

A scenic view of the Carleton College campus. In the background, a tall, modern building with a blue facade stands prominently. Below it, several other campus buildings are visible. In the foreground, a paved path curves along a body of water, with a person walking on it. The water reflects the surrounding trees and buildings. The sky is clear and blue. A large red rectangular box is overlaid in the center of the image, containing white text.

# Carleton First Year CS Course Selection Guide

First of all...

Welcome To Carleton!



**Carleton**  
UNIVERSITY

Canada's Capital University

# Introductions!



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ALEXA DE GRANDMONT

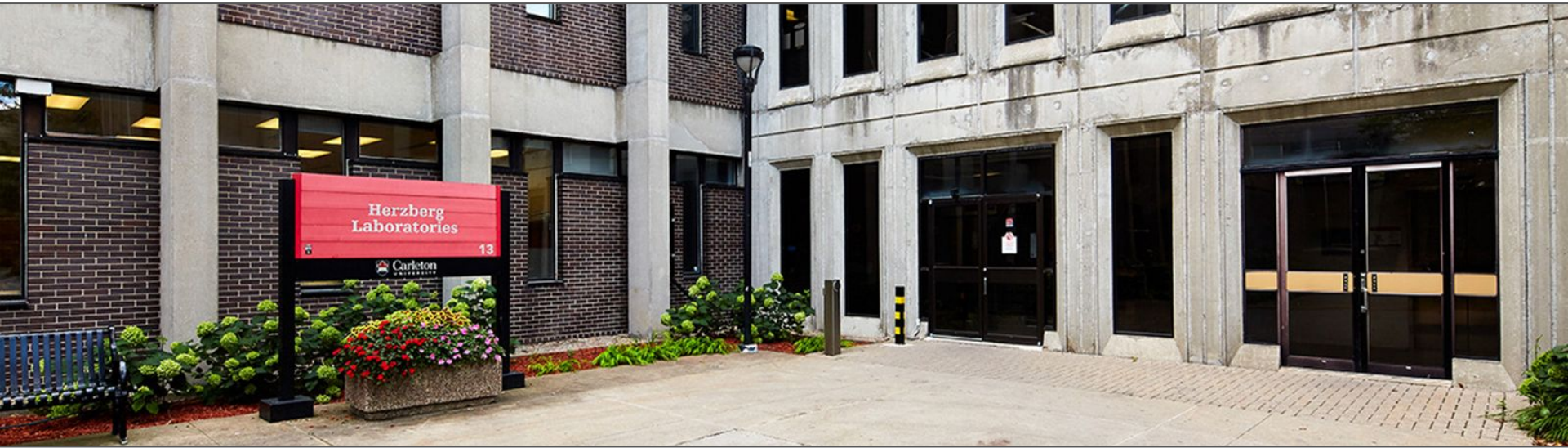
DIRECTOR OF ACADEMICS

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# Undergraduate Advisor

For questions about the program, please contact the Undergraduate Advisor.

→ [undergraduate\\_advisor@scs.carleton.ca](mailto:undergraduate_advisor@scs.carleton.ca)





# Carleton Resources

- Health and Counselling services
- Academic Advising Centre
  - ◆ Manage your academic standing
  - ◆ Academic Counselling
- Career Services



Health Promotion  
CARLETON UNIVERSITY



# Laptop Requirement

**PC or MAC laptops with the following minimum specifications:**

- CPU: Intel i5/i7/i9/Xeon or AMD Ryzen line
- 8 GB or more of RAM
- 256 GB or larger hard drive (SSD drive recommended)
- wireless networking (WiFi)
- camera, mic and audio



# Academic & Financial Deadlines

- **June 24-26, 2020:** Course Registration for Incoming students
- **August 25, 2020:** Fall Payment Deadline
- **September 8, 2020:** Academic Orientation (subject to change)
- **September 23, 2020:** Last day to register for Fall term
- **September 30, 2020:** Last day to withdraw from fall term and fall/winter courses with a full fee adjustment



# Matters Series Courses

## → **COMP 0999 - COMP Matters**

- ◆ Register for this with your fall courses
- ◆ 2 week session Aug 10 - Aug 21
- ◆ <https://sssc.carleton.ca/index.php/compmatters/frequently-asked-questions>

