Point Loma Nazarene University
CSC3003 / EGR3003 Unix and Python Scripting
Spring 2025 (3 Credit Hours)

Time and Place:	Section 1: Tuesday, Thursday 9:30 - 10:45 am Section 2: Tuesday, Thursday 11:00 am - 12:15 pm PLNU Campus - Rohr Science 395
Final Exam:	Section 1: Thursday May 8, 2025 10:30 am - 1:00 pm Section 2: Tuesday May 6, 2025 10:30 am - 1:00 pm

Instructor:	Randy Scovil	(619) 849-2219
	rscovil@pointloma.edu	Office: Rohr Science 278

Office Hours:	Tuesday/Thursday, RS278	12:30 to 1:20 pm

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.

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.

Mathematical, Information and Computer Sciences 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.

Physics and Engineering Department Mission:

The Physics and Engineering Department at PLNU provides strong programs of study in the fields of Physics and Engineering. Our students are well prepared for graduate studies and careers in scientific and engineering fields. We emphasize a collaborative learning environment which allows students to thrive academically, build personal confidence, and develop interpersonal skills. We provide a Christian environment for students to learn values and judgment and pursue integration of modern scientific knowledge and Christian faith.

Changes to Course and Syllabus: T

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.

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 must activate their PLNU e-mail account a week prior to the first class session if they are not currently using it.

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-buyLinks to an external site.

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:

CSC 3003 Python and UNIX (3 Units)
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.

Letter grade.
Also offered as EGR 3003.
Prerequisite(s): CSC 1043 or EGR 1043 with a grade of C- or higher.

EGR 3003 Python and UNIX (3 Units)
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.

Letter grade.
Also offered as CSC 3003.
Prerequisite(s): EGR 1043 with a grade of C- or higher.

Program Learning Outcomes

Computer Science:

- Students will be able to write correct and robust software.
- Students will be able to apply their technical knowledge and critical thinking to solve problems. (CC: CT)
- Students will understand the professional, ethical and social issues and responsibilities with the implementation and use of technology.

Engineering:

- PLO #1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics (CC: CT)

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.

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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 16 weeks. It is anticipated that students will spend a minimum of 37.5 participation hours per credit hour on their coursework. 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**

Course Assessment and Grading:

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 and you will take the exam at 8:30 AM on the Saturday before finals (May 3). 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 Section 1 is scheduled for the Thursday of finals week at 10:30 am. The final for Section 2 is scheduled for 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.

Activity	Points	Percent
Chapter Questions	65	7%
Chapter Quizzes	130	13%
Chapter Homework	335	35%
Presentation	20	2%
Exams	120	12%
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%		**C**	72.50 - 77.49%
A-	90.00 - 92.49%		**C-**	70.00 - 72.49%
B+	87.50 - 89.99%		**D+**	67.50 - 69.99%
B	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%

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. Incompletes will only be assigned in extremely unusual circumstances.

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 Accommodations 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=trueLinks to an external site.

Course Summary:

Date	Details	Due
Tue Jan 14, 2025	Assignment Assignment AWS	due by 6am
	Discussion Topic Unix Question - Due 6am Tuesday	due by 6am
	Quiz Unix Quiz	due by 9:30am
Mon Jan 20, 2025	Page Unix Tutorial Reading Assignment	to do: 11:59pm
Tue Jan 21, 2025	Assignment Assignment Unix	due by 6am
	Discussion Topic Ch 02 and 03 Question - Due 6am Tuesday	due by 6am
	Quiz Ch 02 and 03 Quiz	due by 9:30am

Date	Details	Due
Tue Jan 28, 2025	Assignment Assignment Ch 02 and 03	due by 6am
	Discussion Topic Ch 04 Question - Due 6am Tuesday	due by 6am
	Quiz Ch 04 Quiz	due by 9:30am
Tue Feb 4, 2025	Assignment Assignment Ch 04	due by 6am
	Discussion Topic Ch 05 Question - Due 6am Tuesday	due by 6am
	Quiz Ch 05 Quiz	due by 9:30am
Tue Feb 11, 2025	Assignment Assignment Ch 05	due by 6am
	Discussion Topic Ch 06 Question - Due 6am Tuesday	due by 6am
	Quiz Ch 06 Quiz	due by 9:30am
Thu Feb 13, 2025	Quiz Exam 1	due by 10:45am
Tue Feb 18, 2025	Assignment Assignment Ch 06	due by 6am
	Discussion Topic Ch 07 and 08 Question - Due 6am Tuesday	due by 6am
	Quiz Ch 07 and 08 Quiz	due by 9:30am
Tue Feb 25, 2025	Assignment Assignment Ch 07 and 08	due by 6am
	Discussion Topic Ch 09 Question - Due 6am Tuesday	due by 6am

Date	Details	Due
	Quiz Ch 09 Quiz	due by 9:30am
Tue Mar 18, 2025	Assignment Assignment Ch 09	due by 6am
	Discussion Topic Ch 10 Question - Due 6am Tuesday	due by 6am
	Quiz Ch 10 Quiz	due by 9:30am
Tue Mar 25, 2025	Assignment Assignment Ch 10	due by 6am
	Discussion Topic Ch 11 Question - Due 6am Tuesday	due by 6am
	Quiz Ch 11 Quiz	due by 9:30am
Tue Apr 1, 2025	Assignment Assignment Ch 11	due by 6am
	Quiz Exam 2	due by 10:45am
Tue Apr 8, 2025	Discussion Topic Ch 12 Question - Due 6am Tuesday	due by 6am
	Quiz Ch 12 Quiz	due by 9:30am
Tue Apr 15, 2025	Assignment Assignment Ch 12	due by 6am
	Discussion Topic Ch 13 Question - Due 6am Tuesday	due by 6am
	Quiz Ch 13 Quiz	due by 9:30am
Tue Apr 22, 2025	Assignment Assignment Ch 13	due by 6am

Date	Details	Due
	Discussion Topic Ch 14 Question - Due 6am Tuesday	due by 6am
	Quiz Ch 14 Quiz	due by 9:30am
Tue Apr 29, 2025	Assignment Assignment Ch 14	due by 6am
	Discussion Topic Ch 16 Question - Due 6am Tuesday	due by 6am
	Quiz Ch 16 Quiz	due by 9:30am
Thu May 1, 2025	Quiz Extra Credit Survey	due by 10:45am
Fri May 2, 2025	Assignment Assignment Ch 16 - In Class	due by 11:59pm
Tue May 6, 2025	Quiz Final Exam - Closed Book	due by 1pm
	Quiz Final Exam - Open Book	due by 1pm
	Assignment Presentation	