

CSCE 110: Programming I
Sections: 503, 504
Spring 2015
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Email: ritchey@cse.tamu.edu
Lecture: TR 8:00am–9:15am, PSYC 108
Office Hours: TWR 9:30am–10:20am and by appointment

1 Course Objectives

1.1 Course Description

This is an introductory course designed for any student interested in using computation to enhance their problem solving abilities. *No prior experience in programming is necessary.* Students will use their problem solving abilities to implement programs in Python. Prerequisites: None.

1.2 Learning Objectives

1. Develop a basic understanding of programming and the Python programming language.
2. See the value of programming in a variety of different disciplines—especially as it relates to your other college courses.
3. Appreciate the value of experimentation.
4. Be comfortable with the fact that there is more than one right solution to a problem.
5. Have fun!

2 Course Material and Announcements

2.1 Class Lectures

Most of the material that you will need for this class will be presented in the class lecture. Thus, it is *extremely* important that you attend every class.

2.2 Course Webpage and eCampus

The definitive source for course announcements, reading assignments, reference materials, and class handouts is the course web page and eCampus.

- Course site: <http://faculty.cse.tamu.edu/ritchey/courses/csce110/spring15>
- eCampus: <http://ecampus.tamu.edu>

Please consult the course webpage and eCampus regularly as they will both be updated throughout the semester.

2.3 Course Topics

The major topics that will be covered during the 15 week semester are as follows. Each topic will be explored with numerous in-class examples followed by practice with lab assignments. The schedule is tentative and is subject to change.

Week	Topic
1/20–1/23	What is programming? Why is it important?
1/26–1/30	Simple Input/Output
2/2–2/6	Variables and Expressions
2/9–2/13	Collective Data Structures
2/16–2/20	Decision-making Statements)
2/23–2/27	Loops
3/2–3/6	Randomness
3/9–3/13	Functions
3/23–3/27	Simulation
3/30–4/3	File I/O
4/6–4/10	Binary numbers
4/13–4/17	Visualization
4/20–4/24	Object Oriented Design
4/27–5/1	Algorithms and Recursion

2.4 Email

Occasionally, I will send email to the class. So, please make sure you check your email regularly.

2.5 Textbook

There is no textbook for this course. However, there are many good references that are available online that you may find helpful while studying the material.

- *Think Python: How to Think Like a Computer Scientist* by Allen B. Downey
<http://www.greenteapress.com/thinkpython/thinkpython.html>
- *Dive into Python* by Mark Pilgrim
<http://www.diveintopython.net>

2.6 Programming Environment

We will be using the following programming environments for this class. **All software used in the class is free for academic use** and works on the major computing platforms (Mac, Windows, and Linux). The labs have already been setup with the following software. You are encouraged to install the software on your personal computers so that you can study effectively outside of class.

- Enthought Canopy Express
<https://store.enthought.com/downloads>

- WingWare IDE 101
<http://wingware.com/downloads/wingide-101>

3 Grading

3.1 Course Components

Your grade will be based on three components.

- *Exams (50%)* – There will be two, 75 minute exams and one 2-hour comprehensive final exam. Each of the 75 minute exams are worth 15% each for a total of 30%. The comprehensive final is worth 20%.
 - Midterm I: Thursday, February 19th in class
 - Midterm II: Thursday, April 2nd in class
 - Final exam: Friday, May 8th from 1:00pm to 3:00pm in PSYC 108.

- *Lab assignments/homework (25%)* – Lab assignments will be assigned weekly and are designed to help students understand the course material, provide practical programming experience, and help improve problem-solving abilities. As the course material increases in difficulty, it is expected that lab assignments will have to be completed outside of lab time. Lab attendance is required and will be used as part of the lab grade.

If you have an excused absence (as defined by student rule 7 <http://student-rules.tamu.edu/rule07>), then you will receive credit for attending lab that day.

Labs begin on January 26th.

- *Weekly quizzes (25%)* – There will be weekly quizzes every Thursday consisting of questions concerning material in the lecture and the lab assignments. The purpose of the quizzes is to help you stay caught up on the lecture material in the class as well as test your understanding of the lab assignments. You will be expected to write programs by hand on the weekly quizzes. The first quiz will be on Thursday, January 29th.

3.2 Grading Scale

- 90% – 100% A
- 80% – 89% B
- 70% – 79% C
- 60% – 69% D
- 59% and below F

The scale may be adjusted by the Instructor to reflect score variations.

3.3 Academic Misconduct

- **Exams and quizzes.** If you are caught cheating on in-class exams and quizzes, you will receive an F* and be reported to the Aggie Honor Office.
- **Lab assignments/homework.** Each assignment will be worth 100 points. If you are caught cheating on the lab, you will get 200 points deducted from your total lab score at the end of the semester. If you get caught cheating on a lab assignment for the second time, you will receive an F or F* in the course. In both cases, you will be reported to the Aggie Honor Office.

As noted above, the penalties are steep if you get caught cheating or performing any type of academic misconduct. So, please do your own work! *You are more than capable of doing the work required to be successful in this course. Thus, there is no need to copy the work of others.* (See Section 6 for more details on collaboration versus cheating.)

4 Class Participation and Success

4.1 Asking Questions

It is extremely important for you to be engaged in the course. Otherwise, you will fall asleep and wonder what happened to your tuition dollars. So, I encourage you to ask questions during lecture. *For the first few weeks, when asking a question, please stand up and also state your name so that I know who you are.*

4.2 Studying for the course

This is not an easy course because you are essentially learning a new language; a new way of communicating your thoughts to the computer.

