Faculty of Engineering New Student Welcome!

Dr. Rich Little
CSC Undergraduate Studies Program Coordinator
Congratulations!

- You have chosen an amazing and exciting discipline to study
- You have chosen an excellent department full of friendly faculty who will become your mentors and role models
What is Computer Science?

• A study of what can be computed and how to compute it

• The study of theory, design, development, and applications of computing technology
A Successful Computer Scientist

- Problem solving skills
- Passion for finding elegant solutions
- Mathematical and logical skills to analyze such solutions
- Creativity in modeling complex problems
- Attention to details
Welcome Session

Agenda

Session is split into two parts

• First part will introduce you to some topics and opportunities central to your academic degree

• Second part will introduce you to the resources available on campus to support your academic success
Professionalism in Computer Science
and
The issues of human rights discrimination and harassment

MOUSSA MAGASSA
UVIC HUMAN RIGHTS EDUCATOR
EQUITY & HUMAN RIGHTS OFFICE (EQHR)
Email: mmagassa@uvic.Ca
Tel: 250-472-4114
THE UVIC EQUITY & HUMAN RIGHTS OFFICE

Mandate

The Equity and Human Rights Office champions UVic’s commitment to practices of equity, fairness and inclusion. In partnership, we foster communities where strength is found in diversity and respect for difference provides dynamism and vibrancy to university life.
EQHR works across four priority areas:

- Equity and Human Rights
- Discrimination and Harassment P & R
- Employment Equity
- Sexualized Violence P & R
- Education
Prohibited Grounds under the BC Human Rights Code

- Age
- Ancestry,
- Colour,
- Place of origin
- Race
- Disability - physical or mental
- Family status
- Marital status
- Political belief
- Religion
- Sex
- Sexual orientation
- Conviction for an unrelated criminal offence
What should you do to avoid being accused of harassment or discrimination?
Multiple layers of Diversity

GENDER
Question

Computer Science Students are stereotypically:

A. Very sociable and outgoing
B. Elitist (male dominated)
C. Respectful of all genders (accepting of all genders)
D. All the above
Male privilege

I HAVE THE PRIVILEGE OF

BEING TOTALLY UNAWARE
OF MY OWN PRIVILEGE
'Ism' triangle model

SYSTEMS - The normal way things work
- Institutional structures, policies, established practices

POWERFUL UN-EXAMINED IDEAS
- Underlying beliefs and attitudes, often rarely spoken

IMPACT
- on organization
- on various groups / individuals involved (e.g., racialized workers, white workers)
- others who are impacted

Clients?
Prohibited Grounds under the BC Human Rights Code

- Race
- Colour
- Ancestry/ethnicity
- Place of origin
- Political belief
- Religion
- Marital status
- Family status
- Physical or mental disability
- Sex/Gender identity
- Sexual orientation
- Age
- Conviction for an unrelated criminal offence

Multiple Layers of Diversity
Are there limits to the obligation to behave professionally

(i.e. are there places, times, situations where you don’t believe you need to be professional?)

A. We are free to criticise our employer outside of the workplace and in public

B. As engineers we are obliged to act professionally everywhere and anytime

C. We are only engineers when we are at work
THANK YOU

For more information about

The Equity and Human Rights Office

Visit:  http://web.uvic.ca/eqhr

Email me: mmagassa@uvic.ca

Tel: 250.472.4004
Academic Integrity

Dr. Celina Berg
Assistant Teaching Professor
Chair of the Academic Integrity Committee
For each scenario, answer the following

• Is this academic misconduct?
• If it is, what is wrong with what the student(s) did and what should they have done differently?
• If it is not, what is good about what they have done?
Scenario 1

• It is midterm crunch time and Kaelin and Jordie have been studying very hard for midterm exams. They have fallen behind on some of the assignment deadlines they have. They decide to take a divide and conquer approach to getting their work done…

• Kaelin works on the Math assignment and Jordie works on the Physics assignment. They then swap solutions using each other’s work to create their own submission of the other assignment.
Scenario 2

