# CIS\*1500 Introduction to Programming

# Winter 2023



## School of Computer Science

## Course Instruction

Instructor: Jason Kemp (he/him)

Office: MCLN 213A

Email: cis1500@socs.uoguelph.ca

Office Hours: Mon/Wed 3:30-4:20 (Booking Required)

**Teaching Assistants:** 

Thomas Driscoll Sarah Gallaugher Shania Ratra Or Brener

Nadeem Howlader

Liam Fayle

Email: cis1500@socs.uoguelph.ca

Office Hours: TBD. Please check CourseLink -> Content -> Admin -> Weekly Schedule. It will be updated

throughout the semester.

Note: any emails to personal inboxes will be ignored. The only communication monitored for this course is cis1500@socs.uoguelph.ca

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Website: <u>www.courselink.uoguelph.ca</u>

This website contains course material, a discussion board for common questions, a dropbox for submitting assignments, links to course text, grades, etc. **Use your gryphmail login/password to access the webpage.** You are responsible for checking the site regularly.

# Course Description

This course introduces problem-solving, programming and data organization techniques required for applications using a general-purpose programming language. Topics include control structures, data representation and manipulation, program logic, development, and testing.

The Academic Calendars are the source of information about the University of Guelph's procedures, policies, and regulations that apply to undergraduate, graduate, and diploma programs.

Course credit: 0.5Prerequisites: None

## Lecture and Lab Times

Lecture: ROZH 104 - Mon/Wed/Fri 2:30pm-3:20pm

**Lab**: There are 12 sections for the labs, you selected a time when registering for the course. You cannot change your lab time.

	Monday	Tuesday
8:30AM-9:20AM	103	109
9:30AM-10:20AM	104	106
10:30AM-11:20AM	111	110
11:30AM-12:20PM		107
12:30PM-1:20PM	102	101
1:30PM-2:20PM		105
2:30PM-3:20PM		112
3:30PM-4:20PM		
4:30PM-5:20PM		108

An assigned TA will instruct each lab session. The TA will explain the lab tasks and answer your questions about the weekly exercises. To achieve a lab grade, you must have your lab assignment done by the end of your lab.

## Textbook

We will be using Top Hat to access the digital textbook: CIS\*1500 Intro to Programming W23. Make sure your name and student number appear the same on Tophat and courselink; you will not receive Tophat grades if they do not match. Tophat is an online interactive textbook, it contains quizzes and course lecture slides will be presented through the Tophat interface.

If you already have a Top Hat account, go to <a href="https://app.tophat.com/e/999725">https://app.tophat.com/e/999725</a>

If you are new to Top Hat follow the link in the email invitation you received, or:

- Go to <a href="https://app.tophat.com/register/student">https://app.tophat.com/register/student</a>
- Search for our course textbook with the following join code: 999725

For more information about the interactive features in the textbook, click here: <a href="https://success.tophat.com/s/article/Student-Using-Your-Textbook">https://success.tophat.com/s/article/Student-Using-Your-Textbook</a>

Should you require assistance with Top Hat at any time please contact their Support Team directly by way of email (<a href="mailto:support@tophat.com">support@tophat.com</a>), the in-app support button, or by calling 1-888-663-5491. Specific user information may be required by their technical support team when troubleshooting issues.

## Assessment

You are responsible for learning the material for this course. Computer programming can only be learned through practice. The lab component of this course will be devoted to helping you learn to create algorithms and solutions to computing problems, as well as use the servers and software required. The textbook exercises are designed to help you understand the mechanics of the C language. Lectures will provide an overview of the topics, examine common applications, and introduce design techniques.

#### • 65% Practical:

o (10%): Weekly practice: exercises from TopHat textbook.

o (30%): 3 assignments (10%, 10%, 10%)

o (10%): 10 labs

o (5%): Lab Competency Interview

o (10%): In Class Participation

#### 35% Final Exam

o 18/4/2023 7:00 PM - 9:00 PM

Multiple Choice

#### Weekly practice

Most weeks you will be assigned a chapter of the textbook to read (see tentative schedule below). This chapter contains questions that you are to complete to receive your grade for the weekly practice.

