CIS*1300 Programming

UNIVERSITY • GUELPH

School of Computer Science

1 Instructional Support

Instructor: Ritu Chaturvedi Tues/Th 2:30 – 3:50pm ROZ 101

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Email: cis1300@socs.uoguelph.ca

Office hours: Wednesday 12:30 - 2pm; Thursday 12:30 - 2pm

Teaching Assistants and their Office hours: TBA Email: cis1300@socs.uoguelph.ca

2 LEARNING RESOURCES

2.1 SoCS Linux Environment

2.1.1 SoCS NoMachine Graphical Linux Environment: nomachine.socs.uoguelph.ca is a Graphical Linux environment, available remotely for SoCS students. When logged in you will have access to the same servers as linux.socs.uoguelph.ca but with a graphical desktop interface. Details on download and installation of nomachine can be found at https://wiki.socs.uoguelph.ca/techsupport/guides/nomachine.

2.1.2 SoCS SSH Access: SSH Allows you to remotely connect to SoCS Linux servers. To connect from a Linux or Mac OS/X base computer, use the command "ssh <username>@<hostname>.socs.uoguelph.ca", where <username> is your SoCS username and <hostname> is the name of the server you wish to connect to (i.e. linux, portkey). To connect from Windows use BitVise SSH or putty. More information on this will be available on your course webpage.

2.2 Course Website

Course material, news, announcements, and grades will be regularly posted to the CIS*1300 Website which can be found at **courselink.uoguelph.ca**. Use your gryphmail login/password to access the course webpage. You are responsible for checking the site regularly.

2.3 Required Textbook

We will be using Top Hat (www.tophat.com) to access the digital interactive textbook, Introduction to Programming with C which we will be using in this class. For instructions on how to create a Top Hat account and enrol in our Top Hat course, please refer to the invitation sent to your school email address or consult Top Hat's Getting Started Guide (Getting Started with Top Hat).

If you already have a Top Hat account, go to **https://app.tophat.com/e/669961** 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: 669961

The cost of the textbook is \$80.00 and will be applied at checkout when enrolling in our Top Hat course. Bear in mind that textbook material will be made available in our course throughout the semester, so do not panic if you do not see any in the course upon entry. Should you require assistance with Top Hat at any time please contact their Support Team directly by way of email (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.

2.4 Calendar Description

This course examines the applied and conceptual aspects of programming. Topics may include data and control structures, program design, problem solving and algorithm design, operating systems concepts, and fundamental programming skills. This course is intended for students who plan to take later CIS courses. If your degree does not require further CIS courses consider CIS*1500 Introduction to Programming.

Restrictions: CIS*1500 This is a Priority Access Course. Enrolment may be restricted to particular programs or specializations. See department for more information.

The Academic Calendars are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs: http://www.uoguelph.ca/registrar/calendars/index.cfm?index

2.5 Course credit and prerequisites:

Course credit: 0.5Prerequisites: None

2.5 Important Dates:

- Thursday September 8th: First day of class
- Monday, October 10: Holiday-NO CLASSES SCHEDULED -- classes rescheduled to Fri, December 2
- Tuesday, October 11: Holiday-NO CLASSES SCHEDULED -- classes rescheduled to Thurs, December 1
- Friday December 2nd: Last day of class

3 Assessment

3.1 Dates and Distribution

Practical (50%):

- Learning activities: 14%
 - Reading and participation activities from eTextbook: 5%
 - Due each Saturday at 11:59pm (0.5% per submission to a max of 5%- will drop lowest grades)
 - O Weekly Worksheets: 9%
 - Due each Saturday at 11:59pm (1% per submission to a max of 9%- will drop lowest grades)
- Programing Labs 15%
 - In-person (IP) Weekly Labs: 9%
 - due 24 hours after your assigned lab section time
 - Do-it-yourself (DIY) Labs: 6%
 - DIYL1 and DIYL2 due Friday 11:59pm of Week 5
 - DIYL3, DIYL4, DIYL5, DIYL6 due Friday 11:59pm of Week 11
- Assignments: 21%

