Syllabus

To-Do Date: Mar 1 at 11:59pm

19 02 POINT LOMA NAZARENE UNIVERSITY	**Department/School Name: Mathematical, Information and Computer Sciences** **Course Number and Name: MTH1053 Mathematical Analysis for Business and Economics** **Number of Units: 3** **Tuesday/Thursday 9:30-10:45am** **Zoom Meeting:** https://pointloma.zoom.us/j/9012972772 (https://pointloma.zoom.us/j/9012972772)
Spring 2021	

Instructor: Prof Michelle Freed

Phone: 619.849.2219

Email: mfreed1@pointloma.edu

Office hours: By Appointment in Zoom (https://calendar.google.com/calendar/u/0/selfsched?sstoken=UUNjcW1XYnZTWExKfGRlZmF1bHR8NDBmYjQ3ODdiYWQxMDM5Yzc1YjEzOGQ4YWI1NWRiY2I

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 1053 - Mathematical Analysis for Business and Economics (3)

This course focuses on learning and using basic mathematical tools that are fundamental to business applications. Applications of these tools include: supply and demand, optimization, cost-benefit analysis, equilibrium (systems of equations), interest, and loan amortization.

Prerequisite(s): MTH 1013 or equivalent.

COURSE LEARNING OUTCOMES

1. Students will develop an ability to use mathematics to analyze supply and demand.
2. Students will be able to use mathematics to solve a variety of interest problems.
3. Students will develop an ability to use mathematics to solve equilibrium, optimization, and cost-benefit problems

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

Introductory Mathematical Analysis for Business, Economics, and the Life and Social Sciences, 13th Edition
Ernest F. Haeussler, Richard S. Paul, and Richard J. Wood

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
Attending Synchronous Class Meetings	22.5

Category	Time Expectation in Hours
Watching Videos and Reading	24
Completing Notes and Problems from Videos	6
Weekly Collaborative Activities	6
Homework	30
Studying for Exams	24
Total Hours	112.5

ASSESSMENT AND GRADING

Graded Components

- **Homework**: Homework will be assigned in class and due Friday of the following week (with a few exceptions... see schedule for details).
- **Notes and Videos**: Each section will have videos to watch and you should take notes. Your notes will be submitted weekly in Canvas on Monday (with a few exceptions... see schedule for details).
- **Collaborative Activities:** Most weeks you will be assigned a short group activity. This is due by Friday of the same week.
- **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 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.

Grading Distribution	Percent
Two Examinations at 15% each	30
Final Exam	25
Video Notes and Problems	8
Collaborative Activities	10
Homework	25
Attendance	2
Total	100

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 Exam 1, Exam 2, 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:

Standard Grade Scale Based on Percentages					
	A	**B**	**C**	**D**	**F**
+		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
–	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)** 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)** 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)** 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 for your group (Group A or Group B). 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)**

Recent Announcements

Class Split
(https://canvas.pointloma.edu/courses/55081/discussion_topics/346340)
Just as clarification, you only need to come on Tuesday (today) if you are in gr…

Posted on: Mar 9, 2021 at 9:24am

Project Groups and Class Split
(https://canvas.pointloma.edu/courses/55081/discussion_topics/345218)
Hello all, I have split you into two groups. See below for the assignments (the…

Posted on: Mar 5, 2021 at 5:58pm

MTH1053-1 SP21 - Mathematical Analysis for Business and Economics

Jump to Today ✎ Edit

COURSE SCHEDULE AND ASSIGNMENTS

The full course syllabus may be found here: **Syllabus**

You may sign up for Professor Freed's virtual office hours here: **Office Hours**
(https://calendar.google.com/calendar/selfsched?sstoken=UUNjcW1XYnZTWExKfGRlZmF1bHR8NDBmYjQ3ODdiYWQxMDM5Yzc1YjEzOGQ4YWI1NWRiY2I)

Here is the Zoom information for class each week.

Join Zoom Meeting **https://pointloma.zoom.us/j/9012972772**
(https://pointloma.zoom.us/j/9012972772)

Meeting ID: 901 297 2772

Here is a link to your textbook: *Introductory Mathematical Analysis for Business, Economics, and the Life and Social Sciences*, 13th Edition, Ernest F. Haeussler, Richard S. Paul and Richard Wood

If you desire to see your work organized by week, you are able to access the weekly **modules**.