• Joe finds a solution to a problem similar to the assignment given by the professor. Joe uses this solution to construct his solution but it is still not quite working. Luckily, Joe has a tutor for this class but he does not have time to meet with the tutor before the deadline. Joe sends his non-working solution to the tutor. The tutor updates the solution so that it now works! Joe is happy now because he can now submit a working solution.
Scenario 3

• Kelly and Carly have both started working on an assignment that their professor gave. They decide to brainstorm a solution together. They work through a few possible solutions on a white board that afternoon. Later that night, on their own Kelly and Carly create their own solutions based on the earlier brainstorming they did together. They submit these solutions separately as their own.
Scenario 4

• Haley is taking a course that has project as one of the course deliverables. She realizes that a project she did last semester for another course would fit the specification for this project pretty closely. Instead of creating a whole new project, she simply makes a couple small edits to tailor the work she had already done to the current specification and submits her work.
UVic Policy on Academic Integrity

https://web.uvic.ca/calendar2019-09/undergrad/info/regulations/academic-integrity.html
Engineering and Computer Science
Co-op and Career Services

Presenting Today ... 
Mostafa Rahimpour – Co-op Coordinator
John Fagan – Career Educator
What is Co-op?

• An experiential learning strategy

• Paid, full-time employment in work related to your degree program

• Work terms are 4 months long and typically alternate with academic terms
Computer Science Co-op

• Optional program – must apply
• Apply as early as completion of CSC 110 and Math 100/109
• Apply before the start of 3rd year
• September 15 and January 15 are deadlines every year
Variety of Opportunities

• We place students with companies in a variety of locations

• Victoria, Vancouver, Calgary, Ottawa, Japan, San Francisco, Seattle, and many more....
What can you do to prepare for Co-op?

• Attend events hosted by Co-op and Career – see the Learning In Motion web portal - Events
  https://learninginmotion.uvic.ca

• Get involved with programming groups on campus
• CSCU – build your professional network
• Volunteer or Part Time work experience
What are you doing to plan a successful career? – Now and after Graduation?

• Experiential education – (Co-op)
• Know what motivates you to achieve
• Do you have a career plan?
• What knowledge and skills are you looking to build here at UVic?
• Building your professional network
Connect with your **Career Educator** for help with:

- Work search help - during and after degree
- Career exploration and planning
- Interview preparation and practice
- Network building and communication skills development
- Resume, CV & cover letter feedback
- Preparing for career success after graduation
- Labour Market Information
Book an Individual appointment with John Fagan

• Career Sessions are typically 30 minutes
• Visit https://learninginmotion.uvic.ca CAREERS section! to book online

OR

Contact ecareers@uvic.ca
You are here to gain knowledge and skills that will add value to your life – make the most of it.

**CO-OP + CAREER**

**Computer Science Co-op**

Join Computer Science Co-op to try different jobs, meet employers, earn a salary and gain relevant work experience! During your degree, you'll complete co-op terms working for exciting employers in positions related to your field of study.

*Senior Software Engineer, Redbrick (left) and Kolby Chapman (computer science, right) spent a co-op term working for Redbrick as full-stack web developers.*
Chair

Department of Computer Science

Dr. Sudhakar Ganti

Welcomes you to the Department
Faculty of Engineering
New Student Welcome

Dr. Peter Wild
Dean, Faculty of Engineering

Dean’s Welcome
Faculty of Engineering
New Student Welcome

Dr. LillAnne Jackson
Associate Dean, Undergraduate Programs
Faculty of Engineering

Intro to the Faculty
Congratulations!

- The Faculty of Engineering accepted YOU
- You are becoming a Computer Scientist

You are Amazing!!
You will:
Your Future AMAZING Career
Along the way . . .
An Application of Science and Mathematics

If you speak the language of Mathematics . . . Your Computer Science problems will not be difficult.
**What is different in university?**

<table>
<thead>
<tr>
<th>Hours in class</th>
<th>Grading</th>
<th>Type of learning</th>
<th>Independence</th>
</tr>
</thead>
</table>
| • Less formal class time; more independent study time  
• Lots of in-between time | • Less frequent grades that are worth more  
• Expected vs. Required work | • Expect deeper learning  
• Connecting & Extending vs. Memorizing | • Choices  
• Self-checking  
• Mistakes |
Grades are correlated with attendance

FIGURE 5. *Illustration of the curvilinear relationship between attendance and grade outcomes.* Data from Gendron and Pieper (2005).
What do professors expect?

