



**Instructor Information:**

Instructor:	Neelam R Shukla
Email:	<a href="mailto:shuklaneelam@fhda.edu">shuklaneelam@fhda.edu</a>
Class Time:	Monday-Thursday 5:30 PM to 7:45 PM Via Zoom
Office Hours:	Monday 9:30 AM-10:30. AM

**Course Description:**

Fundamentals of integral calculus focusing on integration, integration techniques, applications of integration, and differential equations.

**Prerequisite:** Math 1A or Math 1A Honor Note: This class is not open to students with credit in Math 1B Honor Advisory: EWRT 211 and READ 211 (or LART 211), or ESL 272 and 273

**Required Textbook:**

Calculus1B: You can download this free [Textbook with videos.](#)

You can download this free [Textbook.](#)

**Important Notes:** *Download the OER textbook above. 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, cTechnical 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.

**“Math 1B \_\_\_\_\_”**

You write your inquiry after the colon.

- Homework assignments must be **completed MyOpenmath via Canvas.** The due dates follow Pacific Standard Time (PST). If you are living outside of this time zone, please find out the difference. For example, 7AM in California is 10AM in New York.
- Exams will be via canvas. If an assignment is required to be completed on paper, you are required to scan your work and upload it to Canvas.
- Scanning Your Paperwork If an assignment is expected to finish on paper, you must download the assignment from Canvas, print the assignment, 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 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 you explain all the homework problems in lectures. When you encounter problems that require profound thoughts and interpretation, think before you act. Each weekly module has links to your weekly assignments (homework, group assignments), including exams.



### Canvas:

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

- Modules
- Homework Assignments
- Discussion

### Attendance

The course is synchronous. 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 10% deductions.

**Homework**, 20% of the Course Grade:

Problems will be assigned from each section taught in lecture. You are required to finish the homework on MyOpenmath. **One lowest score will be dropped.** Students can use 2 late passes extension for homework it does not apply to midterms, final exam. More importantly, your one-time extension must be redeemed within 24 hours after the due date.

The incident of falsified 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.

**Midterm**, 40 % of the Course Grade. There are 4 exams in this course. Exam date will be announced and posted on canvas in advance. 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. **One least score exam will be dropped at the end.**

**Group-work: Group assignments for 10%**

**Discussions: 5%**

**Final Exam**, 25% of the Course Grade.

A comprehensive final exam: Thursday August 8, 2024.

Check Points:

- Exams 40 %, Final 25 %; Zero credit to all the missing Exams, 5% deduction to late assignments, Group-work 10%; Homework 20%.
- 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.
- 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 double-check your work before submitting your answer. 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 and in person for all forms of tutoring and workshops. Please visit the following website for details and latest announcements. <https://www.deanza.edu/studentsuccess/>

### Grading Rubrics:

Your course grade will be assigned in the following standard:

A: 100% to 94%	A-: <94% to 90%	
B+: <90% to 87%	B: 87% to 84%	B-: <84% to 80%
C+: <80% to 77%	C: <77% to 70%	
D: 70 % to 60%	F: below 60%	

**All the cut-offs are not negotiable.** For examples, 90 % 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

<b>Week 1:</b> Chapter 1: Integration Holiday – 4 <sup>th</sup> July - No classes; offices closed.	<b>Chapter 1: Integration</b> <b>1.1 Approximating Areas</b> <b>1.2 The Definite Integral</b> <b>1.3 The Fundamental Theorem of Calculus</b> <b>1.4 Integration Formulas and the Net Change Theorem</b> <b>1.5 Substitution</b>	
<b>Week 2:</b>	<b>1.6 Integrals Involving Exponential and Logarithmic Functions</b> 1.7 Integrals Resulting in Inverse Trigonometric Functions 2.1 Areas between Curves 2.2 Determining Volumes by Slicing 2.3 Volumes of Revolution: Cylindrical Shells	<b>Chapter 1 Exam</b>
<b>Week 3:</b> Chapter 2: Applications of Integration	2.4 Arc Length of a Curve and Surface Area 2.5 Physical Applications 2.6 Moments and Centers of Mass 2.7 Integrals, Exponential Functions, and Logarithms 2.8 Exponential Growth and Decay 2.9 Calculus of the Hyperbolic Functions	<b>Chapter 2 Exam</b>
<b>Week 4:</b> Chapter 3: <b>Techniques of</b>	<b>3.1 Integration by Parts</b> <b>3.2 Trigonometric Integrals</b>	

<b>Integration</b>	<b>3.3 Trigonometric Substitution 3.4 Partial Fractions 3.5 Other Strategies for Integration</b>	
<b>Week 5: Chapter 4: Introduction to Differential</b>	<b>3.6 Numerical Integration 3.7 Improper Integrals 4.1 Basics of Differential Equations 4.2 Direction Fields and Numerical Methods 4.3 Separable Equations</b>	<b>Chapter 3 Exam</b>
<b>Week 6:</b>	<b>4.4 The Logistic Equation 4.5 First-order Linear Equations</b>	<b>Chapter 4 Exam Final Exams: 08/08/2024 5:45 pm- 7:45pm</b>

**Important Days:**

Summer classes begin July 1

Last Day for Adds July 08, 2024

Census Date July 09, 2024

Last Day for Drops w/ Refund July 08, 2024

Last Day for Drops w/o W July 08, 2024

Last Day for Drops July 31, 2024

Holiday – 4<sup>th</sup> July - No classes; offices closed.

**Final Exams: 08/08/2024 5:45 pm-7:45pm**

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The professor reserves the right to make changes to the syllabus, including project 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 the definite integral from a graphical, numerical, analytical, and verbal approach, using correct notation and mathematical precision.
- Formulate and use the Fundamental Theorem of Calculus.
- Apply the definite integral in solving problems in analytical geometry and the sciences.

**Office Hours:**

M      09:30 AM      10:30 AM      Canvas,Zoom