.

The incident of falsifies information for financial aid is increasing in every school district. If you do not complete the first week's assignment or having no activities on Canvas, you will be dropped from the course.

Exams, 40% of the Course Grade. Time-window 6:30 PM to 8:30 PM, Tuesday/Thursday.

There are 3 Exams in this course, exams will be online. Exam date will be announced in advanced. If you seek for assistances to complete the exam, your exam score is zero and you will get an F in this course, you can use one paper with formulas written on it during the exam or quiz. **Discussions,** 5%.

**Final Exam**, 15% of the Course Grade In case you take all the three exams, your Final exam can be filled with (E1+E2+E3)/3 score, you may skip the Final Exam. **Thursday June 28, from 6:15 PM to 8:15 PM, Online.** 

Check Points:

• Homework 15%, Quiz 20%, Exams 40 %, Discussions/Group-work10%; Final-Exam 15 %; Zero credit to all the missing quizzes and Exams, 5% deduction to late homework assignments.

- At the end one least score will be dropped from Quiz, one least score will be dropped from Exam and two least score will be dropped from Homework.
- The due dates follow the United States Pacific Standard Time (PST). If you are taking this course outside PST zone, please check the difference between the two time zones.
- You are expected to check the due dates on your WebAssign account at least once a day to plan accordingly. Also, you are expected to check our Canvas page to see announcements and week module regularly.
- Comparing to homework, please solve the problems on a separate sheet of paper and doublecheck your work before submitting your answer to WebAssign. Additional attempts will not be granted for any reasons.

### Tutoring at the Student Success Center (SSC)

The Student Success Center (SSC) has moved services into virtual rooms via Zoom for all forms of tutoring and workshops. Please visit the following website for details and latest announcements. <u>https://www.deanza.edu/studentsuccess/</u>

### **Grading Rubrics:**

Your course grade will be assigned in the following standard:

	A: >93% to 100%	A-: <93% to 89%
B+: <89% to 86%	B: 86% to 83%	B-: <83% to 79%
C+: <79% to 74%	C: <74% to 70%	
D: 69% to 60%	F: below 60%	

All the cut-offs are not negotiable. For examples, 89% is not an A-minus and 69% is not a C. Transferring to UCs, CSUs, top-ranking universities, or scholarships are not a reason to ask for a higher grade.

### Extra Credit Assignment

There are no extra credit assignments in this course to improve your grade. Please do not ask for any.

### **Academic Integrity:**

Academic dishonesty will not be tolerated. Any student attempting to defraud the instructor on a quiz, exam, final exam, or any other assessment item designated as an individual assignment will receive a zero on that assignment. *Posting a quiz or an exam problem to websites such as Chegg, Course hero, or a forum is considered as cheating.* 

### **Course Content:**

Chapter 10: Parametric Equations and Polar Coordinates

### Weak 1-2 Discussion/group-work 1:

10.1: Curves Defined by Parametric Equations
10.2: Calculus with Parametric Curves
10.3 : Polar Coordinates
10.4 Areas and Lengths in Polar Coordinates
Weak 3 to 6 Discussion/group-work 2: Quiz 1
Chapter 11: Infinite Sequences and Series
Discussion 2: Sequences 11.1 : Series

11.2 : The Integral Test and Estimates of Sums

11.3 The Comparison Tests

11.5 : Alternating Series Exam1(Chap 10,11.1-11.3)

11.6 : Absolute Convergence and the Ratio and Root Tests

**11.7** Strategy for Testing Series

11.8 : Power Series

11.9 : Representations of Functions as Power Series 11.10:

Taylor and Maclaurin Series

11.1: Applications of Taylor Polynomials

Chapter 12: Vectors and the Geometry of Space: Weak 7-8- Discussion/group-work 3:

### Exam 2. (Chapter 11)

12.1: Three-Dimensional Coordinate Systems

12.2: Vectors

12.3: The Dot Product

12.4: The Cross Product

12.5: Equation of Lines and Planes

12.6: Cylinders and Quadratic Surfaces

### Chapter 13: Vector Functions Weak 9-10 Discussion/group-work 4: Quiz 3 (Chapter 12)

13.1 : Vector Functions and Space Curves

13.2 : Derivatives and Integral of Vector Functions

13.3 Arc Length and Curvature

13.4: Motion in Space: Velocity and Acceleration

Week 11-12 Review and Final Exam

### Quiz 4, Review, Exam 3 (Chapter 11&12)

Academic Calendar:

## **Important Days:**

April 8: Spring classes begin.
April 9: Last day to <u>add classes</u>.
April 20:Last day to <u>drop classes</u> without a W.
May 25-27: Memorial Day holiday –no classes; offices closed.
May 31: Last day to <u>drop classes</u> with a W.
June 19: Juneteenth Holiday– no classes; offices closed.
June 24-28: <u>Final exams</u>. **Thursday from 6:15 PM to 8:15 PM**

The professor reserves the right to make changes to the syllabus, including assignment due dates and test dates (excluding the officially scheduled final examination), when unforeseen circumstances occur. These changes will be announced as early as possible so that students can adjust their schedules.

# Student Learning Outcome(s):

• Analyze infinite sequences and series from the perspective of convergence, using correct notation and mathematical precision.

• Apply infinite sequences and series in approximating functions.

• Synthesize and apply vectors, polar coordinate system and parametric representations in solving problems in analytic geometry, including motion in space.

# **Office Hours:**

W	07:30 PM	08:30 PM	Canvas,Zoom
М	07:30 PM	08:30 PM	Zoom,Canvas