

# Computer Science 1000

## Computer Science – An Introduction (Section 001)

Fall 2021



Department of Computer Science

**IMPORTANT NOTE:** This is a new version of COMP 1000 that is no longer required for Computer Science Majors or Minors, though it may still be used to satisfy the Computing requirement in other disciplines. Computer Science Majors and Minors should consult with the CS Deputy Head Undergraduate Studies (Mark Hatcher: [cs-ugradadv@mun.ca](mailto:cs-ugradadv@mun.ca) / EN-2016) or the CS Undergraduate Academic Program Officer (Cathy Hyde: [cs-ugradadv@mun.ca](mailto:cs-ugradadv@mun.ca) / EN-2025) for the appropriate alternate course selection for their degrees.

**Instructor:** Todd Wareham  
**Office:** EN-2034  
**Office Hours:** TBA, or by appointment  
**Phone:** 864-4601  
**E-mail:** [harold@mun.ca](mailto:harold@mun.ca) (\*\*please use this email to contact me, not D2L\*\*)

Note that I **DO NOT** check email in Brightspace (D2L). Please send any emails to my [harold@mun.ca](mailto:harold@mun.ca) address, rather than my D2L address. Also, please include **[COMP1000]** in the subject line. Official email correspondence within the university must be via a valid [@mun.ca](mailto:@mun.ca) email account.

**Course Content:** <https://online.mun.ca/>

### Credit Restrictions:

The former COMP 1700. Students cannot receive credit for COMP 1000 if they have previously successfully completed, or are currently registered for, COMP 1003.

### Course Objectives:

This course takes a breadth-first overview approach to the discussion of important aspects of computer science including fundamentals in algorithms, binary data representation, Boolean logic, systems software, networking concepts, introductory programming, databases, and selected Computer Science subfields.

### Textbook:

*Invitation to Computer Science* (8<sup>th</sup> Edition) by G. M. Schneider and J. L. Gersting, 2019.

*Invitation to Computer Science, Laboratory Manual* (5<sup>th</sup> Edition) by K. Lambert and T. Whaley, 2013. (\*Discontinued from the publisher, electronic copies of related Lab Experiences will be posted in D2L/Brightspace).

### Evaluation:

The final grade in this course will be determined as follows:

Assignments	10%
Laboratory quizzes	20%
Midterm examination (Friday, October 22, 2021, 2:00pm-4:50pm)	25%
Final examination	45%

**Format:**

Lectures, three hours per week, and laboratory, three hours per week.

**Lecture Time:** Slot 05, MWF, 12:00 p.m. - 12:50 p.m.**Lecture Room:** EN-2043**Lab Times:** Slot 65, Friday 2:00 p.m. - 4:50 p.m.**Lab Room:** CS-1019 and CS-1009**Assignments and course notices will be on Brightspace (D2L); course notes will be available at:**<http://www.cs.mun.ca/~harold/Courses/CS1000/>**Course Schedule (Tentative):**

Dates	Chapter(s)	Topics(s)
Week 1: Sep 8 – Sep 10	1 2	Introduction Algorithms and Programming
Week 2: Sep 13 – Sep 17	Online Module	Algorithms and Programming
Week 3: Sep 20 – Sep 24	2	Algorithms and Programming
Week 4: Sep 27 – Oct 1 <b>(Sep 30, National Day for Truth and Reconciliation)</b>	2 4	Algorithms and Programming Number Systems
Week 5: Oct 4 – Oct 8	4 5	Circuits Computer Organization
Week 6: Oct 11 – Oct 15 <b>(Oct 11 – Oct 12, Midterm Break)</b> <b>(Lectures follow Monday's Schedule on Oct 13)</b> <b>(Lectures follow Tuesday's Schedule on Oct 15)</b>	5	Computer Organization
Week 7: Oct 18 – Oct 22	6	System Software, Review <b>(Midterm Exam – Oct 22, in lab)</b>
Week 8: Oct 25 – Oct 29	14	Databases
Week 9: Nov 1 – Nov 5	7	Computer Networks
Week 10: Nov 8 – Nov 12 <b>(Nov 11, Remembrance Day Holiday)</b>	8	Computer Security
Week 11: Nov 15 – Nov 19	3	Theoretical Computer Science
Week 12: Nov 22 – Nov 26	12 15	Theoretical Computer Science Artificial Intelligence
Week 13: Nov 29 – Dec 3		Wild Blue Yonder, Review
<b>Final Exam Period: Wednesday, Dec 8 to Friday, Dec 17.</b>		

