

# COMP 1900 CS 1: Introduction to Programming – Spring 2024

## Kriangsiri (“Top”) Malasri

### Instructor Contact Information:

- [kmalasri@memphis.edu](mailto:kmalasri@memphis.edu) - I will almost always respond within 24 hours
- I’m on the unofficial CS Discord server as **Slothington IV**. Discord invite link: <https://discord.gg/7brNMvuz76>
- Office: Dunn Hall 396
- Office Hours: No formal hours, but feel free to contact me to schedule an appointment! I also encourage you to ask questions in the **#comp-1900** channel on Discord, as that can be beneficial for other students. However, do *not* post full programs there! Ask about the specific parts that are giving you trouble.

### Lecture Meeting Times/Locations:

Section	Meeting Times	Location	Grader
002	TR 1120-1245	PSY 204	Miguel Perez, <a href="mailto:meperez@memphis.edu">meperez@memphis.edu</a>

### Lab Meeting Times/Locations:

Section	Meeting Times	Location	Lab TA
101	R 1820-2020	DH 232	Tejaswi Kanneganti, <a href="mailto:Kanneganti.Tejaswi@memphis.edu">Kanneganti.Tejaswi@memphis.edu</a>
102	F 1445-1645	DH 232	Niharika Reddy Sangareddy, <a href="mailto:nsngrddy@memphis.edu">nsngrddy@memphis.edu</a>
103	R 1610-1810	DH 232	Sandhya Peddi, <a href="mailto:speddi3@memphis.edu">speddi3@memphis.edu</a>
104	F 1230-1430	DH 232	Venkatesh Nettem, <a href="mailto:vnettem@memphis.edu">vnettem@memphis.edu</a>
105	F 1020-1220	DH 232	Kavya Bojja, <a href="mailto:kbojja@memphis.edu">kbojja@memphis.edu</a>
106	R 1400-1600	DH 232	Keerthi Reddy Godala, <a href="mailto:kgodala@memphis.edu">kgodala@memphis.edu</a>

### Catalog Description:

**COMP 1900 – CS 1: Introduction to Programming (4)** Overview of computer science as a field; problem-solving strategies with emphasis in fundamental programming skills, primitive data types, control structures, arrays, strings, I/O, basic recursion, documentation, testing and debugging techniques; introduction to object-oriented concepts. Three lecture hours, two laboratory hours per week. **PREREQUISITE** or **COREQUISITE**: MATH 1910 or MATH 1421 (or MATH 1830 for COMP minors)

### Note on Prerequisites:

Although COMP 1900 does not assume you have any prior programming experience, it moves quite briskly. If programming is brand new for you, you’ll likely find it more difficult to keep up. We recommend COMP 1800 (Problem Solving with Computers) as a warm-up course for COMP 1900 if you are just starting out with programming.

### Course Outcomes:

After completing this course, students should be able to:

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, lists, and dictionaries.
5. Read and write code to manipulate one- and two-dimensional lists.
6. Write programs to define functions and make function calls with various input and output types.
7. Be able to decompose code into sections using functions.
8. Be able to define simple classes.
9. Be able to create objects and invoke method calls.

### Course Website:

Course materials and grades will be posted to the Canvas system at <https://memphis.instructure.com/>

## Required Text:

Online text through zyBooks. A subscription costs \$77 and will last until May 16, 2024. Please sign up at <https://learn.zybooks.com> and use the registration code **MEMPHISCOMP1900MalasriSpring2024**. Some notes:

- You must register using your *memphis.edu* email address.
- If you're retaking the course or have otherwise subscribed to the zyBook previously, you may be eligible for a free or reduced-cost subscription. Please email [support@zybooks.com](mailto:support@zybooks.com) to take advantage of this.
- If you are enrolled in the UofM Smart Start textbooks program, the bookstore should provide you with an access key that lets you view the book.
- If you don't have the funds to get the book immediately, you can get a free temporary subscription: <https://support.zybooks.com/hc/en-us/articles/360007439574>

## Additional Free Online Resources:

- Official Python tutorial: <https://docs.python.org/3/tutorial/>
- Educative: <https://www.educative.io/courses/learn-python-3-from-scratch>
- W3Schools: <https://www.w3schools.com/python/>
- CodingBat (interactive code practice): <https://codingbat.com/python>

