

Fermanian School of Business Point Loma Nazarene University

BBU 3010: Data-Driven Decision Making

Number of Units: 3

Spring 2024 Quad II

Meeting days: N/A	Instructor: Diane Law, DBA	
Meeting times: N/A	Phone: (408) 472-7085	
Meeting location: Online	E-mail: dlaw@pointloma.edu	
Final Exam: N/A	Office location and hours: Via zoom by appointment	
Additional info:		

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.

Fermanian School of Business Mission Character – Professionalism – Excellence – Relationships – Commitment Innovation

As members of a vital Christian community, we strive to provide high quality business programs that equip students to make a positive impact in their workplace and community by connecting purpose to practice.

COURSE DESCRIPTION

This course explores how leaders can use data to inform the decision-making process. Topics include identifying the right information, eliminating bias, understanding predictive analytics, data visualization, communicating uncertainty and addressing challenges to your data. An emphasis is placed on basic methods of gathering, analyzing and communicating data.

COURSE LEARNING OUTCOMES

Upon completion of this course, students will be able to:

- 1. Define "big data" and the increasing role of evidence-based decision making to support executive decision making (PLO 1).
- 2. Explain the differences between predictive, prescriptive, and descriptive analytics, and the organizational questions that can be answered with each approach (PLO 1).
- 3. Examine the processes of gathering, analyzing, visualizing and communicating data (PLO 1, 2).
- 4. Demonstrate an understanding of the principles of analytics using examples from a variety of organizational functions and industries (PLO 2).
- 5. Recognize the ethical implications of collecting, managing, and using data for managers and leaders (PLO 4).

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

- 1. Herkenhoff, L., & Fogli, J. (2017). *Analytics boot camp: basic analytics for business students and professionals* (Ser. Big data and business analytics collection). Business Expert Press. January 2, 2024.
- 2. Knaflic, C. N. (2015). Storytelling with data: a data visualization guide for business professionals. Wiley. January 2, 2024.
- 3. Loth, A., Vogel, N., & Sparkes, S. (2019). *Visual analytics with tableau*. John Wiley & Sons. January 2, 2024.
- 4. Microsoft Excel Available through PLNU.
- 5. Tableau Student Edition Available online.

ASSESSMENT AND GRADING

Activities and Point Distribution

Activity	Total Points
Weekly Assignments (62.5%)	665
Video Lecture Participation (20%)	160
Weekly Discussions (17.5%)	175
Total Points (100%)	1000

Points will be converted to grades as follows:

Points	Grade	Points	Grade
930-1000	A	730-769	С
900-929	A-	700-729	C-
870-899	B+	670-699	D+
830-869	В	630-669	D
800-829	В-	600-629	D-
770-799	C+	0-599	F

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 on Canvas. Incompletes will only be assigned in extremely unusual circumstances.

ARTIFICIAL INTELLIGENCE (AI) POLICY

You are allowed to use Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, Marmot, Botowski) 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. The use of AI for work submitted to be graded in this course will be considered plagiarism. If you have any doubts about using AI, please obtain

permission from the instructor.

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 8 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 112.5 total hours meeting the course learning outcomes. The time estimations are provided in the Canvas modules.

CONTENT WARNING

I acknowledge that each of you comes to PLNU with your own unique life experiences. This contributes to the way you perceive various types of information. In Data-Driven Decision Making all the class content, including that which may be intellectually or emotionally challenging, has been intentionally curated to achieve the learning goals for this course. The decision to include such material is not taken lightly. These topics include [list topics]. If you encounter a topic that is intellectually challenging for you, it can manifest in feelings of discomfort and upset. In response, I encourage you to come talk to me or your friends or family about it. Class topics are discussed for the sole purpose of expanding your intellectual engagement in the area of [subject/major], and I will support you throughout your learning in this course.

