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Courses Recommended for Transfer by University Requirements:

University of British Columbia (Bachelor of Science: Computer Science Major) LANG	
1st Year FS Transfer Rec'd.	Communications Requirement (6): - ENGL 1123 -> WRDS 150 (3) - Writing and Research in the Disciplines - ENGL 1129 -> ENGL 110 (3) - Approaches to Literature and Culture - SCIE 1113/1114 -> SCIE 1XX (3) + Exemption from SCIE 113 - First-Year Seminar in Science - CMNS 1118 is not explicitly eligible for UBC's first year communications requirement. **ALL OF:** CPSC 110 - Computation, Programs and Programming - CPSC 1181 -> CPSC 2XX (3) + Exemption from CPSC 110 CPSC 121 - Models of Computation (Discrete Mathematics) - CPSC 2150 & CPSC 2190 -> CPSC 121 (4) + CPSC 221 (4) MATH 100/102/104 - Differential Calculus with Applications (Calculus I) - MATH 1171; or MATH 1173 & MATH 1183; or MATH 1174 -> MATH 100 (3) or MATH 104 (3) MATH 101/103/105 - Integral Calculus with Applications (Calculus II) - MATH 1271; or MATH 1273 & 1283; or MATH 1274 -> MATH 101 (3) or MATH 105 (3) Electives (10)
2nd Year	**ALL OF:** CPSC 210 - Software Construction - CPSC 2350 -> CPSC 2XX (3) + Exemption from CPSC 210 CPSC 213 - Introduction to Computer Systems - CPSC 1280 & CPSC 2280 -> CPSC 213 (4) + CPSC 2XX (2) - Note that CPSC 2280 is often only offered in the Spring Semester! (January -> April) CPSC 221 - Basic Algorithms and Data Structures - CPSC 2150 & CPSC 2190 -> CPSC 121 (4) + CPSC 221 (4) MATH 200 - Calculus III - MATH 2371 -> MATH 200 (3) MATH 221 - Matrix Algebra (Linear Algebra) - MATH 2362 -> MATH 221 (3) STAT 241/251 - Introductory Probability and Statistics/Elementary Statistics - STAT 1181 & STAT 2281 -> STAT 241 (3) or STAT 251 (3) - Due to the price of tuition for international students, these courses are not recommended to be taken at Langara because the cost of taking the STAT courses is a poor economic decision on a price to credit ratio. Electives (9) *UBC also has a Lower Division Laboratory Science Requirement. See in the section below.

University of British Columbia (Bachelor of Arts: Computer Science Major) LANG	
Lower Division FA Transfer Rec'd.	**ALL OF:** CPSC 110 - Computation, Programs and Programming - CPSC 1181 -> CPSC 2XX (3) + Exemption from CPSC 110 CPSC 121 - Models of Computation (Discrete Mathematics) - CPSC 2150 & CPSC 2190 -> CPSC 121 (4) + CPSC 221 (4) MATH 100/102/104 - Differential Calculus with Applications (Calculus I) - MATH 1171; or MATH 1173 & MATH 1183; or MATH 1174 -> MATH 100 (3) or MATH 104 (3) MATH 101/103/105 - Integral Calculus with Applications (Calculus II) - MATH 1271; or MATH 1273 & 1283; or MATH 1274 -> MATH 101 (3) or MATH 105 (3) CPSC 210 - Software Construction - CPSC 2350 -> CPSC 2XX (3) + Exemption from CPSC 210 CPSC 213 - Introduction to Computer Systems - CPSC 1280 & CPSC 2280 -> CPSC 213 (4) + CPSC 2XX (2) - Note that CPSC 2280 is often only offered in the Spring Semester! (January -> April) CPSC 221 - Basic Algorithms and Data Structures - CPSC 2150 & CPSC 2190 -> CPSC 121 (4) + CPSC 221 (4) **6 CREDITS FROM:** MATH 200 - Calculus III - MATH 2371 -> MATH 200 (3) MATH 221 - Matrix Algebra (Linear Algebra) - MATH 2362 -> MATH 221 (3) STAT 200 - Elementary Statistics for Applications - STAT 2225 -> STAT 200 (3) STAT 241/251 - Introductory Probability and Statistics/Elementary Statistics - STAT 1181 & STAT 2281 -> STAT 241 (3) or STAT 251 (3) - Due to the price of tuition for international students, these courses are not recommended to be taken at Langara because the cost of taking the STAT courses is a poor economic decision on a price to credit ratio.