- Engagement (Be there + complete the work)
- Workload expectations (2:1 rule)
- Read the Syllabus: Attention to the instructions, purpose, and context
- Break things down and prioritize
- Take advantage of instructor availability

Slide Credit: A. Hadwyn
You Decide

- When to study Calculus . . .
- When to work on that Programming assignment. . . .
- If you have the time to go out with friends
- If you should take on a part time job:

168 HOURS IN WEEK
- 23 -- in class
- 2 x 23 -- study: 2 hours (min) per class hour
- 7 x 7 -- sleeping (min)
- 21 x 1 -- meals
- 7 x 2 -- exercise, shower, dress, transportation
- 7 x 2 -- email, phone, twitter/LinkedIn, etc

TIME FOR WORK = 1 hour

- Which grade you receive!
Socializing & Activities

Critical for your Academic Success is:
- Physical Health / Exercise
- Social Interaction
- Minimal use of alcohol, cannabis, other medications
  - All negatively affect your academics!
  - Keep it legal!!

This is a year of transitions!

- Set goals that work for you
- Then make choices the feel right for you
  (and say no to the others!)
- Communicate with people who are important to you!
A Prize for the Best Answer:
(please raise hand)

We all come from somewhere in this world . . . .

. . . . . . . . You've listened to me talk for 7 minutes now . . .
. . . . . . . . . Can you tell where I am from?
Be specific, please!

You will meet people (students, professors, teaching assistants) from all over the world . . . .

- All are proficient in English
- You will hear many accents
- If someone says something that you don’t understand, ask for clarification!
Safe, Welcoming Environment for all

• Respect others’ perspectives
• Refrain from discriminatory behaviour/speech
• Talk about uncomfortable situations, distress

Inclusion of all and open exchange of ideas is central to the Computer Science Department & Faculty of Engineering’s mission
Math Help

Math & Stats Assistance Centre
First Year Math at UVic
Two locations:
• David Turpin Building A202
• Library room 129

Friendly study space,
Free tutoring,
Resources
www.uvic.ca/msac
Who uses the Math & Stats Assistance Centre?
Who uses the Math & Stats Assistance Centre?

First year math: 59%
Second year math: 18%
Statistics: 21%
We will see you there!
First Year Math at Uvic

We now have three different first-semester calculus courses:

MATH 100, MATH 102, MATH 109

1. MATH 102 is designed for you. You may enrol in MATH 109 or MATH 100 if you wish.

Next Course: MATH 101
What do you know about l’Hospital’s Rule?

A: I don’t know much about hospitals...

B: It’s the best rule ever and you should use it for all limits all the time.

C: It was *not* proven by the Marquis de l’Hospital.
What reaction do you have to the words “The Quotient Rule”?

A: Please don’t ask me to state it – are they going to make us prove that on a midterm?

B: I try to avoid it by thinking of a quotient as a product instead and making use of the Chain Rule.

C: I’m guessing it’s some kind of rule from Calculus.
You’re going to learn a lot of mathematics as you pursue your Engineering degree, and your 1st year Math & Stats instructors look forward to helping you do it!

