	Mathematical, Information and Computer Sciences
POINT LOMA NAZARENE UNIVERSITY	**MTH4151 Data Science Project II**
	Number of Units 1
	Hybrid with 7 In-Person Meetings in RS246
	Final: Monday 5/5 1:30-4:00 PM
Spring 2025	

Instructor: Dr. Maria Zack
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Office hours: In Person or Google Meet. Use this linkLinks to an external site. to book an appointment. These are the times that I work to hold open for appointments. If none of them work you can email me to see if we can find another time. You can come to my office or join via Google meetings. My office is RS246. Monday 1:00-2:00 PM Tuesday 8:30-10:00 AM and 1:00-2:00 PM Wednesday 1:45-2:45 PM Thursday 8:30-10:00 AM Friday 2:00-3:00 PM

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 4151 Data Science Project II (1 Unit)
This course is a continuation of MTH 4142. Students will complete the project begun in MTH 4142 and present their results.

Prerequisite(s): MTH 4142

COURSE LEARNING OUTCOMES

- Students will be able to apply their mathematical knowledge and critical thinking to solve problems. (CC: CT)
- Students will be able to use technology to solve problems.
- Students will be able to speak about their work with precision, clarity and organization. (CC: OC)
- Students will be able to write about their work with precision, clarity and organization. (CC: WC)
- Students will collaborate effectively in teams.
- Students will be able to understand and create arguments supported by quantitative evidence. (CC: QR)
- Students will understand the professional, ethical and social issues and responsibilities with the implementation and use of mathematical models and technology.

The PLO assessed in this course: Students will understand the professional, ethical and social issues and responsibilities with the implementation and use of mathematical models and technology.

The signature assignment for this assessment: Ethics Exercise

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

There is no textbook for this class.

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 2 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**
Project Meetings	7
Project Preparation	8
Data Analysis	22
Writing Paper and Ethics Assignment	5
Total Hours	42

ASSESSMENT AND GRADING

Graded Components

- **Project Design:** This is the first phase of the project which will include identifying a question that you want to answer, identifying the data that can assist in answering the question and getting the data to load in the tool(s) that you will be using to analyze the data.
- **Project Check Points and Deliverables:** In this second phase you will be analyzing the data and providing me with progress reports (PowerPoint presentations and demos of findings from the data along with challenges encountered in the analysis process.
- **Final Project Paper:** You will write a (brief) paper that provides information about your data, your methodology for analyzing the data and your conclusions. *This should include references to articles, books and websites that you have used to acquire the data, analyze the data, and make meaning from the data.* I will provide you with an outline for the paper and we will discuss it in advance.
- **Ethics Assignment**: There will be an assignment due at the end of the semester that will ask you to consider some of the ethical issues that are inherent in the process of gathering and analyzing data. This is due at the time of the final, Monday 5/5 1:30-4:00 PM.
- **Examinations and the Final Examination**. There are no examinations in this class.
- **Late work will not be accepted** without prior consent or a well-documented emergency.

Grading Distribution	Percent
Project Design	20
Project Check Points and Deliverables	50
Final Paper	20
Ethics Assignment	10
Total	100

Grading Scale

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	

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.

ARTIFICIAL INTELLIGENCE (AI) POLICY

Use of Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, Marmot, Botowski) to generate content (text, video, audio, images) that will end up in any work submitted to be graded for this course is not permitted. Use of these tools will be treated as plagiarism. If you have any questions about using AI, please discuss this with the instructor.

PLNU ACADEMIC ACCOMODATIONS 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 (EAC@pointloma.edu or 619-849-2486). 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 allowed accommodations. The EAC makes accommodations available to professors at the student's request.

PLNU highly recommends that students speak with their professors during the first two weeks of each semester/term about the implementation of their AP in that particular course. Accommodations are not retroactive so 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 should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. 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 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 special 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/18i1pUoY0iCfB8w7JKxVvACQW309X-JRB/edit?usp=sharing&ouid=116164865489739533893&rtpof=true&sd=true

	Meeting Information	Assignment Due
13-Jan	Meeting Class Overview Discuss the Project Steps	
20-Jan	MLK Day	Question Posed (Due 1/22 because of MLK Day)
27-Jan		Question Adjusted Based on Feedback
3-Feb	**Meeting**	Data Identified and Any Question Modification
10-Feb	**Meeting**	Data Loaded and Check Statistics Run
17-Feb		
24-Feb		
3-Mar	**Meeting**	Data Analysis Progress Report #1
10-Mar	**Spring Break**	
17-Mar	**Meeting**	Data Analysis Progress Report #2
24-Mar		
31-Mar		
7-Apr	**Meeting**	Data Analysis Progress Report #3
14-Apr		Paper Outline
21-Apr	Easter Recess	
28-Apr	**Meeting**	Final Paper and Discussion of Findings
Finals Week	**Monday 5/5 1:30-4:00 PM**	Ethics Assignment

Course Summary:

Date	Details	Due
Wed Jan 22, 2025	Assignment Identifying Your Question	due by 3pm
Mon Jan 27, 2025	Assignment Modifying Your Question	due by 3pm
Mon Feb 3, 2025	Assignment Identifying the Data Source	due by 3pm
Mon Feb 10, 2025	Assignment Data Loading and Basic Checks	due by 3pm
Mon Mar 3, 2025	Assignment Data Analysis Progress Report #1	due by 3pm
Mon Mar 17, 2025	Assignment Data Analysis Progress Report #2	due by 3pm
Mon Apr 7, 2025	Assignment Data Analysis Progress Report #3	due by 3pm

Date	Details	Due
Mon Apr 14, 2025	Assignment [Paper Outline](#)	due by 3pm
Mon Apr 28, 2025	Assignment [Final Paper](#)	due by 3pm
Mon May 5, 2025	Assignment [Ethics](#)	due by 1:30pm