

# Computer Science 505

## University of Tennessee, Knoxville

**Spring 2020**  
**University of Tennessee, Knoxville**

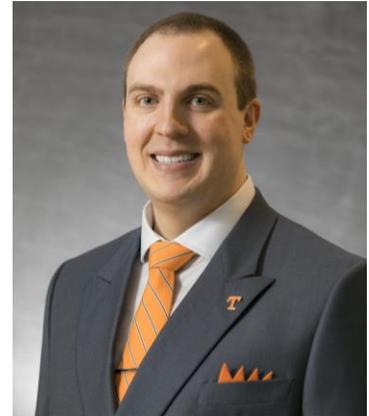
[https://tiny.utk.edu/canvas\\_cosc505](https://tiny.utk.edu/canvas_cosc505)

**Course Section:** 1 (on-campus students), 2 (distance-only)

**Course Credit Hours:** 3

### **Faculty Contact Information**

- Dr. Stephen G. Marz
- [stephen.marz@utk.edu](mailto:stephen.marz@utk.edu)
- Min Kao Room 302
- 865-974-0486
- <https://web.eecs.utk.edu/~smarz1>



### **Welcome to COSC505**

Hello students! This course is designed to be semi-self-paced, meaning you will have deadlines, but if you meet those deadlines, you're free to explore and learn at your own pace. We will be exploring the fundamentals of programming and you will be exploring several projects in this course, including writing tutorials on specific programming aspects and aspects of the Python programming language.

Many find the fluid nature of an online course a bit challenging. If this is your first online course, I would like to offer a hand in making it a great experience for you. As always, I'm open to feedback and we can modify portions of the course to fit your needs.

Rain or shine, west coast to east coast, national to international, you will be connected to this course.

### **Instructor Availability**

In addition to this online course, I have other teaching obligations in person. All information on office hours, including virtual office hours, will be posted to Canvas. I am known to have a quick turnaround time for grading and for emails.

I do ask that you please read all labs and lecture materials fully. Be forewarned, I may copy and paste a screenshot of the syllabus if you ask a question that is answered by the syllabus or other materials. I do this to make it a learning experience. I came from the US Air Force where we had thousands of pages of technical documentation and regulations. We were taught that we won't retain all the information in memory but knowing where to look for information is the important part.

With that being said, please do not hesitate to ask questions. The newness of everything may be overwhelming at first. I'm hoping that as the course progresses, you'll be confident to

make decisions about your code and know where to go for guidance. Remember, when the course is done, YOU'LL be the expert!

## COURSE DESCRIPTION

Introduce programming and computational science and engineering to graduate students in the sciences and engineering. Problem solving and algorithm development. Might use various programming languages such as C++, Python or others as needed.

### Student Learning Outcomes/Objectives

Students who successfully complete this course can expect to learn the following:

1. Identify and understand what a computer program does and how it is made.
2. Understand what variables are and how they are stored in a computer.
3. Understand primitive data types, such as a string, list, and dictionary.
4. Understand flow control and how to conditionally execute code.
5. Understand how to continually execute code using loops.
6. Communicate with the user using input and output.
7. Understand how to group code using functions.
8. Understand how to pass inputs to a function and how to return outputs from a function.
9. Understand how to use pre-made libraries using imports.
10. Understand where to find information based on future projects.
11. Be able to take a simple to intermediate problem, logically structure it, and write a program to solve it.

### Value Proposition

We will be using Python version 3 for this course. Many scientists and engineers use Python due to its ease of use and widespread adoption. Students who learn Python are ahead of their peers regardless of what engineering discipline they belong to.

## LEARNING ENVIRONMENT

We will be using Canvas modules which compartmentalize the assigned readings and assignments for a given module. There is a due date attached to each module, but you are free to progress as you see fit. You will be required to finish one module to progress to another. Finishing a module means something different and will be apparent when you view the course on Canvas.

This is a fully online course, which means to complete this course you are not required to travel to campus. You will participate in this course asynchronously and using Canvas, the University of Tennessee's Learning Management System. Synchronous sessions will be

conducted using Zoom [if applicable]. Additional [Canvas](#) and [Zoom](#) resources are available for students unfamiliar with these online environments.

## HOW TO BE SUCCESSFUL IN THIS COURSE

Online courses may be a challenge for some students at first. You will be expected to keep up with all due dates and assignments without prompting. Remember, this information can be found on Canvas--your one-stop shop.

UT's Online Programs department has put together a helpful checklist on Programs [How to be Successful in an Online Course](https://volsonline.utk.edu/students/) (<https://volsonline.utk.edu/students/>).

### Learner Expectations

- Actively check Canvas for due dates and upcoming assignments
- Actively contribute to the learning activities in class
- Abide by the UT Honor Code
- Exercise due diligence when asking questions. Part of learning in this environment is to know where to seek information.

## COURSE REQUIREMENTS

### Texts/Resources/Materials

Students have been opted-in to an "inclusive access" program using Zybooks. This system is where students' exercises, labs, and homework will be submitted. Additional online resources will be available through a link to external websites.