Simon Fraser University (Computing Science Major FALL 2024 LINK) LANG	
Lower Division (1st Year and 2nd Year) FAS Transfer Rec'd. Not available at Langara.	**ALL OF THE FOLLOWING:** CMPT 105W - Social Issues and Communication Strategies in Computing Science - Course equivalent not available at Langara, and must be taken at SFU CMPT 120 - Introduction to Computing Science and Programming - CPSC 1150 -> CMPT 120 (3) CMPT 125 - Introduction to Computing Science and Programming II - CPSC 1181 -> CMPT 125 (3) - Material in CMPT 125 is taught in C and aligns more closely with CPSC 1160; highly recommended to take CPSC 1160 for transfer for this reason. CMPT 201 - Systems Programming - This is a new course being required by SFU, replacing the requirement for CMPT 300 starting Fall 2024. - Course equivalent not available/determined at Langara, and must be taken at SFU CMPT 210 - Probability and Computing - Course equivalent not available at Langara, and must be taken at SFU CMPT 225 - Data Structures and Programming - CPSC 2150 -> CMPT 225 (3) CMPT 276 - Introduction to Software Engineering - CPSC 2350 -> CMPT 276 (3) - Note that this course requires CPSC 1030 & CPSC 1045 as prerequisites, and priority registration is given to those in the Full Stack Certificate program at Langara. Due to this, it is only recommended to take CPSC 2350 when time allows. CMPT 295 - Introduction to Computer Systems - Course equivalent not available at Langara, and must be taken at SFU MACM 101 - Discrete Mathematics I - CPSC 2190 -> MACM 101 (3) - This course counts towards SFU B-Sci requirement. MATH 150/151/154/157 - Calculus I - MATH 1171/1173; or MATH 1174; or MATH 1175 -> MATH 151 (3); or MATH 157 (3); or MATH 154 (3) - Strongly recommended to take MATH 1171/1173 as SFU requires a B+ or higher + school permission for MATH 1174 & MATH 1175 MATH 152/155/158 - Calculus II - MATH 1271/1273; or MATH 1274; or MATH 1275 -> MATH 152 (3); or MATH 158 (3); or MATH 155 (3) - Strongly recommended to take MATH 1271/1273 as SFU requires a B+ or higher + school permission for MATH 1274 & 1275 MATH 232/240 - Algebra I: Linear Algebra - MATH 2362 -> MATH 240 (3) or MATH 1252 -> MATH 232 (3) STAT 271 - Probability and Statistics for Computing Science - Course equivalent not available at Langara, and must be taken at SFU ***Left to complete at SFU: CMPT 105W, CMPT 210, CMPT 295, STAT 271***
Upper Division (3rd Year)	**THE FOLLOWING COURSES ARE ALSO AVAILABLE AT LANGARA:** CMPT 354 - Database Systems I - CPSC 2221 -> CMPT 354 (3) - Required in information Systems Concentration CMPT 365 - Multimedia Systems - CPSC 2130 -> CMPT 365 (3), or IAT 235 (3) - Required in Visual and Interactive Computing Concentration MACM 316 - Numerical Analysis - MATH 2485 -> MACM 316 (3) - Required for BSc Computing Science, but not for BA Computing Science

Simon Fraser University (Software Systems Major FALL 2024 LINK)	
Lower Division (1st Year and 2nd Year) FAS Transfer Rec'd. Appeal for Credits Not available at Langara.	**ALL OF THE FOLLOWING:** CMPT 105W - Social Issues and Communication Strategies in Computing Science, OR ENSC 105W/MSE 105W/SEE 101W - Process, Form, and Convention in Professional Genres - Course equivalents for all courses above not available at Langara, and must be taken at SFU CMPT 130 - Introduction to Computing Science and Programming - By completing CMPT 120 as CPSC 1150, you fulfill the CMPT 130 requirement. CMPT 135 - Introduction to Computing Science and Programming II - By completing CMPT 125 as CPSC 1181, you fulfill the CMPT 135 requirement. - Material in CMPT 135 is taught in C and aligns more closely with CPSC 1160; highly recommended to take CPSC 1160 for transfer for this reason. CMPT 201 - Systems Programming - This is a new course being required by SFU, replacing the requirement for CMPT 300 starting Fall 2024. - Course equivalent not available/determined at Langara, and must be taken at SFU CMPT 210 - Probability and Computing - Course equivalent not available at Langara, and must be taken at SFU CMPT 213 - Object Oriented Design in Java - This course is similar to CPSC 1181, but no transfer credit is offered. Attempt to appeal this using the corresponding academic form from link below. CMPT 225 - Data Structures and Programming - CPSC 2150 -> CMPT 225 (3) CMPT 276 - Introduction to Software Engineering - CPSC 2350 -> CMPT 276 (3) - Note that this course requires CPSC 1030 & CPSC 1045 as prerequisites, and priority registration is given to those in the Full Stack Certificate program at Langara. Due to this, it is only recommended to take CPSC 2350 when time allows. CMPT 295 - Introduction to Computer Systems - Course equivalent not available at Langara, and must be taken at SFU MACM 101 - Discrete Mathematics I - CPSC 2190 -> MACM 101 (3) - This course counts towards SFU B-Sci requirement. MATH 150/151/154/157 - Calculus I - MATH 1171/1173; or MATH 1174; or MATH 1175 -> MATH 151 (3); or MATH 157 (3); or MATH 154 (3) - Strongly recommended to take MATH 1171/1173 as SFU requires a B+ or higher + school permission for MATH 1174 & MATH 1175 MATH 152/155/158 - Calculus II - MATH 1271/1273; or MATH 1274; or MATH 1275 -> MATH 152 (3); or MATH 158 (3); or MATH 155 (3) - Strongly recommended to take MATH 1271/1273 as SFU requires a B+ or higher + school permission for MATH 1274 & 1275 MATH 232/240 - Algebra I: Linear Algebra - MATH 2362 -> MATH 240 (3) or MATH 1252 -> MATH 232 (3) STAT 271 - Probability and Statistics for Computing Science Course equivalent not available at Langara, and must be taken at SFU ***Left to complete at SFU: CMPT 105W/ENSC 105W/MSE 105W/SEE 101W, CMPT 210, CMPT 213, CMPT 295, STAT 271***
Upper Division (3rd Year)	**REQUIRED TO GRADUATE AND AVAILABLE AT LANGARA:** CMPT 354 - Database Systems I - CPSC 2221 -> CMPT 354 (3)

