

FACULTY OF SCIENCE, APPLIED SCIENCE, & ENGINEERING

Degree Evaluation - Computer Science (start Sept 2018 or later)



GENERAL INFORMATION

TOTAL CREDIT HOURS - 141

Last Name:

First Name:

Student ID:

REQUIRED COURSES - 75/77 CH

<input type="checkbox"/>	CS 1073 - Intro to Computer Prog I (in Java)	4ch Y1F	<input type="checkbox"/>	CS 4613 - Programming Languages	4ch Y4W
<input type="checkbox"/>	CS 1083 - Intro to Computer Prog II (in Java)	4ch Y1W	<input type="checkbox"/>	CS 4983 - Technical Report OR CS 4980	4ch Y4F/W
<input type="checkbox"/>	CS 1303 - Discrete Structures	4ch Y1F	<input type="checkbox"/>	CS 4993 - Honours Project	6ch Y4F/W
<input type="checkbox"/>	CS 2043 - Software Engineering I	4ch Y2F	<input type="checkbox"/>	INFO 1103 - Data and Information Management	4ch Y1W
<input type="checkbox"/>	CS 2253 - Machine Level Programming	4ch Y2W	<input type="checkbox"/>	ECE 2214 + ECE 2215 - Digital Logic Design	4ch Y2W
<input type="checkbox"/>	CS 2263 - Systems Software Development	4ch Y2F	<input type="checkbox"/>	OR CS 2803 - Logic Design	
<input type="checkbox"/>	CS 2333 - Computability and Formal Lang.	4ch Y2W	<input type="checkbox"/>	Math 1003 - Intro Calculus I	3ch Y1F
<input type="checkbox"/>	CS 2383 - Data Structures and Algorithms	4ch Y2F	<input type="checkbox"/>	Math 1013 - Intro Calculus II	3ch Y1W
<input type="checkbox"/>	CS 3403 - Operating Systems	4ch Y3F	<input type="checkbox"/>	Math 1503 or 2213 - Linear Algebra	3ch Y1F
<input type="checkbox"/>	CS 3813 - Comp. Architecture & Org	4ch Y3W	<input type="checkbox"/>	Stat 1793 - Introduction to Probability and Statistics I	3ch Y1F
<input type="checkbox"/>	CS 3913 - Algorithmics	4ch Y3W	<input type="checkbox"/>	Stat 2793 - Introduction to Probability and Statistics II	3ch Y1W
<input type="checkbox"/>	CS 3983 - Professional Practice	3ch Y3F	<input type="checkbox"/>	OR Stat 2593 - Probability and Statistics for Engineers	3ch Y1F

ADDITIONAL UPPER LEVEL CS REQUIREMENT - 12 CH (Y3/4)

<input type="checkbox"/>		<p><u>Three upper level CS courses (4 ch each) must be:</u></p> <ul style="list-style-type: none"> - 3000 level or above - At least one at the 4000 level or above - can include courses counting towards specialization*
<input type="checkbox"/>		
<input type="checkbox"/>		

BREADTH CORE REQUIREMENTS - 30 CH (min 6ch at the 2000 level or above).

May be Arts, Business Administration, Engineering or Science. May NOT be Math, Stat, SWE. Recommended half of courses are Science, Engineering, and/or Business, and other half Humanities and Social Sciences. **CANNOT USE THE FOLLOWING COURSES: BA 1605, BA 2606, BA 3129, ECON 4645, PSYC 2102, PSYC 2901, PSYC 3913, SOCI 3104.**

*** Students considering **BScCS HONOURS** must have a full year course science sequence chosen from:
 Biol 1105, 1205, 1017 / Chem 1041, 1046, 1072, 1077 / Phys 1011, 1012, 1021, 1022 / Geol 1044, 1074

<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	

FREE ELECTIVES

Approximately 24ch - these selections must bring the total credit hours to 141

Recommended courses for newer areas of computing: Data Mining (CS/DA 4403), Data Management (CS 3423), Bio-informatics (CS 3553), Web Sciences (CS 3773 and/or CS 4783). Please see calendar for additional restrictions in course descriptions.

<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	

*Advising Notes: To complete a BScCS specialization -- see advisor for course selections within 1st or 2nd year.

Attention: This guide is meant to be an informal guide to your major. Course selections should always be checked and approved with the academic advisor. If any irregularities occur - the academic calendar will be the final source for decisions. **Students are responsible for their own academic choices and should always consult the academic calendar prior to academic decisions.** Electives must include any general degree requirements. See UNB calendar for regulations governing course selection.

FACULTY OF SCIENCE, APPLIED SCIENCE, & ENGINEERING

Degree Evaluation - Computer Science (start Sept 2018 or later)



Date	Comments	Student	Advisor

Areas of Specialization

In addition to the basic degree, three specializations or curriculum options are available, as described below. To obtain a specialized degree, students must complete all required core courses and all required courses listed in the chosen area of specialization, and they must obtain a cumulative grade point average of 2.5 or greater.

Specialization in Software Engineering

Required Courses

- CS 3033 Software Design and Development
- CS 4033 Software Project Management and Quality Assurance
- CS 4083 Leading-Edge Technology in Software Development
- CS 4093 Team Software Development Project
- CS 4525 Advanced Database Management Systems

NOTE: The Specialization in Software Engineering is not an accredited engineering program and does not lead to registration as a Professional Engineer.

Specialization in Networking

Required Courses

- CS 3893 Computer Networking
- CS 4843 Wireless and Mobile Computing

In addition, at least three (3) of the following courses must be completed.

- MATH 3343 Networks and Graphs
- CS 3123 High Speed Computing
- CS 4713 Fundamentals of Simulation
- CS 4893 Network Programming
- CS 4973 or CS 4999 Independent Study/Directed Studies in Computer Science, with an approved topic.

Honours Degree Curriculum, Basic and Specialized:

Students in the BScCS degree program may elect, after their first or second year, an Honours degree program, with or without a specialization. Students who satisfy the requirements for an honours and/or specialized degree will have that designation on their final transcript. The honours degrees are designed to prepare students for graduate work.

The requirements for the basic BScCS degree must be met. Within the constraints of those basic requirements, the student must complete:

- A full-year course sequence in Science that includes labs, as part of the breadth core requirements:
 - Biol 1105, 1205, 1017 / Chem 1041, 1046, 1072, 1077 / Phys 1011, 1012, 1021, 1022 / Geol 1044, 1074
 - or a Science sequence as approved by the Department.
- CS 3XXX or CS 4xxx (4ch). An extra upper-level CS elective, excluding CS 3403, CS 3813, CS 3913, CS 4613, and CS 4993
- CS 4XXX (4 ch) An extra fourth year CS elective, excluding CS 4613 and CS 4993.
- One CS topics course, covering an emerging area of computer science or recent advances in one area. Such course can be one of: CS 4083, CS 4123, CS 4973, or CS 4999. The Department Chair must approve the topic chosen.
- CS 4993 with a grade of B or better, in lieu of CS 4983.

An honours degree with specialization requires that the student meet the requirements of both the honours degree and the specialization. It further requires:

- **Honours in Software Engineering:** STAT 3703.
- **Honours in Networking:** no additional courses required

A cumulative grade point average greater than or equal to 3.0 is required to achieve the honours degree. Students who satisfy the requirements for an Honours degree will receive "First Class Honours" if their CGPAs are greater than or equal to 3.5. If their CGPAs are greater than or equal to 3.0 and less than 3.5, they will receive "Second Class Honours".