Course Syllabus

Jump to Today



Point Loma Nazarene University School of STEM CIT 4024 Visual Programming Spring 2025- Hybrid (4 Credit Hours)

Time and Place:	Thursday Evenings 6:00 pm – 10:00 pm
	Grossmont Collage, Room 34-170
Final Exam	Thursday, March 6, 2025, 8:30 pm

Instructor:	Prof. Scott Mayer	
	smayer@pointloma.edu	office: Online

Students are welcome to contact me via e-mail and schedule an appointment at any time, as I am available. Appointments can be face-to-face in my office, on the phone, or via a video conference call.

Text: (Note: the print copy textbook for this course is lent to the students for the duration of the course. Students will be charged if the textbook is not returned at the end of the course).

Starting out with Python, Fourth Edition

Tony Gaddis

ISBN: 978-0-13-444432-1

Needed Supplies:

Access to a laptop computer running Windows OS, MacOS or Linux OS with at least 8Gb of RAM and 10GB of free storage space, standard office software, and the ability to install software on your computer. A working webcam, microphone and speakers (or headphones) with a sufficient internet connection to attend Zoom meetings. You are required to have your computer during class to work on in-class activities and to begin assignments. You should bring your textbook to each class sessions. We will be using information from the textbook each week as part of in class assignments.

Catalog Description:

This course is designed to provide a practical approach to event based visual programming using modern-general purpose programming languages, such as C#, Java, or Python. This course teaches the core concepts of programming, such as proper variable usage, decision structures, iterative structures, common data structures, and proper programming logic. Students will learn the programming language through many hands-on assignments in developing event based and visual computer applications. The integration of databases, such as MySQL or MS SQL will provide additional depth of knowledge. In addition, the course will introduce object oriented programming techniques and the use of complex data structures.

Course Learning Outcomes:

- 1. Students will be able to create and develop both command line and graphical based programs.
- 2. Students will be able to use an Integrated Development Environment (IDE) to create programs.
- 3. Students will be able to implement appropriate decision and iterative structures in programs.
- 4. Students will be able to select appropriate GUI elements for a given program requirement and configure the GUI element's properties.
- 5. Students will be able to implement array data structures in their programs.
- 6. Students will be able to create appropriate hierarchical class structures that leverage inheritance.
- 7. Students will be able to create programs that can access database files and use the resulting data in the program.

Program Learning Outcomes:

Graduates will have a coherent and broad-based knowledge of the discipline of Computer Information Technology.

- 1. Students will be able to identify and evaluate information technology infrastructure necessary to meet an organization's business needs.
- 2. Students will be able to develop, plan and evaluate appropriate processes for managing information systems and information technology projects.
- 3. Students will be able to design, develop, and evaluate software solutions to meet an organization's business needs.
- 4. Students will be able to apply their technical knowledge to solve problems.
- 5. Students will be able to speak about their work with precision, clarity and organization (Oral Communication).
- 6. Students will be able to write about their work with precision, clarity and organization (Written Communication).
- 7. Students will collaborate effectively in teams.
- 8. Students will be able to identify, locate, evaluate, and effectively and responsibly use and cite information for the task at hand (Information Literacy).
- 9. Students will be able to gather relevant information, examine information and form a conclusion based on that information (Critical Thinking).
- 10. Students will be able to understand and create arguments supported by quantitative evidence, and they can clearly communicate those arguments in a variety of formats (Quantitative Reasoning).
- 11. Students will understand the professional, ethical, legal, security and social issues and responsibilities with the implementation and use of information technology.
- 12. Computer Information Technology graduates will be adequately prepared for entry into graduate school or jobs in the computing profession.

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 of a given week.

Chapter Practice 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 the quiz. 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 large dataset and students are able

to take the quiz up to two times before the quiz due date and time. The highest quiz score will be recorded.

Chapter Activities: Each week, students will complete and submit completed activity assignments before the start of class for each chapter read. Tutorials will have step-by-step instructions in the book to assist in their completion and will re-enforce the concepts presented in the chapter.