Simon Fraser University (Data Science Major SPRING 2024 LINK)	
Lower Division (1st Year and 2nd Year) FS Transfer Rec'd. Not available at Langara.	**ALL OF THE FOLLOWING:** BUS 200 - Business Fundamentals - Course equivalent not available at Langara, and must be taken at SFU BUS 217W - Critical Thinking in Business - Course equivalent not available at Langara, and must be taken at SFU BUS 251 - Financial Accounting I - FMGT 1115 & FMGT 1215; or FMGT 2293 -> BUS 251 (3) BUS 272 - Behaviour in Organizations - BUSM 2200 -> BUS 272 (3) CMPT 120 - Introduction to Computing Science and Programming - CPSC 1150 -> CMPT 120 (3) CMPT 125 - Introduction to Computing Science and Programming II - CPSC 1181 -> CMPT 125 (3) CMPT 225 - Data Structures and Programming - CPSC 2150 -> CMPT 225 (3) CMPT 276 - Introduction to Software Engineering - CPSC 2350 -> CMPT 276 (3) - Note that this course requires CPSC 1030 & CPSC 1045 as prerequisites, and priority registration is given to those in the Full Stack Certificate program at Langara. Due to this, it is only recommended to take CPSC 2350 when time allows. MACM 101 - Discrete Mathematics I - CPSC 2190 -> MACM 101 (3) - This course counts towards SFU B-Sci requirement. MACM 201 - Discrete Mathematics II - Course equivalent not available at Langara, and must be taken at SFU DATA 180 - Undergraduate Seminar in Data Science - Course equivalent not available at Langara, and must be taken at SFU MATH 150/151/154/157 - Calculus I - MATH 1171/1173; or MATH 1174; or MATH 1175 -> MATH 151 (3); or MATH 157 (3); or MATH 154 (3) - Strongly recommended to take MATH 1171/1173 as SFU requires a B+ or higher + school permission for MATH 1174 & MATH 1175 MATH 152- Calculus II - MATH 1271/1273; or MATH 1274; or MATH 1275 -> MATH 152 (3); or MATH 158 (3); or MATH 155 (3) - Strongly recommended to take MATH 1271/1273 as SFU requires a B+ or higher + school permission for MATH 1274 & 1275 MATH 208W - Introduction to Operations Research - Course equivalent not available at Langara, and must be taken at SFU MATH 232/240 - Algebra I: Linear Algebra - MATH 2362 -> MATH 240 (3) - MATH 1252 can transfer as MATH 232 (3), but does not count towards graduation for Langara's Associates of Science STAT 240 - Introduction to Data Science - Course equivalent not available at Langara, and must be taken at SFU STAT 260 & STAT 261 - Introductory R for Data Science + Laboratory - Course equivalent not available at Langara, and must be taken at SFU ***Left to complete at SFU (from above): BUS 200, BUS 217W, MACM 201, DATA 180, MATH 208W, STAT 240, STAT 260, STAT 261*** **ONE OF THE FOLLOWING:** BUS 232 - Business Statistics

