



**Bachelor of Science  
(COMPUTING SCIENCE &  
MATH MAJOR)  
Checklist**

**HIGH SCHOOL PREREQUISITES**

**ENGLISH**

IF YOU TOOK	YOUR GRADE		CHOOSE
English Studies 12 <b>or</b> English First Peoples 12 <b>or</b>	73% or higher	→	ENGL 1100 (recommended) <b>or</b> ENGL 1110 <b>or</b> ENGL 1120 <b>or</b> ENGL 1140 <b>or</b> 1150 <b>or</b> ENGL 1210
ESAL 0570 <b>and</b> 0580 <b>or</b>	65% or higher		
ENGL 0600 <b>or</b> ENGL 0620	65% or higher		
English Studies 12 <b>or</b> English First Peoples 12	Below 73%	→	ACCUPLACER Assessment <b>or</b> ENGL 0600 <b>or</b> 0620

**BIOLOGY**

IF YOU TOOK	YOUR GRADE		CHOOSE
Life Sciences 11 <b>or</b> Biology 11 <b>or</b> Anatomy & Physiology 12 <b>or</b> Biology 12 <b>AND</b> Chemistry 11	67% or higher	→	BIOL 1110 <b>AND</b> 1210
Life Sciences 11 <b>or</b> Biology 11	Below 67%	→	BIOL 0500
<b>IF YOU NEED</b>			
Life Sciences 11 <b>or</b> Biology 11		→	BIOL 0500
Chemistry 11		→	CHEM 0500

**CHEMISTRY**

IF YOU TOOK	YOUR GRADE		CHOOSE
Chemistry 11 <b>AND</b> Pre-Calculus 12	67% or higher (recommended)	→	CHEM 1500 <b>AND</b> 1510
Chemistry 12 <b>AND</b> Pre-Calculus 12	73% or higher (recommended)	→	CHEM 1500 <b>AND</b> 1520
<b>IF YOU NEED</b>			
Chemistry 11		→	CHEM 0500
Chemistry 12		→	CHEM 0600
Pre-Calculus 12		→	SEE MATH SECTION BELOW

**PHYSICS**

IF YOU TOOK	YOUR GRADE		CHOOSE
Physics 11 <b>AND</b> Pre-Calculus 12	67% or higher	→	PHYS 1100 <b>AND</b> 1200
Physics 12 <b>AND</b> Pre-Calculus 12	67% or higher	→	PHYS 1150 <b>AND</b> 1250
Physics 11	Below 67%	→	PHYS 0500
<b>IF YOU NEED</b>			
Physics 11		→	PHYS 0500
Physics 12		→	PHYS 0600
Pre-Calculus 12		→	SEE MATH SECTION BELOW

## MATH – EVERY SCIENCE MAJOR REQUIRES 6 CREDITS OF FIRST-YEAR CALCULUS

IF YOU TOOK	YOUR GRADE		CHOOSE
Pre-Calculus 12	67% or higher (within the last 2 years)	➡	One of the following streams: MATH 1140 AND 1240 MATH 1150 AND 1250
Pre-Calculus 12	Below 67% (within the last 2 years)	➡	MATH 1000 <b>or</b> 0630 <b>or</b> 0600 + 0610
Foundations 12	All grades	➡	MATH 0510 + MATH 0600 + MATH 0610

MATH 1140/1240 is recommended for all Science Majors  
MATH 1150/1250 is recommended for all Biology Majors

**PLEASE NOTE:** For all high school courses with no required grade listed, 67% or higher is highly recommended.

For best chances of academic success, completion of the grade 12 level of the subject area of your intended major is recommended. (e.g. for a Physics major, you should have Grade 12 Physics). High school equivalent courses can be taken or repeated at TRU.

## SUGGESTED FIRST- AND SECOND-YEAR PLAN

### YEAR 1

FALL SEMESTER	WINTER SEMESTER
ENGL 1100 <b>or</b> 1110	ENGL 1100 <b>or</b> 1110 <b>or</b> 1120 <b>or</b> 1140 <b>or</b> 1210
COMP 1130	COMP 1230
CHEM 1500	MATH 1700 (or 1220)
MATH 1140	MATH 1240
PHYS 1100 <b>or</b> 1150	BIOL 1110 <b>or</b> GEOL 1110 (see important notes)

### YEAR 2

FALL SEMESTER	WINTER SEMESTER
COMP 2160	COMP 2230
COMP 2680	COMP 2920
MATH 2110	MATH 2120
STAT 2000	MATH 2700
Non-Science Elective	CMNS 2300 <b>or</b> 2290

### IMPORTANT NOTES

- ❖ 3 credits must be taken from the following: BIOL 1110 **or** BIOL 1210 **or** GEOL 1110 **or** GEOL 2050.
- ❖ For each semester in Year 2, students can take any of the second-year COMP courses once prerequisites are completed.

