Department of Computer and Electrical Engineering and Computer Science
Florida Atlantic University
Course Syllabus

1. Course title/number, number of credit hours	
COP1034C Computer Programming and Data Literacy for Everyone	Credit hours: 3

2. Course prerequisites, corequisites, and where the course fits in the program of study
None

3. Course logistics
Term: Fall 2020

4. Instructor contact information	
Instructor's name *Office address* *Office Hours* *Contact telephone number* *Email address*	TBA

5. TA contact information	
TA's name *Office address* *Office Hours* *Contact telephone number* *Email address*	TBA

6. Course description
This course introduces students from non-Engineering and Computer Science majors to computational thinking and the art of computer programming using Excel and Python. No prior programming background is required. This is a General Education course.

7. Course objectives/student learning outcomes/program outcomes	
Course objectives	1. Ability to apply basic programming concepts. 2. Ability to write small programs employing basic programming constructs, such as primitive data types and literals, operations, expressions and statements, logical decisions, and loops. 3. Ability to solve computational problems by reducing them into multiple algorithms using fundamental design techniques, such as abstraction and program decomposition
Student learning outcomes & relationship to University missions	1. Utilize computers as a means to apply mathematical theories and equations to solve simple and complex issues associated with non-engineering majors. 2. Determine and apply appropriate computational models and methods to everyday problems by employing basic programming constructs, such as primitive data types and literals, operations, expressions and statements, logical decisions, and loops.

	3. Display quantitative literacy by developing fundamental designs and techniques to teach students how to reduce problems into computational algorithms.

8. Course evaluation method

Programming homework	25%	
Quizzes	10%	
Midterm Exam	20%	
Final Exam	25%	
Project/Reflection	15%	
Participation	5%	

9. Course grading scale

Grading Scale:
90 and above: "A", 87-89: "A-", 83-86: "B+", 80-82: "B", 77-79 : "B-", 73-76: "C+", 70-72: "C", 67-69: "C-", 63-66: "D+", 60-62: "D", 51-59: "D-", 50 and below: "F."

10. Policy on makeup tests, late work, and incompletes

No makeup tests will be given, except with documentation from a Doctor. Late assignments will only be accepted and graded, if excused by me. Canvas will allow you to submit an assignment after the due date and time. However, it will mark a late assignment late. Incomplete grades will only be given if the student is passing the class and has proper documentation for the reason of the incomplete.

11. Special course requirements

None
.

12. Classroom etiquette policy

University policy requires that in order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular phones and laptops, are to be disabled in class sessions.

13. Attendance policy statement

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-
attendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences
include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

14. Disability policy statement

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/

15. Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to http://www.fau.edu/counseling/

16. Code of Academic Integrity Policy Statement

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001.

17. Required texts/reading

How to Think Like a Computer Scientist - Learning with Python: Interactive Edition, by Jeffrey Elkner, Allen B. Downey, and Chris Meyers, at http://interactivepython.org/runestone/static/thinkcspy/index.html

18. Supplementary/recommended readings

None

19. Academic Service Learning Statements

This course is designated as an "academic service-learning" course. The assistance you provide to the agency/organization during your academic service-learning (AS-L) experience is a service to the community and will allow you to apply knowledge from the course to local, national, and/or global social issues. Throughout this course you will be participating in AS-L activities while demonstrating civic engagement at campus, local, national, and/or global community levels. You will also reflect on your AS-L experience and the impact on the community as well as your professional development. Academic service-learning notation of hours will post to your transcript with submission of hours to your faculty instructor. An Academic Service-Learning Student Survey is required to be taken at the end of your AS-L project. Please visit the Weppner Center for LEAD & Service-Learning website, www.fau.edu/leadandserve, for the survey link and more information on FAU's Academic Service-Learning program.

Minimum project hours: 10

Assumption of Risk Statement for Student* I understand that there are certain physical risks inherent in every form of

service-learning. I understand the risks associated with this Academic Service-Learning assignment. I nonetheless agree to assume those risks so as to gain the benefits from participation in this valuable learning experience. I hereby release the State of Florida, the Board of Trustees, Florida Atlantic University and its agents and employees from any and all liability associated with my participation in this assignment at Florida Atlantic University.

If you are selected to participate in the university-wide Academic Service-Learning program, you will be required to document a minimum of 10 hours of student service to the community agency.

20. Course topical outline:

Brief list of topics that may be covered:
1. Overview of Computer Systems and Programming Concepts (week 1)
2. Excel for Data Analysis (Week 2/3)
3. Python Data Types and Debugging Techniques (week 4)
4. Python Turtle Graphics (week 5)
5. Functions (week 6)
6. Selection and Iteration Statements (week 7)
7. Strings (week 8)
8. Lists and Files (weeks 9)
9. Dictionaries and Exceptions (week 10)
10. Basics of Image Processing (weeks 11 and 12)
11. Recursion (week 13)
12. Classes and Objects (week 14)
13. Laboratory Projects and Review (week 15)