



**Bachelor of Science  
(ECOLOGY & ENVIRONMENTAL  
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
<b>ENGLISH</b>	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)
<b>MATH</b>	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)
<b>BIOLOGY</b>	BIOL 1210 AND BIOL 1110	Life Sciences 11 <b>or</b> Anatomy & Physiology 12 <b>AND</b> Chemistry 11 all with 67% or higher	If you need: Life Sciences 11 <b>OR</b> Anatomy & Physiology 12 →	BIOL 0500 or BIOL 0600 (1 course required, not both)
			If you need: Chemistry 11 →	CHEM 0500
<b>CHEMISTRY</b>	CHEM 1500 AND CHEM 1510	Pre-Calculus 12 <b>AND</b> 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 <b>AND</b> Chemistry 12 both with 73% or higher	If you need: Chemistry 11 → (Chemistry 12 not required)	CHEM 0500
<b>PHYSICS</b>	PHYS 1100 AND PHYS 1200	Pre-Calculus 12 <b>AND</b> 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 <b>AND</b> 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 <b>or</b> 1110	ENGL 1100 <b>or</b> 1110 <b>or</b> 1120 <b>or</b> 1140 <b>or</b> *1150 <b>or</b> 1210 (see note #2 next page: CMNS 2290 <b>or</b> 2300 <b>or</b> non-Science elective)
BIOL 1210	BIOL 1110
CHEM 1500	CHEM 1510 <b>or</b> 1520
MATH 1150 (preferred) <b>or</b> 1140	MATH 1250 (preferred) <b>or</b> 1240
PHYS 1100 <b>or</b> 1150	PHYS 1200 <b>or</b> 1250 (see note #3 next page)

### YEAR 2

FALL SEMESTER	WINTER SEMESTER
CHEM 2120	CHEM 2220
BIOL 2170 (important)	BIOL 2130
BIOL 2280 (important)	BIOL 2340
BIOL 2160	BIOL 2290
COMP - 3 credits (see note #4 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><b>BIOLOGY:</b></p> <ul style="list-style-type: none"> <li>• BIOL 1210</li> <li>• BIOL 2160</li> <li>• BIOL 2170</li> <li>• BIOL 2280</li> </ul> <p><b>CHEMISTRY:</b></p> <ul style="list-style-type: none"> <li>• CHEM 1500</li> <li>• CHEM 2100</li> <li>• CHEM 2120</li> <li>• CHEM 2160</li> </ul> <p><b>MATH:</b></p> <ul style="list-style-type: none"> <li>• MATH 1150</li> <li>• MATH 2110</li> <li>• MATH 2210</li> <li>• MATH 2240</li> </ul> <p><b>PHYSICS:</b></p> <ul style="list-style-type: none"> <li>• PHYS 1150</li> <li>• PHYS 2000</li> </ul>	<p><b>BIOLOGY:</b></p> <ul style="list-style-type: none"> <li>• BIOL 1110</li> <li>• BIOL 2130</li> <li>• BIOL 2340</li> <li>• BIOL 2290</li> </ul> <p><b>CHEMISTRY:</b></p> <ul style="list-style-type: none"> <li>• CHEM 1510 <b>or</b> 1520</li> <li>• CHEM 2220</li> <li>• CHEM 2250</li> </ul> <p><b>COMMUNICATIONS:</b></p> <ul style="list-style-type: none"> <li>• CMNS 2300</li> </ul> <p><b>MATH:</b></p> <ul style="list-style-type: none"> <li>• MATH 1250</li> <li>• MATH 2200</li> <li>• MATH 2700</li> <li>• MATH 3170</li> </ul> <p><b>PHYSICS:</b></p> <ul style="list-style-type: none"> <li>• PHYS 1250</li> <li>• PHYS 2200</li> <li>• PHYS 2590</li> <li>• PHYS 3120 / MATH 3160</li> </ul>

