

# CIS\*1500 Introduction to Programming

## Instructor

James Fraser  
Pronouns:  
he/him/they

[jfrase09@uoguelph.ca](mailto:jfrase09@uoguelph.ca)

## teaching assistants

Akeb Khan  
Dmitry Gavrilov  
Gursahib Sohi  
Umer Ahmed

## Land acknowledgment

The Dish With One Spoon Covenant speaks to our collective responsibility to steward and sustain the land and environment in which we live and work so that all peoples, present and future, may benefit from the sustenance it provides. As we continue to strive to strengthen our relationships with and continue to learn from our Indigenous neighbours, we recognize the partnerships and knowledge that have guided the learning and research conducted in and for this class. We acknowledge that the University of Guelph resides in the ancestral and treaty lands of several Indigenous peoples, including the Attawandaron people and the Mississaugas of the Credit, and we recognize and honour our Anishinaabe, Haudenosaunee, and Métis neighbours. We acknowledge that the work we do here occurs on their traditional lands so that we might work to build lasting partnerships that respect, honour, and value the culture, traditions, and wisdom of those who have lived here since time immemorial.

## Communication

### Website:

[www.moodle.socs.uoguelph.ca](http://www.moodle.socs.uoguelph.ca).

### Email:

[cis1500@socs.uoguelph.ca](mailto:cis1500@socs.uoguelph.ca) ( Preferred address for all team members )

### Forums:

Please ask common questions to Discussion Board

### Appointments:

<https://james-fraser9.youcanbook.me> --> James Fraser

### TA Office Hours:

Please check CourseLink -> Office Hours

Course material, news, announcements, assignments, and grades releases will be regularly posted to the CIS\*1500 website.

**You are responsible for checking the site regularly and following the information provided in class. Please check the discussion board to avoid asking FAQs.**

## 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.

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## Learning outcomes

By the end of this course successful, you should be able to:

### Knowledge and Understanding:

- Understand the basics of the variables, expressions, loops, and branching.
- Write, test, and interpret C programs.
- Understand the compilation process of the C programming language.

### Personal Development:

- Demonstrate the ability to develop pseudocode for solving problems.
- Demonstrate the ability to convert pseudocode into C programming language.
- Demonstrate a working knowledge of the semantics and syntax of C.
- Apply course topics to develop more extensive software programs.

## Prerequisites & restrictions

Prerequisites: **None**

Restrictions: CIS\*1300. Not available to students registered in a BCOMP degree, a CIS minor, BENG.CENG or BENG.ESC.

## Lecture and lab times

### Lecture:

Monday, Wednesday, Friday – 8:30-9:20 AM (Virtual)

### Labs:

- 101: M 10:30 AM - 11:20 AM (THRN 3401)
- 102: Th 8:30 AM - 9:20 AM (THRN 3401)
- 103: W 10:30 AM - 11:20 AM (THRN 3401)
- 104: M 3:30 PM - 4:20 PM (THRN 3401)
- 105: M 12:30 PM - 1:20 PM (THRN 3401)
- 106: Th 11:30 AM - 12:20 PM (THRN 3401)
- 107: Th 4:30 PM - 5:20 PM (THRN 3401)
- 108: Th 2:30 PM - 3:20 PM (THRN 3401)
- 109: T 3:30 PM - 4:20 PM (THRN 3401)
- 110: T 10:30 AM - 11:20 AM (THRN 3401)

All lectures will be recorded. Lecture content will be posted when the recording is converted following the class. An assigned TA will instruct a lab session. The TA will explain the lab tasks and answer your questions about the weekly exercises. A recording of the weekly lab will be available to students, and students are encouraged to use TA or instructor office hours for additional help.

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## Final exam

**Final Exam - April 11<sup>nd</sup>, 11:30-1:30 PM ( Online via Courselink )**

## Textbooks

### Top Hat

We will be using **Top Hat Pro** ([www.tophat.com](http://www.tophat.com)) for class participation. You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message. For instructions on how to create a Top Hat account and enrol in our Top Hat Pro course, please refer to the invitation sent to your school email address or consult Top Hat's Getting Started Guide (<https://bit.ly/31TGMlw>).

