COMP 4001-6001: Intro to Python Programming Spring 2025 Bill Baggett, Ph.D.

About the Syllabus

This syllabus provides basic information about the course and the course schedule. You can review the entire <u>Welcome to Class: Getting Started module</u> to learn the details specific to this course.

Technology Support

Call the Helpdesk: (901) 678-8888

Online Helpdesk

<u>Links to an external site.</u>: To report an issue or request assistance, contact umTech - Information Technology Services

Syllabus Changes

The instructor reserves the right to make changes as necessary to this syllabus. If changes are necessitated during the term of the course, the instructor will immediately notify students of such changes both by individual email communication and posting both notification and nature of change(s) on the course announcements.

Evaluation

zyBook Assignments (Participation Activities, Challenge Activities, and graded zyLabs): 70%

Midterm Exam – Tentatively planned for the week of March 24th: 10%

Final Exam - Tentatively planned for the week of April 28th: 20%

Required zyBook

The required textbook for this course is:

Online text through zyBooks. You must subscribe as follows:

1. Click the first zyBooks assignment link in Canvas:

Chapter 1: Introduction to Python (Week 1), Explore

which you can also find in the "Chapter 1: Introduction to Python (Week 1)" module.

2. Follow the instructions at that link to subscribe to the required zyBook for this class.

Class Overview

COMP 4001-6001 – Intro to Python Programming

Basic concepts in computer programming; incorporates object oriented concepts, variables, flow control statement, arrays and lists, debugging and testing. NOTE: This course may not be used to fulfill requirements for the Computer Science major or Computer Science minor.

Course Prerequisites

Permission of instructor. The instructor needs to check whether the student 1) has sufficient math skills to succeed, 2) understands that the course covers the basics of Python programming and is intended for students who are learning programming for the first time, and 3) understands that the course cannot be used to fulfill requirements for any Computer Science major or Computer Science minor.

Course Learning Objectives

- 1. Read and write code involving variables and assignments.
- 2. Read and write code involving conditionals.
- 3. Read and write code involving loops.
- 4. Read and write code to manipulate strings and lists.
- 5. Write programs to define functions and make function calls with various input and output types.
- 6. Be able to decompose code into sections using functions.
- 7. Be able to define simple classes.
- 8. Be able to create objects and invoke method calls.

Grading Scheme



$$A = 90-95$$

$$B + = 87 - 89$$

$$B = 81-86$$

$$B - = 79 - 80$$

$$C + = 77 - 78$$

$$C = 71-76$$

$$C - = 69-70$$

$$D + = 67-68$$

$$D = 60-66$$

F = 59 and below

Class Resources

Required Textbook

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Technology Requirements

The following is a list of the minimum requirements to use our learning management system. Some courses will have more advanced requirements.

Access to a reliable, <u>high-speed Internet</u>

Links to an external site. connection (DSL or Cable).

- Browser and computer requirements for Canvas.
- 2 Links to an external site.
- Open PDF files using the free downloadable software at Adobe Acrobat Reader DC.
- Use Microsoft Office Software
 - Links to an external site. for Faculty, Staff, and Students for document creation.

Students With Disabilities

Qualified students with disabilities will be provided reasonable and necessary academic accommodations if determined eligible by disability services staff at the University of Memphis. Prior to granting disability accommodations in this course, the instructor must receive written verification of a student's eligibility for specific accommodations from the disability services staff. It is the student's responsibility to initiate contact with <u>Disability</u> Resources for Students

<u>Links to an external site.</u>(DRS) and to follow the established procedures for having the accommodation notice sent to the instructor.

Top 3 UofM Online Student Resources

The resources provided below are free for UofM students and provide opportunities for you to refine your research, enhance your skills, and further your knowledge. Please use them as frequently as you can.

- 1. The myMemphis Portal system, eCampus Student tab provides access to <u>University</u> library.
- 2 Links to an external site.
- Free 24/7 online tutoring through <u>UpSwing</u>
- Links to an external site...
- ! LinkedIn Learning
 - 3. Links to an external site. provides free access to thousands of video tutorials.

Other Helpful Resources

Other support services are available through the Educational Support Program

Links to an external site...

Course Policies

Plagiarism and Integrity

Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly, through participation or assistance, are immediately responsible to the instructor of the class in addition to other possible disciplinary sanctions which may be imposed through the regular institutional disciplinary procedures. Expectations for academic integrity and student conduct are described in detail on the website of the Office of Student Accountability

<u>Links to an external site.</u>. Please read in particular, the section about "<u>Academic</u> Misconduct

Links to an external site.".