Chapter Problems: Each week, students will be assigned problems from each chapter that will be started during class time and then completed before the next class sessions.

Final Exam: A final exam will be given in class. The final exam will cover all material throughout the course. The exam will consist of two parts. The first part will be a closed book, closed note multiple choice exam. Questions will be similar to questions from the chapter quizzes and cover the same knowledge domains. The second part will be an open-book practical exam where students are given programming problems to create or correct. **A score of 50% or more must be earned on the final exam to earn a passing grade in the course.**

If you will miss an exam for a school function, you must make arrangements to take it at 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 an emergency. The final exam must be taken on your host Operating System. The use of a virtual machine is not allowed during the exam.

Email and Messages:

Students are expected to regularly use their PLNU email. The instructor will periodically send you information and updates via email and/or Canvas. Students **must** activate their PLNU email account a week prior to the first class session if you are not currently using it.

Activity Point Distribution:

Activity	Points	Percent
Weekly Questions	40	4%

Chapter Practice Quizzes	140	15%
Chapter Activities	195	21%
Chapter Problems	350	37%
Final Exam	220	23%
Total	945	100%

Students must earn 60% or more of the available points in the class and 50% or more of the points on the final exam to earn a passing grade in the course.

Grading Scale:

The grading scale for the course, in percentages of the maximum points in class 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 4-unit class delivered over 8 weeks (but meeting in 7 class sessions). 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
Reading and Online Quizzes (4 hours per chapter)	52
Chapter Activities (2.5 hours per chapter)	26
In-Class Discussion and Activities	28
Chapter Problems (3 hours per chapter)	39
Exams Preparation	5
TOTAL	150

Late Homework/Classwork:

Reading Quizzes are not accepted late. If you fail to take the reading quiz before the due date/time, you will receive a zero for the quiz. Other assignments can be submitted late but will receive a 10% point deduction for each day late (24 hour period after the due date/time). Late assignments will not be accepted more than four days late. No assignment will be accepted after the last day of class.

Technical Support:

Please contact IT Services (ITS) at 619-849-2222 for technical support if your account gets locked out or you need a password reset. If you call after hours (between 6 pm and 11 pm), and the matter is urgent, you may leave a voice mail message and mark the message as urgent. The on-call technician will respond to you within 30 minutes.

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.

Academic Accommodations:

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 (mailto: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.

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 unless explicitly called for in the assignment instructions. If you have any doubts about using AI, please gain permission from the instructor.

E-mail and Messages:

It is expected that students regularly use e-mail. The instructor will periodically send you information and updates via e-mail and/or via canvas. In the first week of class you <u>must</u> activate your PLNU e-mail account if you are not currently using it. Please send questions about specific problems or course details to the instructor by posting them in Canvas so that all members of the class can see the response.

Some Tips About This Class:

- Set aside at least 10 15 hours each week to complete learning sessions.
- Come to class fully prepared to participate in learning by completing all assigned reading, reading quizzes, on-line labs, and videos.
- If you have a question ASK.

Additional Course Information:

Additional PLNU policies and practices ⇒ (https://docs.google.com/document/d/1RcF7S-KrVqgSVzcIL1SnUjTlalcySL8l/edit?usp=sharing&ouid=116164865489739533893&rtpof=true&sd=true%20) that apply to this course can be found at the following link:

https://docs.google.com/document/d/1RcF7S-KrVqgSVzcIL1SnUjTlalcySL8I/edit?usp=sharing&ouid=116164865489739533893&rtpof=true&sd=true (https://docs.google.com/document/d/1RcF7S-KrVqgSVzcIL1SnUjTlalcySL8I/edit?usp=sharing&ouid=116164865489739533893&rtpof=true&sd=true)

Course Summary:

Date	Details	Due
Sun Jan 12, 2025	Week 01: Overview	to do: 11:59pm

Date	Details	Due
Fri Jan 17, 2025		due by 11:59pm 114797)
		due by 11:59pm 114784)
	Syllabus Quiz - Not accepted late (https://canvas.pointloma.edu/courses/78459/assignments/1) Syllabus Quiz - Not accepted (https://canvas.pointloma.edu/courses/78459/assignments/1) (https://canvas.pointloma.edu/courses/78459/assignments/1) Syllabus Quiz - Not accepted (https://canvas.pointloma.edu/courses/78459/assignments/1) Syllabus -	due by 11:59pm 114778)
Sun Jan 19, 2025	Welcome Assignment - Not accepted late (https://canvas.pointloma.edu/courses/78459/assignments/1	due by 11:59pm 114825)
	Install and Test Course Software	to do: 11:59pm
	Response Post Reminder	to do: 11:59pm
	₩eek 02: Overview	to do: 11:59pm
Wed Jan 22, 2025	Week 02 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/78459/assignments/1	due by 6pm 114791)
	Chapter 01 Activities (https://canvas.pointloma.edu/courses/78459/assignments/1	114798) due by 6pm
	Chapter 01 Practice Quiz (https://canvas.pointloma.edu/courses/78459/assignments/1	due by 6pm
Thu Jan 23, 2025	Chapter 02 Activities (https://canvas.pointloma.edu/courses/78459/assignments/1	114800) due by 6pm
	Chapter 02 Practice Quiz (https://canvas.pointloma.edu/courses/78459/assignments/1)	114777) due by 6pm
Sun Jan 26, 2025	Week 03: Overview	to do: 11:59pm

Date	Details	Due
Wed Jan 29, 2025	FN Week 03 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/78459/assignments/1114792)	6pm
	Chapter 01 Programming Problems due by 6 (https://canvas.pointloma.edu/courses/78459/assignments/1114799)	6pm
	Chapter 02 Programming Problems due by 6 (https://canvas.pointloma.edu/courses/78459/assignments/1114801)	6pm
Thu Jan 30, 2025	Chapter 03 Activities (https://canvas.pointloma.edu/courses/78459/assignments/1114802)	6pm
	Chapter 03 Practice Quiz (https://canvas.pointloma.edu/courses/78459/assignments/1114788)	6pm
	Chapter 04 Activities (https://canvas.pointloma.edu/courses/78459/assignments/1114804)	6pm
	Chapter 04 Practice Quiz (https://canvas.pointloma.edu/courses/78459/assignments/1114781)	6pm
Sun Feb 2, 2025	₩eek 04: Overview to do: 11:59	9pm
Wed Feb 5, 2025	Week 04 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/78459/assignments/1114793)	6pm
Thu Feb 6, 2025	Chapter 03 Programming Problems due by 6 (https://canvas.pointloma.edu/courses/78459/assignments/1114803)	6pm
	Problems (https://canvas.pointloma.edu/courses/78459/assignments/1114805)	6pm
	Chapter 05 Activities (https://canvas.pointloma.edu/courses/78459/assignments/1114806)	6pm

Date	Details	Due
	Chapter 05 Practice Quiz (https://canvas.pointloma.edu/courses/78459/assignments/1114773)	due by 6pm
Sun Feb 9, 2025	₩eek 05: Overview to d	lo: 11:59pm
Wed Feb 12, 2025	Week 05 Questions - Due 24	due by 6pm
	Chapter 05 Programming Problem (https://canvas.pointloma.edu/courses/78459/assignments/1114807)	due by 6pm
	Chapter 06 Activities (https://canvas.pointloma.edu/courses/78459/assignments/1114808)	due by 6pm
Thu Feb 13, 2025	Chapter 06 Practice Quiz (https://canvas.pointloma.edu/courses/78459/assignments/1114785)	due by 6pm
	Chapter 07 Activities (https://canvas.pointloma.edu/courses/78459/assignments/1114810)	due by 6pm
	Chapter 07 Practice Quiz (https://canvas.pointloma.edu/courses/78459/assignments/1114789)	due by 6pm
	Mid-Course Survey (https://canvas.pointloma.edu/courses/78459/assignments/1114787)	due by 6pm
Sun Feb 16, 2025		lo: 11:59pm
Wed Feb 19, 2025	Week 06 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/78459/assignments/1114795)	due by 6pm
Thu Feb 20, 2025	Chapter 06 Programming Problem (https://canvas.pointloma.edu/courses/78459/assignments/1114809)	due by 6pm
	Chapter 07 Programming Problem (https://canvas.pointloma.edu/courses/78459/assignments/1114811)	due by 6pm

