

## Course information CS340 202030

- Lectures will be delivered synchronously MWF 11.30am – 12.20pm.
- Instructor: Dr. Sandra Zilles; email [zilles@cs.uregina.ca](mailto:zilles@cs.uregina.ca)
- Office hours via zoom: Wed 8.30pm–9.30pm, Fri 12.20pm–2.15pm (or else by appointment). Temporary changes to the office hour schedule will be announced in class and on UR Courses.
- All important organizational information related to this course is posted on UR Courses, where updates will be made regularly.

### Text

Required textbook: Mark Allen Weiss, Data Structures and Algorithm Analysis in C++, Fourth Edition, Addison Wesley, 2014. We will sometimes deviate slightly from the material presented in this textbook.

### Grading

20% assignments

30% midterm exam (45minute exam, participation required; date Oct 16, 2020, 11.30am

50% final exam (grade of at least 50% in the final exam required; if less than 50% is achieved on the final exam, then the final exam grade will be the grade for the whole course; date Dec 21, 2020, 9:00am - 11:00am)

This course will use the **Proctortrack eProctoring** platform for monitoring class exams – both for the midterm exam and for the final exam. Note the following technical requirements for taking an exam using e-proctoring:

- Computer with Windows operating system version 7 or higher OR MacOS version 10.10.5 Yosemite or higher.
- Minimum 4GB RAM.
- Web browser Mozilla Firefox v20.0 or higher or Google Chrome v25.0 or higher.
- JavaScript enabled and Third Party Cookies enabled.
- Webcam with camera resolution 800x600 or better.
- Internet connection with minimum 300kbps download, 250kbps upload.

This information on technical requirements is also posted to the remote learning website for students. <https://www.uregina.ca/remote-learning/index.html>

It is each individual student's responsibility to make sure that the technical requirements for e-proctoring are met by their hardware and software.

- NOTE: Cheating or attempted cheating in the midterm exam or the final exam may result in a fail grade for the whole course, independent of other achieved results. All cheating attempts will be reported to the Associate Dean. Please also note the policies in the undergraduate calendar. Both exams are closed-book.
- The final exam is comprehensive in the sense that it may test the whole course material.

## Assignments

- All solutions to programming problems on assignments must be in C++. Please make sure your code compiles with Visual C++.
- All assignments will be submitted through UR Courses.
- All assignments have to be submitted on or before the due date indicated on the assignment sheet.
- NOTE: Both the solutions to programming assignments and the solutions to non-programming assignments must represent your own original work. Discussing assignments with other students is encouraged, but it is not allowed to share or copy solutions, partial solutions, or programming code. Non-compliance will be reported to the Associate Dean and may cause a grade of 0% for the assignment, or, in repeated cases, in a fail grade for the whole course, independent of other achieved results. Please also note the policies in the undergraduate calendar.

## Topic outline

1. Algorithm Analysis
2. Priority Queues
3. Sorting
4. Graph Algorithms
5. Complexity and Unsolvability
6. Algorithm Design Techniques