If you already have a Top Hat account, go to <https://app.tophat.com/e/947311/> to be taken directly to our course. If you are new to Top Hat, follow the link in the email invitation you received or...

- Go to <https://app.tophat.com/register/student>
- Click "Search by school" and input the name of our school
- Search for our course with the following join code: *See Moodle Site*

If a paid subscription is required, it will be listed at checkout when you enrol in our Top Hat Pro course.

Should you require assistance with Top Hat at any time please contact their Support Team directly by way of email ([support@tophat.com](mailto:support@tophat.com)), 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.

### Suggested References:

*The C Programming Language (2nd Edition, Kernighan and Ritchie)*

*C Programming: A Modern Approach (K. N. King)* can be used as supplementary reading if desired.

## Weighted assessments schedule

Please note several assessments in this course use grading tools, your solutions will need to identically match the solution program provided.

### 15%      **Top Hat Textbook Questions ( 50% - Correct, 50% Participant)**

Interactive textbook with multiple questions per chapter.

Due dates per Chapter in Top Hat. Marking will not be reopened after deadline.

### 15%      **Auto-Graded Labs (Best 5 of 6 @ 3% each )**

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All labs are due at 11:59pm on Sundays. Additional labs are provided per week but are not evaluated for course marks.

Jan 23, Jan 30

Feb 6<sup>th</sup>,

March 6<sup>th</sup>, March 27<sup>th</sup>

April 3<sup>rd</sup>

15%      **Assignment#1 (Partially auto-graded)**

Feb 16<sup>th</sup>

15%      **Assignment#2 (Partially auto-graded)**

March 16<sup>th</sup>

40%      **Final Exam (Online)**

April 11<sup>th</sup> 11:30-1:30pm

# CIS\*1500 Introduction to Programming

## Course Topics (Dates subject to change)

Week	Topic	Labs
W0 – Jan 10	Course Introduction Introduction to C and Data Types Environment Setup	Getting Setup (Online video)
W1 – Jan 17	Expressions and Operators	Code Environment - Compiling
W2 – Jan 24	Decisions and Branches	Programming Errors and Data Types
W3 – Jan 31	Loops	Input and basic expressions
W4 – Feb 7	Arrays	Decision making
W5 – Feb 14	Strings	Arrays and Loops
<b>W6 – Feb 21</b>	<b>Winter Break – No classes</b>	<b>Winter Break – No labs</b>
W7 – Feb 28	Advanced Loops and Multi-dimensional arrays.	Arrays and Strings
W8 – March 7	Functions	Multi-dimensional arrays.
W9 – March 14	Simple Pointers - User Functions	C Functions and libraries
W10 – March 21	User Function	Pointers and User Functions
W11 – March 28	File Input/Output	User Functions and File Input and Output.
W12 – April 4th	Structures and Review	Structures and Review

## Policies

### • **Regrades:**

If errors in the grading occur, you must indicate in writing to the teaching assistant within 5-days of receiving your grade and before the exam period. Be specific about the grading error issue and why its correct. You must indicate the difference between the grading, test cases, and solution. Grading requests without proper explanation will not be reviewed. Your submission may be regraded entirely, which could result in your grade being reduced. 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.

### • **Missed or Late Assessments:**

If you cannot meet an in-course requirement due to medical, psychological, or compassionate reasons, please contact the instructor and explain the situation as early as possible. If you merit academic consideration for one of the assessments, you may be given an alternate assessment or have weight redistributed to other assessments. Please remember, however, that each of the homework assignments builds from the previous one. If you do not submit an earlier assignment, you will still have to learn to do the subsequent assignments.

Please consult the undergraduate calendar for information on regulations and procedures for Academic Consideration.

### • **Communication & Email**

Policy Major announcements will be posted to the course website. It is your responsibility to check the course website regularly. As per university regulations, all students must regularly check their mail.uoguelph.ca email account: email is the official route of communication between the University and its students.

