GBA 6070 Programming Foundation for Business Analytics

(Last updated 1/13/2025)

Basic information

Class time	Wednesdays 7 PM – 9:45 PM
Class location	Bldg 163 Rm 1032
Mode	Hybrid Synchronous (i.e., Face-to-Face and Synchronized lectures on Zoom)
Instructor and contact information	Dr. Zhongming Ma Zoom id: 921 872 4778 Zoom URL: https://cpp.zoom.us/j/9218724778 Office Phone: 909-869-3242 Email: zma@cpp.edu * If you send questions to the instructor by email, please use the above email address and mention GBA 6070 since the instructor teaches multiple classes. * When asking questions, be specific.
Office hours	Tue/Thur 10 AM – 12 Noon (Zoom URL: https://cpp.zoom.us/j/9218724778)
Textbooks	**Book I** Title: Think Python. 2nd edition. Author: Allen Downey Publisher: Green Tea Press Available for free at https://greenteapress.com/wp/think-python-2e/ **Book II** Title: Python Data Science Handbook Author: Jake VanderPlas Publisher: O'REILLY publishing. Available for free at https://jakevdp.github.io/PythonDataScienceHandbook/
Class website	Canvas (https://canvas.cpp.edu/)
Canvas Inbox	Do **not** send emails to me from Inbox in Canvas. Send your mails to zma@cpp.edu.

Course Description

This course serves as the technology and programming foundation for business analytics projects. Students are exposed to a programming or scripting language under the context of business analytics cases.

Learning Outcomes

1. Understand Python basic programming concepts, such as data types, control statements, and data structures.
2. Be able to load and process data using Python and libraries.
3. Be able to visualize data using Python and libraries.

Grading
A student's performance in this course will be evaluated in the following areas: individual assignments, individual project, midterm and final exam.

Weights for Scores		**Grade**	**Score**
• Individual assignments	– 30%	A	[90, 100]
• Individual Comprehensive Project	– 20%	A-	[87, 90)
• Midterm	– 25%	B +	[84, 87)
• Final exams	– 25%	B	[80, 84)
		B-	[75, 80)
		C+	[70, 75)
		C	[60, 70)
		D	[50, 60)
		F	< 50

Grading change request to instructor
You may ask the instructor to change your grade on an assignment or midterm **within five days** after the grade is posted. You may ask the instructor to change your grade on the final project **within two days** after the grade is posted. Any appeal must include the reason for the appeal and any sources that support your appeal. Please send your appeal to zma@cpp.edu.

Assignments and Project
Each assignment will be posted in Canvas at least a week before its due date. All assignments and project are **individual** work. Peer discussion is allowed but plagiarism is not. Incomplete assignments or project will be accepted for partial points. Each student is responsible for the successful submission of all assignments and project. Corrupted files will not be credited.

All assignments and projects submitted must be computer generated. Your submission will be graded based on the correctness of your answer, following directions, and clearness in logic.

Late submission of an assignment or a project is **not** accepted.

Code of conduct
Plagiarism is a serious offence. Plagiarism is intentionally or knowingly presenting words, ideas or work of others as one's own work. Plagiarism includes copying homework or any other work that is not one's own including retrieving answers from AI tools, such as ChatGPT.

Student access
"Cal Ploy Pomona, as a learning-centered university, is committed to student success. Students with disabilities are encouraged to contact me privately or the Disability Resource Center (909-869-3333, Building 9 Room 103) to coordinate course accommodations." Website http://www.dsa.cpp.edu/drc/

Tentative class schedule

Instructor's Zoom id: 921 872 4778, Zoom URL: https://cpp.zoom.us/j/9218724778

In the following Mode column, Face means an in-person lecture, Zoom means a synchronous Zoom lecture.

Date Mode	Topic	Book, Chapter	Due
1/22 Face	Software installation 1. Introduction to Python Programming	Book 1 Chap 1	
1/29 Face	2. Variables, Expressions, and Statements 3. Conditional Statements	Book 1 Chap 2, 5	
2/5 Face	4. Functions 5. Iteration	Book 1 Chap 3, 6 Chap 7	A1 11:59PM
2/12 Face	6. Strings 7. Lists	Book 1 Chap 8 Chap 10	A2 11:59PM
2/19 Face	8. Dictionaries 9. Tuples	Book 1 Chap 11 Chap 12	A3 11:59PM
2/26 Zoom	10. Files 11. Classes, Objects, and Methods	Book 1 Chap 14 Chap 15, 17	A4 11:59PM
3/5 Zoom	Q & A		A5 11:59PM
3/12 Face	**Midterm** in classroom, open book, open notes, no internet, no cell phone, no computer		
3/19 Face	Midterm discussion Introduction to NumPy	Book 2 Chap 2	
3/26 Zoom	12. Data Manipulation with Pandas • Series • DataFrame	Book 2 Chap 3	A6 11:59PM
4/2	**Spring Break**		

4/9 Zoom	13. Data Manipulation with Pandas (continued)	Book 2 Chap 3	
4/16 Zoom	13. Data Manipulation with Pandas (continued) Project	Book 2 Chap 3	
4/23 Zoom	14. Visualization with Matplotlib and Seaborn	Book 2 Chap 4	A7 11:59PM
4/30 Zoom	Final exam review Q & A for project and exam		A8 11:59PM
5/7 Zoom	Q & A for project and exam		
5/14 Face	**Final exam** in classroom, open book, open notes, no internet, no cell phone, no computer Comprehensive individual project due by 11:59 PM		Project 11:59PM