R·I·T **RIT Department of Computer Science**

[Course Home Page](#)

CSCI 141 Syllabus

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Catalog Description

This course serves as an introduction to computational thinking using a problem-centered approach. Specific topics covered include the following: expression of algorithms in a programming language; functional and imperative programming techniques; control structures; problem solving using recursion; basic searching and sorting; elementary data structures such as lists, trees, and graphs; and correctness, testing and debugging. Assignments, both in-class/lab and for homework, require analysis and a code implementation, and are an integral part of the course. A course project is also required.

Course Outcomes

- Students will apply the theory and principles of computer science. *Evaluation: group problem-solving activities, laboratory assignments, projects, and exams.*
- Students will demonstrate fluency in high-level programming languages, environments, and tools for computing. *Evaluation: laboratory assignments and projects.*
- Students will prepare technical documents and make effective oral presentations. *Evaluation: team problem-solving activities.*

CSCI 141 is part of a one year introduction, and the next course in the sequence is CSCI 142. The prerequisite for enrolling in CSCI 142 is passing CSCI 141 with a minimum grade of C-.

Contact Information

See [Instructors](#).

Course Policies

The only part of team-developed work happens in the joint problem-solving session (PSS). All other Lab and Homework assignments must be the result of individual effort, not teamwork. Development of code for Labs, Homeworks, or other graded work is an individual responsibility.

Submitting individual work written by others or as an unsanctioned team is considered an act of academic dishonesty. In cases where a student is suspected of cheating or copying material, the instructor shall notify the students involved and act in accordance with [RIT's Academic Honesty](#)

Policy

Although students may discuss assignments with others, all individually submitted writings and code must be created independently by the student and not copied from others or other sources (e.g. web pages).

Team-developed work also must be created solely by the team members and not copied from others or other sources unless with prior instructor approval.

Materials

Please see the resources page, http://www.cs.rit.edu/%7Ecsci141/resources.html for details of tutorials, references, textbooks and other resources.

Grading

Letter grades are based on the following scale.

Letter	Percentage Range
A	92% or above
A-	at least 89% but under 92%
B+	at least 85% but under 89%
B	at least 82% but under 85%
B-	at least 79% but under 82%
C+	at least 75% but under 79%
C	at least 72% but under 75%
C-	at least 69% but under 72%
D	at least 60% but under 69%
F	under 60%

Component	Elements	Weight	Notes
Assignments Component (50%): Deadlines are in dropboxes of MyCourses			
	Homeworks	15%	These assignments are completed independently, outside of class time.
	Labs	20%	These assignments start in a team problem-solving session, and finish independently, outside of class time.
	Project	10%	Multi-week work assignment is completed independently, outside of class time.
	Participation	5%	Your instructor will tell you how they evaluate participation.
Tests Component (50%)			
	First Midterm Exams	15%	1 hour 50 minute, written (10%), 50 minute in-lab (5%).

	Second Midterm Exam	15%	1 hour 50 minute, written exam.
	Final Exam	20%	2 hour, comprehensive, written exam, given during the final exam period.

The Course Grade Limit Rule

Note: Your whole course grade may only be at most 10 points more than the average grade of the elements of your worse component.

As a matter of practice, this limit comes into play when the difference between your Assignments and Tests averages is more than about 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.

Here is an example. Let's say you got a **70%** average on the Tests Component elements and a **94%** average on the Assignments Component elements. In this case, your course grade would be limited to **80%** (a *B-*), which is 10% above your Tests component grade. Without the grade limit rule, your final weighted grade would have been 70 * .5 + 94 * .5 = 82%, which is a **B**.

Warning: The MyCourses application is incapable of applying this grade limit rule. Therefore students will have to manually compute it because they will not be able to see it.

Grade Appeals

A grade becomes permanent one week after you receive the grade. *Grade appeals and questions must be raised to your instructor and Student Lab Instructor (SLI) in writing(email) within one week after the day on which the grade was received.*

Grades in MyCourses

Your grades appear in MyCourses as the assignments are graded by your SLI. This should happen about one week after the due date of the assignment. If you find that your grades are not appearing regularly, notify your instructor of the issue so that they can address it.