## → **MATH 0999 - MATH Matters**

- ◆ August 24 - August 28
- ◆ <https://carleton.ca/mathmatters/>





# Computer Science Course

- Lectures
- Tutorials
- Assignments
  - ◆ Online submission servers
  - ◆ Virtual Environments
- Midterms
- Exam



# Required First Year Courses

- **COMP 1405:** Introduction to Computer Science I
- **COMP 1406:** Introduction to Computer Science II
- **COMP 1805:** Discrete Structures I
- **MATH 1007:** Elementary Calculus I
- **MATH 1104:** Linear Algebra for Engineering or Science



\*\*Special note about COMP 1405/1406 Z

# Required Second Year Courses

- **COMP 2401:** Introduction to Systems Programming
- **COMP 2402:** Abstract Data Types and Algorithms
- **COMP 2404:** Introduction to Software Engineering
- **COMP 2406:** Fundamentals of Web Applications
- **COMP 2804:** Discrete Structures II
- **STAT 2507:** Introduction to Statistical Modeling I





# Computer Science Calendar

[https://calendar.carleton.ca/undergrad/undergradprograms/computerscience/#Computer\\_Science\\_\\_BCS\\_Honours](https://calendar.carleton.ca/undergrad/undergradprograms/computerscience/#Computer_Science__BCS_Honours)

