Computer Science 1 Spring 2026
Course Syllabus

Course Information

Computer Science I	**CSCI 1100**		**4 credits**	**Section 01-22**
Lecture (Uzma Mushtaque)	Sections 1-13	MR	2:00PM-3:20PM	Troy 2012
Lab	Section 7	W	12:00PM-1:50PM	See Course Website
Lab	Section 8	W	12:00PM-1:50PM	See Course Website
Test	Sections 7-8	R	6:00PM-7:50PM	Will be announced

Course Website: https://www.cs.rpi.edu/~mushtu/CS1100/index.html

Prerequisites or Other Requirements:
There are no prerequisites for this class.

Instructor

Dr. Uzma Mushtaque	mushtu@rpi.edu
Office Hours: R – 12:00pm to 1:00pm AE 111	

Teaching Assistant(s)

Name	**Office**	**Office Hours**	**Email Address**
Siew Goh	See course webpage	See course webpage	gohs3@rpi.edu
Vicky Guo	See course webpage	See course webpage	gov2@rpi.edu

Course Description

This course is an introduction to computer science emphasizing computational thinking, problem-solving, small-scale programming, and applications. This includes basic programming constructs such as data, variables, functions, conditionals, loops, lists, files, sets and dictionaries. It also includes, especially in the latter part of the semester, object-oriented programming and problem solving. Applications will include web-centric computing, image processing, numerical computing, and graphics. Previous programming experience is neither required nor expected.

Course Text(s)

We will use the University of Toronto book, Practical Programming: An Introduction to Computer Science Using Python by Campbell, Gries, and Montojo. This is available in both print and electronic versions. While purchase of this book is not mandatory, we will follow its order and coverage fairly closely. The examples we use in class will largely complement rather than repeat the ones in the book.

Very important: The official text is the third edition, but if you already have the second edition it should be fine. You need to have at least the second edition. The first edition is obsolete and will not help you in this course.

Course Goals / Objectives

The main objective of this class is to teach computational problem solving using Python. Python has a simple syntax, a powerful set of programming primitives, and a rich set of libraries, making it ideal for classroom learning and for rapid prototyping.

Student Learning Outcomes

1. Demonstrate proficiency in the purpose and behavior of basic programming constructs.
2. Design algorithms and programs to solve small-scale computational programs
3. Write, test and debug small-scale programs
4. Demonstrate an understanding of the wide-spread application of computational thinking to real-world problems.

Course Assessment Measures

Assessment	Number	Learning Outcome #s
Exam	4	1, 2, 3
Homework (Not included in overall grade)	8	1, 2, 3, 4
Lab Report	12	1, 2, 3, 4
In class exercise (Not included in overall grade)	22	3

Grading Criteria

Lecture Exercises: Only for practice (NOT Graded),
Labs: 40%,
Homework: Only for practice (NOT Graded),
Tests: 30%,
Final: 30%

The cutoffs for grades are as follows:

A : 92-100
A-: 89-92
B+: 86-88
B : 82-85
B-: 79-81
C+: 76-78
C : 72-75
C-: 69-71
D+: 66-68
D : 60-65
F : 0-59

Cut-offs may end up lower than this but will not be raised from here. Thus, for example, if you earn a 93 average you are assured of earning an A, regardless of what other students earn.

Lecture Exercises: Attendance in class is not required, submission of solutions to lecture exercises is for practice. Lectures will be conducted in-person.

Labs: There will be 13 labs (numbered from 0 to 12), each one equally weighted. Labs will be designed so that students who prepare in advance and work diligently can earn full credit. Lab period will involve working on lab problems. Additionally, after finishing the lab exercises students can seek help on other components of the course (exercises, homework etc.) from the lab mentors.

Home works: There will be 8-9 homework assignments given throughout the semester. These will not be graded. We highly recommend students submit these and check their score on the auto-grader for practice.

Tests: Three tests will be given during the semester on the dates shown in the on-line course schedule. In addition, there will be a final exam during the scheduled finals period. The three tests during the semester will combine to count for 30% of the grade. To compute this, the best two test scores for each student individually will be worth 12% and the worst test score will be worth 6%. The cumulative final is worth 30%.

