Point Loma Nazarene University School of STEM CIT 4024 Visual Programming Fall 2024- Hybrid (4 Credit Hours)

Time and Place:	Wednesday Evenings 6:00 pm – 10:00 pm
Miracosta Community College - Room OC 4803A	
Final Exam Oct. 23. 9:00 pm	

Instructor:	Prof. Ryan Ermert	
	rermert@pointloma.edu	office: Online

	Office Hours:	https://pointloma.zoom.us/j/4803218274
L		Meeting ID: 480 321 8274

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.

Exams: A final exam will be given online at a specific time during the last class session using Honorlock. 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 pulled from the chapter quiz test bank from the chapters covered in the course. The second part will be an open book practical exam were students are given programming problems to create or correct. **If you will miss an exam for a school function, you must arrangements to take it in advance. 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**

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%

Grading Scale:

The grading scale for the course, in percentages of the maximum points in class 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%
В	82.50 - 87.49%	D	62.50 - 66.49%
В-	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.

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 synchronous class sessions is considered essential to optimum academic achievement. If the student is absent for more than 10 percent of class sessions (virtual or face-to-face), the faculty member will issue a written warning of 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. 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 Academic Policies in the Graduate and Professional Studies Catalog. If absences exceed these limits but are due to university excused health issues, an exception will be granted.

For example: In a four-unit 8-week hybrid course, a student may be de-enrolled after missing five hours of synchronous class time (counting the first week's activities as four hours if assignments are not submitted).

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 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.

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 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 assignments in this course will be completed by me and will be my own work."

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 first offense. The student will receive a failing grade in the course on the second offense.

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.

Etiquette and Behavior:

Students are expected to actively and positively engage in the adult learning environment. Behaviors that disrupt the classroom environment and interfere with the learning of others are prohibited. Examples of disruptive behavior include talking with other students during a presentation or when others are speaking, texting, gaming, internet browsing, or reading non-course related materials. All cell phones and other electronic communication devices will be turned off at the beginning of class. Tablets and computers are allowed in class for note-taking purposes only, unless otherwise directed by the instructor. Should a student's behavior become disruptive to the productivity of the course they will be asked to leave the classroom and not receive credit for attendance.

In the online environment, students are expected to also be actively and positively engaged in an adult learning environment and consider the complexities of engaging in discussions in an online environment. Disagreeing with each other and engaging in debates about ideas is encouraged to better understand each other's ideas and perspectives. Such discussions should never involve personal comments, offensive or inappropriate language, or either aggressive or passive aggressive verbiage.

Students who wish to share feedback about the course, program, PLNU, or any administration, faculty, or staff should not do so within course discussions, assignments, or projects and should meet one-on-one with the professor or program director. A classroom or an online learning environment is not the proper place to discuss feedback about the university or any university representatives.

Persons not enrolled in the course are not permitted to be present in class. This policy includes family/friends of students and potential students.

When working with PLNU staff, faculty and administrators, and other students, students are expected to communicate and act respectfully. Any aggression or disrespect to any party may result in up to and including suspension from PLNU. See Academic Behavior Policy in the Graduate and Professional Studies Catalog for definitions of behaviors and further policy information.

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.

If you (or someone you know) have experienced other forms of discrimination or bias, you can find more information on reporting and resources at www.pointloma.edu/bias.

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 accommodations and resources are available through the Title IX Office at pointloma.edu/Title-IX. 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 or as shown in the PLNU Spiritual Care section of this syllabus.

If you (or someone you know) have experienced other forms of discrimination or bias, you can find more information on reporting and resources at www.pointloma.edu/bias

PLNU Recording Notification:

In order to enhance the learning experience, please be advised that this course may be recorded by the professor for educational purposes, and access to these recordings will be limited to enrolled students and authorized personnel.

Note that all recordings are subject to copyright protection. Any unauthorized distribution or publication of these recordings without written approval from the University (refer to the Dean) is strictly prohibited.

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.

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.

Use of Technology

In order to be successful in the online or hybrid environment, you'll need to meet the minimum technology and system requirements, which includes and working computer with the chrome browser and a stable internet connection. Additionally, students are required to have headphone speakers, microphone, or webcams compatible with their computer available to use. 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.

PLNU Use of Technology:

In order to be successful in the online environment, students need to meet the minimum technology and system requirements; please refer to the <u>Technology and System Requirements information</u>. If a student is in need of technological resources please contact <u>student-tech-request@pointloma.edu</u>.

Problems with technology do not relieve students of the responsibility of participating, turning in assignments, or completing class work.

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*.