## Computer Science

### B.C.S. Honours (20.0 credits)

#### A. Credits Included in the Major CGPA (9.0 credits)

##### 1. 6.5 credits in: 6.5

COMP 1405 [0.5] Introduction to Computer Science I

COMP 1406 [0.5] Introduction to Computer Science II

COMP 1805 [0.5] Discrete Structures I

COMP 2401 [0.5] Introduction to Systems Programming

COMP 2402 [0.5] Abstract Data Types and Algorithms

COMP 2404 [0.5] Introduction to Software Engineering

COMP 2406 [0.5] Fundamentals of Web Applications

COMP 2804 [0.5] Discrete Structures II

COMP 3000 [0.5] Operating Systems

COMP 3004 [0.5] Object-Oriented Software Engineering

COMP 3005 [0.5] Database Management Systems

COMP 3007 [0.5] Programming Paradigms

COMP 3804 [0.5] Design and Analysis of Algorithms I

##### 2. 0.5 credit in COMP at the 2000-level or above 0.5

##### 3. 2.0 credits in: 2.0

COMP 4905 and 1.5 credits in COMP at the 4000-level, or

COMP 4906 and 1.0 credit in COMP at the 4000-level

#### B. Credits Not Included in the Major CGPA (11.0 credits)

##### 4. 1.5 credits from: 1.5

MATH 1007 [0.5] Elementary Calculus I

MATH 1104 [0.5] Linear Algebra for Engineering or Science

0.5 credit in MATH at the 2000-level or above

##### 5. 0.5 credit in: 0.5

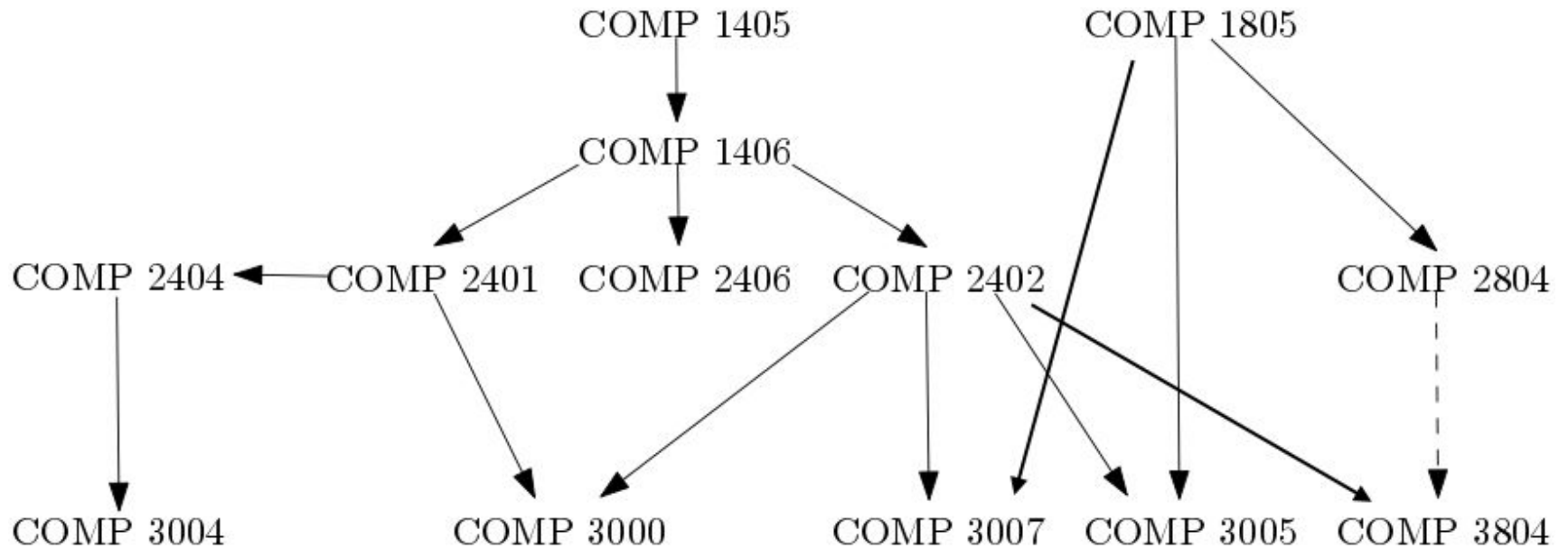
STAT 2507 [0.5] Introduction to Statistical Modeling I

##### 6. 5.0 credits in Breadth Electives 5.0

##### 7. 4.0 credits in free electives. 4.0

##### Total Credits 20.0

# Prerequisite Tree



# Courses Required for First Year (BSC Honours Programs)

**If you have scheduling conflicts or can't get into a course:**

- You can take COMP 1805 first term (not recommended)
- You can do the two MATH courses in either order

**Please keep in mind:**

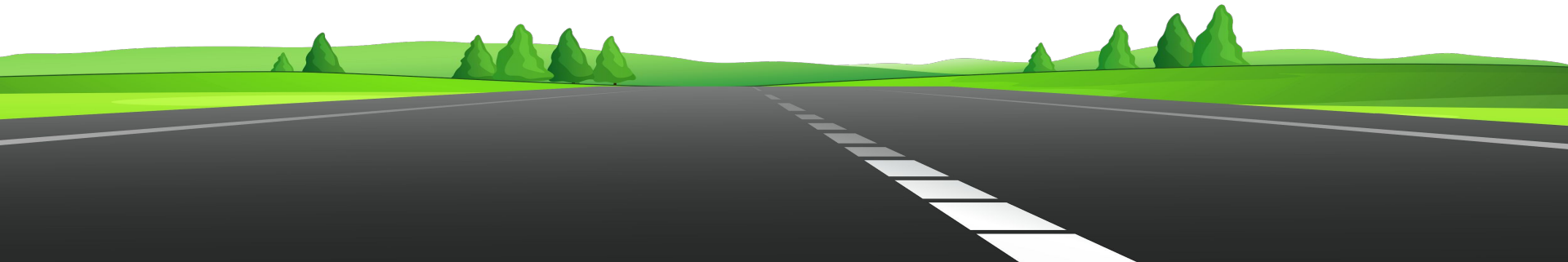
- Work / life balance
- Adjusting to University
- Enjoy your first year!