Date	Details Due
	Chapter 09 Activities (https://canvas.pointloma.edu/courses/78459/assignments/1114812)
	Chapter 09 Practice Quiz (https://canvas.pointloma.edu/courses/78459/assignments/1114775)
	Chapter 10 Activities (https://canvas.pointloma.edu/courses/78459/assignments/1114814)
	Chapter 10 Practice Quiz (https://canvas.pointloma.edu/courses/78459/assignments/1114783)
Sun Feb 23, 2025	<u>Week 07: Overview</u> to do: 11:59pm
Wed Feb 26, 2025	₩eek 07 Questions - Due 24 hours before class due by 6pm (https://canvas.pointloma.edu/courses/78459/assignments/1114796)
Thu Feb 27, 2025	Chapter 09 Programming Problems (https://canvas.pointloma.edu/courses/78459/assignments/1114813)
	Chapter 10 Programming Problems due by 6pm (https://canvas.pointloma.edu/courses/78459/assignments/1114815)
	Chapter 11 Activities (https://canvas.pointloma.edu/courses/78459/assignments/1114816)
	Chapter 11 Practice Quiz (https://canvas.pointloma.edu/courses/78459/assignments/1114772)
	Chapter 12 Activities (https://canvas.pointloma.edu/courses/78459/assignments/1114818)
	Chapter 12 Practice Quiz (https://canvas.pointloma.edu/courses/78459/assignments/1114779)
	SQL Activities (https://canvas.pointloma.edu/courses/78459/assignments/1114823)

Date	Details Du
	SQL Practice Quiz (https://canvas.pointloma.edu/courses/78459/assignments/1114774) due by 6pr (https://canvas.pointloma.edu/courses/78459/assignments/1114774) Output Description Descripti
Sun Mar 2, 2025	<u>Week 08: Overview</u> to do: 11:59pr
Wed Mar 5, 2025	week 08 Questions - Due 24 hours before class due by 6pr (https://canvas.pointloma.edu/courses/78459/assignments/1114790)
	Chapter 11 Programming Problems. due by 6pr (https://canvas.pointloma.edu/courses/78459/assignments/1114817)
	Chapter 12 Programming Problems due by 6pr (https://canvas.pointloma.edu/courses/78459/assignments/1114819)
	Chapter 13 Activities (https://canvas.pointloma.edu/courses/78459/assignments/1114820)
	Chapter 13 Practice Quiz (https://canvas.pointloma.edu/courses/78459/assignments/1114786)
Thu Mar 6, 2025	Official Course Evaluation (https://canvas.pointloma.edu/courses/78459/assignments/1114822)
aa. 6, 2020	
	SQL Programming Problem (https://canvas.pointloma.edu/courses/78459/assignments/1114824)
	Chapter 13 In Class Problems (https://canvas.pointloma.edu/courses/78459/assignments/1114821)
	Final Exam Part 1 - Closed Book due by 10pr (https://canvas.pointloma.edu/courses/78459/assignments/1114776)
	Final Exam Part 2 - Open Book due by 10pr (https://canvas.pointloma.edu/courses/78459/assignments/1114782)

Date	Details D	ue
Thu Mar 13, 2025	Final Exam Part 1 - Closed Book (https://canvas.pointloma.edu/courses/78459/assignments/1114776) (1 student)	pm
	Final Exam Part 2 - Open Book (https://canvas.pointloma.edu/courses/78459/assignments/11147@bye by 7:30(1 student)	pm