



**GUIDELINES FOR
BACHELOR OF SCIENCE
BIOLOGY 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 *1150 or 1210 (see note #2 next page: CMNS 2290 or 2300 or non-Science elective)
BIOL 1210	BIOL 1110
CHEM 1500	CHEM 1510 or 1520
MATH 1150 (preferred) or 1140	MATH 1250 (preferred) or 1240
PHYS 1100 or 1150	PHYS 1200 or 1250 (see note #3 next page)
YEAR 2	
FALL SEMESTER	WINTER SEMESTER
CHEM 2120	CHEM 2220
BIOL 2170	BIOL 2130
BIOL 2280	BIOL 2340
BIOL 2160	BIOL 2290
COMP (3 credits) (see note #5 next page)	Non-Science Elective

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
BIOL 1210	BIOL 1110
BIOL 2160	BIOL 2130
BIOL 2170	BIOL 2340
BIOL 2280	BIOL 2290
CHEM 1500	CHEM 1510 or 1520
CHEM 2120	CHEM 2220
MATH 1150	MATH 1250
PHYS 1150	PHYS 1250

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

1000-Level CORE courses (30-33 credits)			2000-Level CORE courses (24 credits)			3000/4000-Level BIOL Major courses (36 credits)		
COURSE	GRADE	COURSE	GRADE	Course	GRADE			
ENGL 1100 or 1110 ²		BIOL 2130 - Cell Biology		BIOL 3000 - Biometrics				
ENGL 1100, 1110, 1120, 1140, 1150, 1210 ^{1,2}		BIOL 2340 - Introduction to Genetics		BIOL 3030 - Population Biology				
		BIOL 2160 - Introductory Microbiology		BIOL 3130 - Introduction to Biochemistry				
BIOL 1110 - Principles of Biology 1		BIOL 2170 - Introduction to Ecology		BIOL 3350 – Molecular Genetics				
BIOL 1210 - Principles of Biology 2		BIOL 2280 - Evolution & Ecology of Land Plants		BIOL 3400 - Reading and Writing Great Biology				
CHEM 1500 - Chemical Bonding/Organic Chem		BIOL 2290 - Evolution of Animal Body Plans		BIOL 4120, 4130 or 4140				
CHEM 1510 or 1520		CHEM 2120 - Organic Chemistry 1		PHYSIOLOGY STREAM & BIOLOGY ELECTIVES (18 credits) Select ONE set of courses from below				
MATH 1140 (or 1150) -Calculus 1		CHEM 2220 - Organic Chemistry 2						
MATH 1240 (or 1250) -Calculus 2		ELECTIVES (27-30 credits)			Plant/Cell/Human Physiology & Biology Stream (18 credits)			
PHYS 1100 or 1150 ³		COURSE	GRADE	2 of BIOL 3510, 3520, 3540 or 3550				
PHYS 1200 or 1250 ³		Non-Science elective ⁴						
COMP 3 credits ^{1,5}		Non-Science elective ⁴		BIOL elective ⁶				
Notes: 1. Must be taken prior to 3rd year 2. Students with a B or better in ENGL 1100 or 1110 need only take 3 credits of ENGL. The remaining 3 credits may be taken in any discipline outside science. CMNS 2300 is recommended. (*English 1150 may not be suitable for professional programs. Please consult your Advisor.) 3. Students with 80% or higher in Grade 12 Physics may opt to take an alternate course instead of PHYS 1250. PHYS 1150 would be required. 4. Non-Science electives must be in at least two different subject areas (other than English). 5. The 3 credits of COMP may be COMP 1020/1030/and one other 1-credit COMP OR COMP 1110 OR COMP 1130. 6. BIOL Electives: BIOL 3010, BIOL 3100, BIOL 3110, BIOL 3200, BIOL 3210, BIOL 3220, BIOL 3230, BIOL 3260, BIOL 3290, BIOL 3310, BIOL 3430, BIOL 3510, BIOL 3520, BIOL 3540, BIOL 3550, BIOL 3800, BIOL 4020, BIOL 4090, BIOL 4100, BIOL 4110, BIOL 4120, BIOL 4130, BIOL 4140, BIOL 4150, BIOL 4160 or NRSC 4040, BIOL 4210, BIOL 4250, BIOL 4260, BIOL 4270 or NRSC 3000, BIOL 4350, BIOL 4480, BIOL 4490, BIOL 4600, NRSC 3110, NRSC 3210, NRSC 4020, NRSC 4050, NRSC 4100, NRSC 4130	Non-Science elective ⁴			BIOL elective ⁶				
	Elective in lieu of 2 nd ENGL ²			BIOL elective ⁶				
	General elective (1000-4000 level)			BIOL elective ⁶				
	3000/4000 level elective			OR Microbial Physiology & Biology Electives (18 credits)				
	3000/4000 level elective			BIOL 4110 -Advanced Microbio.				
	3000/4000 level elective			BIOL 4210 -Microbial Physiology				
	3000/4000 level elective			BIOL 3510, 3520, 3540 or 3550				
	3000/4000 level elective			BIOL elective ⁶				
	Electives: Institutional Learning Outcomes (ILOs) may be required to graduate. Refer to the Degree Works website for more information. The Biology Honours program requires completion of 126 credits: 117 credits as above (minus 3 credits of upper-level electives) plus BIOL 3980 and BIOL 4980 (3 credits) and BIOL 4990 (Honours Thesis; 6 credits).			BIOL elective ⁶				
				BIOL elective ⁶				
			Honours Courses					
			BIOL 3980 - Intro to Research					
			BIOL 4980 - Honours Seminar					
			BIOL 4990 - Honours Thesis					

*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.

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		