<b>Fall Term</b>	<b>Winter Term</b>
COMP 1405 [0.5] Fall	COMP 1805 [0.5] Winter
MATH 1007 [0.5] Fall	COMP 1406 [0.5] Winter
1.5 credits in Electives	MATH 1104 [0.5] Winter
	1.0 credits in Electives



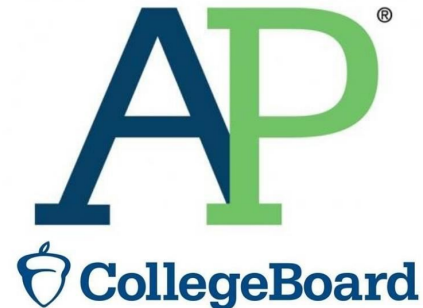
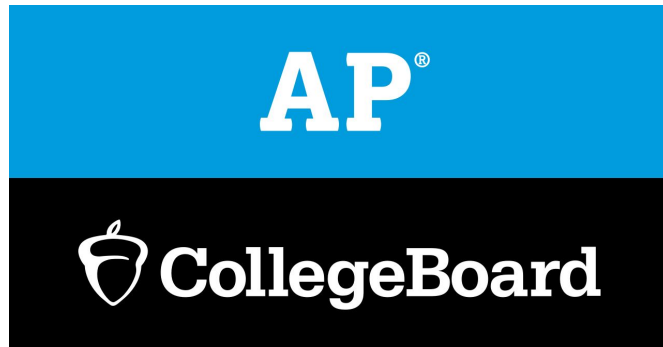
# Stream Options / Switching Streams

- The **Game Development** and **Mobile** streams = **only** streams with required first year courses
- The other streams do not come into effect until you reach **3000 level** courses
- Can transfer streams via **Carleton Central** so long as you're already in a stream or in Honours
- If you complete the Mobile or Game Dev stream specific courses and decide to switch streams later, these courses will count as free electives.

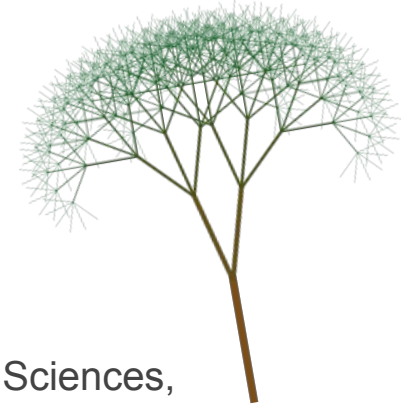


# AP Credits

- If you took AP classes in high school and completed the AP exam with a level of 4, you can receive advanced standing credit
- <https://admissions.carleton.ca/apply/transfer-credit/transferadvanced-standing-credit-ap/>



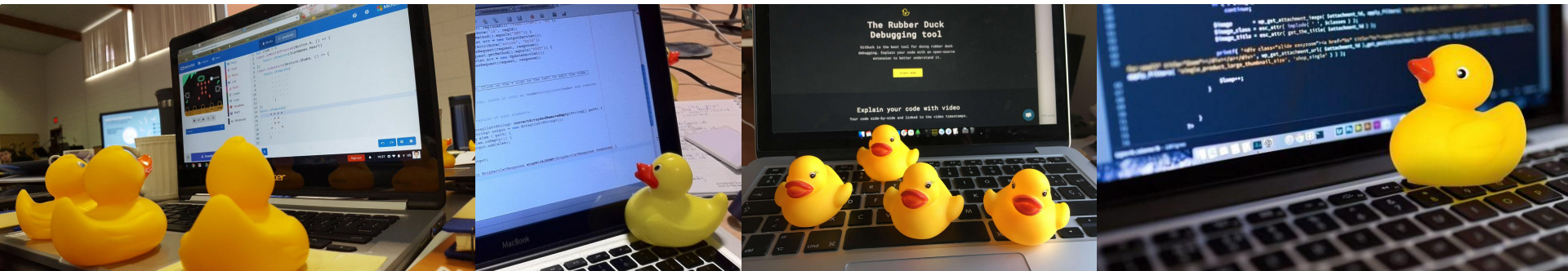
# Breadth vs Free Electives



- Breadth Electives are all courses offered by the Faculty of Arts and Social Sciences, the Faculty of Public Affairs, the Sprott School of Business and the Faculty of Science except for courses in COMP, MATH, STAT and the Prohibited Courses category
- Once you've completed your breadth electives, any courses you take that would have been considered breadth are used as free electives
- You cannot take more than 7.0 credits of 1000-level courses for your entire program

