POINT 1902 LOMA
NAZARENE UNIVERSITY

Mathematics, Information, and Computer Sciences – School of STEM

MTH1064– Calculus I

4 units

Fall 2026

Rohr Science 395, MWF 8:30-9:35am

Final Exam: RS395 on Wednesday, December 16th from 7:30 am – 10:00 am

Instructor: Dr. Greg Crow, Professor of Mathematics
Phone: 619-849-2604
Email: gcrow@pointloma.edu
Office hours: Location: Rohr Science 252 (times posted in Canvas)

PLNU MISSION: TO TEACH ~ TO SHAPE ~ TO SEND

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service is an expression of faith. Being of Wesleyan heritage, we strive to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

DEPARTMENT MISSION

The Mathematical, Information, and Computer Sciences department at Point Loma Nazarene University is committed to maintaining a curriculum that provides its students with the tools to be productive, the passion to continue learning, and Christian perspectives to provide a basis for making sound value judgments.

GENERAL EDUCATION

PLNU provides a foundational course of study in the liberal arts informed by the life, death, and resurrection of Jesus Christ. In keeping with the Wesleyan tradition, the curriculum equips students with a broad range of knowledge and skills within and across disciplines to enrich major study, lifelong learning, and vocational service as Christ-like participants in the world's diverse societies and culture.

GENERAL EDUCATION LEARNING OUTCOMES

1. Students will be able to solve problems that are quantitative in nature.
2. Students will be able to formulate a mathematical model from a verbal description of a problem.
3. Students will be able to solve non-routine problems using logic and quantitative techniques.
4. Students will be able to construct solutions to problems using computational techniques.

COURSE DESCRIPTION:

MTH 1064- Calculus I

Calculus of the elementary functions of one variable. Limits, continuity, derivatives, methods of integration and applications.

Prerequisite: Mathematics 1033 (or equivalent).

PROGRAM AND COURSE LEARNING OUTCOMES

1. Students will be able to demonstrate facility with analytical concepts.
2. Students will be able to demonstrate facility with algebraic structures.
3. Students will be able to use technology to solve problems.
4. Students will be able to speak about their work with precision, clarity, and organization.
5. Students will collaborate effectively in teams.
6. Students will be able to identify, locate, evaluate, and effectively and responsible use and cite information for the task at hand.
7. Students will be able to gather relevant information, examine information and form a conclusion based on that information.
8. Students will be able to understand and create arguments supported by quantitative evidence, and they can clearly communicate those arguments in a variety of formats.

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

Students are responsible for having the required course textbooks prior to the first day of class.
Textbook: Calculus, 9th Edition by Stewart (ISBN: 9781337624183 for hardback, but e-Text of the same book is acceptable)
Other materials: A scientific calculator is required for classroom activities. A calculator (TI-30XIIS) will be provided for you to use on exams. You may not use your own calculator on exams.

LomaBooks Instructions for Students

This course is part of our course material delivery program, LomaBooks. The bookstore will provide each student with a convenient package containing all required physical materials; all digitally delivered materials will be integrated into Canvas.

COURSE CREDIT HOUR INFORMATION

In the interest of providing sufficient time to accomplish the stated Course Learning Outcomes, this class meets the PLNU credit hour policy for a 4-unit class delivered over 15 weeks. It is anticipated that students will spend a minimum of 37.5 participation hours per credit hour on their coursework. For this course, students will spend an estimated 150 total hours meeting the course learning outcomes.

ASSESSMENT AND GRADING

The grade components are written homework, midterm exams, and the final examination. The grading distribution can be found below.

GRADING SCALE

Grades are based on the number of points accumulated throughout the course with the following exception. A student must pass at least one of Examination 1, Examination 2, Examination 3 or the Final Examination in order to pass the class. That is, a score of 60% must be achieved on one of the Examinations, or else the final grade will be an F regardless of all other point totals. Approximate minimal percentages required to obtain a given grade are:

Grading Scale in Percentages				
	A	B	C	D
+		(87.5, 90.0]	(77.5, 80.0]	(67.5, 70.0]
	(92.5, 100]	(82.5, 87.5]	(72.5, 77.5]	(62.5, 67.5]
−	(90.0, 92.5]	(80.0, 82.5]	(70.0, 72.5]	[60.0, 62.5]