Note: As soon as one graded item appears in MyCourses, the MyCourses tool treats the graded item as 'completed', and it does not take future assignments into consideration. For example, if you got an F on the first homework, MyCourses treats that as the final grade for all the homeworks of the course until the second homework is entered. The end result is that MyCourses' projection of a possible maximum future grade is incorrect. Students will need to conduct their own 'what if' calculations to determine their maximum future grade.

Grades and Cheating

While cheating policies are detailed elsewhere in this syllabus, a summary process is important to understand. Upon detection of cheating or copying material, the instructor shall send an email to the student to schedule a meeting with the student(s) involved to discuss it; this may involve more than one instructor. One of the following results may occur:

1. 0% assignment grade for a minor first offense. This is informally noted in case a second offense occurs.
2. 0% assignment grade and note in your record for a major offense (e.g. blatant, complete copy).
3. 0% course grade and note in your record for a second offense.
4. 0% course grade and escalation for subsequent offenses.

Note that the more severe the offense, the higher it escalates in the institute. See the cheating and academic policy links elsewhere in this syllabus.

Course Format

This course meets for five hours each week: two hours of lecture, two hours of lab, and one hour of recitation.

Lecture

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

During the first class your lecture instructor splits the class into two groups (A and B). Group A continues the week with the lab session on the second day of class, followed on the final day of the week by the recitation. Group B continues the week with the recitation on the second day of class, followed on the final day of the week by the lab session.

After week 8 (the middle of the term) groups A and B switch their meeting days for lab and recitation. (See the course page logistics.html page and a template for a graphical schedule description.)

Labs

Labs meet for two hours each week and consist of a problem-solving session followed by an in-lab session. The student completes the lab independently outside the lab and uploads their work to MyCourses. The grading of labs has these components:

- 15% problem-solving session team activities
- 10% in-lab individual activities
- 70% out-of-lab individual implementation and submission

The first lab hour may meets in a classroom or lab where students participate in a team problem-solving session (PSS) using pen and paper or whiteboards to develop algorithms and code for a particular problem. The lecture instructor leads the team problem-solving segment with the assistance of Student Lab Instructors (SLIs).

Please note that *the lab material is not posted online*. It is your responsibility to attend every lab on time to obtain the assignment and participate in team-based problem-solving.

If you are late to a problem-solving session, the penalty is 5%. If you miss a problem-solving session, the penalty is 15%. Note however, that it might be possible to attend another problem-solving session at a later time; this would enable you to lose only 5% instead of 15% for a completely missed problem-solving session.

Failure to attend a PSS will result in a 15% grade reduction for the lab.

Instructors collect pen-and-paper team problem-solving work at the end of the problem-solving session.

The second hour takes place in the interactive computer lab rooms where *students individually implement the algorithms* from the problem-solving session. An SLI leads the in-lab session in each lab room and grades those students' lab assignments. The lecture instructor grades the lab's problem-solving segment and returns the PSS work to each student.

The programming implementation portion of the Lab must be submitted electronically online. It is your responsibility to submit all work on time.

Lab assignments are due during the week following the lab session. The assignments are due at 11:59 PM on either a Tuesday or Wednesday, depending on the semester; MyCourses has the actual deadlines.

Your lab grade is computed using the scaled sum of all the individual lab assignments.

There are no makeups on Labs that you do not submit. However, you can submit a "late submission" up to eight hours after the deadline for a 20% grade penalty. The 20% penalty applies only to the implementation portion of the lab; the score for the problem-solving and in-lab is unaffected.

For additional details, see the course page logistics.html.

Recitation

Recitation meets in a classroom during the *second scheduled hour*. There is normally no meeting during the first hour. The recitation is led by a graduate Teaching Assistant (TA), and is designed to reinforce the student's understanding of the material covered in lecture. Usually the TA reviews previous assignments, provides exercises for practice, and answers questions related to the course.

Recitation is required for all students. The TA takes attendance at recitation and provides it to the lecture instructor.

Homeworks

Homework for the week is posted through a link on the course website. Homework questions are completed individually and may include a combination of programming problems and written questions.

Each homework is due Saturday at 11:59 PM of the week in which the homework was assigned. Your homework grade for the course is computed using the scaled sum of all homework assignments. There are no makeups on homeworks that you do not submit, but you can do a "late box submission" up to two hours after the deadline for a 20% penalty. An unsubmitted homework receives a 0 grade.

