Course Syllabus





Point Loma Nazarene University CSC3003 / EGR3003 Unix and Python Scripting Spring 2024 (3 Credit Hours)

Time and Place: Tuesday, Thursday 9:30 - 10:45 am

PLNU Campus - Later Hall Room 102

Final Exam: Tuesday, April 30, 10:30 am

Instructor: Mike Leih (619) 248-3008

mleih@pointloma.edu office: Rohr Science 240

Office Hours:	Monday	9:30 am to 10:45 am
	Tuesday	10:45 am to 12:15 pm
	Thursday	10:45 am to 12:15 pm
	Friday	9:30 am to 10:45 am

Students are welcome to contact me via e-mail and schedule an appointment whenever I am available. Appointments can be face-to-face in my office, on the phone, or via a video conference call. I will keep office hours as often as I can, but off-campus appointments may require me to be unavailable. It is always best to arrange a time and location with me prior to a meeting.

Changes to Course and Syllabus: The syllabus and course schedule presented here is subject to change based on the learning needs of the students as determined by the instructor. Changes will be announced in class or through e-mail. Students are responsible for checking their PLNU e-mail and reviewing due dates in Canvas on a regular basis to ensure they are aware of changes.

Text:

Python for Data & Analytics A Business-Oriented Approach, 1st Edition

Prospect Press, Daniel Groner

ISBN: 978-1-943153-99-2

A Digital or Physical copy of the book can be purchased from the Prospect Press website:

https://www.prospectpressvt.com/textbooks/groner-python#student-buy (https://www.prospectpressvt.com/textbooks/groner-python#student-buy)

Unix Computer Operating System

Tutorialspoint - Simply Easy Learning

Free Access: academia.edu - Sign up for a free account - Search of "Unix Tutorial" by Sakshi Bajaj - Download the free PDF (you do not need to purchase the premium package).

Needed Supplies:

Access to a laptop computer running either Windows or MacOS. You must bring your computer to class to start in-class assignments more easily. You should bring your textbook to each class session. We will use information from the textbook each week as part of in-class assignments.

Catalog Description:

A course in Python programming that focuses on applications in data science, data analytics, and computational science. Programming exercises will emphasize data analysis techniques using modern

third-party libraries. Students will also be introduced to UNIX based commands and utilities in data management and manipulation.

Course Learning Outcomes:

- Students will be able to write correct and robust Python programs.
- Students will be able to apply their technical knowledge in Unix and Python to solve problems.
- Students will be able to communicate effectively to an interdisciplinary audience using the technologies presented in this course.

Course Organization:

Reading: The assigned reading each week should be completed before class. Lecture, class discussion, and class activities will be based on the assumption that the reading has been completed before the class where the topic is being discussed.

Chapter Quizzes: Quizzes are open book and will focus on having read and understood the reading assignment. Quizzes will be taken online using Canvas before class and will be available a week before they are due. Each quiz will have 10 questions, and students will have 8 minutes to complete it. Each quiz is due before we discuss the topic in class. This is to encourage students to complete the reading prior to class discussion. Missed quizzes will receive zero points, and there will be no make-up for missed quizzes. Quiz questions are randomly pulled from a dataset, and students are able to take the quiz two times. The highest quiz score will be recorded.

Chapter Questions: After reading a given chapter, students should submit one or more questions they have regarding the chapter before 6 am on the due date (typically before the chapter is discussed in class). Questions posted after the due date or are unrelated to the assigned chapter reading will receive zero points.

Chapter Activities and Homework: In each chapter, students will be assigned a series of class activities and problems to begin during class time and then completed before the next class sessions. Activities and assignments will be based on in-class discussions and various problem-solving tasks to reinforce the learnings covered in the weekly readings.

Weekly Online Topic and Lab: Each week, additional course topics will be introduced via an online video. Each online topic will require a hands-on lab response, online discussion, and/or topic quiz.

Exams: Three exams will be given in class, two exams, and a final exam. Exams will cover the material up to the exam. The final exam will cover all material throughout the course. The exam will be closed-book and closed-note. A portion of the final exam may be open-book. If you will miss an exam for a school function, you must make arrangements ahead of time to take it during an alternative time. If you ever miss an exam without giving the instructor prior notice, there is a good chance you will receive a zero unless, of course, there was clearly an emergency. All exams will require using Honorlock and screen recording to ensure students do not share exam solutions, communicate with other people, or use artificial intelligence during the exam.

Final Exam - Date and Time: The final exam is scheduled for the Tuesday of finals week at 10:30 am. It will be cumulative for the entire course and contain questions similar to those on both the exams and chapter reading quizzes.

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.

E-mail and Messages:

Students are expected to regularly use their PLNU e-mail. The instructor will periodically send you information and updates via e-mail and/or canvas. Students <u>must</u> activate their PLNU e-mail account a week prior to the first class session if they are not currently using it.

Activity Point Distribution: Note: Points may be adjusted throughout the semester to meet the learning objectives of the course.

