RIT Department of Computer Science

CSCI-140: COMPUTER SCIENCE AP
CSCI-242: COMPUTER SCIENCE TRANSFERS

CSCI 140
Computer Science for Advanced Placement Students

CSCI 242
Computer Science for Transfer Students

Course Description

This accelerated course is for students who took an AP computer science course in high school, or are transferring from another college at the second- or third-year level. It covers material from the first-year sequence of courses (CSCI 141, 142) and provides the foundation for all subsequent Computer Science courses. Problem solving skills and the choice and application of appropriate algorithms and data structures are at the core of the course. The course introduces modern software development techniques and essential software tools. Topics include tree and graph structures, hybrid data structures, objects and classes, inheritance and interfaces, and the use of collection libraries. Concepts of object-oriented design are a large part of the course. Software qualities related to object orientation, namely cohesion, minimal coupling, modifiability, and extensibility, are all introduced in this course, as well as a few elementary object-oriented design patterns. Additional topics include input and output streams, graphical user interfaces, and multithreading, and exception handling. The programming languages used are the same ones used in the standard first-year sequence. For individual course descriptions and outcomes, see sis.rit.edu, choose "Course Catalog", and look up "CSCI 140" or "CSCI 242".

Course Policies

Development of code and writings for labs and other graded work is an **individual responsibility**. The only parts of team-developed work are the team part of the project and the joint problem-solving hard-copy exercises; all other graded assignments must be the result of individual effort, not group work.

Submitting individual work generated by AI tools (e.g. ChatGPT), written by other students, or as an unsanctioned team is considered an act of academic dishonesty. Although students may discuss assignments and projects with others, all individually submitted writings and code must be created independently by the student and not copied from others or other sources. Team-developed work also must be created solely by team members and not copied from others or other sources unless with prior instructor approval. In cases where a student is suspected of cheating or copying material, the instructor shall act in accordance with the RIT policy, which can be viewed at http://www.rit.edu/academicaffairs/policiesmanual/d080.

Materials

Please see the resources page, linked at the top of this page, for useful documents including tutorials, instructions, references, and textbooks.

Grading

Grades are based on numerical scores for the work you do. Letter grades are not used except in the end when overall course grades are posted.

Letter Grades

Letter grades for the course are based on the following scale.

Letter Grade	Minimum course average for this grade
A	92%
A-	89%
B+	85%
B	82%
B-	79%
C+	75%
C	72%
C-	69%
D	60%
F	(0%)

Grade Weights

Different activities in the course count different amounts toward your overall course average. This is how it is computed.

Component	Activity	Weight	Notes
Assignments		**50%**	
	Project 1	10%	The first project is usually given out around week 5 and is due around week 9.
	Project 2	15%	The second project is usually given out around week 10 and is due around week 15.
	Labs	20%	All labs count equally. They are due early in the week after they were assigned.
	Recitations	5%	Includes mandatory on-time attendance and the Kahoot quiz grades.
Tests		**50%**	
	Exam 1	15%	The first written exam (2 hours) is usually given about $^1/_3$ of the way through the course. There is no practical.
	Exam 2	15%	The second written exam (2 hours) is usually given about $^2/_3$ of the way through the course. There is no practical.
	Final Exam	20%	The final is a 2 hour, comprehensive, written exam, during final exam week.

The Course Grade Limit Rule

Your whole course grade will be no more than 10 points higher than the lower overall grade of the two components of the course.

The reason for this is that we expect you to understand both the concepts of the course and be proficient in programming using the tools we teach in the course.

Here is an example. Let's say you got a **71%** average on the Tests Component elements and a **93%** average on the Assignments Component elements. In this case, the grade based only on the weights in the table would be 82%, but your course grade would be 71% + 10% = **81%**. As in this example, this discrepancy can occasionally lower your final letter grade in the course.

As a matter of practice, this limit comes into play when the difference between your Assignments and Tests averages is more than 20%. It has been the experience of the department that a student whose grade difference is this great is having more difficulty than meets the eye with regard to understanding and mastering the material.

Minimum Passing Grade

The prerequisite for CSCI 243 (Mechanics of Programming) is either CSCI 140 with a minimum grade of C- or CSCI 142 with a minimum grade of C- or CSCI 242 with a minimum grade of C-..

Grade Appeals

Questions may arise regarding an item of graded work.

Grade appeals must be raised within one week after the day on which the grade was received.

Otherwise, a grade becomes permanent one week after the student received the grade. Different instructors have different procedures for appeals. Make sure you check with yours.

Warnings About Grades in mycourses

Numerical grades for the various items in this course will appear on line in mycourses as the items are graded. However, keep two things in mind. First, any grades not yet entered are *not* treated as zero by the system. If this were not the case your course grade would start out as a **0** and slowly increase during the semester. Second, the so-called **Course Grade Limit Rule** is not automatically applied by the mycourses system.

For these reasons you will not see how your grade has suffered due to a missed assignment or exam, or wide disparity between exam and lab work grades, until whole-term calculations are done.

