SFU FACULTY OF APPLIED SCIENCES

www.sfu.ca/computing

COMPUTING SCIENCE HONOURS: FALL 2020 GRADUATION PLANNER

Name: _____ Student ID: _____ Date: _____

PROGRAM REQUIREMENT OVERVIEW

A minimum of 132 units are required to complete the Bachelor of Science (BSc) in Computing Science Honours Program. This consists of:

Lower Division (54 - 55 units)
- CMPT/MACM/MATH/ STAT (39 - 40 units)
- WQB courses (15 units)

+

Upper Division (60 units)
- CMPT/MACM/MATH (54 units)
- Elective courses (6 units)

+ General Electives = 132 Units Overall

CONTINUANCE GPA: *Students should maintain a CGPA and a UDGPA of 3.00 in order to continue in the Computing Science honours program.*

LOWER DIVISION REQUIREMENTS (100/200) – 54 - 55 units – Complete all of:

COMPUTING SCIENCE		
❑ CMPT 120	❑ CMPT 276	❑ MATH 151 OR 150
❑ CMPT 125	❑ CMPT 295	❑ MATH 152
❑ CMPT 127	❑ MACM 101 (B-SCI) *	❑ MATH 232 or 240
❑ CMPT 225 *	❑ MACM 201	❑ STAT 270

* Necessary courses to enroll into most upper division CMPT classes

UPPER DIVISION REQUIREMENTS (300/400) – 60 units:

Requirements for breadth, depth and BSc (next page)

TABLE I: COMPUTING SCIENCE CONCENTRATIONS					
Artificial Intelligence	***Computer Graphics & Multimedia***	***Computing Systems***	***Information Systems***	***Programming Languages & Software***	***Theoretical Computing Science***
❑ CMPT 310	❑ CMPT 361	❑ **CMPT 300**	❑ CMPT 353	❑ CMPT 373	❑ **CMPT 307**
❑ CMPT 340	❑ CMPT 363	❑ CMPT 305	❑ **CMPT 354**	❑ CMPT 383	❑ CMPT 308
❑ CMPT 411	❑ CMPT 365	❑ CMPT 371	❑ CMPT 441	❑ CMPT 384	❑ CMPT 404
❑ CMPT 412	❑ CMPT 461	❑ CMPT 379	❑ CMPT 454	❑ CMPT 473	❑ **CMPT 405**
❑ CMPT 413	❑ CMPT 464	❑ CMPT 431	❑ CMPT 456	❑ CMPT 475	❑ CMPT 407
❑ CMPT 414	❑ CMPT 466	❑ CMPT 433	❑ CMPT 459	❑ CMPT 477	❑ CMPT 408
❑ CMPT 417	❑ CMPT 469	❑ CMPT 471	❑ CMPT 470	❑ CMPT 489	❑ CMPT 409
❑ CMPT 419		❑ CMPT 479	❑ CMPT 474		❑ MACM 300
		❑ CMPT 499			

ELECTIVE & BSc REQUIREMENTS:

REQUIRED WRITING
❑ CMPT 105W
❑ CMPT 376W (3 UD units)

REQUIRED WQB	
❑ B-SCI	❑ B-HUM
❑ B-SOC	❑ B-HUM
❑ B-SOC	

BSc CREDENTIAL
❑ MACM 316
❑ Additional course from Tables I or III
❑ Additional course from Tables I or III

TABLE III: COMPUTING MATHEMATICS	
❑ MATH 308	❑ MACM 401
❑ MATH 340	❑ MACM 442
❑ MATH 343	

UPPER DIVISION ELECTIVES	
❑ ANY 3XX/4XX	❑ ANY 3XX/4XX

OPTIONAL REQUIREMENTS:

COMPUTING SCIENCE CO-OP EDUCATION				
❑ CMPT 426	❑ CMPT 427	❑ CMPT 428	❑ CMPT 429	❑ CMPT 430

RESEARCH REQUIREMENTS:

RESEARCH
❑ CMPT 415 and 416 or CMPT 498

SUMMARY OF REQUIREMENTS:

Breadth	_____	(18)
Depth	_____	(24)
BSc	_____	(9)
Writing	_____	(3)

Requirement	Complete	In Progress	Total	Remaining
Total Units (min 132)				
Upper Division Units (min 60)				
CS Upper Division Units (min 54)				

This is a guideline only. For full regulations refer to the SFU Calendar.

