

# CMPSC 101 (World Campus Python Version)

Instructor: Dr. Steven Shaffer

**How to get help:** We have a team of computer science students available to help you with questions or problems you encounter with your assignments. The email address for these folks is

[L-CMPSC101WC-HELP@LISTS.PSU.EDU](mailto:L-CMPSC101WC-HELP@LISTS.PSU.EDU)

Always be sure to reply-to and/or "cc" this email address when interacting with a learning assistant; otherwise you might delay getting a response. I monitor all of these interactions and will step in if I think it's necessary (to add more information or make something clearer).

If you have any problems with the **Python web site**, email:  
[contact@shaffermediaenterprises.com](mailto:contact@shaffermediaenterprises.com)

If you have any trouble with **Vocareum**, contact us at [L-CMPSC101WC-HELP@LISTS.PSU.EDU](mailto:L-CMPSC101WC-HELP@LISTS.PSU.EDU) first so we can try to help you. Usually "problems with Vocareum" turn out to be issues with your programs, not the site itself.

If you have trouble with **Canvas** or other IT-related issue (*not counting* Vocareum or the Python web site), go to this page: <https://it.psu.edu/get-support>

If you have a question about a course policy or something of a personal nature, email me at [scs12@psu.edu](mailto:scs12@psu.edu).

**NOTE: Always access the course materials using the Modules view. This is the best way to understand how the course is structured. No accommodations will be made for any work you miss because you were not following along in the modules view.**

## REQUIRED COURSE MATERIALS

**Required course material:** You can order the course materials here:  
<https://shaffermediaenterprises.com/2021/05/25/50-steps-to-mastering-basic-python-programming/>

**PLEASE NOTE:** In order to pass this class you must have purchased and registered the course materials in order to do your assignments in Vocareum. No other IDE is acceptable for assignments. Vocareum is not just an IDE, but it also assigns randomized assignments and tests your code. You will not get any credit for any assignments submitted unless you have a

valid, individual, Vocareum account. You can't share Vocareum accounts, as this would be a form of cheating.

## GRADING

GRADING ELEMENT	POINTS	TOTAL POINTS FOR THE SEMESTER
Assignments	50 @ 10 points each	500
Quizzes	10 @ 20 points each	200
Mini-projects	10 @ 20 points each	200
Test 1	1 @ 100 points	100
Test 2	1 @ 100 points	100
Final exam	1 @ 100 points	100
	<b>TOTAL AVAILABLE:</b>	1200 points

Please note that there is a difference between *assignments* and *mini-projects* as described below.

**PROGRAMMING ASSIGNMENTS:** There are 50 programming assignments in Vocareum; you must complete each assignment before moving on to the next one. “Successful completion” means that you have passed all of Vocareum test cases. You must successfully submit assignments by the due date/time in order to get credit for that week's work.

**QUIZZES:** Quizzes are based on anything covered in the course up to that point. Quizzes have randomly assigned questions, and not all of quizzes have the same format. The first few quizzes are based primarily on knowledge from the readings; after that the quizzes start assessing your knowledge of programming. Note that the quizzes are designed to be open book / open notes.

**MINI-PROJECTS:** There are 10 mini-projects, each of which is an activity which requires you to apply the knowledge you've gained during the rest of the course activities. These vary; more information is available in each module regarding exactly what the mini-project is.

**EXAMS:** There are three exams spread throughout the semester. These will be proctored using Honorlock (see below). Each of the three exams is worth the same number of points. More info on the exams will be given within the course content.

## IMPORTANT INFORMATION ABOUT HONORLOCK

*Honorlock will proctor your exams this semester. Honorlock is an online proctoring service that allows you to take your exam from the comfort of your home. You DO NOT need to create an account or schedule an appointment in advance. Honorlock is available 24/7, and all that is*

*required is a computer, a working webcam/microphone, your photo ID, and a stable internet connection.*

*To get started, you will need Google Chrome and download the [Honorlock Chrome Extension](#).*

*When you are ready to complete your assessment, log into Canvas, go to your course, and click on your exam. Clicking "Launch Proctoring" will begin the Honorlock authentication process, where you will take a picture of yourself, show your ID, and complete a scan of your room. Honorlock will be recording your exam session through your webcam, microphone, and recording your screen. Honorlock also has an integrity algorithm that can detect search-engine use, so please do not attempt to search for answers, even if it's on a secondary device.*