# Bachelor of Science ECOLOGY & ENVIRONMENTAL BIOLOGY MAJOR Checklist (120 credits)

1000-Level CORE courses (30-33 credits)			2000-Level CORE courses (24 credits)			3000/4000-Level (42 credits)		
COURSE	GRADE	COURSE	GRADE	COURSE	GRADE			
ENGL 1100 or 1110 <sup>1,2</sup>	_____	BIOL 2130 - Cell Biology	_____	BIOL 3000 - Biometrics	_____			
ENGL 1100, 1110, 1120, 1140, 1210, or CRWR 1150/ENGL 1150 <sup>1,2</sup>	_____	BIOL 2340 - Introduction to Genetics	_____	BIOL 3030 - Population Biology	_____			
BIOL 1110 - Principles of Biology 1	_____	BIOL 2160 - Introductory Microbiology	_____	BIOL 3130 - Introduction to Biochemistry	_____			
BIOL 1210 - Principles of Biology 2	_____	BIOL 2170 - Introduction to Ecology	_____	BIOL 3350 - Molecular Genetics	_____			
CHEM 1500 - Chemical Bonding/Organic Chem	_____	BIOL 2280 - Evolution & Ecology of Land Plants	_____	BIOL 3400 - Reading and Writing Great Biology	_____			
CHEM 1510 or 1520	_____	BIOL 2290 - Evolution of Animal Body Plans	_____	1 of BIOL 4120, 4130 or 4140	_____			
MATH 1140 (or 1150) -Calculus 1	_____	CHEM 2120 - Organic Chemistry 1	_____	BIOL 4160 - Principles of Conservation Biology	_____			
MATH 1240 (or 1250) -Calculus 2	_____	CHEM 2220 - Organic Chemistry 2	_____	<b>PHYSIOLOGY STEAM &amp; BIOLOGY Electives (Choose 1)</b>				
PHYS 1100 or 1150 <sup>3</sup>	_____	<b>ELECTIVES (21-24 credits)</b>			<b>Plant/Cell/Human Physiology &amp; Ecology (21 credits)</b>			
PHYS 1200 or 1250 <sup>3</sup>	_____	Non-science elective <sup>5</sup>	_____	Choose 2 of BIOL 3510, 3520, 3540 or 3550	_____			
COMP 3 credits <sup>1,4</sup>	_____	Non-science elective <sup>5</sup>	_____	EEBI elective <sup>6</sup>	_____			
<b>Notes:</b> 1. Must be taken prior to third 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 a grade of 80% or better in Physics 12 only need to complete PHYS 1150 (3 credits). The remaining 3 credits may be taken in any subject area. 4. The 3 credits of COMP may be COMP 1020/1030/and one other 1-credit COMP OR COMP 1110 OR COMP 1130. 5. Non-Science electives must be in at least two different subject areas (other than English). 6. <b>Ecology &amp; Environmental Biology (EEBI) Electives:</b> BIOL 3010, BIOL 3100, BIOL 3110, BIOL 3200, BIOL 3210, BIOL 3220, BIOL 3260, BIOL 3290, BIOL 3430, BIOL 4020, BIOL 4090, BIOL 4100, BIOL 4120, BIOL 4140, BIOL 4160 or NRSC 4040, BIOL 4260, BIOL 4270 or NRSC 3000, BIOL 4480, BIOL 4490, NRSC 3110, NRSC 3210, NRSC 4020, NRSC 4050, NRSC 4100, NRSC 4130	Elective in lieu of 2 <sup>nd</sup> ENGL	_____	_____	EEBI elective <sup>6</sup>	_____			
	General elective (1000-4000)	_____	_____	EEBI elective <sup>6</sup>	_____			
	3000/4000 elective	_____	_____	EEBI elective <sup>6</sup>	_____			
	3000/4000 elective	_____	_____	EEBI elective <sup>6</sup>	_____			
	3000/4000 elective	_____	_____	<b>QR Microbial Physiology &amp; Ecology Electives (21 credits)</b>				
	<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.  The <b>Ecology and Environmental Biology Honours</b> 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).	1 of BIOL 3510, 3520, 3540,	_____	_____	_____	_____		
		BIOL 4110 - Advanced Microbiology Lab	_____	_____	_____	_____		
		BIOL 4210 - Microbial Physiology	_____	_____	_____	_____		
		EEBI elective <sup>6</sup>	_____	_____	_____	_____		
		EEBI elective <sup>6</sup>	_____	_____	_____	_____		
		EEBI elective <sup>6</sup>	_____	_____	_____	_____		
		EEBI elective <sup>6</sup>	_____	_____	_____	_____		
		<b>Honours Courses</b>		_____	_____	_____	_____	
		BIOL 3980 – Intro to Research	_____	_____	_____	_____		
		BIOL 4980 – Honours Seminar	_____	_____	_____	_____		
BIOL 4990 – Honours Thesis	_____	_____	_____	_____				

## 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](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		