MATH 109, 101

MATH 100, 200

MATH 110
Personal Experiences

Julia Todorova
3rd year student

Department of Computer Science
CREATE YOUR COMMUNITY

• University can be lonely

• Meet like-minded people by
  – Talking to people in your classes
    • If you’re more outgoing encourage less social people to get involved
  – Participating in clubs
    • WECS <> CSCU
  – Volunteering outside of UVic
    • Canada Learning Code
      – Be a mentor or volunteer for their coding workshops
      – Meet people in the Victoria tech industry

• Hackathons/Workshops
  – Opportunity to develop software in teams with your fellow students
SCHOOL-LIFE BALANCE

• University is going to be one of the best times of your life
  – It will be filled with continuous learning, development and personal growth

• Learn how to manage your time
  – Make time for
    • Your studies
    • Your social life
    • Your hobbies

• It’s important to balance your mental health and your academics
  – Sounds trivial but it can be hard at times
  – Schedule out your time
    • For everything…
    • Your classes, study time, social events, you time
  – THEN
  – Keep yourself accountable
Don’t be scared of failure
- There is a lot of pressure put on, by you, your family, your peers and your professors
- Give yourself a break
  - Trying to be perfect is overrated and exhausting
  - Burnout is ugly

What you put in is what you will get out
- Our courses can be difficult and it’s ok to not understand things
  - What is important is that you put the effort in
  - Talk about the things you struggle with
  - Use your resources to fullest
    - Google
    - Your peers
    - Your professors
JULIA’S TOP TIPS FOR SCHOOLING SCHOOL

• Sleep
  – You will do better if you prioritize sleep
    • You solidify what you learn when you sleep and if you don’t sleep your brain doesn’t create the neural connections to help with memory creation and retention.
    • So, avoid all nighters and avoid cramming last minute

• Eat Healthy
  – Try to make healthy food choices
    • You will feel more energetic
    • You will concentrate better
    • Your mood will improve
QUESTIONS?
Academic Advising
WHAT IS ADVISING?

• Program planning & advice
• Registration questions
• Degree declarations
• Workload / Success help
• Academic & illness issues
# Resources for Success

<table>
<thead>
<tr>
<th><strong>Computer Science Assistance Centre</strong></th>
<th><strong>ECS 251</strong></th>
<th>Drop in help with your Computer Science courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Math and Stats Assistance Centre</strong></td>
<td><strong>Library Learning Commons</strong>, David Turpin Bldg A202</td>
<td>Drop in help with your Math courses, Math study tips</td>
</tr>
<tr>
<td><strong>Centre for Academic Communication</strong></td>
<td><strong>Library Learning Commons</strong></td>
<td>Writing tips, one-on-one tutoring, workshops...</td>
</tr>
<tr>
<td><strong>Study Solutions Office</strong></td>
<td><strong>Library Learning Commons</strong></td>
<td>Problem solving, stress and time management, exam anxiety and more...</td>
</tr>
</tbody>
</table>
Computer Science Major

Year 1
- CSC 196: Practice of Computer Science
- Electives (4.5 units)
- One of (1.5 units)
  - ENGL 147: Literary Traditions (Arts)
  - ENGL 146: Contemporary Literature (Arts)
  - ENGL 135: Academic Reading and Writing
- MATH 100: Calculus I
- MATH 109: Introduction to Calculus
- MATH 122: Logic and Foundations
  - MATH 101: Calculus II
- CSC 110: Fundamental Programming I
- CSC 115: Fundamental Programming II

Year 2
- Electives (3.0 units)
- ENGR 240: Technical Writing
- MATH 211: Matrix Algebra I
- MATH 212: Matrix Algebra II
- CSC 225: Algorithms/Data Structure I
- CSC 226: Algorithms/Data Structure II
- CSC 235: Computer Architecture
- CSC 230: Software Development Methods
- STAT 260: Intro to Probability and Stats
- One of (1.5 units)
  - MATH 204: Calculus IV
  - MATH 202: Integrated Calc III/IV

Year 3
- CSC or SENG 300-level (1.5 units)
- CSC 300 Level (4.5 units)
- Electives (4.5 units)
- CSC or SENG 300-level (1.5 units)
- CSC or SENG 400-level (1.5 units)
- CSC 400-level (3.5 units)

Year 4
- CSC or SENG 400-level (1.5 units)
- Electives (10.5 units)
Program Planning Worksheet
Department of Computer Science