The table below lists our assignments and their due dates, below it are the actual assignments.

Monday	Tuesday (Group A)	Wednesday	Thursday (Group B)	Friday
3/1/21	3/2/21 **ALL CLASS INTRODUCTION**	3/3/21 Video Notes Due: 1.2	3/4/21 **ALL CLASS: Chapter 1**	3/5/21 Class Activity 1 Due
3/8/21 Video Notes Due: 1.3, 1.4, 1.5	3/9/21	3/10/21	3/11/21	3/12/21 Class Activity 2 Due Homework 1 Due: 1.1, 1.2
3/15/21 Video Notes Due: 1.6, 2.1, 2.2, 2.5	3/16/21	3/17/21	3/18/21	3/19/21 Class Activity 3 Due Homework 2 Due: 1.3, 1.4, 1.5
3/22/21 Video Notes Due: 2.3, 2.4, 2.8, 3.1	3/23/21	3/24/21	3/25/21	3/26/21 Class Activity 4 Due Homework 3 Due: 1.6, 2.1, 2.2, 2.5
3/29/21 Video Notes Due: 3.2, 3.3	3/30/21	3/31/21 No class	4/1/21	4/2/21 Class Activity 5 Due Homework 4 Due: 2.3, 2.4, 2.8, 3.1
4/5/21 Video Notes Due: None	4/6/21 **ALL CLASS EXAM REVIEW**	4/7/21	4/8/21 **ALL CLASS EXAM**	4/9/21 Homework 5 Due: 3.2, 3.3
4/12/21 Video Notes Due: 4.1, 4.2, 4.3, 4.4	4/13/21	4/14/21	4/15/21	4/16/21 Class Activity 6 Due Homework Due: None
4/19/21 Video Notes Due: 5.1, 5.2, 5.3, 5.4	4/20/21	4/21/21	4/22/21	4/23/21 Class Activity 7 Due Homework 6 Due: 4.1, 4.2, 4.3, 4.4
4/26/21 Video Notes Due: 5.5, 5.6, 3.4	4/27/21	4/28/21	4/29/21	4/30/21 Class Activity 8 Due Homework 7 Due: 5.1, 5.2, 5.3, 5.4
5/3/21 Video Notes Due: 3.4, 3.5. 3.6	5/4/21	5/5/21	5/6/21	5/7/21 Class Activity 9 Due Homework 8 Due: 5.5, 5.6, 3.4
5/10/21 Video Notes Due: None	5/11/21 **ALL CLASS EXAM REVIEW**	5/12/21	5/13/21 **ALL CLASS EXAM**	5/14/21 Homework 9 Due: 3.4, 3.5. 3.6
5/17/21 Video Notes Due: 6.1, 6.2, 6.3	5/18/21	5/19/21	5/20/21	5/21/21 Class Activity 10 Due Homework Due: None
5/24/21 Video Notes Due: 6.4, 6.5, 7.1, 7.2	5/25/21	5/26/21	5/27/21	5/28/21 Class Activity 11 Due Homework 10 Due: 6.1, 6.2, 6.3
5/31/21 Video Notes Due: 7.3, 7.4, 7.7	6/1/21	6/2/21	6/3/21	6/4/21 Class Activity 12 Due Homework 11 Due: 6.4, 6.5, 7.1, 7.2
6/7/21 Video Notes Due: None Homework 12 Due: 7.3, 7.4, 7.7	6/8/21	6/9/21	6/10/21 **FINAL EXAM** **10:30AM-1:00PM**	6/11/21

Downloadable PDF of schedule: **MTH1053 Schedule Spring 2021.pdf**

Quick Links to Resources

Netiquette Guidelines | Help & Technical Support | Technology & System Requirements (https://help.pointloma.edu/TDClient/1808/Portal/KB/ArticleDet?ID=108349) | Canvas Student Guides (https://community.canvaslms.com/t5/Student-Guide/tkb-p/student)

Course Summary:

Date	Details	Due
Mon Mar 1, 2021	Week 1: Overview	to do: 8am
	Syllabus	to do: 11:59pm
	Week 1: Videos, Links and Handouts	to do: 11:59pm
Tue Mar 2, 2021	Week 1: Class Zoom Information	to do: 9:30am
Wed Mar 3, 2021	Week 1: 1.2 Video Notes and Problems (https://canvas.pointloma.edu/courses/55081/assignments/629607)	due by 11:59pm
Fri Mar 5, 2021	Week 1: Class Activity 1 (https://canvas.pointloma.edu/courses/55081/assignments/620396)	due by 11:59pm
Mon Mar 8, 2021	Week 2: Overview	to do: 8am
	Week 2: Videos, Links and Handouts	to do: 11:59pm
	Week 2: Video Notes and Problems (https://canvas.pointloma.edu/courses/55081/assignments/620414)	due by 11:59pm
Tue Mar 9, 2021	Meet Your Instructor	to do: 11:59pm
Fri Mar 12, 2021	Homework 1: 1.1, 1.2 (https://canvas.pointloma.edu/courses/55081/assignments/620397)	due by 11:59pm
	Week 2: Class Activity 2 (https://canvas.pointloma.edu/courses/55081/assignments/620398)	due by 11:59pm
Mon Mar 15, 2021	Week 3: Overview	to do: 8am
	Week 3: Videos, Links and Handouts	to do: 11:59pm

Date	Details	Due
	Week 3: Video Notes and Problems (https://canvas.pointloma.edu/courses/55081/assignments/620415)	due by 11:59pm
Fri Mar 19, 2021	Homework 2: 1.3, 1.4, 1.5 (https://canvas.pointloma.edu/courses/55081/assignments/620399)	due by 11:59pm
	Week 3: Class Activity 3 (https://canvas.pointloma.edu/courses/55081/assignments/620400)	due by 11:59pm
Mon Mar 22, 2021	Week 4: Overview	to do: 8am
	Week 4: Videos, Links and Handouts	to do: 11:59pm
	Week 4: Video Notes and Problems (https://canvas.pointloma.edu/courses/55081/assignments/620416)	due by 11:59pm
Fri Mar 26, 2021	Homework 3: 1.6, 2.1, 2.2, 2.5 (https://canvas.pointloma.edu/courses/55081/assignments/620401)	due by 11:59pm
	Week 4: Class Activity 4 (https://canvas.pointloma.edu/courses/55081/assignments/620402)	due by 11:59pm
Mon Mar 29, 2021	Week 5: Overview	to do: 8am
	Week 5: Videos, Links and Handouts	to do: 11:59pm
	Week 5: Video Notes and Problems (https://canvas.pointloma.edu/courses/55081/assignments/620417)	due by 11:59pm
Fri Apr 2, 2021	Homework 4: 2.3, 2.4, 2.8, 3.1 (https://canvas.pointloma.edu/courses/55081/assignments/620403)	due by 11:59pm
	Week 5: Class Activity 5 (https://canvas.pointloma.edu/courses/55081/assignments/620404)	due by 11:59pm
Mon Apr 5, 2021	Week 6: Overview	to do: 8am

Date	Details	Due
	Week 6: Videos, Links and Handouts	to do: 11:59pm
Thu Apr 8, 2021	Exam 1 (https://canvas.pointloma.edu/courses/55081/assignments/620383)	due by 10:45am
Fri Apr 9, 2021	Homework 5: 3.2, 3.3 (https://canvas.pointloma.edu/courses/55081/assignments/620405)	due by 11:59pm
Mon Apr 12, 2021	Week 7: Overview	to do: 8am
	Week 7: Videos, Links and Handouts	to do: 11:59pm
	Week 7: Video Notes and Problems (https://canvas.pointloma.edu/courses/55081/assignments/620419)	due by 11:59pm
Fri Apr 16, 2021	Week 7: Class Activity 6 (https://canvas.pointloma.edu/courses/55081/assignments/620408)	due by 11:59pm
Mon Apr 19, 2021	Week 8: Overview	to do: 8am
	Week 8: Videos, Links and Handouts	to do: 11:59pm
	Week 8: Video Notes and Problems (https://canvas.pointloma.edu/courses/55081/assignments/620420)	due by 11:59pm
Fri Apr 23, 2021	Homework 6: 4.1, 4.2, 4.3, 4.4 (https://canvas.pointloma.edu/courses/55081/assignments/620409)	due by 11:59pm
	Week 8: Class Activity 7 (https://canvas.pointloma.edu/courses/55081/assignments/620410)	due by 11:59pm
Mon Apr 26, 2021	Week 9: Overview	to do: 8am
	Week 9: Videos, Links and Handouts	to do: 11:59pm

