Old Dominion University College of Science CS 115: Intro to CS with Python Syllabus – Spring 2025

| Instructor | Bhanuka Mahanama |
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| Email | bhanuka@cs.odu.edu |
| Office | Dragas Hall, Room 1100H |
| Office Hours | Mondays: 9:00 -11:00 AM, Appointments Preferred |

Goals

Objectives of the course:

- 1. Discuss CS as a discipline
- 2. Discuss computing software and hardware fundamentals
- 3. Understand the process and skills necessary to effectively deal with problem-solving in relation to writing programs.
- 4. Develop a basic understanding of programming and the Python programming language.
- 5. Be able to implement multiple correct solutions to a problem.

After completing the course student are able to:

- Read code
- Write a program short <20 lines
- write a basic algorithm to solve a problem (in English or pseudo code)
- Recognize the use of computer science in a variety of domains
- Professional/research/entrepreneurial futures as a CS major

Grading: Your semester average will be determined using the following weights:

| ITEM | WEIGHT |
|------------------------------------|--------|
| In Class Activities | 30% |
| Quizzes | 10% |
| Weekly Assignments & Final Project | 40% |
| Final Exam | 20% |
| Total | 100% |

Note: There will be 3 extra credit assignments each worth of 2 points and if you complete student opinion survey you will get 4 extra credit points. These total extra credit points will be added to your <u>final exam</u> score.

Textbook:

The readings for this course are available online.

- The *lecture notes* are **required** readings.
- All information necessary to do the assignments and complete the course is in the lecture notes.
- Python learning tutorial: https://www.python.org/
- More resources are available in the lecture notes.

Letter Grade:

| Grade |
|-------|
| A |
| A- |
| B+ |
| В |
| B- |
| C+ |
| C |
| C- |
| D+ |
| D |
| D- |
| F |
| |

Attendance/Classroom decorum: Attendance is mandatory.

The class meets every Friday from 10:00 AM to 10:50 AM. You should arrive on time; habitual tardiness is disruptive. The attendance is must. Students are expected to pay attention, take notes, and ask/answer relevant questions during the lecture period. The use of cell phone is not permitted. Do not use social media sites, or other applications during class – this is considered to be rude and inconsiderate behavior towards the instructor and fellow students.

Assignments/**Activities:** Assignments and activities will be completed individually. Do not collaborate on the programming assignments or discuss them with anyone other than the course instructor. Delivery details for assignments will be provided at the time of the first assignment.

Assignments will be delivered electronically to Canvas and/or Piazza. Late submission will not be permitted. It is the student's responsibility to make sure that he/she submitted the correct file/files to Canvas/Piazza.

Final Exam: The final exam is a multiple-choice exam and will be available on Canvas. The final exam date will be posted on canvas later in the semester.

Communication: Course communication will be through Canvas and Piazza. You should plan to check them often.

Piazza: All questions will be fielded through Piazza. The primary benefit is that for many questions everyone can see the answer and other students can answer as well. I will endorse good student responses. I expect you to actively participate in online discussions at Piazza. You can post public or private messages that can only be seen by the instructor.

Email: Students should use email to discuss issue that cannot be discussed on the discussion board. If you email me use the following rules:

• Identify yourself

- email to bhanuka@cs.odu.edu
 - o Make sure to include the class name "CS 115" in the subject of your email, otherwise I will not be able to know which class you are talking about
 - o Use your university e-mail account to send emails
 - Address the instructor properly
 - Sign with your full name and course number

Topics covered:

These topics are subject to change.

| Topics | |
|--|--|
| Introduction to how computers work Introduction to Python Compiler vs interpreter | |
| Writing programs What is an IDE How to install Python Variables and assignments Arithmetic expressions | |
| Types Basics: String List Set | |
| Strings:SlicingMethods | |
| Boolean types and conditional expressionsIf statements, if-else statements | |
| Repetitions: Loops | |
| While vs. for loops | |
| Program design and problem solving | |
| • Functions | |

Computer Access:

If you want to use the computers in the CS department lab:

Students will need an account on the CS Dept. Unix network to participate in this class. This account is unrelated to any University-wide account you may have from the ODU's computing services (OCCS). If you have had a CS Unix account in the recent past, you should find it still active with your login name, password, and files unchanged. If you have had an account and it has not been restored, contact the CS Dept systems staff in the lab in Dragas Hall, Room 1103G, or email root@cs.odu.edu requesting that it be restored. If you do not yet have such an account, follow the directions provided in the pdf file (Account Setup) to get set up. Please note that new account creation for students enrolled in a future semester becomes available about one week before the start of that semester.

Academic Honesty

Everything turned in for grading in this course must be your own work. The instructor reserves the right to question a student orally or in writing and to use his evaluation of the student's understanding of the assignment and of the submitted solution as evidence of cheating. Violations will be reported to the Office of Student Conduct & Academic Integrity for consideration for possible punitive action. Students who contribute to violations by sharing their code/designs with others may be subject to the same penalties. This policy is not intended to prevent students from providing legitimate assistance to one another. Students are encouraged to seek/provide one another aid in learning to use the operating system, in issues pertaining to the programming language, or to general issues relating to the course subject matter. Students should avoid, however, explicit discussion of approaches to solving a particular programming assignment, and under no circumstances should students show one another their code for an ongoing assignment, nor discuss such code in detail.

Educational Accessibility

Old Dominion University is committed to ensuring equal access to all qualified students with disabilities in accordance with the Americans with Disabilities Act. **The Office of Educational Accessibility (OEA)** is the campus office that works with students who have disabilities to provide and/or arrange reasonable accommodations.

The Office of Educational Accessibility is located at 1021 Student Success Center and their phone number is (757)683-4655. Additional information is available at the OEA website: http://www.odu.edu/educationalaccessibility/

- If you experience a disability that will impact your ability to access any aspect of my class, please present me with an accommodation letter from OEA so that we can work together to ensure that appropriate accommodations are available to you.
- If you feel that you will experience barriers to your ability to learn and/or test in my class but do not have an accommodation letter, please consider scheduling an appointment with OEA to determine if academic accommodations are necessary.

Students are encouraged to self-disclose disabilities that have been verified by the Office of Educational Accessibility by providing Accommodation Letters to their instructors early in the semester in order to start receiving accommodations. Accommodations will not be made until the Accommodation Letters are provided to instructors each semester.