B.SC. in Computer Science
Major

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Units</th>
<th>Course Selection</th>
<th>Done</th>
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<tbody>
<tr>
<td>Requirements</td>
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<tr>
<td>CSC 106</td>
<td>1.5</td>
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<tr>
<td>CSC 110</td>
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<tr>
<td>CSC 115</td>
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<tr>
<td>MATH 100 or 109&lt;sup&gt;1&lt;/sup&gt;</td>
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<tr>
<td>MATH 101</td>
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<tr>
<td>MATH 122</td>
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<tr>
<td>ENGL 135, 146 or 147&lt;sup&gt;2&lt;/sup&gt;</td>
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<tr>
<td>Electives</td>
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</table>

<table>
<thead>
<tr>
<th>Year 2</th>
<th>Units</th>
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<tbody>
<tr>
<td>CSC 225</td>
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<tr>
<td>CSC 226</td>
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<tr>
<td>CSC 230</td>
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<tr>
<td>SENG 265</td>
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<tr>
<td>MATH 202 or 204</td>
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<table>
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<tr>
<th>Year 3</th>
<th>Units</th>
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<td>CSC 320</td>
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<tr>
<td>CSC 360</td>
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<tr>
<td>CSC 370</td>
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<tr>
<td>CSC 300-level</td>
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<tr>
<td>CSC or SENG 300-level</td>
<td>1.5</td>
<td></td>
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<tr>
<td>Electives</td>
<td>4.5</td>
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<table>
<thead>
<tr>
<th>Year 4</th>
<th>Units</th>
<th>Course Selection</th>
<th>Done</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 400-level</td>
<td>3.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC or SENG 400-level</td>
<td>1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electives (300 or 400-level)</td>
<td>6.0</td>
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</table>
Minimum Grades

Credit for **Math, Computer Science, Software Engineering, Statistics and English courses** completed at the university or elsewhere will only be permitted **in the program** for courses in which a grade of "C", or the equivalent, was achieved.

For some courses a higher minimum grade may be required as specified in the letter of permission.
Computer Science Options

Declare your Major = Tell us what degree you’re completing

Majors in Computer Science

• Major
• Communications and Networks
• Software Systems
• Theory

Honours

• Major
• Software Systems

• See advisor for details
Computer Science Combined Degrees

Geography
Health
Informatics
Math & Statistics
Music
Physics
Psychology
Visual Arts
### I want to drop a course

<table>
<thead>
<tr>
<th>Date</th>
<th>Drop Deadline</th>
<th>Refund Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 17th</td>
<td>100% drop deadline</td>
<td>100% of tuition back for course(s) dropped on or before this date</td>
</tr>
<tr>
<td>October 8th</td>
<td>50% drop deadline</td>
<td>50% of tuition back for course(s) dropped on or before this date</td>
</tr>
<tr>
<td>October 31st</td>
<td>Academic drop deadline</td>
<td>No tuition back, but won’t fail the course</td>
</tr>
</tbody>
</table>

If you fail a midterm – talk to your advisor. Use feedback to make the decisions right for you!
What can I do if...

...I am ill, get in an accident, something happens in my family

1. Consult immediately with Counselling Services, Health Services or another health professional

2. See your Advisor
Learning Strategies and Support

C.W. Lui Learning Commons in the Mearns Centre
- Writing support
- Library technical and computer help
- Math, Statistics and Physics assistance
- Research and library help

Counselling Services in the University Centre
- Personal counselling
- Career exploration
- Peer helping, groups and workshops

Centre for Accessible Learning
- Assistive technology
- Academic accommodations
Activate your Computer Science account!

• Go to the Gateway tab on Connex: https://connex.csc.uvic.ca
• Login with your Netlink id
• A new tab will appear for each CSC course you are enrolled in
• Class assignments and grades are posted in Connex
• Connex advertises important dates & events
Sue Butler  
*Undergraduate Advisor*  
ECS 512  
250 472 5757  
cscadvisor@uvic.ca

**OFFICE HOURS:**  
Mon, Wed & Fri: 9:30 – 11:30  
Tues & Thurs: 1:30 – 3:30
The future is yours!

THE NEXT GREAT INVENTION IS WAITING FOR YOU!