*Honorlock support is available 24/7/365. If you encounter any issues, you may contact them through live chat on the [support page](#) or within the exam itself. Some guides you should review are [Honorlock MSRs](#), [Student FAQ](#), [Honorlock Knowledge Base](#), and [How to Use Honorlock](#). Good luck!*

**LATE SUBMISSIONS:** I set the "until" date/time to three hours past the due date/time. Any submission within this "fudge factor" time will be allowed full credit. This is to cover times when Canvas is slow to respond, etc. No work will be allowed for credit past the "until" date/time unless prior approval has been granted. If you need extended time due to (for example) military deployment, you must contact me at least two days before an item is due.

**EXTRA CREDIT HAND TRACE EXERCISES:** There are 10 extra credit hand trace exercises; what these entail will be explained within the course.

***Note the following very important things:***

- *No work except the final exam will be accepted after the last day of the semester (not the last day of finals). This includes pre-approved late submissions.*
- *Please note: If you submit multiple items into Canvas, the latest version you submit will be the one that we grade. You cannot resubmit for a grade an item after it has been graded, even if you submitted it early, so don't submit it unless you consider it to be done.*
- *Periodically a student might submit a graded element only to realize that the wrong item has been submitted. Students can resubmit elements if this happens. However, once any submission has received a grade, re-submissions will not be graded.*
- *For any assignment, quiz, test or mini-project, be sure only to use aspects of Python that have been covered up to that point in the course.*
- *Do not rely on CANVAS to calculate your grade. Only consider CANVAS as the place where your grades are stored. CANVAS will likely not calculate your grade properly.*

**EXTRA CREDIT:** There are several opportunities for extra credit throughout the course; be sure to look for these.

**Letter grades:**

§ 94% and above: A	§ 78%-79.9999%: C+
§ 90%-93.9999%: A-	§ 70%-77.9999%: C
§ 88%-89.9999%: B+	§ 60%-69.9999%: D
§ 84%-87.9999%: B	§ 0%-59.9999%: F
§ 80%-83.9999%: B-	

*This is the official PSU policy/disclaimer:*

*This course requires you to have a webcam for class sessions and assessments. Classes and assessments may be conducted using technology selected by your instructor which may use your computer's webcam or other technologies to communicate, monitor, and/or record classes, class activities, and assessments. Assessments may also be conducted using proctoring software, which may listen to you, monitor your computer screen, view you and your surroundings, and record (including visual and audio recordings) all activity during the proctoring process. Please contact your instructor if you are unable to comply or have any questions or concerns.*

## Topics covered

- Thinking algorithmically
- Problem solving
- Successive refinement
- Overuse of examples
- The context of programming
- Higher-level languages
- Syntax and Semantics
- Compilers vs. Interpreters
- The value of practice
- Understanding "hand tracing"
- String output
- string, int and float variable assignment
- Basic user input of strings
- Echoing input
- String output with whitespace
- String output with special characters

- Getting integer and float input from the user
- Formatted output of strings and numbers
- Type casting between float, int and string
- Basic arithmetic with +, -, \*, /
- Divide by zero and precision issues
- Default order of operations
- Solving formula based problems
- Solving formula with two input variables
- Basic conditional processing
- Basic conditional processing with strings
- Conditions with else
- Testing conditions with floats
- Conditions with elif
- Conditions with multiple elifs
- Covering all the bases
- Nested if statements
- Binary logical operators: AND and OR
- More complex uses of logical operators
- Understanding Boolean values
- Basic Iteration with FOR loops
- Accumulating data in a FOR loop
- Early termination of a loop
- For loops: begin, end and increment
- Nested loops
- Nested loops with embedded conditionals
- Basic WHILE Loop processes
- Two approaches to WHILE statements
- While loops with embedded multiple elifs
- Combining WHILE and FOR loops
- Fundamentals of lists
- Adding and removing items from a list
- Bulk loading and accessing list elements
- Traversing and searching a list
- Slicing a list
- Basic string operations
- Searching for substrings
- String concatenation and replacement
- Mutability and immutability
- Introduction to functions
- More on lists and functions
- Functions calling functions
- Using the standard libraries