## Evaluation:

Lecture Attendance and Classwork	100 pts
zyBook Assignments	100 pts
Lab Assignments	310 pts
Quizzes	240 pts (3 @ 80 pts each)
Final Exam (Comprehensive)	300 pts

Your final percentage grade is determined by (your total points on all graded items) / 1000. Note that because there are 1050 maximum possible points, this gives you 50 points of built-in buffer in case your second cousin's ex-wife's brother-in-law has an event that forces you to miss an assignment, or a temporary zombie apocalypse happens to just your neighborhood, or whatever. *This also means I'll be strict about enforcing assignment deadlines. Please don't beg for late credit.*

Note that you receive a single combined grade for COMP 1900; there's *no* separate grade for the lab section unlike some science courses.

**Grading Scale:** Letter grades will be determined from your total points as follows:

**A+**: 960+; **A**: 900-959; **A-**: 890-899  
**B+**: 870-889; **B**: 800-869; **B-**: 790-799  
**C+**: 770-789; **C**: 700-769; **C-**: 690-699  
**D+**: 670-689; **D**: 600-669  
**F**: Below 600

## Assignments:

This is a programming course, and the only way to get better at programming is to do a lot of it. There will be many assignments throughout the semester to give you hands-on practice. Altogether, assignments make up *about half your grade* for this course. You cannot pass unless you do them!

The assignments fall into different categories:

1. **Classwork** consists of simple problems to immediately reinforce what was covered during lecture. Attendance is also indirectly taken through classwork submissions. We will do at least one classwork assignment almost every lecture.
2. **zyBook assignments** are reading activities selected from the required textbook. These are done on your own, to further reinforce what was covered during lecture. There will be a zyBook assignment given most weeks (posted in the zyBook itself, as well as on Canvas). You should complete all **Participation** and **Challenge** activities from the assigned sections.
3. **Lab assignments** allow you to explore a topic more deeply and can be more involved than the classwork and zyBook assignments. Each lab assignment has two components: a short in-lab that must be completed before leaving lab for the day, and a longer lab homework that you'll have at least one week to complete on your own.

## More About the Labs:

- There is no new material covered during lab sessions. The labs are meant for you to get hands-on practice with programming each week. Attendance at lab sessions is **REQUIRED**.
- Lab sessions are supervised by TAs. Their contact info is posted on your lab section on Canvas.
- Each lab has two components: a short in-lab assignment and a longer lab homework. Your lab TA will distribute the in-lab assignment during each lab meeting. This assignment must be completed before you leave lab for the day. If you finish the in-lab early, you are welcome to start working on the lab homework. You have at least one full week to complete each lab homework.
- Lab TAs are there to help you during lab sessions. Please don't hesitate to ask them for assistance, on the in-lab assignment as well as lab homework. The TAs may also be available outside of lab sessions via email, Discord, and/or office hours.
- You get a single combined grade for the COMP 1900 lecture and lab. Lab assignments give you much-needed practice with programming and make up a substantial portion of your final grade, so be sure to turn them in!
- There are **NO LAB MEETINGS** during the following weeks:
  - Jan. 16-26 (first two weeks of class)
  - Mar. 4-8 (spring break)
  - Apr. 22-26 (week before final exams)

## Time Expectations:

Programming definitely has a learning curve, and many people find this to be a demanding class. Most students should expect to spend 2-3 hours per week outside of class per hour of credit. Since this is a 4-hour class, that translates to *8-12 hours per week of work outside of class*. If you are unable or unwilling to devote this time, I strongly recommend that you postpone taking the course until you can. There is no substitute for hands-on experience to improve your programming skills!

## Attendance:

It is crucial that you attend class (both lecture and lab) regularly, especially if this is your first experience with computer programming. The class will keep building on itself and moves at a brisk pace, so you need to get a good handle on each concept soon after we discuss it. As mentioned above, *I will indirectly take attendance via classwork submissions*.