Turnitin.com

Your written work will be submitted to Turnitin

Links to an external site., or a similar electronic detection method, for an evaluation of the originality of your ideas and proper use and attribution of sources. As part of this process, you may be required to submit electronic as well as hard copies of your written work, or be given other instructions to follow. By taking this course, you agree that all assignments may undergo this review process and that the assignment may be included as a source document in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents. Any assignment not submitted according to the procedures given by the instructor may be penalized or may not be accepted at all."

Sexual Misconduct and Domestic Violence Policy

This policy specifically addresses sexual misconduct which includes dating violence, domestic violence, sexual assault, and stalking. The policy establishes procedures for responding to Title IX-related allegations of sexual misconduct. Complaints can be reported to the Office for Institutional Equity (OIE). The OIE office is located in the Administration Building, Room 156. You may contact the OIE by phone at 901.678.2713 or by email at oie@memphis.edu. Complaints can be submitted online at File a Complaint

Links to an external site...

Non-Discrimination and Anti-Harassment Policy

University policy prohibiting discrimination and harassment based on protected characteristics and classes. Complaints of discrimination and harassment can be reported to the Office for Institutional Equity (OIE). You may contact OIE by phone at 901.678.2713 or by email at oie@memphis.edu.

Course Ground Rules

Guidelines for Communication

Email

- Always include a subject line.
- Remember without facial expressions some comments may be taken the wrong way.
- Be careful in wording your emails. Use of emoticons might be helpful in some cases.
- Use standard fonts.
- Do not send large attachments without permission.
- Special formatting such as centering, audio messages, tables, html, etc. should be avoided unless necessary to complete an assignment or other communication.
- · Respect the privacy of other class members

Discussion Groups

- Review the discussion threads thoroughly before entering the discussion.
- Try to maintain threads by using the "Reply" button.
- Do not make insulting or inflammatory statements to other members of the discussion group. Be respectful of others' ideas.
- Be patient and read the comments of other group members thoroughly before entering your remarks.
- Be cooperative with group leaders in completing assigned tasks.
- Be positive and constructive in group discussions.

Respond in a thoughtful and timely manner.

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Meet Your Instructor

- Name: William (Bill) Baggett
- Mini Biography: Dr. Baggett is an Associate Professor of Teaching in the Computer Science Department. He received his B.S. and Ph.D. from the University of Memphis. Dr. Baggett was previously a Research Associate at the University of Pittsburgh, a Business Systems Advisor at FedEx Express, and a Project Coordinator at the University of Memphis before joining the Computer Science Department as a faculty member in September 2014.

Contact Information

- Email: wbaggett@memphis.edu
- Office Hours:
- Please email me to make an appointment:
- Please specify "COMP 4001" or "COMP 6001" as the subject of the email.
- Please include a phone number where I can reach you.
- Please specify days and times you are available to meet on Zoom.
- My office is in Dunn Hall, room 390, but Zoom is likely to be more convenient.
- I will try to respond to emails within two business days.

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• Office Phone: (901) 678-3044

Student Wellness Resources

Campus and Online Wellness Services

UofM Counseling Services

<u>Links to an external site.</u> are confidential and available to currently enrolled students who are registered for a minimum number of credit hours (see counseling center for details). <u>Telehealth options</u>

Links to an external site. for Tennessee residents are also available.

- Connect with the UofM Counseling Services on social media:
 - Instagram

! Links to an external site.

- ? Facebook
- 2 Links to an external site.
- ? Twitter
 - 2 Links to an external site.
- ? Online wellness resources

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• <u>Links to an external site.</u>compiled by the counseling center include stress management apps, videos, and audios; graduate student specific resources; health education, partner violence, sexual assault, and suicide prevention.

National Helplines and Other Resources

- Access national helplines and more resources at mentalhealth.gov.
- 2 Links to an external site.
- Try short stress management courses from LinkedIn Learning such as:
 - Meditation
- 2 Links to an external site.
- De-stress: Meditation and Movement for Stress Management
- 2 Links to an external site.
- Provided How to Manage Feeling Overwhelmed
 Provided How to Manage Feeling Overwhelmed

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Links to an external site.

Please take advantage of these resources as needed throughout the semester. Being a successful student is not just about making "good grades". We want to empower you to manage your well being, make progress toward your goals, and maintain your coursework, even when times are challenging.