## **Other important stuff**

**Official COVID statement (included here but this is a strictly online class)**

Penn State University requires everyone to wear a face mask in all university buildings, including classrooms, regardless of vaccination status. ALL STUDENTS MUST wear a mask appropriately (i.e., covering both your mouth and nose) while you are indoors on campus. This is to protect your health and safety as well as the health and safety of your classmates, instructor, and the university community. Anyone attending class without a mask will be asked to put one on or leave. Instructors may end class if anyone present refuses to appropriately wear a mask for the duration of class. Students who refuse to wear masks appropriately may face disciplinary action for Code of Conduct violations. If you feel you cannot wear a mask during class, please speak with your adviser immediately about your options for altering your schedule.

## **Academic Integrity**

Academic integrity is the pursuit of scholarly activity in an open, honest and responsible manner. Academic integrity is a basic guiding principle for all academic activity at The Pennsylvania State University, and all members of the University community are expected to act in accordance with this principle. Consistent with this expectation, the University's Code of Conduct states that all students should act with personal integrity, respect other students' dignity, rights and property, and help create and maintain an environment in which all can succeed through the fruits of their efforts.

Academic integrity includes a commitment by all members of the University community not to engage in or tolerate acts of falsification, misrepresentation or deception. Such acts of dishonesty violate the fundamental ethical principles of the University community and compromise the worth of work completed by others.

Refer to Academic Integrity Standards for CMPSC, CMPEN, and CSE Programming Courses at <http://www.eecs.psu.edu/students/resources/EECS-CSEAcademic-Integrity.aspx>

*All code you submit as part of your assignment and projects must be your own design and implementation, except for code that we provide or code that you document as coming from another source. The latter exception may only be used for incidental pieces of code and may result in a reduction of your score. Violations of this policy will result in at least a 0 on the assignment/project and a reduction of the final course grade by one letter. Any serious violation will result in an automatic failure in the course.*

**Also:** You will be required to complete an academic integrity module in Canvas before you can access any of the regular course material.

## **DISABILITY ACCOMMODATION STATEMENT**

Penn State welcomes students with disabilities into the University's educational programs. Every Penn State campus has an office for students with disabilities. Student Disability Resources (SDR) website provides [contact information for every Penn State campus](#)

(<http://equity.psu.edu/sdr/disability-coordinator>). For further information, please visit [Student Disability Resources website](#) (<http://equity.psu.edu/sdr/>).

In order to receive consideration for reasonable accommodations, you must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: [See documentation guidelines](#)

(<http://equity.psu.edu/sdr/guidelines>). If the documentation supports your request for reasonable accommodations, your campus disability services office will provide you with an accommodation letter. Please share this letter with your instructors and discuss the accommodations with them as early as possible. You must follow this process for every semester that you request accommodations.

## COUNSELING AND PSYCHOLOGICAL SERVICES STATEMENT

Many students at Penn State face personal challenges or have psychological needs that may interfere with their academic progress, social development, or emotional wellbeing. The university offers a variety of confidential services to help you through difficult times, including individual and group counseling, crisis intervention, consultations, online chats, and mental health screenings. These services are provided by staff who welcome all students and embrace a philosophy respectful of clients' cultural and religious backgrounds, and sensitive to differences in race, ability, gender identity and sexual orientation.

[Counseling and Psychological Services at University Park \(CAPS\)](#)  
(<http://studentaffairs.psu.edu/counseling/>): 814-863-0395

Counseling and Psychological Services at [Commonwealth Campuses](#)  
(<https://senate.psu.edu/faculty/counseling-services-at-commonwealth-campuses/>)

Penn State Crisis Line (24 hours/7 days/week): 877-229-6400  
Crisis Text Line (24 hours/7 days/week): Text LIONS to 741741

## Education Equity Reporting

Consistent with University Policy AD29, students who believe they have experienced or observed a hate crime, an act of intolerance, discrimination, or harassment that occurs at Penn State are urged to report these incidents as outlined on the [University's Report Bias webpage](#)  
(<http://equity.psu.edu/reportbias/>)