#### Assignments

These assignments will require programming in c, the program must compile to receive any grades, there will be strict rules on submissions. The assignments will test your ability to implement the concepts discussed in the course. You are not to work with any other students, share code, or aid other students with these assignments. Assignment outlines will be provided throughout the semester. Due dates can be found in the tentative schedule below.

#### Labs

During labs you will work to complete small lab assignments intended to be completed during period. Your labs will be graded during the lab, you cannot receive a regrade after your lab period has ended. You ARE allowed to work together with your peers on these lab assignments, this is an opportunity to ask questions of your TAs and peers to understand how course concepts work. Topics can be found in the tentative schedule below.

#### Lab Competency Interview

During one of the lab periods (see tentative schedule below) you will complete a short 3-5 minute competency interview with your TA. This interview is to test basic skills using linux: command line instructions, compiling, and running a short program; as well as naming and zipping for submission.

#### In Class Participation

Lecture material will be presented using the Tophat tools including short questions, you are able to respond to these questions using a laptop, tablet, or smart phone. To achieve the in-class participation for a given week you must attend lectures and respond to the Tophat questions.

# Course Schedule (Subject to Change)

Below you can find the tentative schedule for lectures and labs. Changes to this schedule will be announced on the course website.

Week	Date	Lecture	Lab	Notes
W1	Jan 9, 11, 13	Course Introduction, Command Line Interface, Intro to C		Chapter 1 Due Friday
W2	Jan 16, 18, 20	Variables, Functions	L1: Command Line Interface, Access SoCS through SSH, Setup Portkey	Chapter 2 Due Friday
W3	Jan 23, 25, 27	Decisions, Logic, Branches	L2: Compiling, Printing, using a variable.	Chapter 3 Due Friday
W4	Jan 30, Feb 1, 3	Loops/Repetition	L3: If Structures, User Input	Chapter 4 Due Friday
W5	Feb 6, 8, 10	Defining Functions	Competency Interview	A1 Due Friday
W6	Feb 13, 15, 17	Arrays	L4: Defining Functions	Chapter 5 Due Friday
	Feb 20, 22, 24			Reading Week
W7	Feb 27, Mar 1, 3	Array Recap and Strings	L5: Arrays/Loops	Chapter 6 Due Friday
W8	Mar 6, 8, 10	Nested Loops and Advanced Arrays	L6: String Manipulation	A2 Due Friday
W9	Mar 13, 15, 17	File Input/Output	L7: Multi- dimensional Arrays	Chapter 8 Due Friday
W10	Mar 20, 22, 24	Structures	L8: C Functions and libraries	Chapter 9 Due Friday
W11	Mar 27, 29, 31	Recursion, Pointers	L9: Structures	Chapter 7 Due Friday
W12	Apr 3, 5	Review and Catch Up	L10: Review and A3 Help	A3 Due Thursday No class Friday
W13	Apr 10	TBD		Review Chapter Due. Friday Schedule in effect.

### **Course Policies**

**Missed Labs:** If you miss a lab due to **documented** grounds for granting academic or religious accommodation, the weight of the missed assessment will be added to the final exam. There will be no makeup labs and you may not attend a lab section other than the one in which you are registered (unless otherwise permitted).

**Late Assignments**: Late assignments will not be accepted. There are no makeup assignments. Assignments submitted after the due date are assigned a grade of 0.

**Regrades**: There are no regrades for assignment 3. When requesting a regrade, be specific about the grading error issue and why it's correct. Grading requests without proper explanation will not be reviewed. It is not a grading error if you received a lower grade than you were expecting, disagree with the marking scheme, or other students received higher marks for similar solutions. Regrading can be done in 2 steps:

**Step 1**: Requests for regrades of assignments 1 and 2 must be emailed to <u>cis1500@socs.uoguelph.ca</u> within 5 business days of receiving your mark. The request must have the word regrade and the name of the assignment in the subject line and must contain a detailed description of why you feel the assignment should be regraded.