# Elective Suggestions

- Take electives that genuinely interest you, not just bird courses
- Think about using your electives to do a minor
  - ◆ BCS students can add up to 2 minors
- Save courses that can normally be done online to do while on co-op or during the summer



# Elective Suggestions (related to CompSci)

- **CGSC 1001: Mysteries of the Mind**
  - ◆ The prof Jim Davies is a Cross-Appointed Faculty member (Computer Science & Cognitive Science)
  - ◆ He discusses computer science concepts (AI, neural nets etc.) at a very high level in this course
- **LING 1001: Introduction to Linguistics I**
  - ◆ More technical than LING 1100
- **LING 1100: The Mysteries of Language**
  - ◆ Recommended for people who enjoyed CGSC 1001
- **PHIL 2001: Introduction to Logic**
  - ◆ This course covers concepts from COMP 1805
- **PHIL 2003: Critical Thinking**
  - ◆ Similar to PHIL 2001



# Elective Suggestions (others)

- **PSYC1001 & PSYC1002: Introduction to Psychology I and II**
  - ◆ Similar to CGSC1001
  - ◆ A lot of psyc courses can be taken online
- **BIOL 1902: Natural History**
  - ◆ The literal bird course
- **ERTH 2415: Natural Disasters**
- **ERTH 2401: Dinosaurs**
- **STAT 2507 (first year)**
  - ◆ This will alleviate a heavier course load later on





# Carleton Central Tips

- Add all the courses you want to a worksheet & slowly remove scheduling conflicts
- Make several different backup schedules for registration day so that you don't need to modify or create a new worksheet
- You can submit override requests on Carleton Central

**Week Starting: January 10, 2021**

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
07:00							
08:00							
09:00		COMP 3007 A COMP 4109 A COMP 3007 A COMP 4109 A COMP 3007 A COMP 4109 A	COMP 3804 B COMP 4107 B COMP 3804 B COMP 4107 B COMP 3804 B COMP 4107 B	COMP 3007 A COMP 4109 A COMP 3007 A COMP 4109 A COMP 3007 A COMP 4109 A	COMP 3804 B COMP 4107 B COMP 3804 B COMP 4107 B COMP 3804 B COMP 4107 B		
10:00					COMP 3000 B1		
11:00					COMP 3000 B1		
12:00		COMP 3203 A COMP 3203 A COMP 3203 A	COMP 3004 B COMP 4601 A COMP 3004 B COMP 4601 A COMP 3004 B COMP 4601 A	COMP 3203 A COMP 3203 A	COMP 3004 B COMP 4601 A COMP 3004 B COMP 4601 A COMP 3004 B COMP 4601 A		
13:00		COMP 3000 B4 COMP 3000 B4	COMP 3000 B COMP 4601 A COMP 3000 B	COMP 4106 B COMP 4106 B	COMP 3000 B COMP 3000 B	COMP 4106 B COMP 4106 B	
14:00		COMP 4102 A COMP 4102 A COMP 4102 A	COMP 3007 B COMP 3007 B COMP 3007 B	COMP 4102 A COMP 4102 A COMP 4102 A	COMP 3007 B COMP 3007 B COMP 3007 B		
15:00		COMP 3008 A COMP 3008 A COMP 3008 A	COMP 3000 B2 COMP 3000 B2 COMP 3000 B2	COMP 3008 A COMP 3008 A COMP 3008 A			
16:00							
17:00							
18:00			COMP 3004 A COMP 3004 A	COMP 3000 B3 COMP 3000 B3	COMP 3004 A COMP 3004 A		
19:00			COMP 3004 A	COMP 3000 B3	COMP 3004 A		
20:00							

# Academic Audit



Canada's Capital University

You are here ▶ **Audit**

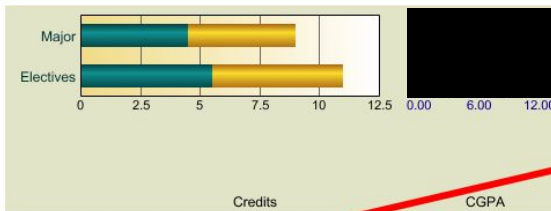
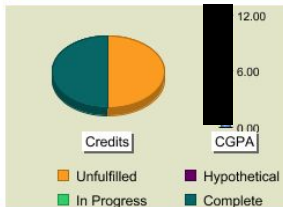
[View Course History](#) [Close Window](#)

**Note:** The graphs below represent select program elements only. Please note that you may still have additional university requirements that are incomplete. Please scroll down to review the status of all university requirements. Students must meet all program and university requirements in order to graduate. The audit should be used in conjunction with the University Undergraduate Calendar and your departmental advisor to monitor your academic progress.