### Computer Requirements

Students must have a laptop or other computer capable of connecting to Canvas. Furthermore, students must load IDLE or another Python package to complete their labs and exercises. Students who encounter issues may contact general [campus computing information](https://newvols.utk.edu/prep/computer-requirements/), (<https://newvols.utk.edu/prep/computer-requirements/>), or [computing support](https://oit.utk.edu/desktops/) (<https://oit.utk.edu/desktops/>).

### Course Resources

Students unfamiliar with the online environment may find additional information from the resources below:

1. [Getting Started with Zoom](#)
2. [Online@UT Canvas](#)
3. [UT Library](#)
4. [Information for Distance Education](#)

## **Technical Support**

For technical issues, contact the OIT HelpDesk by phone at (865) 974-9900 or at the [Walk-in HelpDesk](#). For IT and Computing issues, use the online [Contact Form](#).

## **COURSE COMMUNICATIONS POLICY**

Students are required to frequently check Canvas. Students must also make sure that they are receiving announcement notifications so that any pertinent information is received in a timely fashion.

### **Questions**

Students **MUST** use Piazza to submit all questions. Any question with assignment information must make sure they submit a private question.

### **Email**

For most purposes, do **NOT** email the TAs or professor directly. These emails are likely to be ignored. Instead, students must use the Piazza link provided on Canvas for all communications and questions.

### **Virtual Office Hours**

A link to Zoom will be provided on Canvas for students to attend virtual office hours. Students must frequently check the office hours page before they attend virtual office hours in case anything has changed.

## **COURSE ATTENDANCE AND PARTICIPATION POLICY**

I will not intentionally set due dates on holidays or other days where the physical campus is closed. Even though this is an online class, you will be afforded the opportunities to celebrate holidays just like the rest of the UT campus.

You will be expected to participate in all online discussions, where applicable.

## **ASSIGNMENTS, ASSESSMENTS, AND EVALUATIONS**

Students will have their assignments graded on Canvas. Students may appeal any grade they receive provided they submit, in writing, their request for a regrade within 7 days of receiving the grade. Students who submit a request outside of 7 days may not appeal their grade, and the grade they receive will stand.

### **Student Feedback to Inform Course Improvements**

Students must complete a weekly survey where they can submit comments and ratings for that week's course content and delivery. Since we are working to improve this course,

students are encouraged to be honest and write constructive criticism to help. Please be specific to what we could do better.

### **Procedures for Turning in Assignments**

Students will submit all assignments through Canvas. Students are responsible for ensuring that what they submit is what they wish to be graded. Students are encouraged to download their submission to ensure it is what they expected to submit. Only the latest submission made will count for those assignments that offer multiple submissions or attempts. If a submission is past the due date, it will be penalized 11% per day that it is late. This is automatically deducted from your grade by Canvas.

### **Cheating / Plagiarism**

Students are not permitted to work with anyone else for this course. All graded assignments are individual works. Students suspected of cheating and/or plagiarism will be submitted to the Office of Student Conduct for further investigation. Student must give all proper citations and attributions to non-original works. Students who are reasonably found to have plagiarized will receive a 0 for the assignment and a 10-point drop in their grade. Multiple occurrences will result in an F for the course. Students are encouraged to read the graduate catalog regarding Plagiarism and section 10.4 in the student code of conduct. Students who are unsure are encouraged to contact the University Libraries at <https://libguides.utk.edu/style>

### **Academic Writing**

For all writing exercises, including tutorials, students will be expected to follow the APA guidelines to writing. Students may refer to the [UT Writing Center](#) for additional information.

## **GRADING CRITERIA**

### **Grading Scale**

Students will be graded based on the UT standard graduate-level grading system. More-or-less, grades (not including +/-) follow A: 90-100, B: 80-89, C: 70-79, D: 60-69, F: 0-59.

### **Grades**

All grades and feedback will be provided on Canvas. Students must check Canvas to see their standing in the class.

### **Disability Services**

Any student who feels s/he may need an accommodation based on the impact of a disability should contact Student Disability Services in Dunford Hall, at 865-974-6087, or by video relay at, 865-622-6566, to coordinate reasonable academic accommodations.

## **Your Role in Improving Teaching and Learning Through Course Assessment**

At UT, it is our collective responsibility to improve the state of teaching and learning. During the semester, you may be requested to assess aspects of this course either during class or at the completion of the class. You are encouraged to respond to these various forms of assessment as a means of continuing to improve the quality of the UT learning experience.

### **Key Campus Resources for Students**

- [Center for Career Development](#) (Career counseling and resources; HIRE-A-VOL job search system)
- [Course Catalogs](#) (Listing of academic programs, courses, and policies)
- [Hilltopics](#) (Campus and academic policies, procedures and standards of conduct)
- [OIT HelpDesk](#) (865) 974-9900
- [Schedule of Classes/Timetable](#)
- [Student Health Center](#) (visit the site for a list of services)
- [Student Success Center](#) (Academic support resources)
- [Undergraduate Academic Advising](#) (Advising resources, course requirements, and major guides)
- [University Libraries](#) (Access to library resources, databases, course reserves, and services)

## **COURSE SCHEDULE/OUTLINE/ASSIGNMENTS/UNITS OF INSTRUCTION**

Students must check Canvas frequently for a list of topics, policies, procedures, and weekly assignments.

\*Please note: The instructor reserves the right to revise, alter or amend this syllabus as necessary. Students will be notified in writing/email of any such changes.