**Lab and Lab Quiz Schedule (Tentative):**

Lab #	Topics Covered (Tentative)	Lab Date Section 001, Slot 65 Friday, 2pm-4:50pm (Quiz 4:20pm - 4:50pm NT)
0	Introductory	Friday, Sep 17 (No Quiz)
1	Python (Sequential & Conditional)	Friday, Sep 24
2	Python	Friday, Oct 8
3	Number Systems	Friday, Nov 5
4	Circuits	Friday, Nov 19

**Assignment Schedule (Tentative):**

Assignment #	Assignment Due at 11:59pm NT
1	Friday, Oct 1
2	Friday, Oct 29
3	Friday, Nov 12
4	Friday, Nov 26

## Important notes to read, understand and follow for this course:

### 1. General Notes

- Memorial University of Newfoundland is committed to fostering equitable and accessible learning environments for all students. Accommodations for students with disabilities are provided in accordance with the [Accommodations for Students with Disabilities Policy](#) and its related procedures. Students who feel that they may require formal academic accommodations to address barriers or challenges they are experiencing related to their learning are encouraged to contact [Accessibility Services \(the Blundon Centre\)](#) at the earliest opportunity to ensure any required accommodations are provided in a timely manner. You can contact Accessibility Services (the Blundon Centre) by emailing [blundon@mun.ca](mailto:blundon@mun.ca). **Students using Blundon services for exams are strongly recommended to book the exams with the Blundon Centre at least 3 weeks ahead of the exam date to allow for arrangements to be made. Students who are registered with the Blundon Centre are also encouraged to contact the course instructor to discuss accommodations.**
- Academic integrity means taking full responsibility for the academic work you submit for your courses, so that your professors can evaluate you on the basis of your own understanding and effort. It means being honest and honourable in all academic pursuits, even in difficult circumstances. Students are expected to know and avoid academic offences; ignorance of an offence is not an acceptable excuse for committing it. Penalties could include reprimand, reduction of grade, probation, suspension, or expulsion from the University. For more information, refer to the University Regulations for Academic Misconduct (Section 6.12) in the University Calendar, revisit the INTG 1000 course in Brightspace, or see the [undergraduate page about academic integrity](#).
- Further course information (e.g., assignments, lab exercises, quizzes/exams, announcements, grades, etc) can be found in Brightspace (D2L).
- No late submissions will be accepted. If, for special circumstances (such as medical or bereavement), you miss a deadline for a grade item, notify your instructor as soon as possible and not later than 48 hours, providing an explanation for the missed work and any related documentation (if documentation is required). Failure to do this can result in a mark of 0% for that work. Please refer to the **current University policy** regarding medical notes and the information to be in them. For more information, please see the University Calendar - University Regulations - General Academic Regulations (Undergraduate) - **6.7.5 Exemptions from Parts of the Evaluation** and **6.15 Appeal of Decisions** or consult the Registrar's Office. If your reasons for the missed work are acceptable, then your instructor will provide details of any alternate evaluation scheme.
- There will be no lectures on Thursday, September 30 (National Day for Truth and Reconciliation).
- There will be no lectures on Thursday, November 11 (Remembrance Day Holiday).
- There will be no lectures from Monday, October 11 to Tuesday, October 12 (Thanksgiving Day Holiday on Monday, Midterm Break on Monday and Tuesday).
- On Wednesday, October 13, lectures will follow **Monday's schedule**.
- On Friday, October 15, lectures will follow **Tuesday's schedule**.
- In the event of university closure on the day of an evaluation item, the evaluation item may be given in the next class/lab meeting.
- **Continuity planning if courses are switched to remote learning:**
  - Lectures will be delivered synchronously, online during the regular lecture time slot.
  - Lab sessions will be transferred into remote lab delivery via Brightspace (D2L), with the instructional staff available online via Online Rooms (Bongo) or WebEx during lab times to answer questions. The corresponding quizzes will be taken online remotely.
- Please note that the last day to drop a course without academic prejudice, this semester, is **November 3rd**. You do not need anyone's permission to drop the course before the last drop date. You can drop the course yourself using Memorial Self-Service. If you have any difficulties with dropping the course at that time then please contact [reghelp@mun.ca](mailto:reghelp@mun.ca). Anyone wanting to drop the course after that deadline should contact our undergraduate advisor, at [cs-ugradadv@mun.ca](mailto:cs-ugradadv@mun.ca), to make the request. **Important!** Late drops can only be

approved in very specific circumstances, as detailed in Regulation 6.5.6.2 here: <https://www.mun.ca/regoff/calendar/sectionNo=REGS-0524>.

- The lectures and all material delivered or provided in COMP 1000, including any visual or audio recording thereof, are subject to copyright. It is prohibited to record or copy by any means, in any format, openly or surreptitiously, in whole or in part, in the absence of express written permission from the course instructor (H. Wareham) any of the lectures, materials provided or published in any form during or from the course.

