

# Syllabus



**Department of Mathematical,  
Information and Computer Sciences**

MTH1073 Business Calculus

3 Units (M-W-F, 1:30-2:25pm, RS 295)

Mini-Term Spring 2021 | March 1 - June 11

**Instructor: Kyle Havens**

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**Office hours: By  
Appointment in Zoom**

**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.

## **COURSE DESCRIPTION**

MTH 1073 - Business Calculus (GE) (3)

A calculus course intended for those studying business economics, or other related business majors. This course covers differential and integral calculus of elementary functions with an emphasis on business applications. This is a brief calculus course and not appropriate for students majoring in science, computer science or mathematics.

Prerequisite(s): MTH 1013 or equivalent.

## **FOUNDATIONAL EXPLORATION**

This is a PLNU Foundational Explorations course (a general education course).

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 cultures.

This course is one of the components of the Foundational Education Program at Point Loma Nazarene University, in support of the general education learning outcome: *Quantitative Reasoning: Students will be able to solve problems that are quantitative in nature.* The purpose of general education is to provide a common educational experience, to develop essential skills, and to provide a broad cultural background for personal and professional growth.

## **COURSE LEARNING OUTCOMES**

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

## **REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES**

*Calculus and its Applications* 12<sup>th</sup> Edition by Bittinger/Ellenbogen/Surgent

ISBN: 9780135225066

## **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 3 unit class delivered over fifteen weeks. Specific

details about how the class meets the credit hour requirement can be provided upon request. (Based on 37.5 hours of student engagement per credit hour.)

### Distribution of Student Learning Hours

Category	Time Expectation in Hours
Online Participation in Discussions, Groups, etc.	18
Videos and Video Notes	32.5
Homework Assignments	39
Preparation for Exams	27
Exams	6
<b>Total Hours</b>	<b>122.5</b>

## ASSESSMENT AND GRADING

### Graded Components

- **Homework:** Homework will be completed online through MyMathLab, it will generally be due on Saturday at 11:59PM except for the last week when it is due before the exam.
- **Notes and Videos:** Each section will have videos to watch and you should take notes. Your notes will be submitted before each class meeting (please note that the submissions are due at 8:00AM the day of class).
- **Examination and the Final Examination.** Examination 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 final exam date and time is set by the university at the beginning of the semester and may not be changed by the instructor. This schedule can be found on the university website and in the course calendar. No requests for early examinations will be approved. Only in the case that a student is required to take three exams during the same day of finals week, is an instructor authorized to consider changing the exam date and time for that particular student.
- **Late work will not be accepted** without prior consent or a well-documented emergency. Up to a maximum of one homework assignment will be accepted up to 3 days late provided that consent is received from the professor before it is due. Homework assignments that are submitted late without prior consent will be recorded with a score of zero. If more than half of the homework assignments are submitted on time, then the lowest homework score will be dropped from the calculations of the homework grade.

- 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.

<b>Grading Distribution</b>	<b>Percent</b>
Class Activities	15
Homework	20
Exams	30
Final Exam	30
Video Notes and Participation	5
Total	100

**FINAL EXAM:**

**Date and Time:** Monday, 6/7/21, 1:30-4:00pm

The final exam date and time is set by the university at the beginning of the semester and may not be changed by the instructor. This schedule can be found on the university website and in the course calendar. No requests for early examinations will be approved. Only in the case that a student is required to take three exams during the same day of finals week, is an instructor authorized to consider changing the exam date and time for that particular student.

**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 the Exam or the Final Exam in order to pass the class. That is, a score of 60% must be achieved on one of the Exams, 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:

<b>Standard Grade Scale Based on Percentages</b>					
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>F</b>
<b>+</b>		87.5- 90	77.5-80	67.5-70	
	92.5 -100	82.5-87.5	72.5-77.5	62.5 -67.5	0-60
<b>-</b>	90-92.5	80-82.5	70-72.5	60-62.5	

### **STATE AUTHORIZATION**

State authorization is a formal determination by a state that Point Loma Nazarene University is approved to conduct activities regulated by that state. In certain states outside California, Point Loma Nazarene University is not authorized to enroll online (distance education) students. If a student moves to another state after admission to the program and/or enrollment in an online course, continuation within the program and/or course will depend on whether Point Loma Nazarene University is authorized to offer distance education courses in that state. It is the student's responsibility to notify the institution of any change in his or her physical location. Refer to the map on [State Authorization \(https://www.pointloma.edu/offices/office-institutional-effectiveness-research/disclosures\)](https://www.pointloma.edu/offices/office-institutional-effectiveness-research/disclosures) to view which states allow online (distance education) outside of California.

### **INCOMPLETES AND LATE ASSIGNMENTS**

All assignments are to be submitted/turned in by the beginning of the class session when they are due—including assignments posted in Canvas. Incompletes will only be assigned in extremely unusual circumstances.

### **CLASS ENROLLMENT**

It is the student's responsibility to maintain his/her class schedule. Should the need arise to drop this course (personal emergencies, poor performance, etc.), the student has the responsibility to follow through (provided the drop date meets the stated calendar deadline established by the university), not the instructor. Simply ceasing to attend this course or failing to follow through to arrange for a change of registration (drop/add) may easily result in a grade of F on the official transcript.

