

UNIVERSITY OF REGINA
Computer Science 110-001: Programming and Problem Solving
Syllabus for Fall 2023

Instructor: Dr. Cory Butz
Professor
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Lectures: MWF 12:30 PM - 1:20 PM in CL 112. Attendance is mandatory.

Labs: You must be registered in one lab section between 081-087. These compulsory labs are usually held in CL 135.4 and are two hours per week. A detailed schedule can be found on the laboratory website www.cs.uregina.ca/Links/class-info/110/. You can read ahead and complete the material in advance.

Where can I find help? You can receive individual help from Dr. Butz during his office hours.

Instructor Office Hours in CW 308.10: By appointment, or
Monday 10:30 AM - 11:30 AM
Tuesday 10:30 AM - 11:30 AM
Friday 10:30 AM - 11:30 AM

- and from the CS lab instructors Alex Clarke, Guili Liu, Nova Scheidt, and Catherine Song.

CS Lab Instructor Office Hours (see lab webpage for schedules)

CS110 Coop Student: Xinyuan He (xhf464@uregina.ca)

Contact Information: The best way to contact me is by email using the address above. Note that I will deal *only* with email sent from the University server, i.e., use your uregina.ca account. You can assume that all email from gmail, hotmail, access, etc. will end up in my spam folder and never be read.

Textbook: N. Daniel Liang, Revel for Introduction to Programming with C++, 5th ed., Pearson, 2022. We will cover chapters 1-7, 9, 10, and 13. Textbook website <https://console.pearson.com/enrollment/hw7cr9>

Two copies of the textbook (an older version) will be on 2-hour reserve in the main library. Assignment (and examination) questions may be given from the textbook. While you may use an older version of the textbook, you are responsible for difference between your copy and the current version.

Marking Scheme:	Assignments (4)	12%
	Labs	10%
	Midterm examination	30%
	Final examination	48%
	Instructor Discretion	+/- 5%

Policies and Procedures:

1. Please read the sections of the University of Regina Undergraduate Calendar (see www.uregina.ca/gencal/ugcal) dealing with attendance, evaluation, discipline and appeals, especially those regulations regarding academic integrity and plagiarism. Cheating will not be tolerated. Co-operation on programming assignments is generally encouraged, but it must be limited to verbal discussion of concepts; not program code or any other written documentation that is submitted for grading. Copying of assignments or previous solution keys is plagiarism. Knowingly allowing an assignment to be copied will also be treated as plagiarism. The consequence of plagiarism or any other form of cheating (such as copying on a quiz or examination) may range from a zero grade, to failure in the class, to expulsion from the University. Please note that the Dean of your faculty will be notified of any such incident, as per University regulations.
2. Article 5.13.1.1 in the Undergraduate Calendar stipulates that students are to conduct themselves responsibly and with propriety both in their studies and in their general behaviour. Misconduct, which may be in general behaviour, is subject to disciplinary action. **Any student disturbing the class lecture will be asked to leave the room immediately.**
3. If you have any concerns regarding a class mark, then take the following two steps: (i) clearly explain your concerns in an email; (ii) send the email to the class instructor. You must email me your concern about a class mark within one week after the return date.
4. There are no make-up assignments, quizzes or exams. Students who miss any component must complete and sign the Student Self-Declaration of Illness form, posted on UR Courses. In such cases, the available marks (the weight) of the missed component will be added to the weight of the final examination.
5. You must **pass** the final examination in order to **pass** the class. That is, if your final examination grade is X, where $X < 50$, then your CS110 grade will be NP. It should also be noted that the final examination is comprehensive.
6. Deferred final examinations can only be granted by the Associate Dean (Academic) (for Faculty of Science students), or by the Deans (and/or Associate/Assistant Deans) of other Faculties or Federated Colleges. Deferred final examinations cannot be granted by the course instructor.

Academic integrity: Academic integrity requires students be honest. Assignments and exams are to help students learn; grades show how fully this goal is attained. Thus, all work and grades should result from a student's own understanding and effort.

Acts of academic misconduct violate academic integrity, and are considered serious offences by the University. Examples include, but are not limited to, cheating on tests or exams, plagiarizing, copying from others, falsifying lab results, etc. Instances of academic misconduct will be reported to the Associate Dean Academic for investigation. Full details are provided in the [Undergraduate academic calendar](#). Students are encouraged to understand your obligations as a student, as well as your rights.