GRADING DISTRIBUTION

Grade Distribution	
Three Midterms Exams (15% each)	45%
Final Exam (Cumulative)	30%
Written Homework	20%
Classwork	5%
Total	**100%**

FINAL EXAMINATION POLICY

Successful completion of this class requires taking the final examination on its scheduled day. The final examination schedule is posted on the Traditional Undergraduate Records: Final Exam Schedules site. If you find yourself scheduled for three (3) or more final examinations on the same day, you are authorized to contact each professor to arrange a different time for one of those exams. However, unless you have three (3) or more exams on the same day, no requests for alternative final examinations will be granted.

Graded Components

- **Homework:** The homework is designed to allow you to grasp the concepts of Calculus; it is not an end in itself. The homework problems will be taken from the Textbook and handwritten on paper. There may also be other activities that are completed as homework. Each homework set will be due at the beginning of class on Wednesdays. Please see the schedule below. Late homework will not be accepted without prior consent or a well-documented emergency beyond your control. Written homework that is submitted late without prior consent will be recorded with a score of zero. The lowest two homework scores will be dropped prior to computing the final course grade.
- **Examinations and the Final Examination:** Examinations and the Final Examination will include problems and questions over material assigned in the text, readings and handouts, as well as material presented in class. No examination shall be missed without prior consent or a well-documented emergency beyond your control. A score of zero will be assigned for an examination that is missed without prior consent or a well-documented emergency beyond your control. The examination schedule is included in the daily schedule. This instructor does not intend to accept excuses such as poor communication with parents, benefactors, surf team sponsors and/or travel agents.

COMMENTS ON HOMEWORK

- This is the minimum amount of homework that is required but you may need to do several odd numbered problems to make sure you get the answer in the textbook.
- Please be sure that your homework is stapled together, legible, and the problems are in order. Start each problem on a new line and do not make multiple columns of problems on the same sheet of paper.
- Homework will be scored on a combination of completeness and correctness. All work necessary to complete a problem must be shown to earn credit.
- Start working on your homework early. These problems are difficult and meant to be done a little at a time over the course of a few days.
- When doing homework, please note it is normal to not be able to do every problem correct on the first attempt. Do not be discouraged, instead seek help.

INCOMPLETE AND LATE ASSIGNMENTS

- All assignments are to be submitted/turned in by the due date and time, including assignments posted in Canvas. We understand that life happens, if you contact your instructor prior to the due date of the assignment you may request one extension as indicated above. **Late work need not be accepted.**
- Make-up tests will be given only by prior arrangement with the instructor for reasons of documented emergency. All Make-up tests will be offered on the Saturday between classes and Final Exams at 8:30 AM.
- **Incomplete grade:** Incompletes will only be assigned in extremely unusual circumstances. You may request a grade of I (incomplete) only if you have a passing grade and at least 70% of the course work is completed.

ARTIFICIAL INTELLIGENCE POLICY

You are allowed to use Artificial Intelligence (AI) tools (e.g., ChatGPT, Gemini Pro, Grammarly Go, Perplexity, etc.) to generate ideas, but you are not allowed to use AI tools to generate content (text, video, audio, images) that will end up in any work submitted to be graded for this course. If you have any doubts about using AI, please gain permission from the instructor.

PLNU ATTENDANCE AND PARTICIPATION POLICY

Regular and punctual attendance at all class sessions is considered essential to optimum academic achievement. If the student is absent for more than 10 percent of class sessions, the faculty member will issue a written warning of de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university withdrawal date or, after that date, receive an "F" grade.

PLNU ACADEMIC ACCOMMODATIONS POLICY

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities in accordance with the Americans with Disabilities Act (ADA). Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center, by email or phone at 619-849-2533. Once a student's eligibility for an accommodation has been determined, the EAC will work with the student to create an Accommodation Plan (AP) that outlines approved accommodations. Professors are able to view a student's approved accommodations through Accommodate.

PLNU highly recommends that students speak with their professors during the first two weeks of each semester/term about the implementation of their approved accommodations in that particular course. Accommodations are not retroactive; as such, clarifying with the professor at the outset is one of the best ways to promote positive academic outcomes.