The homework must be submitted electronically online. It is your responsibility to make sure that you submit all your work on time within the deadline.

Project

The project is posted through a link on the course website. The project is designed to be longer than lab assignments and may require multiple weeks to complete properly. The project is to be completed individually, outside of class time.

Exams

The course has these exams: two midterms and one final. The midterm exams include two **written exams**, and one individually-completed, in-lab problem-solving exam known as a **practical exam**. The **final exam** has only a written component. During exam weeks there may be a lecture on a topic not on the exam. Instead of lab sessions, there is a 2 hour, written test period and either a 1 hour, practical examination period or a recitation review period.

The **practical examination** is a 50 minute, timed test of design, implementation and testing skills. The practical examination takes place in a computing lab. The first group takes the practical during the first half of the class time period, and the second group takes it for the second half of the class time period. See your instructor for the details of the exam week schedule. Because of room conflicts, different sections are scheduled differently during exam weeks.

A comprehensive and common final exam is given to all sections at the same time during the regularly scheduled final exam period. The date of the final is typically announced early in the term. You must take the final exam at the time scheduled for your section. *Finals are not given early, and there is no makeup exam*. The final is comprehensive and covers material from the entire course, including lecture, lab, homework and assigned readings in the textbooks.

Exam Rescheduling

Instructors will reschedule exams only in difficult situations for which there is formal documentation for the situation (e.g. a hospital record) and *when the instructor is notified in advance*. Sleeping through the exam, cars problems, and similar excuses are not valid reasons for missing an examination and requesting a make-up exam.

Final Exam Conflicts

RIT has several policies on rescheduling to handle final exam conflicts.

A student must submit a written request for final rescheduling to the head of their *home department*, with a copy of the request given to the instructor(s) affected by the request to provide a rescheduled final exam. **We strongly recommend that students first discuss their final exam situation with all instructors involved.**

Of special relevance are these cases of exam conflicts:

1. A student is scheduled for two final exams at the same day and time.
   The rules that determine which final exam takes precedence involve the conflicting exam subject and the student's *home department*. The student must work with both instructors and the home department to resolve the conflict.
2. A student is scheduled for three or more final exams on the same day.
   In this case, a student may choose not to take three or more final exams in one day. The student must work with both instructors and the home department to resolve the conflict.

Getting Help

Students may obtain help from the following sources:

- Your lecture instructor during posted office hours or by appointment;
- Student Lab Instructors (SLI) who assist with formulating solutions and implementation/language issues in-lab;
- Teaching Assistants, who answer questions about the lecture material and provide exercises for practice in the weekly recitation session;
- The Computer Science Tutoring Center, in GOL-3660, has student lab assistants on staff to provide help with programming language issues. (Note: SLIs will help only with technical questions about the programming language and programming environment; they will not help you design or write your program.)
- For more general help, see the Tigers Care site.

Course Withdrawal

RIT policy allows you to withdraw from a course with a grade of **W** on or before the Friday of the 12$^{\text{th}}$ week of the term. After this date, your instructor cannot give you a **W**; they must assign a grade based on your work. Incomplete grades are given only in exceptional circumstances, and only when arrangements have been made with the lecture instructor *before the end of the term*.

Academic Integrity and Academic Dishonesty

RIT's Academic Honesty Policy defines the basic forms of academic dishonesty (cheating, duplicate submission, and plagiarism) and explains the official RIT policy regarding academic dishonesty.

The only part of team-developed work happens in the joint problem-solving session. All other assignments must be the result of individual effort, not teamwork or collaboration. Development of code for Labs, Homeworks, or other graded work is an individual responsibility.

Submitting individual work written by others or as an unsanctioned team is considered an act of academic dishonesty. In cases where a student is suspected of cheating or copying material, the instructor shall notify the students involved and act in accordance with http://www.rit.edu /academicaffairs/policiesmanual/d080.

Although students may discuss assignments with others, all individually submitted writings and code must be created independently by the student and not copied from others or other sources (e.g. web pages).

Team-developed work also must be created solely by the team members and not copied from others or other sources unless with prior instructor approval.

Other Policies

Other RIT policies may be found at the provost's governance library, http://www.rit.edu/academicaffairs/policiesmanual/policies/governance.

The RIT policy on harassment is covered in http://www.rit.edu/academicaffairs/policiesmanual/c060.