	- STAT 1181 & STAT 1182 -> BUS 232 (3) STAT 201/203/205 - Introduction to Statistics - STAT 1123; or STAT 1181 & [STAT 1182] -> STAT 201/203/205 (3) & [ACMA XXX] (1) STAT 270 - Introduction to Probability and Statistics - STAT 2281 -> STAT 270 (3) or CMPT 210 (3) ***Left to complete at SFU (from above): None!***
Upper Division (3rd Year)	**REQUIRED TO GRADUATE AND AVAILABLE AT LANGARA:** CMPT 354 - Database Systems I - CPSC 2221 -> CMPT 354 (3) STAT 302 - Analysis of Experimental or Observational Data - STAT 1224; STAT 2225; or STAT 3223 -> STAT 302 (3)

SFU Academic Forms
SFU Academic Advising
SoSy vs CMPT

Degree/Breadth Requirements:

University of British Columbia: Bachelor of Science	Foundational Requirement: All the requirements below must be satisfied before applying to the Bachelor of Science degree at UBC. - Pre-Calculus 11 or Foundations of Mathematics 12; and Pre-Calculus 12 (67% or HIGHER); or post-secondary equivalents - English Studies 11 and 12; or a high school/post-secondary equivalent - Chemistry 11; or a post-secondary equivalent - Physics 11; or a post-secondary equivalent - Biology 12, Chemistry 12, or Physics 12; or a post-secondary equivalent - A Language 11 or exemption with a waiver. See more here All the requirements below must be satisfied within the timeline of the degree, and ideally completed before the application phase. - Biology 11; or Biology 12; or BIOL 111; or a post-secondary equivalent - Chemistry 12; or CHEM 100, or CHEM 110 or CHEM 111; or a post-secondary equivalent - Physics 12; or PHYS 100; or a post-secondary equivalent Laboratory Science Requirement: One of the following courses or an equivalent must be completed: - ASTR 101/102 - BIOL 140 - CHEM 111/115/121/123/135 - EOSC 111 - PHYS 101/107/109/119/159 - SCIE 001 Science Breadth Requirement: Three credits from six of the seven following categories must be completed. - Mathematics: All MATH courses, except MATH 302 - Chemistry: All CHEM courses, except CHEM 100, CHEM 300 - Physics: All PHYS courses, except PHYS 100 - Life Science: All BIOL courses except BIOL 140, BIOL 300; all BIOC, PSYC (courses numbered from 60 to 89 in the last 2 digits), and MICB courses and GEOS (or GEOB) 207 - Statistics: BIOL 300, DSCI 100, MATH 302, all STAT courses - Computer Science: All CPSC courses - Earth & Planetary Science: All ASTR, ATSC, ENVR, EOSC, GEOS or GEOB courses except EOSC 111 and GEOS (or GEOB) 207. Science and Arts Requirements: - At least 72 of the credits towards the Bachelor of Science Degree must be completed in science courses. - At least 12 credits must be completed through courses offered through the Faculty of Arts, excluding GEOS, GEOB, or PSYC courses with science credit. Upper-Level Requirement: A minimum of 48 credits must be upper-level credits (credits from courses which are numbered 300+). - Of these 48 credits, 30 of the 48 upper-level credits must be within science courses. - No more than 6 credits can come from courses numbered 500+, unless given specific permission. General Degree Requirements: For students pursuing a major in the Bachelor of Science Degree, students must fulfill these general degree requirements. - A minimum of 120 total credits, 48 of which are upper-level credits. - A minimum of 72 credits from the Faculty of Science, 30 of which are upper-level credits. - A minimum of 12 credits from the Faculty of Arts. - A maximum of 24 elective credits not within the Faculty of Science or Arts. Promotion Requirements:

	Promotion for Transfer Students: - Transfer students will be evaluated and will be assigned a year-level determined by the general promotion requirements (below). - After the first winter session, the student will have their progress reviewed and credit restrictions or requirements for remedial work will be implemented if the Communication Requirement has not been met. Promotion to 2nd Year: - Successful completion of 24 or more credits, a minimum of 15 of which are from 100-level science courses. - A maximum of 48 credits of coursework attempted. - Students promoted to 2nd Year are required to participate in the common specialization application process in May/June. Promotion to 3rd Year: - Successful completion of 48 or more credits. - Successful completion of courses required for promotion to 3rd year within specialization (not applicable to Computer Science Major). - Successful completion of 12 200-level science credits which prepare the student to take required upper-level courses in at least two general science subject areas. - A maximum of 78 credits of coursework attempted. Promotion to 4th Year: - Successful completion of 72 or more credits, a minimum of 50 of which are science credits. - A maximum of 108 credits of coursework attempted. Graduation: - Fulfill graduation requirements for a given major. - A maximum of 180 credits of coursework attempted. Promotion Specifics and Notes on Promotion with GPA requirements
University of British Columbia: Bachelor of Arts	(work in progress) (who knows if i'll ever do this im going to sfu someone else do this -> jon)
Simon Fraser University: Computing Science	Writing, Quantitative and Breadth (WQB) Requirements: Students must successfully complete a minimum of 36 credits designated as Writing, Quantitative, or Breadth to receive WQB credits. Courses labeled certified for WQB credits can be found here. Writing Requirements: Students are to complete 6 credits of courses designated with a W (SUBJ-XXXW), one at the lower division (1XX-2XX) and one at the upper division (3XX or higher). Computing Science Majors are required to complete these two courses for graduation, which fulfills the writing requirement. - CMPT 105W (3) - CMPT 376W (3) Other courses eligible for writing credits can be found here. Quantitative Requirements: Students are to complete 6 credits of courses designated with a Q (SUBJ-XXXQ), either at the lower or upper division. Courses eligible for quantitative credits can be found here. Breadth Requirements: Students are to complete a multitude of courses with different disciplines and perspectives outside of their respective program. These courses selected may be at the lower or upper division. However, courses will not count towards the breadth requirement if it resides within the category of the student's major. For those looking to pursue Computing Science or Software Systems, all CMPT courses will not count towards the Breadth Requirements at SFU. The credits required are broken down below: - 6 credits in Social Sciences (courses labeled with B-Soc) - 6 credits in Humanities (courses labeled with B-Hum) - 6 credits in Sciences (courses labeled with B-Sci) *MACM 101 QUALIFIES - 6 credits outside of the student's selected major (does not have to be a B-designated course) Courses eligible for breadth credits can be found here. For Computing Science Majors, five courses from five of the six Table I areas of concentration must be completed, including:

	- CMPT 300 (3) - CMPT 307 (3) SFU also strongly recommends CMPT 354. Depth and Upper Division Requirements: 12 credits of 400-level or higher CMPT courses must be completed. CMPT 415, 416 and 498 may not count towards the total credit count without department permission. A minimum of 45 credits completed must be from the upper division. Transfer Credits: At least half of your total credits and a minimum of two-thirds of upper-division credits completed towards your program must be completed at SFU. Bachelor of Science Credential: Two additional courses from Table I, II or III must be chosen. The course below must also be completed. - MACM 316 (3) Bachelor of Education Credential: For a major in computing science in conjunction with a BEd program as offered by the Faculty of Education, one additional CMPT course chosen from Table I or Table II must be completed, to total at least 30 upper division units in CMPT courses. Bachelor of Arts Credential: A minimum of 30 upper division CMPT courses must be completed. A concentration of 15 units in a Faculty of Arts and Social Sciences discipline (department) including at least six units of upper division credit must also be completed. Co-operative Education: Computing Science students at SFU are strongly encouraged to partake in co-operative education. Contact a co-op advisor here to ensure you have the necessary courses and information. Areas of Concentration: SFU offers different concentration for students in the upper division, including: - Artificial Intelligence - Computer Graphics and Multimedia - Computing Systems - Information Systems - Programming Languages and Software - Theoretical Computing Science All of SFU's requirements information can be found here.
Simon Fraser University: Software Systems	Writing, Quantitative and Breadth (WQB) Requirements: Students must successfully complete a minimum of 36 credits designated as Writing, Quantitative, or Breadth to receive WQB credits. Courses labeled certified for WQB credits can be found here. Writing Requirements: Students are to complete 6 credits of courses designated with a W (SUBJ-XXXW), one at the lower division (1XX-2XX) and one at the upper division (3XX or higher). Computing Science Majors are required to complete these two courses for graduation, which fulfills the writing requirement. - CMPT 105W/ENSC 105W/MSE 105W/SEE 101W (3) - CMPT 376W (3) Other courses eligible for writing credits can be found here. Quantitative Requirements: Students are to complete 6 credits of courses designated with a Q (SUBJ-XXXQ), either at the lower or upper division. Courses eligible for quantitative credits can be found here. Breadth Requirements: Students are to complete a multitude of courses with different disciplines and perspectives outside of their respective program. These courses selected may be at the lower or upper division. However, courses will not count towards the breadth requirement if it resides within the category of the student's major. For those looking to pursue Computing Science or Software Systems, all CMPT courses will not count towards the Breadth Requirements at SFU. The credits required are broken down below:

<table>
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<td>
- 6 credits in Social Sciences (courses labeled with B-Soc)
- 6 credits in Humanities (courses labeled with B-Hum)
- 6 credits in Sciences (courses labeled with B-Sci) *MACM 101 QUALIFIES
- 6 credits outside of the student's selected major (does not have to be a B-designated course)
Courses eligible for breadth credits can be found here.
Depth and Upper Division Requirements:
12 credits of 400-level or higher CMPT courses must be completed. CMPT 415, 416 and 498 may not count towards the total credit count without department permission.
Upper Division Requirements
Students complete at least 45 upper division units including
- CMPT 307 (3)
- CMPT 376W (3)