## Late/Makeup Policy:

All assignments are expected to be completed and turned in on schedule. Due dates will be clearly indicated for each assignment. Late assignments are **NOT** accepted except in extreme circumstances. Likewise, makeup quizzes and exams will be given only under extreme circumstances. *If you feel that your circumstances warrant a late work submission or a makeup quiz/exam, get in touch with me as soon as possible. Be prepared to show some kind of documented proof of your situation.*

## Plagiarism/Cheating Policy:

By the end of this course, you are expected to be a competent programmer. This is important for success in future courses, and more importantly so that you can get a job later! To improve your programming skills, you must get plenty of practice yourself. As such, *all grade items (unless specifically indicated otherwise) must be individual efforts*. If needed, you can get help from me, your lab TA, your friends/classmates, tutoring, and/or the Internet. However, this help should be limited to *general solution approaches*.

Submitting code that was copied from the Internet, received from another person, or automatically generated by an AI tool such as ChatGPT is considered *code plagiarism*. Code plagiarism results in a minimum penalty of a 0 grade for the assignment on which it occurred and referral to the Office of Student Accountability. Repeated offenses may possibly result in a failing grade in the entire course. *Please don't put me (or yourself) in this situation.*

## Getting Help:

Although I expect your work for this class to be done individually, I encourage you to seek help if you get stuck:

- Contact me! I'm very willing to provide hints without giving away the solution. I can be reached via email and/or Discord.
- Post something in the **#comp-1900** channel on the unofficial CS Discord server (see beginning of syllabus for an invite link). I or another person on the server will usually be able to help.
- Contact your lab TA. They are there to help you.
- Online tutoring: The UofM offers free online tutoring through the Educational Support Program (ESP): <https://www.memphis.edu/esp/onlinetutoring.php>

**Miscellaneous Policies:**

Email - Please check your University of Memphis email account at least once a day, as that is my primary means of communicating with you outside of class.

Student Disabilities - If you have a disability that may require assistance or accommodations, or if you have any questions related to any accommodation for testing, note taking, reading, etc., please contact me as soon as possible. You must contact the Disability Resources for Students office (901.678.2880, [drs@memphis.edu](mailto:drs@memphis.edu), <https://www.memphis.edu/drs/>) to officially request such accommodations / services.

## Tentative Course Schedule

Date	Lecture Material	Text	Quizzes	Labs
1/16 1/18	<i>NO CLASS – Snowpocalypse 2024</i>	Ch. 1		Lab 0: Lab contract
1/23 1/25	Variables and expressions (via Zoom)	Ch. 2		
Number systems makeup class (via Zoom) – Friday 1/26, 1400 (2pm)				
1/30 2/01	Types	Ch. 3		Lab 1: Number systems, basic programs
2/06 2/08	Conditionals	Ch. 4		Lab 2: Variables and expressions
2/13 2/15	Conditionals	Ch. 4	<b>Quiz 1 (2/13)</b>	Lab 3: Conditionals
2/20 2/22	Loops	Ch. 5		
2/27 2/29	Loops	Ch. 5		Lab 4: Loops
3/05 3/07	<i>NO CLASS – Spring Break</i>			
3/12 3/14	Loops	Ch. 5	<b>Quiz 2 (3/12)</b>	Lab 5: More loops
3/19 3/21	Loops Functions	Ch. 5 Ch. 6		
3/26 3/28	Functions Strings, lists, and dictionaries	Ch. 6 Ch. 7-8		Lab 6: Functions
4/02 4/04	Strings, lists, and dictionaries	Ch. 7-8		Lab 7: Strings
4/09 4/11	Strings, lists, and dictionaries	Ch. 7-8	<b>Quiz 3 (4/09)</b>	Lab 8: Lists and dictionaries
4/16 4/18	Strings, lists, and dictionaries Intro to object-oriented programming concepts	Ch. 7-8 Ch. 9		Lab 9: OOP
4/23 4/25	Recursion, review for final <i>NO CLASS – Study Day</i>	Ch. 14		

**FINAL EXAM (same classroom as lecture):  
Thursday, May 2, 0800-1000**

See the full final exam schedule here: <https://www.memphis.edu/registrar/calendars/exams/24s-final-exams.php>

### Tentative Quiz and Exam Topics:

- Quiz 1: Number systems, variables and expressions, types
- Quiz 2: Conditionals, basic loops
- Quiz 3: More advanced loops, functions, strings, lists
- Final Exam: Everything!