Accommodations: The Centre for Student Accessibility upholds the University's commitment to a diverse and inclusive learning environment by providing services and supports for students based on disability, religion, family status, and gender identity. Students who require these services are encouraged to contact the Centre for Student Accessibility to discuss the possibility of academic accommodations and other supports as early as possible. For further information, please email accessibility@uregina.ca.

Health, Safety & Emergency information: www.uregina.ca/hr/hse

Important Dates:

Aug. 30th	First lecture
Sept. 4th	Labour Day
Sept. 8th	CS110 labs begin
Sept. 29th	National Day for Truth and Reconciliation
Week of Oct. 9th	No classes
Nov. 3rd	Midterm
Nov. 10th	Remembrance Day
Dec. 5th	Last day of lectures
Dec. 13th	Final examination (7:00 PM - 10:00 PM in TBA)

UR Courses

Material pertaining to the class will be posted on the Computer Science 110 UR Courses Website. To read this material follow these steps.

1. Go to the University of Regina homepage www.uregina.ca
2. Click on "UR Courses" on the top of the homepage
3. Click on "Login to UR Courses"
4. Enter your username and password
5. Click on "CS110 Programming and Problem Solving"

Powerpoint Slides: PowerPoint slides made by the authors of the textbook will be posted on UR Courses. The class instructor will not give out his slides.

Assignments

1. Assignments will be posted on UR Courses.
2. Your solutions will be submitted electronically via Replit.
3. Assignments must be uploaded before the electronic cutoff time.
4. In the case of illness, complete, sign, and submit the Student Self-Declaration of Illness form.
5. Submit incomplete work for partial marks.

University of Regina Student Success Centre

The Student Success Centre is part of the University of Regina's Office of Student Affairs. The Student Success Centre offers a wide variety of services, including workshops (e.g. time management and academic writing), the UR Guarantee Program, and tutoring services. This is another resource for students and additional information can be found on their website www.uregina.ca/student/ssc.

University of Regina Counselling Services

Counselling Services is also part of the University of Regina's Office of Student Affairs. Counselling Services offers a wide variety of workshops (e.g. exam study strategies and skills), counselling and other services, including personal counselling, group counselling, educational and career planning, assessment inventories, career explorer (online), portfolio development, strategies and skills for academic excellence. This is a valuable resource for students and even more information can be found on their website www.uregina.ca/counselling/.

Lecture Outline:

The following is an *approximate* lecture schedule. Items in **boldface** are fixed.

Date	Chapter	Topic
Aug. 30	1	Types of programming languages
Sep. 1	1	Input/Output and header files
Sep. 4	1	No class
Sep. 6	2	Data types, expressions, precedence rules
Sep. 8	2	Binary, octal, numeric data types
Sep. 11	2	Type coercion and type casting
Sep. 13	3	Selection control structure
Sep. 15	3	Nested ifs, dangling else problem
Sep. 18	3	Avoiding common errors
Sep. 20	3	Switch control structure
Sep. 22	4,10	String data type and string operations
Sep. 25	4	Simple file input and output
Sep. 27	4	More input operations: get, getline, ignore
Sep. 29	4	No class
Oct. 2	4	Formatting output
Oct. 4	4	Documentation
Oct. 6	4,13	Simple file input and output
Oct. 9,11,13	4	No class
Oct. 16	5	Count-controlled loops
Oct. 18	5	Sentinel-controlled loops
Oct. 20	5	End-of-file loops and flag-controlled loops
Oct. 23	5	Nested while loops
Oct. 25	6	Void and Value-returning functions
Oct. 27	6	Pass-by-value and pass-by-reference
Oct. 30	6,9	Scope rules
Nov. 1	6,9	Scope rules
Nov. 3	6	Midterm
Nov. 6	6	Lifetimes of variables
Nov. 8	6	Modular programming and refactoring
Nov. 10	6	No class
Nov. 13	7	One-Dimensional arrays
Nov. 15	7	Passing 1D arrays to sub-functions
Nov. 17	7	Constant and arrays
Nov. 20	7	More examples with arrays
Nov. 22	5	Floating-point representation and errors I
Nov. 24	5	Floating-point representation and errors II
Nov. 27	4	Math functions
Nov. 29	3	Conditional expressions
Dec. 1	-	Final exam preparation
Dec. 4	-	Question and answer