<table>
<tr><th>Systems Requirements</th><th>Software Engineering Requirements</th><th>Capstone Project Requirement</th></tr>
<tr>
<td>Students complete at least 12 upper division units, including:
- CMPT 300 (3)
and three of:
- CMPT 354 (3)
- CMPT 371 (3)
- CMPT 372 (3)
- CMPT 431 (3)
- CMPT 433 (3)
- CMPT 454 (3)
- CMPT 471 (3)</td>
<td>Students complete at least 12 upper division units including all of:
- CMPT 373 - Software Development Methods (3)
- CMPT 473 - Software Testing, Reliability and Security (3)
and at least two of:
- CMPT 379 (3)
- CMPT 383 (3)
- CMPT 384 (3)
- CMPT 474 (3)
- CMPT 477 (3)</td>
<td>Students complete EITHER
- CMPT 494 (3) AND
- CMPT 495 (3)
OR two of
- CMPT 379 (3)
- CMPT 431 (3)
- CMPT 433 (3)</td>
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</table>

Transfer Credits:
At least half of your total credits and a minimum of two-thirds of upper-division credits completed towards your program must be completed at SFU.
Co-operative Education:
Computing Science students at SFU are strongly encouraged to partake in co-operative education. Contact a co-op advisor here to ensure you have the necessary courses and information.
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<tr>
<td>Simon Fraser University: Data Science</td>
<td>
Writing Requirements:
Students are to complete 6 credits of courses designated with a W (SUBJ-XXXW), one at the lower division (1XX-2XX) and one at the upper division (3XX or higher).
Computing Science Majors are required to complete these two courses for graduation, which fulfills the writing requirement.
- BUS 217W (3)
- BUS 360W (3)

Quantitative Requirements:
Students are to complete 6 credits of courses designated with a Q (SUBJ-XXXQ), either at the lower or upper division.
Courses eligible for quantitative credits can be found here.

Breadth Requirements:
Students are to complete a multitude of courses with different disciplines and perspectives outside of their respective program. These courses selected may be at the lower or upper division. However, courses will not count towards the breadth requirement if it resides within the category of the student's major.
For those looking to pursue Computing Science or Software Systems, all CMPT courses will not count towards the Breadth Requirements at SFU.
The credits required are broken down below:
</td>
</tr>
</table>

	- 6 credits in Social Sciences (courses labeled with B-Soc) - 6 credits in Humanities (courses labeled with B-Hum) - 6 credits in Sciences (courses labeled with B-Sci) *MACM 101 QUALIFIES - 6 credits outside of the student's selected major (does not have to be a B-designated course) Courses eligible for breadth credits can be found here. University Degree Requirements <- Click here for more information Data Science has a lot of different requirements to fulfill, including business courses, stats courses, math courses, and computing science courses. See the hyperlinked section header to the left to see more information about the requirements.

Transfer Requirements and Deadlines:

University of British Columbia

Applying to the Bachelor of Science Degree:

- Competitive Admission GPA (Domestic): 3.2 (External Sources, unverified)
- Apply to the BSc Degree
- College Transfer Requirements
- 2nd Year applicants should present 30 credits and satisfy all promotion requirements for advancement to that year.
    - 3rd Year applicants should present 54-60 credits and satisfy all promotion requirements for advancement to that year.
    - Ensure high school and post-secondary prerequisites are completed no later than April 30th of the application year.
- Deadlines:
    - December 1, 2023 for transfers considered on the basis of interim transcripts (all courses completed up to FALL 2023, and SPRING 2024 courses in progress)
    - January 15, 2024 for all transfers looking to apply between May 2024 and April 2025

Applying to the Computer Science Specialization (Major):

- Competitive Admission GPA (Domestic): 3.6-3.9 (External Sources, unverified)
- Apply to top three specializations within the Faculty of Science
- Major (0376): Computer Science (CPSC)
    - Courses required for specialization: SCIE 001 or SCIE 010; or CPSC 107 or CPSC 110 or college equivalent
- Application Date: May/June

How transfer GPA is calculated

Credits taken	How an admission average is calculated
0 to 6 credits	Admission average is based on your high school average only
7 to 23 credits	Admission is generally based on your high school average and post-secondary grade point average (GPA) calculated using all transferable credits taken
24 to 30 credits	Admission average is based on your post-secondary GPA calculated using all transferable credits taken
More than 30 credits	Admission average is based on your post-secondary GPA calculated with an emphasis on the most recent 30 transferable credits taken

Faculty of Science Transfer Guide
UBC's Webpage
UBC Faculty of Science Advisors

Simon Fraser University

For Computing Science or Software Systems:

Applying to the Computing Science Major

- Competitive Admission GPA (Domestic): 3.5 (SPRING 2024, SFU Admissions)
- Competitive Admission GPA (International): 3.5-3.8 (FALL 2022, SFU Web Archive)
- Location: SFU Burnaby Campus

Applying to the Software Systems Major

- Competitive Admission GPA (Domestic): 3.0 (SPRING 2024, SFU Admissions)
- Competitive Admission GPA (International): 3.2-3.5 (FALL 2022, SFU Web Archive)
- Location: SFU Surrey Campus & SFU Burnaby Campus

Applicants should have 24 credits of transferable coursework, including:

- One Mathematics Course from: MACM 101, 201, MATH 150, 151, 152, 240, or 232.
    - CPSC 2190, MATH 1171/1173, MATH 1271/1273, MATH 2362
- One Computing Science course from: CMPT 125, 126, 128, 135, 225, 295, 150, 250, 276, or 265.
    - CPSC 1160 & 1181, CPSC 2150, CPSC 2350
- One additional Computing Science or Mathematics course from the given lists above

For Data Science:

Applying to Data Science Major:

- You will be applying to the Bachelor of Science Major at SFU.
- Competitive Admissions GPA (Domestic): 2.45 (FALL 2022, SFU Web Archive)
- Competitive Admissions GPA (International): 2.9 (FALL 2022, SFU Web Archive)
- Location: SFU Burnaby Campus

Applicants should have 24 credits of transferable coursework, including:

- One Transferable Mathematics Course
- Two Transferable Science Courses

NOTE: Senior level math/science high school courses may be used in place of transferable math/science courses.

For all Majors:

Associate of Science Degree holders will receive a preference in admission, with a 0.25 lower GPA being required for regular transfer.
Application dates are listed here.
SFU GPA is calculated using transferable credits, using the GPA of the highest attempt.
Courses retaken at Langara DO NOT count towards your total SFU retake number (Source: SFU Admissions Advising).
CPSC 1030 and CPSC 1045 transfer as one course, and SFU will use the higher mark of the two in your GPA calculation. However, both *should* count towards the 24 attempted credits.
Your GPA at SFU begins at 0.00 after transfer from Langara (source: SFU Co-op).

SFU's Webpage
SFU Advisors
SFU FALL 2022 ADMISSION AVERAGES

Langara 4.33 GPA Grading Scale
EducationPlannerBC

Other Schools within Canada to apply:

University of Toronto (UofT) Toronto, Ontario	Transfer students may not apply directly to the Computer Science admission category. Applications must be directed to Humanities, Social Sciences, Life Sciences or Physical & Mathematical Sciences. From there, students may attempt to enroll in a computer science major; however, transfer students will not be eligible for the computer science specialist program. Internally, UofT takes ~5-10 students into their Computer Science program each year, all students with near 100% GPAs in other faculties at UofT. TLDR: Your chances of getting into UofT CS are near impossible. University of Toronto Transfer Information
University of Waterloo (UW) Waterloo, Ontario	For students who have taken high school and college in BC, the following courses are required: - Pre-Calculus 12 - English Studies 12 - AP Calculus AB/BC or Calculus 12 UW will be unable to consider you if you have completed more than two years of post-secondary studies. Students should have a minimum college GPA of 3.95 (85%) and competitive high school grades. University of Waterloo Transfer Information
University of Alberta (UofA) Edmonton, Alberta	UofA AGPA (Admission GPA) is calculated using the two most recent study terms or the last 24 credits of courses, based on whichever is greater in credit weight. Retakes are not counted if the first grade of the course is a passing grade. In order to transfer, it is recommended that you have: - A minimum 2.0 GPA on a 4.0 scale - A grade 12 level/post-secondary English course - A grade 12 level/post-secondary Second Language course - A grade 12 level/post-secondary Humanities or Social Science course - A grade 12 level/post-secondary Fine Arts Course - A grade 12 level Algebra Course - On top of these requirements, two of the following: o A grade 12 level/post-secondary Calculus Course o A grade 12 level/post-secondary Chemistry Course o A grade 12 level/post-secondary Physics Course o A grade 12 level/post-secondary Biology Course o A grade 12 level/post-secondary General Science Course o A grade 12 level/post-secondary Computing Science Course UofA also has other admission criteria, which may include: - English Language Proficiency - Audition - Portfolio - Questionnaire - References University of Alberta Transfer Information
McMaster University (McMaster) Hamilton, Ontario	To transfer to McMaster, it is recommended that you: - Have a minimum CGPA of 4.33 (90%) - Completion of Calculus and two science categories, including: o Biology o Chemistry o Physics o Earth and Space Science o Computer Science