TRIGGER WARNING

I acknowledge that each of you comes to PLNU with your own unique life experiences. This contributes to the way you perceive several types of information. In Data-Driven Decision Making, we will cover a variety of topics, some of which you may find triggering. These topics include (list topics). Each time this topic appears in a reading or unit, it is marked on the syllabus. The experience of being triggered versus intellectually challenged are different. The main difference is that an individual must have experienced trauma to experience being triggered, whereas an intellectual challenge has nothing to do with trauma. If you are a trauma survivor and encounter a topic in this class that is triggering for you, you may feel overwhelmed or panicked and find it difficult to concentrate. In response, I encourage you to take the necessary steps for your emotional safety. This may include leaving class while the topic is discussed or talking to a therapist at the Counseling Center. Should you choose to sit out on discussion of a certain topic, know that you are still responsible for the material; but we can discuss in there are other methods for accessing that material, and for assessing your learning on that material. Class topics are discussed for the sole purpose of expanding your intellectual engagement in the area of (subject/major), and I will support you throughout your learning in this course.

LANGUAGE AND BELONGING

Point Loma Nazarene University faculty are committed to helping create a safe and hospitable learning environment for all students. As Christian scholars we are keenly aware of the power of language and believe in treating others with dignity. As such, it is important that our language be equitable, inclusive, and prejudice free Inclusive/Bias-free language is the standard outlined by all major academic style guides, including MLA, APA and Chicago, and it is the expected norm in university-level work. Good writing and speaking do not use unsubstantiated or irrelevant generalizations about personal qualities such as age, disability, economic class ethnicity, marital status, parentage, political or religious beliefs, race, gender, sex, or sexual orientation. Inclusive language also avoids using stereotypes or terminology that demeans persons or groups based on age, disability, class, ethnicity, gender, race, language, or national origin. Respectful use of language is particularly important

when referring to those outside of the religious and lifestyle commitments of those in the PLNU community. By working toward precision and clarity of language, we mark ourselves as serious and respectful scholars, and we model the Christ-like quality of hospitality.

You may report an incident(s) using the Bias Incident Reporting Form.

LOMA WRITING CENTER

The Loma Writing Center exists to help all members of the PLNU community cultivate transferable writing skills to engage their academic, professional, personal, and spiritual communities. We work toward this goal by conducting one-on-one consultation sessions, supporting writing education across the PLNU community, and participating in ongoing writing center research.

Getting feedback from the Loma Writing Center while you're in the process of working on an assignment is a great way to improve the quality of your writing and develop as a writer. You are encouraged to talk with a trained writing consultant about getting started on an assignment, organizing your ideas, finding, and citing sources, revising, editing for grammar, and polishing final drafts, and more. For information about how to make in-person or online appointments, see Loma Writing Center webpage or visit the Loma Writing Center on the first floor of the Ryan Library, room 221.

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.

PLNU strives to be a place where you grow as a whole person. To this end, we provide resources for our Graduate and Adult Undergraduate students to encounter God and grow in their Christian faith. At the Mission Valley (MV) campus we have an onsite chaplain who is available during class break times across the week. If you have questions for, desire to meet or share a prayer request, please email mychaplain@pointloma.edu. In addition, on the MV campus there is a prayer chapel on the third floor which is open for use as a space set apart for quiet reflection and prayer.

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 to view which states allow online (distance education) outside of California.

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 the <u>Academic Honesty Policy</u> in the Graduate and Professional Studies Catalog for definitions of kinds of academic dishonesty and for further policy information.

During the first week of class, you will be asked to submit an Academic Honesty Verification Statement. Submitting the statement is a requirement of this course. By submitting the Academic Honesty Verification Statement, you will be verifying all assignments completed in this course were completed by you. Carefully review the Academic Honesty Statement below.

Statement: "In submitting this form, I am verifying all the assignment in this course will be completed by me and will be my own work."

PLNU ACADEMIC ACCOMMODATIONS POLICY

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities. 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 issue an academic accommodation plan ("AP") to all faculty who teach courses in which the student is enrolled each semester.

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 and/or if they do not wish to utilize some or all of the elements of their AP in that course.

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.

PLNU ATTENDANCE AND PARTICIPATION POLICY

Regular and punctual attendance at all **synchronous** class sessions is considered essential to optimum academic achievement. Therefore, regular attendance and participation in each course are minimal requirements. If the student is absent from more than 10 percent of class sessions (virtual or face-to-face), 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 an "F" grade.