## 2. COVID Related Notes

- This course is designed to have classes and labs held in-person. Our class lectures have been carefully designed to emphasize safety while providing a rich learning experience for all students. Masks are currently required on campus (including in the class and lab). If this policy changes during the term, you may still opt to use a mask even if not required. There will be different levels of comfort and anxiety for mask use. Should other health directives or the overall situation connected to COVID-19 change over the course of the term, a back-up plan for remote delivery is in place to ensure that the course will continue and to minimize disruption to the student experience.
- As a part of our shared responsibility to keep each other and our extended families safe during the upcoming school year, COVID-19 vaccines are required for all students, faculty, and staff; masks are required on all Memorial campuses in all indoor spaces. For further information, see the University webpage on [COVID-19 Vaccination Clinics](#).
- There is nothing more important than your mental and physical health. Doctors' notes are not required for medical absences in this course. You are encouraged to seek appropriate medical attention from the Student Wellness and Counselling Centre. I encourage you to reach out to the Blundon Centre as early as possible to discuss any adjustments you think may be necessary for you to successfully complete this course.
- To protect yourself and those around you, it is important to stay home if you feel unwell, or if you are under quarantine because you have potentially been exposed to the virus. Please keep your instructor informed so we can work together to allow you to keep up with the course materials should you need to miss classes and/or labs. You will not be penalized if you need to stay home for quarantine. Memorial University has recognized the importance of academic leniency as we work to keep our campus safe for all.
- Memorial encourages faculty, staff, and students to [download the COVID Alert app](#) to help protect yourself and others. The app is designed to let Canadians know whether they may have been exposed to COVID-19.
- While the COVID-19 pandemic is slowly subsiding in many parts of the world and vaccination rates are increasing, this is still a stressful time for many. It's important that we support each other and keep informed of current information. The [Memorial COVID-19 website](#) is an excellent source of information and support, with specific links for students, supports and services, and health and wellness.

## 3. Labs and Lab Quizzes

- Labs begin on Friday, Sep 17. See table above for lab/quiz due dates. In the event of university closure on the day of a lab, information will be posted in Brightspace (D2L) regarding any rescheduling.
- Lab Exercises will be available approximately one week in advance of the actual lab time. You may start and/or complete the Lab Exercises whenever you wish within that time period. Lab assistants will be available in the lab during the first 2 hours and 20 minutes of the allotted lab time to answer any questions that you may have about the lab exercises. Each lab period will end with a quiz (given during the last half-hour) on material covered in class and in the lab. The quiz is the only means of obtaining credit for work done during the lab period. Lab Exercises are not for credit and **do not have to be submitted**.
- **Once you start a lab quiz, you will have only 30 minutes to complete and submit it. Make sure your answers to each question are saved as you answer them.** If you run out of time and the auto-submit feature forces you to submit your quiz, then it will only accept the answers that have already been saved. If you notice that a quiz question is not saving properly, please contact one of the lab assistants. **We strongly recommend that you complete the lab exercises before attempting the online lab quiz.**
- Once you complete and submit the quiz, you will receive feedback on your quiz results once the due date/time for that quiz has passed and any required manual grading has been done.
- **There will be no deferred unit quizzes for this course.**

- **Quizzes are to be done individually. If cheating/plagiarism is detected for a quiz, the quiz will be given 0%. The department head will also be notified of any academic misconduct.**

#### 4. Assignments

- Assignments are due at **11:59 p.m.** on the specified date, electronically through the Brightspace (D2L) Assignment dropbox tool. (See table above.) No late assignments will be accepted.
- Be aware that the files you submit for evaluation should be uploaded on or before the due date and much before the cut off time, **11:59 p.m. Newfoundland Time**. Even if you are late by a few seconds you will not be allowed to submit your work; hence you should try to upload the files at least 15 minutes before the cut off time since your system clock is not synchronized with the CITL's system clock and the cutoff time is based on CITL's system clock. Please note that if your files have been correctly uploaded, you will get a confirmation receipt from the **Dropbox** tool. If you do not receive this receipt, please contact the CITL Support team (<https://www.citl.mun.ca/support/>). **\*\*\*It is your responsibility to make sure that the CORRECT files are actually uploaded, so please DO check for the confirmation that your files have been uploaded.\*\*\***
- **Assignments are to be done individually. If cheating/plagiarism is detected for an assignment, the assignment will be given 0%. The department head will also be notified of any academic misconduct.**