Updated April 1, 2020

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ACADEMIC REQUIREMENTS

LOWER DIVISION REQUIREMENTS (or equivalents):

- MATH 154/157 and 155/158, with grades of B+ or higher, may substitute MATH 150/151 and 152.
- WQB requirements: Students are required to complete 6 units of writing (W), 6 units of Breadth Science (B-Sci), 6 units of Breadth Social Science (B-Soc), 6 units of Breadth Humanities (B-Hum) and 6 units of Undesignated Breadth (UB).
- Computing Science students automatically fulfill their WQB requirements of 6 UB units with MATH courses and 3 B-Sci units with MACM 101 and 6 W units with CMPT 105W and CMPT 376W. Some WQB courses may fulfill two requirements. Some courses have multiple designations. For complete WQB regulations please refer to: http://www.sfu.ca/ugcr/for_students.html.

UPPER DIVISION REQUIREMENTS:

- **Breadth requirement (18 units)**
  One course from each the six areas of Table I must be completed. These courses must include CMPT 300, 307 and 354.

- **Depth requirement (24 units)**
  Eighteen units of additional CMPT courses numbered CMPT 300 or above must be completed, at least twelve of which must be numbered 400 or above. These courses must include CMPT 405 and at least one other course in the theoretical computing science concentration. *Courses cannot include CMPT 415, CMPT 416 and CMPT 495.*

  In addition, six units of research are required including both of CMPT 415 (3) and 416 (3), or CMPT 498 (6).

- **BSc Credential (9 units)**
  Completion of MACM 316 plus two **additional** courses chosen from Tables I or III. Note: The following courses may be counted as being part of Tables I or III with permission of the School: CMPT 318, 496, 497, and 700 or 800 level CMPT courses. CMPT 415, 416 and 498 may be used if not applied in the depth requirements, and with permission of the School.

- **Writing requirement (3 units)**
  CMPT 376W required to satisfy UD W requirements.

Note: The following courses may be counted as being part of Tables I or III with permission of the School: CMPT 318, 415, 416, 496, 497, 498.

ELECTIVE COURSES
Students will have room to take additional elective credits in order to complete 132 credits required for graduation.

FACULTY OF APPLIED SCIENCE RESIDENCY REQUIREMENTS
At least two thirds of the total Upper Division (UD) units in the program must have been completed at Simon Fraser University. Please refer to current SFU calendar for details.

CONTINUATION REQUIREMENTS
Students should maintain a CGPA and a UDGPA of 3.00 in order to continue in the Computing Science honours program.

WQB REQUIREMENTS
Students need to complete:

- One Lower Division (LD) Writing Course (CMPT 105W)
- One Upper Division (UD) Writing Course (CMPT 376W)
- 6 units of Breadth Science (B-Sci) (MACM 101 and one other B-Sci)
- 6 units of Breadth Social (B-Soc)
- 6 units of Breadth Humanities (B-Hum)
- 6 units of Undesignated Breadth (UB) (MATH 150/151 and MATH 152)

Please refer to: http://www.sfu.ca/ugcr/for_students/wqb_requirements/breadth.html for courses that fulfill these requirements.

CO-OPERATIVE EDUCATION
Combines work experience with academic studies—all students are encouraged to apply. Co-op does not count towards academic credits. Co-op is not mandatory; however, three work terms must be successfully completed in order to obtain an undergraduate degree with a co-op designation. For more information about Co-op, please see: http://www.sfu.ca/coop/programs/cmpt/prospective.html.

ADVISING
Drop-In Advising is available at the Surrey and Burnaby campus for students in the Computing Science degree program. Please see the online calendar here https://booking.cs.sfu.ca/adbooking/calendar.cgi to view drop-in times or email asadvise@sfu.ca.

Please bring a copy of your advising transcript (download at go.sfu.ca) with you to the advising session.