NAME/ID#: _____

THOMPSON RIVERS UNIVERSITY
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GUIDELINES FOR BACHELOR OF SCIENCE COMPUTING SCIENCE & MATH MAJOR

HIGH SCHOOL PREREQUISITES

ENGLISH

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

BIOLOGY

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

CHEMISTRY

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

PHYSICS

IF YOU TOOK	YOUR GRADE		CHOOSE
Physics 11 **AND** Pre-Calculus 12	67% or higher	→	PHYS 1100 **AND** 1200
Physics 12 **AND** Pre-Calculus 12	67% or higher	→	PHYS 1150 **AND** 1250
Physics 11	Below 67%	→	PHYS 0500
IF YOU NEED			
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 **or** 0630 **or** 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 **or** 1110	ENGL 1100 **or** 1110 **or** 1120 **or** 1140 **or** 1210
COMP 1130	COMP 1230
CHEM 1500	MATH 1700 (or 1220)
MATH 1140	MATH 1240
PHYS 1100 **or** 1150	BIOL 1110 **or** 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 **or** 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 Checksheet (120 credits)

1000-Level CORE courses (27-30 credits)

COURSE		GRADE
ENGL 1100 or 1110 [1]		
ENGL 1100 ,1110, 1120, 1140 or 1210 [1]		
COMP 1130 - Computer Programming 1		
COMP 1230 – Computer Programming 2		
MATH 1140 – Calculus 1		
MATH 1240 – Calculus 2		
MATH 1700 – Discrete Mathematics		
CHEM 1500 – Chemical Bonding & Organic Chem		
PHYS 1100 or 1150		
1 of BIOL 1110 or 1210 Or GEOL 1110 or 2050		

Notes:

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.

2000-Level CORE courses (30 credits)

COURSE		GRADE
COMP 2160 - Mobile Application Development		
COMP 2230 – Data Structures, Algorithm Analysis		
COMP 2680 - Web Site Design and Development		
COMP 2920 - Software Architecture and Design		
MATH 2110 – Calculus 3		
MATH 2120 - Linear Algebra 1		
MATH 2240 - Differential Equations		
MATH 2700 - Discrete Mathematics 2		
STAT 2000 - Introduction to Statistics		
CMNS 2290 or 2300 [1]		

ELECTIVES 1000-4000 level (12-15 credits)

Non-science elective [2]		
Non-science elective		
Non-science elective		
Elective in lieu of 2nd ENGL [1]		
General elective (1000-4000 level)		

Electives:

Institutional Learning Outcomes (ILOs) may be required to graduate. Refer to the Degree Works website for more information

3000/4000-Level CORE courses (48 credits)

3000/4000 Level COMP requirements (24 credits)

COURSE		GRADE
COMP 3450 – Human-Computer Interaction Design		
COMP 3520 - Software Engineering		
COMP 4910 - Computing Science Project		
COMP 4930 - Professional and Ethical Issues		
3000/4000 COMP elective		
3000/4000 COMP elective		
3000/4000 COMP elective		
3000/4000 COMP elective		

3000/4000 Level MATH requirements (24 credits)

MATH 3510 - Problem Solving & Applied Math		
MATH 4430 - Introduction to Graph Theory		
MATH Electives Choose 4 of the following: MATH 3000 or MATH 3070 or MATH 3170 or MATH 3220 or MATH 3400 or MATH 3650		
MATH elective		
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.

KEEP IN MIND

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

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 (SOCI)	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			