Activity	Points	Percent
Chapter Questions	65	7%
Chapter Quizzes	130	13%
Chapter Homework	335	35%
Presentation	20	2%

Exams	120	12%
LXumo	120	1270
Final Exams	300	31%
Total	970	100%

Grading Scale:

The grading scale for the course, in percentages of the maximum points, is:

A	92.50 - 100%	С	72.50 - 77.49%
A-	90.00 - 92.49%	C-	70.00 - 72.49%
B+	87.50 - 89.99%	D+	67.50 - 69.99%
В	82.50 - 87.49%	D	62.50 - 66.49%
B-	80.00 - 82.49%	D-	60.00 - 62.49%
C+	77.50 - 79.99%	F	0 - 59.99%

Credit Hour Information: Distribution of Student Learning Hours

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 15 weeks. Specific details about how the class meets the credit hour requirements can be provided upon request. It is anticipated that you will spend a minimum of 37.5 participation hours per credit hour in your course. The estimated time expectations for this course are shown below:

Activity	Hours
Chapter Reading and Online Quizzes	34

In-Class Discussion and Activities	32
Chapter Assignments	32
Presentation	6
Exams Preparation	8
TOTAL	112

Late Homework/Classwork:

Online chapter quizzes, chapter questions, and assignments are not accepted late. If you fail to take the chapter quiz or post a chapter question before the due date/time, you will receive zero points. Assignments are not accepted late unless by official university accommodation at the discretion of the instructor. No assignment will be accepted after the last day of class.

University 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 becomes an expression of faith. Being of Wesleyan heritage, we aspire to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

Institutional Learning Outcomes:

- 1. Learning, Informed by our Faith in Christ Students will acquire knowledge of human cultures and the physical and natural world while developing skills and habits of the mind that foster lifelong learning.
- 2. Growing, In a Christ-Centered Faith Community Students will develop a deeper and more informed understanding of others as they negotiate complex professional, environmental, and social contexts.
- 3. Serving, In a Context of Christian Faith Students will serve locally and/or globally in vocational and social settings.

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.

Attendance:

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 the Undergraduate Academic Catalog Class Attendance.

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.

Academic Accommodations:

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 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.

Academic Honesty:

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 in the Graduate and Professional Studies Catalog for definitions of kinds of academic dishonesty and further policy information.

The author's solutions to questions and problems might be found on the Internet (or other sources) for free or for purchase. The clear use of the author's solution (or the solution not developed by the student) as determined by the instructor, not provided to you by the instructor or through in-class videos for a single question or problem on an assignment will, at minimum, result in a zero for the entire assignment or up to a failing grade in the course on the first offense. The student will receive a failing grade in the course on the second offense.

Artificial Intelligence (AI) Policy:

You can use Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, Marmot, Botowski) to generate ideas. Still, 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 unless explicitly called for in the assignment instructions. If you have any doubts about using AI, please gain permission from the instructor.

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.

Copyright Protected Materials:

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.

Course Summary:

Tue Jan 16, 2024 Tue Jan 16, 2024 Tue Jan 23, 2024	Date Details		Due
(https://canvas.pointloma.edu/courses/72317/assignments/988954) due by the Jan 16, 2024 Tue Jan 16, 2024 Unix Question - Due 6am Tuesday, (https://canvas.pointloma.edu/courses/72317/assignments/988982) due by the Jan 23, 2024 Tue Jan 23, 2024 Assignment Unix (https://canvas.pointloma.edu/courses/72317/assignments/988988) due by the Jan 23, 2024 Ch 02 and 03 Question - Due 6am Tuesday.	Mon Jan 15, 2024	<u> </u>	to do: 11:59pm
Tue Jan 16, 2024 Tue Jan 16, 2024 Ch 02 and 03 Question - Due 6am Tuesday. Due by 0 (https://canvas.pointloma.edu/courses/72317/assignments/988988) due by 0 (https://canvas.pointloma.edu/courses/72317/assignments/9889888) due by 0 (https://canvas.pointloma.edu/courses/72317/assignments/988988) due by 0 (htt			nts/988954). due by 6am
Tue Jan 23, 2024 Assignment Unix (https://canvas.pointloma.edu/courses/72317/assignments/988988) due by 9:30 (https://canvas.pointloma.edu/courses/72317/assignments/988988) due by 0 Ch 02 and 03 Question - Due 6am Tuesday	Tue Jan 16, 2024	<u>Tuesday</u>	nts/988982) due by 6am
(https://canvas.pointloma.edu/courses/72317/assignments/988988) due by the control of the contro		• •	<u>nts/98895</u> ളൂue by 9:30am
<u>6am Tuesday</u>	Tue Jan 23, 2024		nts/988988). due by 6am
		6am Tuesday	nts/988976) due by 6am
		• •	due by 9:30am