**Step 2:** Your grading TA will review your regrade. If they cannot immediately resolve the issue, you must book an appointment for your assignment to be regraded in person.

**Note:** It is important to note that a regrade is not a chance to redo the assignment. The original submission will be regraded entirely, which could result in your grade being reduced.

Missed Assessments: If you are unable to meet an in-course requirement due to documented medical, psychological, or compassionate reasons, email the course email to make an appointment to meet your course instructor. For missed Competency Interview, schedule an appointment during TA office hours during the following week (Feb 13-17). The email subject must contain the phrase Missed Competency Interview. Please see below for specific details and consult the undergraduate calendar for information on regulations and procedures for Academic Consideration:

http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml

**Accommodation of Religious Obligations**: If you are unable to meet an in-course requirement due to religious obligations, please email the course email address **within two weeks of the start of the semester** to make alternate arrangements. See the undergraduate calendar for information on regulations and procedures for Academic Accommodation of Religious Obligations:

http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-accomrelig.shtml

**Instructor's Role and Responsibility to Students:** The instructor's role is to develop and deliver course material in ways that facilitate learning for a variety of students. A variety of materials, including notes and recorded lectures, will be made available on the course website.

**Students' Learning Responsibilities**: Students are expected to take advantage of the learning opportunities provided during lectures, labs, and help sessions. Students, especially those having difficulty with the course content, should also make use of other resources recommended by the instructor. Students who fall behind due to illness, work, or extra-curricular activities are advised inform the instructor about their situation as early as possible. This will allow the instructor to recommend extra resources in a timely manner and/or provide consideration if warranted.

# Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability, or for a short-term disability should contact Student Accessibility Services (SAS) as soon as possible.

For more information, contact SAS at 1.519.824.4120 ext 56208 or <a href="mailto:accessibility@uoguelph.ca">accessibility@uoguelph.ca</a> or Wellness.uoguelph.ca/accessibility.

## Academic Integrity

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. All students who take a SOCS course must pass the Academic Integrity Self Test.

For educational purposes, instructors impose conditions on assignments that may limit students' permission to collaborate with others or to utilize external sources (including, but not limited to, software, data, images, text, etc.). Any permitted utilization must be done with proper references. Aiding and abetting is a punishable offence; students must be careful not to help others commit offences by giving out solutions or providing to access computer accounts. Instructors may use automated tools to detect possible cases of academic misconduct.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar:

http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml

The SOCS Academic Integrity Unit:

http://moodle.socs.uoguelph.ca/course/view.php?id=2 Login with your central login credentials.

## Health & Wellness

If you are experiencing any challenges, please do not hesitate to contact the instructor, and know that there are resources on campus set up to help you out.

Medical concerns: Student Health Services at x52131

Threats of violence, personal safety: Campus police at x2000

Psychological or emotional concerns: Counselling services at x53244

Accessibility concerns: SAS at x56208

Sexual assault: Campus police at x2000, or counselling services at x53244

Mental Health concerns: https://wellness.uoguelph.ca/mental-health-support-services.

**Find a community** you can feel you belong to by joining a student club:

• https://fitandrec.gryphons.ca/sports-clubs/clubs

https://csaonline.ca/clubs/clubs-directory

Other sources of help can be found at the following links:

- Student Health Services, Monday to Friday, 8:30 AM-4:30 PM, x52131, J.T. Powell Building
- Counselling Services, Monday to Friday, 8:15 AM-4:15 PM, x53244, Level 3, University Centre
- Wellness Education Centre, Monday to Friday, 8:30 AM-4:30 PM, x53327, J.T. Powell Building
- Student Support Network, Monday to Friday, 12:00 PM-10:00 PM, Raithby House
- Campus Community Police, 24/7, x2000, Trent Building
- Good2Talk, 1.866.925.5454
- Here 24/7, 1.844.437.3427