Students who need accommodations for a disability-related need should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. In accordance with ADA, accommodations cannot constitute a fundamental alteration to course outcomes; therefore, planning ahead is vital in establishing appropriate accommodations for equal access to this course. It is the student's responsibility to make the first contact with the EAC. Students cannot assume that because they had accommodations in the past, their eligibility at PLNU is automatic. All determinations at PLNU must go through the EAC eligibility process. This is to protect the privacy of students with disabilities who may not want to disclose this information and are not asking for any accommodations.

ADDITIONAL COURSE INFORMATION

Additional PLNU policies and practices that apply to this course can be found at the following link: https://docs.google.com/document/d/1SoL5YMfCv_5cobhBwrDjbcZJzNKKTCfM/edit?usp=sharing&ouid=104297418648613020764&rtpof=true&sd=true

Fall 2026 Calendar MTH 1064

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Aug	30	31 1.1 Four Ways to Represent a Function 1.2 Math. Models: A Catalog of Essential Functions	1	2 1.2 Math. Models: A Catalog of Essential Functions 1.3 New Functions from Old Functions	3	4 Diagnostic Review Building a Study Group	5
September	6	7 **Labor Day**	8	9 1.4 The Tangent and Velocity Problems 1.5 The Limit of a Function	10	11 Financial Mathematics *Department Chapel* 1.5 The Limit of a Function 1.6 Calculating Limits Using the Limit Laws	12
	13	14 1.7 The Precise Definition of a Limit	15	16 1.8 Continuity	17	18 Financial Mathematics 2.1 Derivatives and Rates of Change 2.2 The Derivative as a Function	19
	20	21 2.3. Differentiation Formulas	22	23 2.4. Derivatives of Trigonometric Functions	24	25 Financial Mathematics 2.5. The Chain Rule	26
	27	28 Catch up and Review for Exam I	29	30 **Exam I**	1	2 Financial Mathematics 2.6. Implicit Differentiation	3
October	4	5 2.7. Rates of Change in the Sciences 2.8. Related Rates	6	7 2.9. Linear Approximations and Differentials	8	9 Financial Mathematics 3.1. Maximum and Minimum Values	10
	11	12 *Advising Chapel* 3.2. The Mean Value Theorem 3.3. Derivatives and the Shape of a Graph	13	14 3.4. Limits at Infinity; Horizontal Asymptotes 3.5. Summary of Curve Sketching	15	16 Financial Mathematics 3.5. Summary of Curve Sketching 3.6. Graphing with Calculus and Technology	17
	18	19 3.7 Optimization Problems	20	21 3.8. Newton's Method	22	23 **Fall Break**	24
	25	26 Catch up and Review for Exam II	27	28 **Exam II**	29	30 Financial Mathematics 3.9. Antiderivatives	31
November	1	2 **Spiritual** 4.1. The Area and Distance Problems	3	4 **Renewal** 4.2. The Definite Integral 4.3. The Fundamental Theorem of Calculus	5	6 **Week** 4.3. The Fundamental Theorem of Calculus 4.4. Indefinite Integrals & Net Change Theorem	7
	8	9 4.4. Indefinite Integrals & Net Change Theorem	10	11 4.5. The Substitution Rule	12	13 Financial Mathematics 4.5. The Substitution Rule	14
	15	16 5.1. Areas between Curves 5.2. Volumes	17	18 5.3. Volumes by Cylindrical Shells	19	20 Financial Mathematics 5.4. Work 5.5. Average Value of a Function	21
	22	23 **Exam III**	24	25 **Thanksgiving Recess**	26	27	28
	29	30 6.1. Inverse Functions and Their Derivatives 6.2. Exponential Functions and Their Derivatives	1	2 6.2. Exponential Functions and Their Derivatives 6.3. Logarithmic Functions	3	4 Financial Mathematics 6.4. Derivatives of Logarithmic Functions 6.5. Exponential Growth and Decay	5
December	6	7 6.6. Inverse Trigonometric Functions 6.7. Hyperbolic Functions	8	9 6.8. Indeterminate Forms and L'Hospital's Rule	10	11 **Review for Final Exam**	12
	13	14	15	16 **Final Exam** **7:30 – 10:00 AM**	17 ———	18 **Week**	19