Date	Details	Due
	Week 9: Video Notes and Problems (https://canvas.pointloma.edu/courses/55081/assignments/620421)	due by 11:59pm
Fri Apr 30, 2021	Homework 7: 5.1, 5.2, 5.3, 5.4 (https://canvas.pointloma.edu/courses/55081/assignments/620411)	due by 11:59pm
	Week 9: Class Activity 8 (https://canvas.pointloma.edu/courses/55081/assignments/620412)	due by 11:59pm
Mon May 3, 2021	Week 10: Overview	to do: 8am
	Week 10: Videos, Links and Handouts	to do: 11:59pm
	Week 10: Video Notes and Problems (https://canvas.pointloma.edu/courses/55081/assignments/620422)	due by 11:59pm
Fri May 7, 2021	Homework 8: 5.5, 5.6, 3.4 (https://canvas.pointloma.edu/courses/55081/assignments/620413)	due by 11:59pm
	Week 10: Class Activity 9 (https://canvas.pointloma.edu/courses/55081/assignments/620386)	due by 11:59pm
Mon May 10, 2021	Week 11: Overview	to do: 8am
	Week 11: Videos, Links and Handouts	to do: 11:59pm
Thu May 13, 2021	Exam 2 (https://canvas.pointloma.edu/courses/55081/assignments/620384)	due by 10:45am
Fri May 14, 2021	Homework 9: 3.5, 3.6 (https://canvas.pointloma.edu/courses/55081/assignments/620387)	due by 11:59pm
Mon May 17, 2021	Week 12: Overview	to do: 8am
	Week 12: Videos, Links and Handouts	to do: 11:59pm

Date	Details	Due
	Week 12: Video Notes and Problems (https://canvas.pointloma.edu/courses/55081/assignments/620424)	due by 11:59pm
Fri May 21, 2021	Week 12: Class Activity 10 (https://canvas.pointloma.edu/courses/55081/assignments/620390)	due by 11:59pm
Mon May 24, 2021	Week 13: Overview	to do: 8am
	Week 13: Videos, Links and Handouts	to do: 11:59pm
	Week 13: Video Notes and Problems (https://canvas.pointloma.edu/courses/55081/assignments/620425)	due by 11:59pm
Fri May 28, 2021	Homework 10: 6.1, 6.2, 6.3 (https://canvas.pointloma.edu/courses/55081/assignments/620391)	due by 11:59pm
	Week 13: Class Activity 11 (https://canvas.pointloma.edu/courses/55081/assignments/620392)	due by 11:59pm
Mon May 31, 2021	Week 14: Overview	to do: 8am
	Week 14: Videos, Links and Handouts	to do: 11:59pm
	Week 14: Video Notes and Problems (https://canvas.pointloma.edu/courses/55081/assignments/620426)	due by 11:59pm
Fri Jun 4, 2021	Homework 11: 6.4, 6.5, 7.1, 7.2 (https://canvas.pointloma.edu/courses/55081/assignments/620393)	due by 11:59pm
	Week 14: Class Activity 12 (https://canvas.pointloma.edu/courses/55081/assignments/620394)	due by 11:59pm
Mon Jun 7, 2021	Week 15: Overview	to do: 8am
	Homework 12: 7.3, 7.4, 7.7 (https://canvas.pointloma.edu/courses/55081/assignments/620395)	due by 11:59pm

Date	Details	Due
Thu Jun 10, 2021	**FINAL EXAM** (https://canvas.pointloma.edu/courses/55081/assignments/620385)	due by 1pm
Fri Jun 11, 2021	**Attendance Points** (https://canvas.pointloma.edu/courses/55081/assignments/620382)	due by 11:59pm