\*\*\* Forfeited Courses are not part of the CGPA calculation. \*\*\*

## Audit

## Categories



## Hypothetical Courses

No courses in cart

Total 0.0

Course to add:

Add Hypothetical Courses

Go

[Open All Sections](#) [Close All Sections](#)

[Printer Friendly](#)  
[Understanding myAudit](#)

## ✖ HONOURS COMPUTER SCIENCE MAJOR REQUIREMENTS Part A - 6.5 credits are required

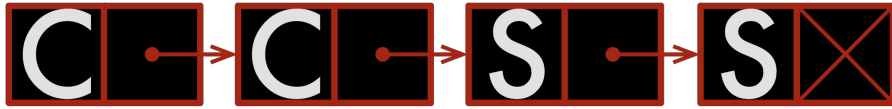
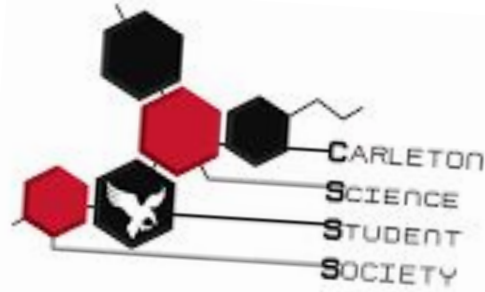
EARNED: 4.50 Credits  
--> NEEDS: 2.00 Credits

- + 1) 0.5 credit in COMP 1405  
0.50 cr. Complete  
18FA COMP 1405 0.50
- + 2) 0.5 credit in COMP 1406  
0.50 cr. Complete  
19WN COMP 1406 0.50
- + 3) 0.5 credit in COMP 1805  
0.50 cr. Complete  
19WN COMP 1805 0.50
- + 4) 0.5 credit in COMP 2401  
0.50 cr. Complete  
19FA COMP 2401 0.50
- + 5) 0.5 credit in COMP 2402  
0.50 cr. Complete  
19FA COMP 2402 0.50
- + 6) 0.5 credit in COMP 2404  
0.50 cr. Complete  
20WN COMP 2404 0.50
- + 7) 0.5 credit in COMP 2406  
0.50 cr. Complete  
19FA COMP 2406 0.50
- + 8) 0.5 credit in COMP 2804  
0.50 cr. Complete  
20WN COMP 2804 0.50
- 9) 0.5 credit in COMP 3000  
NEEDS: 0.50 Credits
- 10) 0.5 credit in COMP 3004  
NEEDS: 0.50 Credits
- + 11) 0.5 credit in COMP 3005  
0.50 cr. Complete  
20WN COMP 3005 0.50
- 12) 0.5 credit in COMP 3007  
NEEDS: 0.50 Credits
- 13) 0.5 credit in COMP 3804  
NEEDS: 0.50 Credits



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cuHacking



# Useful Links

- **CCSS Email:** [info@ccss.carleton.ca](mailto:info@ccss.carleton.ca)
- **CCSS Website:** <https://ccss.carleton.ca>
- **CCSS Facebook:** <https://www.facebook.com/CarletonComputerScienceSociety/>
- **CCSS Instagram:** <https://www.instagram.com/carletoncss/>
  
- **SCS Website:** <https://carleton.ca/scs/>
- **SCS Undergraduate Advisor Email:** [undergraduate\\_advisor@scs.carleton.ca](mailto:undergraduate_advisor@scs.carleton.ca)
- **Important Information for First Year Students:**  
<https://carleton.ca/scs/current-students/undergraduate-students/important-information-for-1st-year-students/>