Course Logistics

This course has several sessions per week. This course meetings are of several different types: lecture, problem-solving, in-lab, recitation, and exams. Students are expected to attend all meeting sessions of the course.

This course meets for six hours each week: two hours of lecture, one hour of problem-solving, one hour of lab, and two hours of recitation.

Lecture

The first class of the week is the lecture with the instructor. It is held in a classroom with all students in the section.

During the first lecture, depending on the meeting schedule and room availability, the instructor may split the class into two groups (A and B). Group A continues the week with problem-solving and the lab session before

recitation. Group B continues the week with the recitation first followed by the problem-solving and lab sessions on the final hours of the week. If your class is split up this way, *the two groups reverse meeting times halfway through the term*. Listen to your instructor carefully for how your section will be run.

Weekly Assignments

Each "lab" assignment grade actually has three parts, outlined below. The weekly "lab" grade is computed according to these weights.

"Lab" Component Name	Portion of "lab" grade
Problem-Solving	15%
In-Lab Exercise	10%
Full Lab Assignment	75%

There are no makeups granted for any of the components that a student fails to complete.

Problem Solving

The problem-solving (PS) session takes place in a classroom where students work as a team and work on problems using pencil and paper or whiteboards, developing algorithms and data structures. The lecture instructor leads the lab's problem-solving segment with the assistance of Student Lab Instructors (SLIs). Instructors collect papers from the teams at the end of the PS session and grade them.

Failure to attend a problem-solving session will result in a 15% lab grade reduction.

In-Lab

The in-lab session is the second hour, usually right after problem-solving, that takes place in a computer lab room where *students individually implement data structures and algorithms* from the handwritten PS exercise. An SLI leads the in-lab segment and grades those students' lab assignments.

Failure to attend a lab session or submit the in-lab work on line will result in a 10% lab grade reduction

Each in-lab assignment is due on the Sunday after it is assigned.

Full Lab: Individual Work Outside of the Classroom

During the in-lab session, students also receive the full assignment for the week, on which they work individually, on their own time. Students can use the laboratory facilities of the Computer Science Department when they are not scheduled for classes, or their personal computers.

Students must submit the full programming portion of the lab assignment on line. The student is responsible for submitting all work on time.

Failure to submit the full lab assignment will result in an automatic 75% lab grade reduction.

Each lab assignment is due on the Wednesday after it is assigned.

The late policy for lab submissions is that there is an 8-hour extension carrying a 20% penalty. Under no circumstances should you email your assignments to your instructor — they must be submitted to MyCourses Assignments in order to count. No credit will be given for any lab not submitted by the end of

the late period.

Projects

Students will work on a number of longer-range projects that involve more challenging, open-ended problems. Depending on the assignment, students may be assigned to work individually or in teams.

Project deadlines and electronic submission procedures follow the same model as the lab assignments.

Recitation

Recitation meets in the lecture room for two hours on the recitation day; The recitation, run by a Teaching Assistant (TA), is designed to reinforce the student's understanding of the material covered in lecture. Normally the TA reviews the previous week's lecture, provides exercises for practice, and administers a weekly Kahoot quiz.

Recitation is required for all students. The TA takes attendance at recitation. A grade for attendance and the Kahoot quiz is entered each week.

Exams

Exam weeks generally have different logistics. There may be a lecture or a problem-solving/lab in the same week, and the order of sessions may be different depending on the semester. The schedule contains the details of exam week logistics.

Holiday Weeks

Please look at the schedule for how classes will run on weeks when one or more days are school holidays.

Policies

- ## Rescheduling an Exam

  http://www.rit.edu/academicaffairs/policiesmanual/d110

- ## Getting Help

  Success in this course depends heavily on your personal health and wellbeing. Stress is an expected part of the college experience, and unexpected social and personal setbacks can compound this. We instructors encourage you to see these challenges as an unavoidable path to success. Understand that you need to take care of yourself and communicate problems, before the demands of exams and projects reach their peak. Please feel free to reach out to us about any difficulty that may affect your performance in this course as soon as it occurs and before it is unmanageable. In addition to your academic advisor, we strongly encourage you to contact the multiple other support services on campus that stand ready to assist you.

  Students may obtain help from the following sources:

  - Your lecture instructor, who has posted office hours (or by appointment);

- Student Lab Instructors (SLI), who assist with labs;
- Teaching Assistants, who conduct weekly recitation sessions;
- The GCCIS Tutoring Center on the second floor, where student lab assistants on staff provide help with assignments.
  - Be sure to ask for *CS* assistance, since students on duty for other college programs are not familiar with our assignments.
  - The CS helpers on duty will help only with technical questions about the programming language, environment, and assignment requirements; they will not design or write your program for you.
- The Tigers Care organization, for more general help;
- The Computer Science Community (CSC), student group that conducts activities oriented to CS majors and others interested in computing.

Course Withdrawal

http://www.rit.edu/academicaffairs/policiesmanual/d060.

Disability Services

See the DSO: http://www.rit.edu/dso.

Academic Integrity

http://www.rit.edu/academicaffairs/policiesmanual/d080.

---

updated: 7/15/2019