Weighted Test Average and The Final Grade: Importantly, students must have a weighted test average - including the final - of at least 50% to pass the course. This is a firm rule and will be determined by the test average rounded to the nearest integer. Exceptions will not be made.

Attendance Policy

Class attendance is strongly encouraged, but not required. You are welcome to attend the live session. Students must attend their assigned lab sections unless prior arrangements are made with the lab TAs.

Lecture notes will be posted on the course web site at least one-two days in advance of each class. Students are strongly encouraged to study these carefully, including the examples that are provided. Our experience in teaching this class has been that many questions students ask are already answered in the notes.

Other Course Policies

Submitty: We will be using Submitty for announcements, on-line discussions, and posting of both homework assignments and lab exercises. You will be automatically added to Submitty on enrolling for the course.

You can log in to Submitty using your rpi.edu email address. You should be checking this site at least once a day for announcements and discussion, and much more often when you are working on assignments and prepping for exams. Better yet, sign up to receive email alerts of postings.

What to post on Submitty? What not to post? Use common sense. Please **do** post questions about lectures, labs, homeworks and tests. Choose Submitty instead of emailing your instructor or your TA, and make sure that other students can see your questions. (In other words, don't use Submitty for a private chat with the instructors.) **Your posting can be anonymous to other students, but it will not be anonymous to the instructors.** Before you post, check what has already been posted so that you don't repeat a question. Do not post a significant section of code you have written for a lab or a homework problem, but instead post questions about how to find and fix an error or about what an error message might mean. Help with debugging your code is best done one-on-one during office hours, lab and extra help sessions.

Lab Sections: Each lab will be led by a graduate student TA, assisted by one or two undergraduate mentors. Get to know your TA, your mentors, and other students in your lab sections. Your TA will get to know you. Your TA is your first point of contact for this course.

You may attend the office hours of the instructor or of TA. Office hours will be posted on the course website.

Lab Late Policy: You must complete labs during the lab time to get full credit. Unfinished components of labs may be finished up to a week late for half the credit. The one exception is for the final checkpoint of each lab. We will offer full credit for the final checkpoint so long as it is finished within a week of class provided that **the student arrives at lab on time and works diligently for the entire lab period.**

Grade Appeals: All grade appeals on labs must be submitted within **a week** of receiving a grade. Students will be able to see all of their grades on-line via Submitty.

Couse related announcements: We make all important announcements on the Submitty discussion forum in a timely manner. It is the student's responsibility to check that on a daily basis.

Academic Integrity

Student-teacher relationships are built on trust. For example, students must trust that teachers have made appropriate decisions about the structure and content of the courses they teach, and teachers must trust that the assignments that students turn in are their own. Acts that violate this trust undermine the educational process. The Rensselaer Handbook of Student Rights and Responsibilities defines various forms of Academic Dishonesty and you should make yourself familiar with these.

In this class, all assignments that are turned in for a grade must represent the student's own work.

You are encouraged to collaborate in labs as long as you write the final solution to the lab on your own.

Copying, communicating or using disallowed materials during an exam is cheating. Students caught cheating on an exam will receive an F in the course and will be reported to the Dean of Students office.

Students who do not submit their own work will receive a 0 on the assignment and will likely receive an additional overall grade penalty, depending on the severity of the infraction. Typical penalties are 5 to 10 percentage points subtracted from the semester average. Students caught a second time will receive an F in the course. All infractions will be reported to the Dean of Students office.

Students caught cheating on an exam will receive an F in the course and will be reported to the Dean of Students office.

If you have any question concerning this policy before submitting an assignment, please ask for clarification.

Other Course-Specific Information

All questions that require attention from the instructors or the course coordinator must be sent to: cs1instructors@cs.lists.rpi.edu. This alias goes to instructor Prof. Uzma Mushtaque. Please include your name and section number in all your emails.

Excuses and exceptions: If you are going to miss an assignment or an exam, you must notify your TA and instructor as soon as you know this is happening. You may be allowed to make up a missed assignment or exam only if you get an official excuse from the Office of Student Experience. Remember crashed computers or forgetting the day of an exam are not valid reasons for an excuse!