A1 (6%): Due Friday Oct 7th 11:59 pm A2 (7%): Due Friday Nov 4th 11:59 pm

A3 (8%): Due Friday Nov 25th 11:59 pm

Exams (50%):

Weekly Online Quizzes: 1.5% each week to a max of 15%

Due each Sunday 11:59pm (Will drop the lowest grades)

In-Person Lab Exam (Week 9 – (Nov 7th – 13th)): 10%

Final Exam: 25% - December 9th 8:30am - 10:30am

3.2 Followup Assessment Competency Exam (FACE)

To avoid potential academic misconducts, you may be evaluated through an oral competency exam via virtual meetings so that we can verify that students are responsible for completing their work. If there are noticeable discrepancies between these evaluations and a student's performance on the programming labs and assignments, a penalty will be applied for that lab or assignment.

3.3 Requirement to pass the course

The course is divided into two sections, the first is practical (Assignments + Labs + Worksheets + Textbook activities) and the second is exams (Lab Exam + Quizzes + Final Exam). You must achieve a passing grade in each of the sections to pass the course. A failing grade in either of these sections results in the following calculation for your final grade: final grade = minimum (45, total grade).

Note that to pass the course you need to achieve an overall grade of 50% or above in the course.

3.4 Course Grading Policies

Missed Assessments in general: If you are unable to meet an in-course requirement due to medical, psychological, or compassionate reasons, please make an appointment to meet your course instructor. 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

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).

Missed Lab Exam: If you miss the lab exam due to **documented** grounds for granting academic or religious accommodation, you will be allowed to write makeup lab exam on the following date.

Makeup lab exam date: To be announced

If you miss the lab exam and the makeup lab exam, then you will need to apply for a deferred lab exam to be written in Winter 2023 semester.

Late Assignments: All students will benefit from a 48-hour grace period after the original due date of the assignments. In all but exceptional circumstances, this should allow enough flexibility to accommodate for any unforeseen events that could otherwise impact your work. In fairness to the students who submit their work on time, a deduction of 10% will be applied on the first minute that the assignment is handed in after the grace period. An additional 20% deduction will be applied for the next 24 hours thereafter.

Regrades of assignments: Regrading can be done in 2 steps:

Step 1: Requests for regrades of assignments 1 and 2 and lab exams must be emailed to cis1300@socs.uoguelph.ca within 5 business days of receiving your mark. The request must have the word **regrade** and the name of the assignment or exam in the subject line and must contain a detailed description of why you feel the assignment should be regraded.

Step 2: You will then book an appointment for your assignment/exam to be regraded in person. It is important to note that your assignment/exam will not be regraded unless you meet a TA on Teams.

Note: There is no regrade option for Assignment 3.

It is **important** to note that a regrade is not a chance to redo the assignment. The original submission will be graded.

Illness: Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g., final exam or major assignment).

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

4 TEACHING AND LEARNING ACTIVITIES

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 entirely devoted to helping you learn to create algorithms and solutions to computing problems. The textbook exercises and the optional coding clinics 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. Below you can find the tentative schedule for lectures and labs. Changes to this schedule will be announced on the course website.

Note that all classes are in-person this semester – you will be notified via email and/or announcements if this mode of delivery changes anytime during the semester.

In-person labs start with lab1 in the week of September 13th). As of now, all labs will be in-person. You will be informed as and when the situation changes. Feel free to contact me via email or Office hours (starting week of September 8th) if you have any concerns regarding this.

4.1 Schedule

Unit 01: Introduction to C

Week 1 - Monday, September 12th to Sunday, September 18th

Readings and activities

- Lecture Slides W1L1 and W1L2
- Textbook: Chapter 1
- Familiarize yourself with the course website hosted on moodle.socs.uoguelph.ca.
- Read the course outline thoroughly and carefully. Read the **Assessment** section on the course syllabus to learn more about course expectations, assessments, due dates, and other important information.