#### 5. Exams

- **Students may be expected to complete the invigilated midterm exam and invigilated final exam online in Brightspace (D2L) using the Quiz tool, in the lab.**
- **Midterm Exam**
  - The Midterm exam will take place on **Friday, October 22, during the usual lab slot (2:00pm to 4:50pm, Newfoundland Time)**. We may not use the full lab time for the exam. In the event of university closure on the day of the exam, information will be posted in Brightspace (D2L) regarding any rescheduling.
  - **It is important to note that this course does not have an option for writing a deferred Midterm exam.** If, for any reason, you miss the Midterm exam, you should contact your instructor right away, giving the reasons for missing the exam, and requesting that the weight of your Midterm exam be added to the weight of your Final exam. If your request is approved by your instructor, then the weight of your Final exam will be 70%, otherwise your Final exam will be worth 45% and you will receive a 0 for the missed Midterm exam.
  - **Midterm exams are to be done individually. If cheating/plagiarism is detected for a midterm exam, the midterm exam will be given 0%. The department head will also be notified of any academic misconduct.**
- **Final Exam**
  - The final exam will be scheduled by the **Registrar's Office** for some time during the regular exam period (**Dec 8 – Dec 17**). For the exact final exam date and time, check on **Memorial Self-Service**.
  - Requests for any deferred final exam should be made by filling in the Request for Deferred Exam form and submitting it to **the head of the Department of Computer Science (or their delegate) and to the undergraduate advisor**. The completed form should be sent (from **your mun.ca** email account) to the following email addresses:  
**cs-ugradadv@mun.ca, cs-chair@mun.ca**
  - This form can be accessed here: <https://www.mun.ca/computerscience/ugrad/UGForms/Deferred-Exam-Form-Fill.pdf>
  - **Final exams are to be done individually. If academic misconduct is detected for a final exam, the case will be reported to the department head, who will forward it to the Senate Committee on Undergraduate Studies for investigation and appropriate action.**
- **No supplementary examination will be given for this course.**

## 6. **Student support**

- Memorial University of Newfoundland is committed to fostering equitable and accessible learning environments for all students. Accommodations for students with disabilities are provided in accordance with the [Accommodations for Students with Disabilities Policy](#) and its related procedures. Students who feel that they may require formal academic accommodations to address barriers or challenges they are experiencing related to their learning are encouraged to contact [Accessibility Services \(the Blundon Centre\)](#) at the earliest opportunity to ensure any required accommodations are provided in a timely manner. You can contact Accessibility Services (the Blundon Centre) by emailing [blundon@mun.ca](mailto:blundon@mun.ca). **Students using Blundon services for exams are strongly recommended to book the exams with the Blundon Centre at least 3 weeks ahead of the exam date to allow for arrangements to be made. Students who are registered with the Blundon Centre are also encouraged to contact the course instructor, during a lab period, to discuss accommodations.**
- In addition to your instructor, instructional staff are also available to help students with course material. See the **Instructional Staff Contact Information and Schedule** link in the Course Content area.

Name	Position	Office Rm#	Phone #	E-mail
Stephen Anthony	Lab Instructor	EN-1062	709-864-4739	<b>MUN:</b> stephen@mun.ca
Cindy Milley	Instructional Assistant	EN-1064	709-864-2406	<b>MUN:</b> cindy@mun.ca <b>D2L:</b> cindy@online.mun.ca
Wendong Mao	Instructional Assistant	EN-1063	709-864-4703	<b>MUN:</b> wm0330@mun.ca <b>D2L:</b> wm0330@online.mun.ca
Steph McIntyre	Instructional Assistant	EN-1065	709-864-4307	<b>MUN:</b> smcintyre@mun.ca <b>D2L:</b> smcintyre@online.mun.ca
Frankie Tu	Instructional Assistant	EN-1061	TBD	<b>MUN:</b> frankiet@mun.ca <b>D2L:</b> frankiet@online.mun.ca

- The on-campus Computer Science Student Help Centre is located in EN-2026, S. J. Carew Engineering Building, St. John's campus. Please see the following link (also available on the course Brightspace page) for hours of operation each semester: [https://www.mun.ca/computerscience/ugrad/HelpCtr\\_Schedule.php](https://www.mun.ca/computerscience/ugrad/HelpCtr_Schedule.php)
- Help with any Brightspace (D2L) technical issues is available by contacting the **CITL Support Centre** via phone (1-866-435-1396, or locally at 709-864-8700), online chat (when available) or via their ticketing system. This contact information is available at: <https://www.citl.mun.ca/support/>
- Note that, while the due times for submissions are at **11:59pm Newfoundland Time**, help may not be available after 4:30pm on the due date. The last few hours from 4:30pm – 11:59pm should be used to finalize your work and submit it. Any questions you may have about the lab exercises, quizzes or assignments should be asked well in advance of the due date/time to allow time for help to be given.
- Please note that Memorial University offers a broad range of supports. For a more comprehensive list of student supports and resources, please check out the following links:
  - <https://www.mun.ca/munup/support/>
  - <https://www.mun.ca/main/students.php>
  - <https://www.munsu35.ca/resource-centres/>