	o Computer and Engineering Technology McMaster University Transfer Information
University of Victoria (UVic) Victoria, BC	UVic requires that transfers to the Faculty of Science have: - Successfully completed 12 credits with a minimum CPGA of 2.0 (“C”) - Completed 9 credits of University Transferable Science Courses - Completed 3 credits of Calculus or Linear Algebra, which can count towards the 9 credits above University of Victoria Transfer Information
York University (York) Toronto, Ontario	Prospective York Transfers to the BSc – Computer Science Program must fulfill these requirements for admission: - Completion of 4 courses OR one year of full-time studies at an accredited post-secondary. - Minimum 2.0 GPA on 4.0 scale - All attempted courses will be included in the calculation of CGPA - Repeated courses will only count once towards CGPA York University Transfer Information
Queen’s University (Queen’s) Kingston, Ontario	Queen’s transfers can expect that they will need to have: - Completed a minimum of 24 credits - A minimum CGPA of 2.6 on a 4.0 scale - Apply early due to limited program space Queen’s only accepts transfers into the Bachelor of Computing program through Upper-Year transfers (Year 2-4). Queen’s University Transfer Information
Toronto Metropolitan University (TMU) Toronto, Ontario Formerly Ryerson University	TMU transfers must have the prerequisites for their program completed, and transcripts from all post-secondary institutions must be declared. - Secondary School grades will not be considered if a formal transfer pathway is taken. - There is no stated competitive GPA on the website, and each application will be assessed to a competitive standard. - No Non-Academic requirements exist for TMU Computer Science. - TMU Computer Science is only offered as a BSc Honors Degree. Toronto Metropolitan University Transfer Information

Recommended Courses to take for UBC Transfer	
Core 1st Year Transfer	- ENGL 1123 - ENGL 1129 - CPSC 1150 <- CPSC 1181 and CPSC 2190 prerequisite - CPSC 1181 - MATH 1171 - MATH 1271
Core 2nd Year Transfer	- CPSC 2150 - Requires completion of CPSC 1160 - CPSC 2190 - CPSC 2280 - Requires completion of CPSC 1280 and CPSC 2150, and is considered to be a difficult course. - MATH 2362 - MATH 2371 *Domestic students should consider STAT 1181 & STAT 2281, but credit costs may be too high for international students. *Domestic students should consider taking CPSC 1030, CPSC 1045, and CPSC 2350, but credit costs may be too high for international students.
Electives	- //TODO -> will be done by someone with UBC research in the club someday 😭

Recommended Courses to take for SFU Transfer

Core 1st Year Curriculum	- CPSC 1150 - CPSC 1160 - CPSC 1181 - CPSC 2190 - MATH 1171 - MATH 1271
Core 2nd Year Curriculum	- CPSC 2150 - MATH 2362 *Domestic students should consider taking CPSC 1030, CPSC 1045, and CPSC 2350, but credit costs may be too high for international students.
WQB Electives	- ENGL 1123 -> ENGL 199W - ENGL 1130 ->
CMPT Upper Division	- CPSC 2221 - CPSC 2130 - CPSC 2280 - Requires completion of CPSC 1280 and CPSC 2150, and is considered to be a difficult course.

Fast Track to SFU	2 SEM Transfer (ANTI-MATH)
	- SEM 1
	  - CPSC 1030
	  - CPSC 1045 <- Will not count as a transferable but needed for CPSC 2350
	  - CPSC 1150
	  - B-Hum/B-Soc Transferable Elective
	  - B-Hum/B-Soc Transferable Elective
	- SEM 2
	  - CPSC 1160 <- CMPT 225 may be hard without C++ experience.
	  - CPSC 1181
	  - CPSC 2350
	  - MATH 1171 OR CPSC 2190
	2 SEM Transfer
	- SEM 1
	  - CPSC 1150
	  - MATH 1171
	  - B-Hum/B-Soc Transferable Elective
	  - B-Hum/B-Soc Transferable Elective
	- SEM 2
	  - CPSC 1181
	  - CPSC 2190
	  - MATH 1271
	  - CPSC 1160 <- CMPT 225 may be hard without C++ experience.

Quick Notes:

Courses should be taken during a time where they are likely to be offered.

Here's a quick trick to see when courses are likely to be offered: *check the previous equivalent semesters from the past 3 years!* (Spring, Summer, Fall)

Use a URL similar to this one to query the course you are looking for:
http://swing.langara.bc.ca/prod/hzgkfcls.P_GetCrseBySubj?term=202320&subj=CPSC

2023 -> The year you are querying (I highly recommend querying a minimum of 3 previous years!)
20 -> The semester you are querying within the year (10: Spring, 20: Summer, 30: Fall)
CPSC -> The subject you are querying the course you are looking for

Course Selection Tools:
https://planner.langaracs.ca/