Date Details Due Assignment Ch 02 and 03 (https://canvas.pointloma.edu/courses/72317/assignments/988989) due by 6am Ch 04 Question - Due 6am <u>Tuesday</u> Tue Jan 30, 2024 due by 6am (https://canvas.pointloma.edu/courses/72317/assignments/988978) Ch 04 Quiz (https://canvas.pointloma.edu/courses/72317/assignments/988964)ue by 9:30am Assignment Ch 04 (https://canvas.pointloma.edu/courses/72317/assignments/988990) due by 6am Ch 05 Question - Due 6am <u>Tuesday</u> Tue Feb 6, 2024 due by 6am (https://canvas.pointloma.edu/courses/72317/assignments/988979) Ch 05 Quiz (https://canvas.pointloma.edu/courses/72317/assignments/98896@ue by 9:30am Assignment Ch 05 (https://canvas.pointloma.edu/courses/72317/assignments/988991) due by 6am Ch 06 Question - Due 6am **Tuesday** Tue Feb 13, 2024 due by 6am (https://canvas.pointloma.edu/courses/72317/assignments/988980) Ch 06 Quiz (https://canvas.pointloma.edu/courses/72317/assignments/98896@ue by 9:30am

Date	Details Due
Thu Feb 15, 2024	Exam 1 (https://canvas.pointloma.edu/courses/72317/assignments/9889@6e by 10:45am
	Assignment Ch 06 (https://canvas.pointloma.edu/courses/72317/assignments/988992). due by 6am
Tue Feb 20, 2024	Ch 07 and 08 Question - Due 6am Tuesday (https://canvas.pointloma.edu/courses/72317/assignments/988977) due by 6am
	© Ch 07 and 08 Quiz (https://canvas.pointloma.edu/courses/72317/assignments/988968) ue by 9:30am
	Assignment Ch 07 and 08 (https://canvas.pointloma.edu/courses/72317/assignments/988993). due by 6am
Tue Feb 27, 2024	Ch 09 Question - Due 6am Tuesday (https://canvas.pointloma.edu/courses/72317/assignments/988983) due by 6am
	Ch 09 Quiz (https://canvas.pointloma.edu/courses/72317/assignments/98896@ue by 9:30am
Tue Mar 12, 2024	Assignment Ch 09 (https://canvas.pointloma.edu/courses/72317/assignments/988994). due by 6am
	Ch 10 Question - Due 6am Tuesday (https://canvas.pointloma.edu/courses/72317/assignments/988984) due by 6am

(https://canvas.pointloma.edu/courses/72317/assignments/988974)

Date Details Due Assignment Ch 10 (https://canvas.pointloma.edu/courses/72317/assignments/988995) due by 6am Ch 11 Question - Due 6am <u>Tuesday</u> Tue Mar 19, 2024 due by 6am (https://canvas.pointloma.edu/courses/72317/assignments/988985) Ch 11 Quiz (https://canvas.pointloma.edu/courses/72317/assignments/98896@ue by 9:30am Assignment Ch 11 (https://canvas.pointloma.edu/courses/72317/assignments/988996) due by 6am Tue Mar 26, 2024 (https://canvas.pointloma.edu/courses/72317/assignments/988984e by 10:45am Ch 12 Question - Due 6am **Tuesday** (https://canvas.pointloma.edu/courses/72317/assignments/988981) due by 6am Tue Apr 2, 2024 Ch 12 Quiz (https://canvas.pointloma.edu/courses/72317/assignments/98895@ue by 9:30am Tue Apr 9, 2024 Assignment Ch 12 (https://canvas.pointloma.edu/courses/72317/assignments/988997) due by 6am Ch 13 Question - Due 6am due by 6am (https://canvas.pointloma.edu/courses/72317/assignments/990058)

Date Details Due Ch 13 Quiz (https://canvas.pointloma.edu/courses/72317/assignments/99005@ue by 9:30am Assignment Ch 13 (https://canvas.pointloma.edu/courses/72317/assignments/988998) due by 6am Ch 14 Question - Due 6am **Tuesday** Tue Apr 16, 2024 due by 6am (https://canvas.pointloma.edu/courses/72317/assignments/988975) Ch 14 Quiz (https://canvas.pointloma.edu/courses/72317/assignments/98897aue by 9:30am Assignment Ch 14 (https://canvas.pointloma.edu/courses/72317/assignments/988999) due by 6am Ch 16 Question - Due 6am <u>Tuesday</u> Tue Apr 23, 2024 due by 6am (https://canvas.pointloma.edu/courses/72317/assignments/988987) **Ch 16 Quiz** (https://canvas.pointloma.edu/courses/72317/assignments/98896@ue by 9:30am **Extra Credit Survey** (https://canvas.pointloma.edu/courses/72317/assignments/9889@0e by 10:45am Thu Apr 25, 2024 Assignment Ch 16 - In Class (https://canvas.pointloma.edu/courses/72317/assignments/9890@0e by 11:59pm Fri Apr 26, 2024 Tue Apr 30, 2024 **Final Exam - Closed Book** due by 4pm (https://canvas.pointloma.edu/courses/72317/assignments/988972)

Date

Details

Final Exam - Open Book
(https://canvas.pointloma.edu/courses/72317/assignments/988962). due by 4pm

Presentation
(https://canvas.pointloma.edu/courses/72317/assignments/989001).

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