- Textbook Chapter1: Due Saturday September 17th at 11:59 pm ET
- Worksheet 1: No submission required
- Quiz1: Due Sunday September 18th at 11:59pm ET
- IPLab1: Due 24 hours after your assigned lab section

Unit 02: Variables and Assignment

Week 2 - Monday, September 19th to Sunday, September 25th

Readings and activities

- Lecture Slides W2L1 and W2L2
- Textbook: Chapter 2

Assessments

- Textbook Chapter2: Due Saturday September 24th at 11:59 pm ET
- Worksheet 2: Due Saturday September 24th at 11:59 pm ET
- Quiz2: Due Sunday September 25th at 11:59pm ET
- IPLab2: Due 24 hours after your assigned lab section
- Start working on Assignment 1 Due Friday October 7th 11:59pm ET

Unit 03: Branches

Week 3 - Monday, September 26th to Sunday, October 2nd

Readings and activities

- Lecture Slides W3L1 and W3L2
- Textbook: Chapter 3

Assessments

- Textbook Chapter3: Due Saturday October 1st at 11:59 pm ET
- Worksheet 3: Due Saturday October 1st at 11:59 pm ET
- Quiz3: Due Sunday October 2nd at 11:59pm ET
- **IPLab3:** Due 24 hours after your assigned lab section
- Start working on Assignment 1 Due Friday October 7th 11:59pm ET

Unit 04: Loops

Week 4 - Monday, October 3rd to Sunday, October 9th

Readings and activities

- Lecture Slides W4L1 and W4L2
- Textbook: Chapter 4

- Textbook Chapter4: Due Saturday October 8th 11:59 pm ET
- Worksheet 4: Due Saturday October 8th 11:59 pm ET
- Quiz4: Due Sunday October 9th 11:59pm ET
- IPLab4: Due 24 hours after your assigned lab section
- Submit Assignment 1 Due Friday October 7th 11:59pm ET
- Start working on Assignment 2 Due Friday November 4th 11:59pm ET

Unit 05: User-Defined Functions

Week 5 - Monday, October 10th to Sunday, October 16th

Readings and activities

- Lecture Slides W5L1
- Textbook: Chapter 5 Part I

Assessments

- Textbook Chapter5 Part I: Due Saturday October 15th 11:59 pm ET
- Worksheet 5: Due Saturday October 15th 11:59 pm ET
- Quiz5: Due Sunday October 16th 11:59pm ET
- DIY Lab1 and DIY Lab2 Due Friday October 14th 11:59pm ET
- Start working on Assignment 2 Due Friday November 4th 11:59pm ET

Unit 06: User-define functions (continued)

Week 6 - Monday, October 17th to Sunday, October 23rd

Readings and activities

- Lecture Slides W6L1
- Textbook: Chapter 5 Parts II and III

Assessments

- Textbook Chapter5 parts II and III: Due Saturday October 22nd 11:59 pm ET
- Worksheet 6: Due Saturday October 22nd 11:59 pm ET
- Quiz6: Due Sunday October 23rd 11:59pm ET
- **IPLab6:** Due 24 hours after your assigned lab section
- Continue working on Assignment 2 Due Friday November 4th 11:59pm ET

Unit 07: One and Two-Dimensional Arrays and Strings

Week 7 - Monday, October 24th to Sunday, October 30th

Readings and activities

- Lecture Slides W7L1 and W7L2
- Textbook: Chapter 6

- Textbook Chapter 6: Due Saturday October 29th 11:59 pm ET
- Worksheet 7: Due Saturday October 29th 11:59 pm ET
- Quiz7: Due Sunday October 30th 11:59pm ET
- IPLab7: Due 24 hours after your assigned lab section
- Continue working on Assignment 2 Due Friday November 4th 11:59pm ET

Unit 08: Input / Output

Week 8 - Monday, October 31st to Sunday, November 6th

Readings and activities

- Lecture Slides W8L1 and W8L2
- Textbook: Chapter 7

Assessments

- Textbook Chapter7: Due Saturday November 5th 11:59 pm ET
- Worksheet 8: Due Saturday November 5th 11:59 pm ET
- Quiz8: Due Sunday November 6th 11:59pm ET
- IPLab8: Due 24 hours after your assigned lab section
- Submit Assignment 2 Due Friday November 4th 11:59pm ET
- Start working on Assignment 3 Due Friday November 25th 11:59pm ET