To meet our learning objectives, I will keep you busy with programming projects, quizzes, and exams. You must be totally engaged in the course. But, more importantly, if you get lost early in the course, it is really difficult (if not impossible) to recover. It's like your math courses. If you don't know how to add, it will be impossible to learn how to multiply. Learning to program is similar. As a result, there are multiple ways that feedback is built into the course to help move you along in the course without getting lost. However, you are responsible for putting in the time to study and seeking help when you don't understand the material.

If you put in the time, this course is designed for you to succeed. How much time should you be studying? One rule of thumb states that you should study 2 hours per credit hour. Given that this is a 4 credit course, that translates into 8 hours of study. However, I'll round that up to *at least 10 hours per week outside of class lectures and labs once we start writing more interesting programs.*

5 The Rules

1. **No late assignments will be accepted.***
2. **There are no make-up quizzes or exams.***
3. **Once a grade has been posted in eCampus, you have one week to make a written request to regrade an assignment, exam, or quiz if an answer that is 100% correct has been graded wrong. A solution that is partially correct will not be regraded.**
4. **Your overall grade will be based on the scores that you receive on exams, quizzes, and assignments.**

Please do not lobby to have any of the four rules changed to suit your personal situation (e.g., assignment extension because you didn't finish the assignment on time, makeup for a quiz because you overslept). All such requests will receive the answer 'No.' Instead, spend your time on studying the material and enjoying the class.

6 Collaboration and Cheating on Lab Assignments

Given that this is the first programming course for many of you, it may be unclear as to what is and is not acceptable when writing programs. The provided examples are meant to be illustrative and not exhaustive for lab assignments. In addition to what is specified here regarding collaboration and cheating on lab assignments, all aspects of the course (exams, quizzes, assignments) are covered by the academic integrity policies of the university as discussed in Section 8.

6.1 Acceptable forms of collaboration

In this course, you are encouraged to discuss topics together. For example, you are encouraged to study for exams together, and discuss methods for solving lab assignments. The main point to remember is to verbally discuss the high-level concepts needed to do lab assignments. You should not be speaking Python (or any programming language for that matter) to each other. And, why would you want to anyway? ☺ Finally, when discussing a problem with others, the software tools you use for writing your programs should be closed on your computer.

6.2 Collaboration that morphs into cheating

Four guidelines will help you stay safe as a collaborator and not hover dangerously close to academic misconduct.

- First, other than the instructor, TA, and peer teachers, it is never okay to look at the written work of another person or show another person your written work until after all grading on an assignment is completed. Also, remember to keep your eyes on your own screen. The moment you start looking at another student's source code you have crossed the line into cheating.

* An emergency situation or university-excused absence may result in a violation of the rule. Please inform me of such situations as soon as possible to schedule a make-up for a missed exam or quiz or a new deadline for a missed assignment.

- Second, while you are discussing an assignment with another student, you should be discussing your concepts in English and at a high-level (e.g., drawing pictures). You should not be reading your program to another person.
- Third, you are not allowed to ghostwrite any assignment. Obviously, you cannot use ghost-writers for your own assignments.
- Finally, everyone in the class is expected to take appropriate measures for protecting their work.

6.3 Deterrents to cheating

In this course, there are several methods to keep you focused on your own work.

- Weekly quizzes will assess your understanding of the lab assignments. If you do amazing on the lab assignments and poorly on the weekly quizzes, then a red flag is raised for both you and the instructor. In order for these two scores to correlate with each other, you must complete and understand the lab assignments. One without the other will affect your grade negatively.
- Plagiarism detection software will be used on all assignments to make sure students have not copied code from one another. Any program that you submit must be your own work.
- If the work you submit is the result of academic misconduct, you will receive a severe penalty (such as F or F* in the course) according to the Section 3.3.
- *Remember, you do not have to cheat to be successful in this course. You are all more than capable of doing well if you put in the time and are open and enthusiastic about learning the material in the course.*

7 Digital Etiquette Policy

Cell phones are not allowed in class. I understand that your phones connect you to your friends and family, but the classroom is a place where you connect with the professor and your classmates. You will learn more if you concentrate on the course while you're in the course.

Laptops and tablets are allowed in the class under the following condition: you use these devices to interact with the course material. You should not use a laptop during class to play a game, check your friends statuses on Facebook, IM, respond to email, watch videos on YouTube, etc. Such activities not only distract you (you will be unable to participate meaningfully in the class), but also anyone around or behind you. If you often seem distracted by what's on your screen, I will ask you to put your laptop or tablet away.

8 Academic integrity

The university's policies on academic integrity apply to all components of this course (e.g., exams, lab assignments, weekly quizzes).

8.1 Aggie Code of Honor

“Aggies do not lie, cheat, or steal nor do they tolerate those who do.”

Everyone is expected to attend all classes, complete assignments on time, and participate fully in class discussions and group projects. Violations will be handled in accordance with the Texas A&M University Regulations governing academic integrity. Visit <http://aggiehonor.tamu.edu> for more information.

8.2 Plagiarism

As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues, without which research cannot be safely communicated. If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section for Scholastic Dishonesty.

9 American with Disabilities Act

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 979-845-1637. For additional information visit <http://disability.tamu.edu>.

10 Modifications to the syllabus

While not anticipated, there may be revisions to syllabus that are required once the semester begins. If this happens, the syllabus will be updated and students notified of the revision promptly. If a revision is made to the syllabus, the intent is that the modification will be advantageous to the student.