In some courses, a portion of the credit hour content will be delivered **asynchronously**, and attendance will be determined by submitting the assignments by the posted due dates. See <u>ADC Academic Policies in the Graduate and Professional Studies Catalog.</u>

Asynchronous Attendance/Participation Definition: Students taking online courses with no specific scheduled meeting times are expected to actively engage throughout each week of the course. Attendance is defined as participating an academic activity within the online classroom which

includes, but not limited:

- Engaging in an online discussion
- Submitting an assignment
- Taking an exam
- Participating in online labs
- Initiating contact with faculty member within the learning management system to discuss course content

Note: Logging into the course does not qualify as participation and will not be counted as meeting the attendance requirements.

Students who anticipate being absent for an entire week of a course should contact the instructor in advance for approval and make arrangements to complete the required coursework and/or alternative assignments assigned at the discretion of the instructor.

SEXUAL MISCONDUCT AND DISCRIMINATION

In support of a safe learning environment, if you (or someone you know) have experienced any form of sexual discrimination or misconduct, including sexual assault, dating or domestic violence, or stalking, know that help and support are available through the Title IX Office at <u>pointloma.edu/Title-IX</u>. Please be aware that under Title IX of the Education Amendments of 1972, faculty and staff are required to disclose information about such misconduct to the Title IX Office.

If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact Counseling Services at counselingservices@pointloma.edu or find a list of campus pastors at pointloma.edu/title-ix.

COURSE MODALITY DEFINITIONS

- 1. **In-Person:** Course meetings are face-to-face with no more than 25% online delivery.
- 2. **Online:** Coursework is completed 100% online and asynchronously.
- 3. **Online Synchronous:** Coursework is completed 100% online with required weekly online class meetings.
- 4. **Hybrid:** Courses that meet face-to-face with required online components.

USE OF TECHNOLOGY

In order to be successful in your course, you'll need to meet the minimum technology and system requirements; please refer to the <u>Technology and System Requirements</u> information. Additionally, students are required to have headphone speakers, microphone, or webcams compatible with their computer available to use for any online or hybrid classes. Please note that any course with online proctored exams require a computer with a camera (tablets are not compatible) to complete exams online.

Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work on time.

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 Class 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

COURSE SCHEDULE AND ASSIGNMENTS

The 'official' and up-to-date schedule of all activities will be on the Canvas website. Check Canvas for up-to-date schedules.

Week	Readings/Assignments	Торіс
1	Review Course in Canvas and Syllabus	Course Introduction
	Read Chapter 1	Introduction to Analytics
	Complete the following assignments:	Getting Started with Tableau
	 Discussion Response 	
	Weekly Video Lecture Assignment	
	Week 1 Assignment	
2	Read Chapter 2 & 3	Basic Charts
	Complete the following assignments:	Summarizing Data
	Discussion Response	Creating Data Visualizations
	Weekly Video Lecture Assignment	Tableau Prep
	Week 2 Assignment	
3	Read Chapter 4 & 5	Aggregate Functions, Calculated
	Complete the following assignments:	Fields and Parameters
	Discussion Response	Table Calculations and Level of
	Weekly Video Lecture Assignment	Detail Calculations
	Week 3 Assignment	
4	Read Chapter 6	Correlation
	Complete the following assignments:	Dissecting Model Visuals
	 Discussion Response 	Maps
	Weekly Video Lecture Assignment	
	Week 4 Assignment	
5	Read Chapter 7	Simple Linear Regression
	Complete the following assignments:	Lessons in Storytelling
	Weekly Video Lecture Assignment	Advanced Analytics
	 Weekfy video Eceture Assignment Week 5 Assignment 	ravancea rinary res
	Week 5 Assignment	
6	Read Chapter 8	Putting it all Together
	Complete the following assignments:	Interactive Dashboards
	Discussion Response	
	Weekly Video Lecture Assignment	
	Week 6 Assignment	
	Dogo 7	

7	Read Chapter 9 Complete the following assignments: • Discussion Response • Weekly Video Lecture Assignment	Sharing Insights
	Week 7 Assignment	
8	Read Chapter 10 Complete the following assignments:	Data Preparation with Tableau Prep