Unit 09: Structures

Week 9 - Monday, November 7th to Sunday, November 13th

Readings and activities

- Lecture Slides W9L1 and W9L2
- Textbook: Chapter 8

Assessments

- Textbook Chapter8: Due Saturday November 12th 11:59 pm ET
- Worksheet 9: Due Saturday November 12th 11:59 pm ET
- Quiz9: Due Sunday November 13th 11:59pm ET
- Lab Exam: More Information TBA
- Continue working on Assignment 3 Due Friday November 25th 11:59pm ET

Unit 10: Recursion

Week 10 - Monday, November 14th to Sunday, November 20th

Readings and activities

- Lecture Slides W10L1 and W10L2
- Textbook: Chapter 9

- Textbook Chapter9: Due Saturday November 19th 11:59 pm ET
- Worksheet 10: Due Saturday November 19th 11:59 pm ET
- Quiz10: Due Sunday November 20th 11:59pm ET
- IPLab10: Due 24 hours after your assigned lab section
- Continue working on Assignment 3 Due Friday November 25th 11:59pm ET

Unit 11: Pointers

Week 11 - Monday, November 21st to Sunday, November 27th

Readings and activities

Lecture Slides W11L1 and W11L2

• Textbook: Chapter 10

Assessments

• Textbook Chapter10: Due Saturday November 26th 11:59 pm ET

Worksheet 11: Due Saturday November 26th 11:59 pm ET

Quiz11: Due Sunday November 27th 11:59pm ET

• IPLab11: Due 24 hours after your assigned lab section

Submit Assignment 3 - Due Friday November 25th 11:59pm ET

Unit 12: Catchup and Review for Final Exam

Week 12 - Monday, November 28th to Friday, December 2nd

Readings and activities

Review all chapters

Assessments

- Textbook Chapter11 All activities are optional and ungraded
- Review Quiz optional and ungraded
- NO Labs this week
- No Assignments this week

5 ROLES AND RESPONSIBILITIES

5.1 Communication & Email Policy

Please use lectures, lab sessions, and the discussion forum as your main opportunities to ask questions about the course. Questions that are specific to your particular situation may be emailed to cis1300@socs.uoguelph.ca and will be answered by one of the instructional team. Extremely private communication should be conducted in person by making an appointment with the course instructor.

Major announcements will be posted to the course website and the discussion forums. It is your responsibility to check the course website regularly. As per university regulations, all students are required to check their <mail.uoguelph.ca> e- mail account regularly: e-mail is the official route of communication between the University and its students.

5.2 Recording of materials

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, classmate 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.

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5.3 Copies of out-of-class assignments

Students must keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

5.4 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. Selected notes will be made available to students on the course website but are not intended to be stand-alone. During lectures, the instructor will expand and explain the content of notes and provide example problems that supplement posted notes. Scheduled classes will be the principal venue to provide information and feedback for exams and assignments.

5.5 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 to keep the instructor informed as early as possible. This will allow the instructor to recommend extra resources in a timely manner and/or provide consideration if appropriate.

6 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.

7 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 <u>519-824-4120</u> ext. 56208 or email <u>csd@uoguelph.ca</u> or see the website: http://www.uoguelph.ca/csd/

Disclaimer

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings, changes in classroom protocols, and academic schedules. Any such changes will be announced via CourseLink and/or class email.

This includes on-campus scheduling during the semester, mid-terms and final examination schedules. All University-wide decisions will be posted on the COVID-19 website (https://news.uoguelph.ca/2019-novel-coronavirus-information/) and circulated by email.

For information on current safety protocols, follow these links: https://news.uoguelph.ca/return-to-campuses/how-u-of-g-is-preparing-for-your-safe-return/

https://news.uoguelph.ca/return-to-campuses/spaces/#ClassroomSpaces

Please note, these guidelines may be updated as required in response to evolving University, Public Health or government directives.