

Bachelor of Science (BIOLOGY MAJOR) Checklist

HIGH SCHOOL PREREQUISITES FOR FIRST YEAR SCIENCE

Subject	First Year Courses at TRU	Prerequisites	Other High School Courses & Lower Grades	Recommended TRU Upgrading Courses
ENGLISH	ENGL 1100 (recommended) or ENGL 1110, 1120, 1140, 1210, or CRWR 1150	English Studies 12 with 73% or higher	English 12 below 73% →	ENGL 0600 or English Accuplacer (placement test)
MATH	MATH 1150 AND MATH 1250 (recommended for Biology majors) or MATH 1140 AND MATH 1240 (recommended for other majors)	Pre-Calculus 12 with 67% or higher within the last 2 years	Pre-Calculus 12 below 67% →	MATH 0600 + 0610 or MATH 0630 or MATH 1000
			Foundations of Math stream →	MATH 0510 + 0630 or MATH 0510 + 0600 + 0610
			Other streams of Math or No Math in the last 2 years →	Math Accuplacer recommended (placement test)
BIOLOGY	BIOL 1210 AND BIOL 1110	Life Sciences 11 or Anatomy & Physiology 12 AND Chemistry 11 all with 67% or higher	If you need: Life Sciences 11 OR Anatomy & Physiology 12 →	BIOL 0500 or BIOL 0600 (1 course required, not both)
			If you need: Chemistry 11 →	CHEM 0500
CHEMISTRY	CHEM 1500 AND CHEM 1510	Pre-Calculus 12 AND Chemistry 11 both with 67% or higher	If you need: Pre-Calculus 12 →	See MATH section above
	CHEM 1500 AND CHEM 1520	Pre-Calculus 12 AND Chemistry 12 both with 73% or higher	If you need: Chemistry 11 → (Chemistry 12 not required)	CHEM 0500
PHYSICS	PHYS 1100 AND PHYS 1200	Pre-Calculus 12 AND Physics 11 both with 67% or higher	If you need: Pre-Calculus 12 →	See Math section above
	PHYS 1150 AND PHYS 1250	Pre-Calculus 12 AND Physics 12 both with 67% or higher	If you need: Physics 11 → (Physics 12 not required)	PHYS 0500

Note: 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 or CRWR 1150 (see note #2 next page: CMNS 2290 or 2300 or non-Science elective)
BIOL 1210	BIOL 1210
CHEM 1500	CHEM 1510 or 1520
MATH 1150 (preferred) or 1140	MATH 1250 (preferred) or 1240
PHYS 1100 or 1150	PHYS 1200 or 150 (see note #3 next page)

YEAR 2

FALL SEMESTER	WINTER SEMESTER
CHEM 2120	CHEM 2220
BIOL 2160	BIOL 2290
BIOL 2170	BIOL 2130
BIOL 2280	BIOL 2340
COMP (3 credits) (see note #5 next page) or Non-Science Elective)	Non-Science Elective

COURSE OFFERINGS – First and Second Year

Note: Many science and math courses are offered in either Fall **or** Winter semester only, not both

FALL SEMESTER ONLY	WINTER SEMESTER ONLY
<p>BIOLOGY:</p> <ul style="list-style-type: none"> • BIOL 1210 • BIOL 2160 • BIOL 2170 • BIOL 2280 <p>CHEMISTRY:</p> <ul style="list-style-type: none"> • CHEM 1500 • CHEM 2100 • CHEM 2120 • CHEM 2160 <p>MATH:</p> <ul style="list-style-type: none"> • MATH 1150 • MATH 2110 • MATH 2210 • MATH 2240 <p>PHYSICS:</p> <ul style="list-style-type: none"> • PHYS 1150 • PHYS 2000 	<p>BIOLOGY:</p> <ul style="list-style-type: none"> • BIOL 1110 • BIOL 2130 • BIOL 2340 • BIOL 2290 <p>CHEMISTRY:</p> <ul style="list-style-type: none"> • CHEM 1510 or 1520 • CHEM 2220 • CHEM 2250 <p>COMMUNICATIONS:</p> <ul style="list-style-type: none"> • CMNS 2300 <p>MATH:</p> <ul style="list-style-type: none"> • MATH 1250 • MATH 2200 • MATH 2700 • MATH 3170 <p>PHYSICS:</p> <ul style="list-style-type: none"> • PHYS 1250 • PHYS 2200 • PHYS 2590 • PHYS 3120 / MATH 3160

Bachelor of Science Degree – BIOLOGY MAJOR Checklist (120credits)

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, 1210 or CRWR 1150/ENGL 1150 ^{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)				
			COURSE		GRADE	2 of BIOL 3510, 3520, 3540 or 3550				
PHYS 1100 or 1150 ³			Non-Science elective ⁴			BIOL elective ⁶				
PHYS 1200 or 1250 ³			Non-Science elective ⁴			BIOL elective ⁶				
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, BIOL4100, 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		