### COURSE OFFERINGS – 1000/2000 level

**Note:** Many science and math courses are offered in Fall **or** Winter semester only.

FALL SEMESTER ONLY	WINTER SEMESTER ONLY
CHEM 1500	BIOL 1110
PHYS 1150	CMNS 2300
BIOL 1210	MATH 1220
MATH 2110	MATH 2700
MATH 2240	

Name/TRU ID#: \_\_\_\_\_

## Bachelor Of Science COMPUTING SCIENCE & MATHEMATICS MAJOR Checklist (120 credits)

1000-Level CORE courses (27-30 credits)		2000-Level CORE courses (30 credits)		3000/4000-Level CORE courses (48 credits)		
COURSE	GRADE	COURSE	GRADE	3000/4000 Level COMP requirements (24 credits)		
ENGL 1100 or 1110 <sup>1</sup>	_____	COMP 2160 - Mobile Application Development	_____	COURSE		GRADE
ENGL 1100 ,1110, 1120, 1140 or 1210 <sup>1</sup>	_____	COMP 2230 – Data Structures, Algorithm Analysis	_____	COMP 3450 – Human-Computer Interaction Design		_____
		COMP 2680 - Web Site Design and Development	_____	COMP 3520 - Software Engineering		_____
COMP 1130 - Computer Programming 1	_____	COMP 2920 - Software Architecture and Design	_____	COMP 4910 - Computing Science Project		_____
COMP 1230 – Computer Programming 2	_____	MATH 2110 – Calculus 3	_____	COMP 4930 - Professional and Ethical Issues		_____
MATH 1140 – Calculus 1	_____	MATH 2120 - Linear Algebra 1	_____	3000/4000 COMP elective	_____	_____
MATH 1240 – Calculus 2	_____	MATH 2240 - Differential Equations	_____	3000/4000 COMP elective	_____	_____
MATH 1700 – Discrete Mathematics	_____	MATH 2700 - Discrete Mathematics 2	_____	3000/4000 COMP elective	_____	_____
CHEM 1500 – Chemical Bonding & Organic Chem	_____	STAT 2000 - Introduction to Statistics	_____	3000/4000 COMP elective	_____	_____
PHYS 1100 or 1150	_____	CMNS 2290 or 2300 <sup>1</sup>	_____	3000/4000 Level MATH requirements (24 credits)		
1 of BIOL 1110 or 1210 Or GEOL 1110 or 2050	_____	ELECTIVES 1000-4000 level (12-15 credits)		MATH 3510 - Problem Solving & Applied Math		_____
		Non-science elective <sup>2</sup>	_____	MATH 4430 - Introduction to Graph Theory		_____
<b>Notes:</b>  1. Students with a B or better in ENGL 1100 or 1110 may proceed into CMNS 2290 or 2300 in their second year; students with less than a B in first year English must take another 3 credits of 1000-level English before their second year CMNS requirement.  2. Electives must include 9-12 credits in at least two disciplines outside of science (other than English). The remaining elective credits may be chosen from any discipline.	_____	Non-science elective	_____	<b>MATH Electives</b> Choose 4 of the following: MATH 3000 or MATH 3070 or MATH 3170 or MATH 3220 or MATH 3400 or MATH 3650		
		Non-science elective	_____			
		Elective in lieu of 2 <sup>nd</sup> ENGL <sup>1</sup>	_____	MATH elective	_____	_____
		General elective (1000-4000 level)	_____	MATH elective	_____	_____
		<b>Electives:</b>  <b>Institutional Learning Outcomes (ILOs) may be required to graduate.</b> Refer to the <a href="#">Degree Works website</a> for more information		MATH elective	_____	_____
				MATH elective	_____	_____
				MATH elective	_____	_____
		3000/4000 MATH or STAT	_____	_____		
		3000/4000 MATH or STAT	_____	_____		

**\*NEW** Institutional Learning Outcomes (ILO) Requirements – your [Degree Works Program Plan](#) is available through [myTRU](#)

## KEEP IN MIND

This form is meant to be used as a guideline in conjunction with the [TRU Academic Calendar](#) and [Course Schedule](#). Please see these resources for more about course prerequisites and co-requisites.

### Institutional Learning Outcomes (ILOs):

May be required for your program. Using the **Degree Works** planning tool will help you identify which courses apply.

### Degree Works Planning Tool:

More information is available through the Degree Works website at: [tru.ca/current/academic-supports/degreeworks](https://tru.ca/current/academic-supports/degreeworks)

## BACHELOR OF SCIENCE – FIRST- AND SECOND-YEAR NON-SCIENCE ELECTIVES

Anthropology (ANTH)	All	Linguistics (LING)	All
Archaeology (ARCH)	All	Management (MNGT)	1710
Accounting (ACCT)	2210, 2250	Marketing (MKTG)	2430
Business Law (BLAW)	2910	Modern Languages (MLAN)	All
Chinese (CHIN)	1110, 1210	Music (MUSI)	All
Communications (CMNS)	All	Organizational Behaviour (ORGB)	2810
Creative Writing (CRWR)	All	Philosophy (PHIL)	All
Economics (ECON)	All	Physical Education (PHED) non-Activity	1000, 1230, 2110, 2130, 2140, 2210
French (FRAN)	All	Political Studies (POLI)	All
Film (FILM)	All	Psychology (PSYC)	All
Finance (FNCE)	2120	Service & Community Learning (SRCL)	1000
First Nation Language (FNLG)	All	Sociology (SOCL)	All
Geography (GEOG) (non-physical)	1010, 1100, 1110, 2110, 2120, 2220, 2230 (excluded: GEOG 1000, 2020)	Spanish (SPAN)	All
German (GERM)	All	Speech (SPEE)	1500, 2500
History (HIST)	All 1000 level & 2000 level	Student Success (STSS)	1010, 1020
Human Resource Management (HRMN)	2820	Theatre (THTR)	All
Indigenous Studies (INDG)	2100	Visual Arts (VISA) (Theory)	All
Japanese (JAPA)	All	Visual Arts (VISA) (Studio)	All
Journalism (JOUR)	2010		