### • **Recording of Materials**

Presentations which are made in relation to course work, including lectures, cannot be recorded or copied without the permission of the instructor and presenter, whether the instructor, class member, or guest lecturer. Material recorded with permission is restricted to use for that course and may not be posted on any public space unless further permission is granted.

### • **Accommodation of Religious Obligations:**

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

### • **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 [accessibility@uoguelph.ca](mailto:accessibility@uoguelph.ca) or [wellness.uoguelph.ca/accessibility](http://wellness.uoguelph.ca/accessibility).

## Code of conduct

Our learning environment must be a safe, and welcoming environment for all, regardless of ethnicity, gender, sexual orientation, ability, socioeconomic status, and/or religion (or lack thereof). This code of conduct outlines the expectations for all participants<sup>1</sup>.

- **Expected Behavior:** Members of our learning community are expected to:
  - participate in an authentic and active way, and in doing so, contribute to the health and value of our community,
  - exercise consideration and respect in their speech and actions,
  - attempt collaboration before conflict,
  - refrain from demeaning, discriminatory, or harassing behavior and speech,
  - be mindful of your surroundings and your fellow participants, and alert community leaders (e.g. your instructor) if you notice a dangerous situation, someone in distress, or violation of this Code of Conduct, even if it seems inconsequential.
- **Citizenship & Participation:** Communities mirror the societies in which they exist and positive action is essential to counteract the many forms of inequality and abuses of power that exist in society. If you see someone who is making an extra effort to ensure our community is welcoming, friendly, and encourages all participants to contribute to the fullest extent, we want to know.
- **Unacceptable Behavior:** Unacceptable behaviors include intimidating, harassing, abusive, discriminatory, derogatory or demeaning speech or actions by any participant in our community, either in person, online, at any related events, or in one-on-one communications carried out in the context of community business. Harassment includes harmful or prejudicial verbal or written comments related to race, religion, disability, gender, sexual orientation; inappropriate use of nudity and/or sexual images in public spaces (including computer labs and presentation slides); deliberate intimidation, stalking or following; harassing photography or recording; sustained disruption of talks or other events; inappropriate physical contact, and unwelcome sexual attention.
- **Consequences of Unacceptable Behavior:** Unacceptable behavior from any community member, including the course instructor and those members with decision-making authority, will not be tolerated. Anyone asked to stop unacceptable behavior is expected to comply immediately. If a community member engages in unacceptable behavior, action will be taken to ensure that such behavior ends, beginning with action on the part of the course instructor, and escalating if necessary. Additional information on university policy regarding harassment, conduct, and human rights is available [here](#).
- **If You Witness or Are Subject to Unacceptable Behavior or Have Any Other Concerns:** please notify the course instructor as soon as possible. If you feel that the course instructor cannot or will not provide remedy for the situation, please contact any of these alternate resources:
  - Associate Director, Undergraduate ([click here to email](#)),
  - Director of the School ([click here to email](#)),
  - Associate Dean, Academic ([click here to email](#)),
  - Office of Diversity and Human Rights ([click here to email](#), or ext 53000),
  - Campus Community Police (ext 52245).

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<sup>1</sup>Based on [citizen code of conduct](#), distributed under a [Creative Commons Attribution-ShareAlike](#) license

## Health & wellness

All members of campus play a role in fostering and promoting a safe, supportive environment, as well as good physical, emotional, spiritual, cultural, and mental health and wellness.

COVID-19 has required all of us to adjust our work habits and our expectations of ourselves. I cannot change the expectations for you, but if you are struggling because of challenges related to COVID-19, please contact me and I will try to help you identify a path to success.

**If you are sick, heartbroken, or exhausted, go home. Work is not more important than your health.**

[Dr. Max Liboiron](#)

**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?** Please see the Mental Health Resources page [here](#).

Students who are also parents often face the barrier of exhaustion in the evening once children have finally gone to sleep. While I maintain the high expectations for all students in my classes regardless of parenting status, I am happy to problem-solve with you in a way that makes you feel supported as you strive for school-parenting balance.

**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