



GUIDELINES FOR BACHELOR OF SCIENCE MATHEMATICS 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	ACCUPLACER Assessment or ENGL 0600 or 0620
English Studies 12 or English First Peoples 12	Below 73%	
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 ¹
MATH 1140	MATH 1240
CHEM 1500	MATH 1700 (or 1220)
COMP 1130	COMP 1230
PHYS 1100 or 1150	BIOL 1110 or GEOL 1110 ³

YEAR 2

FALL SEMESTER	WINTER SEMESTER
MATH 2700 or 2240	MATH 2200
MATH 2110	STAT 2000
MATH 2120 (must be taken if choosing MATH 2240, otherwise can be taken in Winter)	COMP 2130/2230 or Elective ⁴
MATH 2210	Non-Science Elective ²
Non-Science Elective ²	CMNS 2300 or 2290

IMPORTANT NOTES

1. Students with a B or higher in ENGL 1100 **or** 1110 may take CMNS 2290 **or** 2300 without a second first-year English course.
2. Non-Science electives must be in at least two different subject areas (other than English).
3. 3 credits must be taken from the following: BIOL 1110 **or** BIOL 1210 **or** GEOL 1110 **or** GEOL 2050
4. For students planning to take upper-level COMP courses, COMP 2130/2230 must be taken.

COURSE OFFERINGS – 1000/2000 level

FALL SEMESTER ONLY	WINTER SEMESTER ONLY
CHEM 1500	BIOL 1110
PHYS 1150	CMNS 2300
BIOL 1210	MATH 2200
MATH 2110	MATH 2700
MATH 2210	
MATH 2240	

Bachelor Of Science Degree – MATHEMATICS MAJOR Checksheet (120 credits)

1000-Level CORE courses (27-30 credits)			2000-Level CORE courses (21 credits)			3000/4000-Level Major courses (30 credits)		
COURSE	GRADE	COURSE	GRADE	COURSE	GRADE			
ENGL 1100 or 1110 ¹	_____	MATH 2700 or MATH 2240	_____	MATH 3070 or 3220	_____			
ENGL 1100, 1110, 1120, 1140 or 1210 ¹	_____	MATH 2110 - Calculus 3	_____	MATH 3000 or 3200	_____			
MATH 1140 – Calculus 1	_____	MATH 2120 - Linear Algebra	_____	MATH electives (15 credits) from: MATH 3000, 3020, 3030, 3070, 3080, 3120, 3160, 3170, 3200, 3220, 3400, 3510, 3650, 3700, 4410, 4420, 4430	_____			
MATH 1240 – Calculus 2	_____	MATH 2200 - Introduction to Analysis	_____		_____			
CHEM 1500 – Chemical Bonding & Organic Chem	_____	MATH 2210 - Introduction to Algebra	_____		_____			
COMP 1130 - Computer Programming 1	_____	STAT 2000 - Probability and Statistics	_____		MATH elective	_____		
COMP 1230 - Computer Programming 2	_____	CMNS 2290 or 2300	_____	MATH elective	_____			
			ELECTIVES 1000-4000 level (42-45 credits)					
		COURSE	GRADE					
PHYS 1100 or 1150	_____	Non-Science elective ²	_____	MATH elective	_____			
MATH 1700 or 1220	_____	Non-Science elective ²	_____	MATH elective	_____			
1 of BIOL 1110 or 1210 or GEOL 1110 or 2050	_____	Non-Science elective ²	_____	COMP/STATS/MATH electives (9 credits) from: COMP 3050, COMP 3110, COMP 3120, COMP 3130, COMP 3270, COMP 3410, COMP 3510, COMP 3520, COMP 3540, COMP 3610, COMP 3710, COMP 4110, COMP 4120, COMP 4230, COMP 4240, COMP 4320, COMP 4340, COMP 4510, COMP 4610, COMP 4620, COMP 4740, COMP 4750, COMP 4830, COMP 4980 MATH 3000, MATH 3020, MATH 3030, MATH 3070, MATH 3080, MATH 3120, MATH 3160, MATH 3170, MATH 3200, MATH 3220, MATH 3400, MATH 3510, MATH 3650, MATH 3700, MATH 4410, MATH 4420, MATH 4430 STAT 3050, STAT 3060, STAT 4040 **no more than 6 of these 9 may be COMP	_____			
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; 18 of these must be in courses numbered 3000 or higher. For Honours students, 12 credits of electives must be numbered 3000 or higher. 3. Students interested in pursuing COMP 3000- or 4000 level courses must first complete COMP 2130/2230.	_____	Elective in lieu of 2 nd ENGL ¹	_____		MATH, STAT, or COMP	_____		
	_____	General elective (1000-4000 level)	_____		MATH, STAT, or COMP	_____		
	_____	General elective (1000-4000 level)	_____		MATH, STAT, or COMP	_____		
	_____	General elective (1000-4000 level)	_____		MATH, STAT, or COMP	_____		
	_____	3000/4000 elective	_____		MATH, STAT, or COMP	_____		
	_____	3000/4000 elective	_____		MATH, STAT, or COMP	_____		
	_____	3000/4000 elective	_____		MATH, STAT, or COMP	_____		
	_____	3000/4000 elective	_____		MATH, STAT, or COMP	_____		
	_____	3000/4000 elective	_____		MATH, STAT, or COMP	_____		
	_____	3000/4000 elective	_____	MATH, STAT, or COMP	_____			
			Electives: Institutional Learning Outcomes (ILOs) may be required to graduate. Refer to the Degree Works website for more information.					
BSc Honours in Mathematics students are required to complete 126 credits, maintain an overall GPA of 3.0, as well as a GPA of 3.0 in 3 rd and 4 th year, with no individual course below a B- grade. Must include MATH 3000, MATH 3070, MATH 3200, MATH 3220 & MATH 4950								
Honours in Mathematics								
					MATH 4950 – Honours Thesis	_____		

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.

Course Load: Transitioning to university can be challenging and many students choose to take a lighter course load. Please speak with Academic Advising to discuss sequencing, workload, future career and educational goals and more.

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 (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		