### **PLNU COPYRIGHT POLICY**

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

### **PLNU ACADEMIC HONESTY POLICY**

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See [Academic Policies](http://catalog.pointloma.edu/content.php?catoid=18&navoid=1278) (<http://catalog.pointloma.edu/content.php?catoid=18&navoid=1278>) for definitions of kinds of academic dishonesty and for further policy information.

## **PLNU ACADEMIC ACCOMMODATIONS POLICY**

While all students are expected to meet the minimum standards for completion of this course as established by the instructor, students with disabilities may require academic adjustments, modifications or auxiliary aids/services. At Point Loma Nazarene University (PLNU), these students are requested to register with the Disability Resource Center (DRC), located in the Bond Academic Center. ([DRC@pointloma.edu](mailto:DRC@pointloma.edu) (<https://mail.google.com/mail/?view=cm&fs=1&tf=1&to=DRC@pointloma.edu>) or 619-849-2486). The DRC's policies and procedures for assisting such students in the development of an appropriate academic adjustment plan (AP) allows PLNU to comply with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Section 504 (a) prohibits discrimination against students with special needs and guarantees all qualified students equal access to and benefits of PLNU programs and activities. After the student files the required documentation, the DRC, in conjunction with the student, will develop an AP to meet that student's specific learning needs. The DRC will thereafter email the student's AP to all faculty who teach courses in which the student is enrolled each semester. The AP must be implemented in all such courses.

If students do not wish to avail themselves of some or all of the elements of their AP in a particular course, it is the responsibility of those students to notify their professor in that course. PLNU highly recommends that DRC students speak with their professors during the first two weeks of each semester about the applicability of their AP in that particular course and/or if they do not desire to take advantage of some or all of the elements of their AP in that course.

## **PLNU ATTENDANCE AND PARTICIPATION POLICY**

Attendance is expected at each class session. In the event of an absence you are responsible for the material covered in class and the assignments given that day.

Regular and punctual attendance at all classes is considered essential to optimum academic achievement. If the student is absent from more than 10 percent of class meetings, the faculty member can file a written report which may result in de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university drop date or, after that date, receive the appropriate grade for their work and participation. See [Academic Policies](#)

<http://catalog.pointloma.edu/content.php?catoid=18&navoid=1278> for further information about class attendance.

## **SPIRITUAL CARE**

Please be aware PLNU strives to be a place where you grow as whole persons. To this end, we provide resources for our students to encounter God and grow in their Christian faith. If students have questions, a desire to meet with the chaplain or have prayer requests you can contact the [Office of Spiritual Development](https://www.pointloma.edu/offices/spiritual-development) [\\_ \(https://www.pointloma.edu/offices/spiritual-development\)](https://www.pointloma.edu/offices/spiritual-development)

## Business Calculus - Online Schedule Spring 2021

<i>Week of</i>	<i>Monday</i>	<i>Wednesday</i>	<i>Friday</i>
3/1/2021	Zoom Introduction Course Info and Welcome	Obtain Materials Register for MyMathLab	Online Lecture 1.1 <b>Due:</b> OHW1.1
3/8/2021	Zoom Lecture 1.2 Group Activity	Online Lecture 1.3	Online Lecture 1.4 <b>Due:</b> OHW1.2-1.3, CA1
3/15/2021	Zoom Lecture 1.5 Group Activity	Online Lecture 1.5/1.6	Online Lecture 1.6 <b>Due:</b> OHW1.4-1.5, CA2
3/22/2021	Zoom Lecture 1.7 Group Activity	Online Lecture 1.7	Online Lecture 2.1 <b>Due:</b> OHW1.6-1.7, CA3
3/29/2021	Zoom Lecture 2.2/2.3 Group Activity	<i>No Class</i> Mental Health Day	Online Lecture 2.4/2.5 <b>Due:</b> OHW2.1-2.3, CA4
4/5/2021	Zoom Lecture 2.6 Practice Exam Posted	Review for Exam	Online Lecture 3.1 <b>Due:</b> OHW2.4-2.6, PE1
4/12/2021	<b>Exam #1</b>	Online Lecture 3.2	Online Lecture 3.4 <b>Due:</b> OHW3.1-3.2
4/19/2021	Zoom Lecture 3.1-3.4 Group Activity	Online Lecture 3.5	Online Lecture 3.6 <b>Due:</b> OHW3.3-3.5, CA5
4/26/2021	Zoom Lecture 3.7 Group Activity	Online Lecture 3.8	Online Lecture 3.9 <b>Due:</b> OHW3.6-3.8, CA6
5/3/2021	Zoom Lecture 4.1 Group Activity	<i>No Class</i> Mental Health Day	Online Lecture 4.2 <b>Due:</b> OHW3.9-4.1
5/10/2021	Zoom Lecture 4.3 Group Activity	Online Lecture 4.4	Online Lecture 4.5 <b>Due:</b> OHW4.2-4.3, CA7
5/17/2021	Zoom Lecture 4.5 Practice Exam Posted	Review for Exam	Online Lecture 4.6 <b>Due:</b> OHW4.4-4.5, PE2
5/24/2021	<b>Exam #2</b>	Online Lecture 4.6	Online Lecture Finance <b>Due:</b> OHW4.6
5/31/2021	Zoom Lecture Finance Group Activity	Review for Final	Review for Final <b>Due:</b> OHW5.1, CA8
6/7/2021	<b>Final Exam</b> 1:30-4:00pm (Cumulative)	<i>Finals Week</i>	

**Modifications or omissions may occur due to unforeseen circumstances.**