SFU SIMON FRASER UNIVERSITY	*COMPUTING SCIENCE B.SC. MAJOR -* *PROGRAMMING LANGUAGES AND SOFTWARE CONCENTRATION* *FALL 2022 GRADUATION PLANNER*

Name: Student ID: Date:

New languages continue to be developed to provide more effective tools for the implementation of software products. The increased size and complexity of many solutions requires better languages and supporting software to make their realization practical as commercial products.

Year 1

❏ CMPT 120 Programming 1 ❏ MACM 101 Discrete Math 1 ❏ MATH 151 Calculus 1 OR ❏ MATH 150 Calculus 1 with Review ❏ CMPT 105W CS Writing I (or in 2nd term) ❏ WQB Breadth: _____	❏ CMPT 125 Programming 2 ❏ MATH 152 Calculus 2 ❏ MATH 240 Algebra I: Linear Algebra OR ❏ MATH 232 Applied Linear Algebra ❏ WQB Breadth: _____ ❏ General Elective: _____

Year 2

❏ CMPT 225 Data Structures and Programming ❏ CMPT 295 Intro to Computer Systems ❏ CMPT 210 Probability and Computing OR ❏ MACM 201 Discrete Mathematics II ❏ WQB Breadth: _____ ❏ General Elective: _____	❏ CMPT 276 Software Engineering ❏ STAT 271 Probability and Statistics for CS OR ❏ STAT 270 Introduction to Probability & Statistics ❏ CMPT 272 Web I-Client-side Development ❏ WQB Breadth: _____ ❏ WQB Breadth: _____

Year 3

❏ CMPT 300 Operating Systems ❏ CMPT 354 Database Systems ❏ CMPT 373 Software Development Methods ❏ CMPT 376W CS Writing II ❏ General Elective: _____	❏ CMPT 477 Introduction to Formal Verification ❏ CMPT 307 Data Structures and Algorithms ❏ CMPT 310 Introduction to AI OR ❏ CMPT 363 User Interface Design ❏ General Elective: _____ ❏ General Elective: _____

Year 4

❏ CMPT 379 Compilers ❏ CMPT 372 Server-Side Web Development (IS)** ❏ CMPT 383 Comparative Programming Languages ❏ UD General Elective: _____ ❏ General Elective: _____ **CMPT 372 replaced CMPT 470 effective Summer 2022, requires CMPT 272/218 Front End Web Development	❏ MACM 316 Numerical Analysis I ❏ CMPT 473 Software Testing, Reliability and Security ❏ CMPT 489 Special Topics in Programming Languages OR ❏ CMPT 479 Special Topics in Computing Systems ❏ UD General Elective: _____ ❏ General Elective: _____

Other recommended general electives: CMPT 371 Data Communications and Networking, CMPT 308 Computability and Complexity, CMPT 431 Distributed Systems OR CMPT 384 Symbolic Computing

WQB Breadth Requirements
6 units of Breadth Social (B-SOC)
6 units of Breadth Humanities (B-HUM)
3 units of Breadth Science (B-SCI)
Refer to: http://www.sfu.ca/ugcr/for_students/wqb_requirements/breadth.html for courses that fulfill these requirements.

This Concentration Planning Form contains a recommended course plan for Computing Science major BSc students to obtain a concentration designation, along with course suggestions to optimize the knowledge and skills upon completion of this concentration, while distributing the difficulty of the course load per term. Other course plans may be possible. This form is not a substitute for the official degree regulations found at www.sfu.ca/students/calendar.html. If there is a question of interpretation or a discrepancy, the University Calendar always takes precedence. For assistance or queries on possible substitutions, ask a FAS advisor to help. The student is ultimately responsible for ensuring that they have met their degree requirements.

CO-OPERATIVE EDUCATION Combines work experience with academic studies—all students are encouraged to apply once they have completed 30 units. 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.

CMPT 415/416 SPECIAL RESEARCH PROJECTS are courses that may be used for upper division credit. See: https://www.sfu.ca/computing/current-students/undergraduate-students/research.html

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 the current SFU calendar for details.

CONTINUATION REQUIREMENTS Students who do not maintain at least a 2.40 CGPA, will be placed on probation by the School of Computing Science. Courses available to probationary students may be limited. Each term, these students must consult an advisor prior to enrollment and must achieve either a term 2.40 GPA or an improved CGPA. Students who fail to do so may be removed from the program.

ADVISING View drop-in advising times here https://booking.cs.sfu.ca/adbooking/calendar.cgi or email asadvise@sfu.ca. Please bring a copy of your advising transcript (download at go.sfu.ca) with you to the advising session.