How to be Successful In This Class

- Purchase your textbook
- Check syllabus and due dates regularly

- Plan time to study and complete assignments (at least 2 and a half hours per weekday is recommended)
- Take notes as you study
- Create study materials like flash cards, quizzes and more online
- Consider studying with other students in your class in person or online via media of your choice
- Complete assignments by the due dates
- Be self-motivated and self-disciplined

Chapter 1: Introduction to Python (Week 1)

Explore

Chapter 1: Introduction to Python (Week 1), Explore

Expand

Chapter 1: Introduction to Python (Week 1), Expand

Evaluate (optional)

Group Discussion: What do you want to build with Python? (optional)

Extend (optional)

Chapter 1: Introduction to Python (Week 1), Extend (optional)

Chapter 2: Variables and Expressions (Week 2)

Explore

Chapter 2: Variables and Expressions (Week 2), Explore

Expand

Chapter 2: Variables and Expressions (Week 2), Expand

Evaluate (optional)

<u>Group Discussion: When and why is it important to choose meaningful variable names?</u>
(optional)

Extend (optional)

Chapter 2: Variables and Expressions (Week 2), Extend (optional)

Chapter 3: Types (Week 3)

Explore

Chapter 3: Types (Week 3), Explore

Expand

Chapter 3: Types (Week 3), Expand

Evaluate

Group Discussion (Week 3): How are the various Python data types similar? How are they different? (optional)

Extend

Chapter 3: Types (Week 3), Extend (optional)

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Chapter 4: Branching (Week 4)

Explore

Chapter 4: Branching (Week 4), Explore

Expand

Chapter 4: Branching (Week 4), Expand

Evaluate

Group Discussion (Week 4): How would you go about thoroughly testing a program which includes if statements? (optional)

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Chapter 4: Branching (Week 5)

Extend

Chapter 4: Branching (Week 5), Extend (Required!)

Evaluate

<u>Group Discussion (Week 5): What are the three primary control structures in programming?</u>
(optional)

Chapter 5: Loops (Week 6)

Explore

Chapter 5: Loops (Week 6), Explore

Expand

Chapter 5: Loops (Week 6), Expand

Evaluate

Group Discussion (Week 6): How are for loops and while loops similar and different? When would you use a for loop versus a while loop? (optional)

Chapter 5: Loops (Week 7)

Extend

Chapter 5: Loops (Week 7), Extend (Required!)

Evaluate

Group Discussion (Week 7): Consider a loop which begins "while True:". Is it possible to correctly solve problems (e.g., Chp. 5 zyLabs) this way? If so, do you think it is the best programming style? (optional)

Quiz

Midterm Exam

Chapter 6: Functions (Week 9)

Explore

Chapter 6: Functions (Week 9), Explore

Expand

Chapter 6: Functions (Week 9), Expand

Extend

Chapter 6: Functions (Week 9), Extend

Evaluate

Group Discussion (Week 9): What are the advantages of writing functions? (optional)

Chapter 7: Strings (Week 10)

Explore

Chapter 7: Strings (Week 10), Explore

Expand

Chapter 7: Strings (Week 10), Expand

Extend

Chapter 7: Strings (Week 10), Extend

Evaluate

Group Discussion (Week 10): What are the differences between Unicode and ASC II? (optional)

Chapter 8: Lists and Dictionaries (Week 11)

Explore

Chapter 8: Lists and Dictionaries (Week 11), Explore

Expand

Chapter 8: Lists and Dictionaries (Week 11), Expand

Evaluate

Group Discussion (Week 11): What are the differences between a shallow copy and a deep copy of a list? (optional)

Chapter 8: Lists and Dictionaries (Week 12)

Extend

Chapter 8: Lists and Dictionaries (Week 12), Extend (Required!)

Evaluate

Group Discussion (Week 12): Could you use lists to implement functionality similar to a dictionary (optional)?

Chapter 9: Classes (Week 13)

Explore

Chapter 9: Classes (Week 13), Explore

Expand

Chapter 9: Classes (Week 13), Expand

Evaluate

Group Discussion (Week 13): What is the Single Responsibility Principle? (optional)

Chapter 9: Classes (Week 14)

Extend

Chapter 9: Classes (Week 14), Extend (Required!)

Evaluate

<u>Group Discussion (Week 14): What are the benefits of Object-Oriented Programming?</u>
(optional)

Final Exam zyBook Assignment: Complete Any Time From NOW Until Thursday, May 8th

Final Exam zyBook Assignment: Complete Any Time From NOW Until Thursday, May 8th