CS 161: INTRO TO COMPUTER SCIENCE I

Dr. Kiri Wagstaff | Lecture MWF 11:00-11:50 a.m.

Instructor

Dr. Kiri Wagstaff
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MWF 12-1 p.m. (Zoom)
or by appointment
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Teaching Assistants

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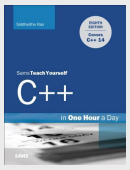
Office hours: See Canvas

Logistics



Required textbook:
Teach Yourself C++
by Siddhartha Rao
(8th edition)

Required laptop:
running MacOS or Windows

Required attitude:
positive and ready to learn

Canvas:
https://oregonstate.instructure.com/courses/1770357

Piazza:
https://piazza.com/oregonstate/spring2020/cs161section001

Slack:
https://class-cs161-001-sp20.slack.com

Why take this class?

Computers are everywhere in our lives and our careers. Programming is a skill that allows you to express your desires to control computers, enabling you to tap into their superhuman abilities. You don't have to be a CS major to benefit from knowing how to program computers!

Ask yourself: How do you think programmers can improve the world?

P.S. Computer science is about more than just programming!

In this class:

We will design, develop, implement, and test C++ programs to perform tasks and solve problems. Specifically, we will:

1. Apply good design to break a problem into manageable parts and plan a solution, before writing code.
2. Write tests (before writing code) and use the tests to check correctness (while writing code).
3. Structure programs to be readable, modular, and efficient.
4. Choose appropriate data types to store information.
5. Choose appropriate control structures to manipulate information (conditionals, loops).
6. Manage memory usage (static and dynamic).
7. Employ tools to check logic & memory usage and to pinpoint errors.
8. Develop good user interfaces.

Prerequisites

MTH 112 [C] or Placement Test MPT [33] or Placement Test MPAL [061]

Expectations

Of students:

- Take charge of your success (use resources, ask for help)
- Arrive prepared for and maintain focus during lecture
- Attend and actively participate in every lab
- Spend at least 30 minutes per day solving programming exercises
- Complete assignments on time
- Contribute to a positive learning environment
- Follow OSU Code of Conduct

Of the instructor and teaching assistants:

- Provide informative lectures and opportunities for practice (labs, quizzes, assignments)
- Provide timely feedback on student work
- Respect student time & workload (Note: 1 credit = 3 hours outside class)
- Answer questions, provide guidance, and communicate clearly

Grading

40%: 5 assignments
10%: 4 designs
10%: 10 labs
10%: Weekly quizzes
15%: Midterm exam (in class)
15%: Final exam (cumulative)
+ Opportunities for extra credit

A- 90-92; A 93 or greater
B- 80-82; B 83-86; B+ 87-89
C- 70-72; C 73-76*; C+ 77-79
D- 60-62; D 63-66; D+ 67-69
F less than 60
(Grades are rounded)
* (C or better required for majors)

"A Bug's Life" by Luke Surl, CC BY-NC-SA

Buddy Contact Info

1)

2)

3)

Please Note

This term is going to be **unusual**. Everyone's lives, including yours, have been disrupted by the COVID-19 pandemic. I am adapting this class as best as possible to accommodate our changed circumstances. It is important that we all remain flexible and support each other. If you are struggling in any way, please contact me. I am here for you. I also ask for your patience and flexibility. We may have to change how the course operates or modify policies as the term progresses. These are exceptional times!

Academic Integrity

All work that you submit (assignments, quizzes, labs, exams) should be **yours alone**, except when pair programming is part of a lab exercise (in which case you will list the name of your partner to give them credit). You are welcome to discuss assignments with other students, but you may not look at or share designs or code. You may not submit a modified version of someone else's code (including code found on the Web, in the textbook, in an assignment, etc.) or your own previous work. You may not send your code to another student to help them. Assignments will be checked for similarity against other submissions, prior submissions, and online content. Ensure you are familiar with what is and is not allowed and the OSU Academic Integrity Process (see https://studentlife.oregonstate.edu/studentconduct/academicmisconduct).

If you are stuck, ask me or a TA for help. We want you to succeed!

Late Work Policy

A deadline is a commitment. To encourage planning ahead, **late assignments incur a penalty of 1% for each hour they are late.** E.g., if you submit 24 hours late, your score is reduced by 24%. **No late work is accepted after 50 hours (50%) have elapsed.** If an issue such as an illness or life crisis will prevent you from submitting your work on time, email me at least 8 hours before the deadline to request an extension. I will do my best to work with you.

Quizzes cannot be completed after their deadlines. Submit them early and often! (You have unlimited attempts to maximize your score before the deadline.)

If you will miss attending a lab, you must email your TA **in advance**, with the reason, to get approval and then attend a different lab that week, or get your work checked off the next time your lab meets. If you will miss an exam, you must email me **in advance**, with the reason, to get approval and alternate arrangements.

If you demo an assignment more than 8 days after the submission deadline, you will incur a 30-point penalty. If you do not demo your assignment at all, you will receive a 0.

Grading

Assignments are graded by live (Zoom) demonstration, within 8 days of the deadline, on the basis of correctness, code style, and answers to written questions. If you miss a demo that you signed up for, your score will be reduced by 10 points.

You can earn extra credit towards your assignment (programming) grade by submitting a Revision Plan within 2 days of your demo. A **Revision Plan** is a written description of the feedback on your program and how you would change or correct any issues for which you lost points.

Lab work is graded during the lab.

Designs are graded on completeness and clarity.

Extra Credit

There will be several opportunities for you to earn extra credit, including the Extra Credit portion of each assignment, attending College of Engineering tutoring hours, submitting a Revision Plan, and more.

Email Etiquette

- For the fastest response, submit course-related questions of general interest on Piazza. The answers will benefit all students! If you want to share part of your code for help, make it a **Private question (visible only to course staff)** so you do not inadvertently violate the Academic Integrity policy.
- Email may take up to 24 hours for a response. Sending multiple emails on the same topic will not encourage a faster response (in fact it will slow us down trying to read through more email).
- Send email from your oregonstate.edu address to your lab TA(s). To reach all TAs and the instructor, use staff-cs161@engr.orst.edu. For confidential matters, email kiri.wagstaff@oregonstate.edu, come to office hours, or make an appointment.
- Use a meaningful subject line that starts with "[CS161]". For anticipated absences, include "Absence from Lab 3" or "Absence from Midterm," etc. For re-grade requests (must be sent within 1 week of receiving the grade), use "Lab 7 Re-Grade Request" or "Assignment 3 Re-Grade Request", etc.

Accommodations

Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval please contact DAS immediately at 541-737-4098 or at http://ds.oregonstate.edu/. DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.

OSU culture strives toward deepening respect for and understanding of religious differences within our community.

Reach Out for Success

Setbacks can happen. If you encounter difficulties and need assistance, it's important to reach out. Consider discussing the situation with an instructor or academic advisor. Learn about resources for wellness and academic success at http://oregonstate.edu/ReachOut. If you are in immediate crisis, please contact the Crisis Text Line by texting OREGON to 741-741 or call the National Suicide Prevention Lifeline at 1-800-273-TALK (8255).

Final Words

We are dedicated to the creation and maintenance of a positive learning environment. Be sure you read and understand these guidelines . Most of all - let's have fun as we journey into the world of C++!

You can earn 1 extra credit point right now by going to https://forms.gle/r1NBxpuQc1i9rD5t6 before midnight on April 1, 2020, to certify that you read through the entire syllabus! Congrats!