



**Bachelor of Science  
(MATH & ECONOMICS MAJOR)  
Checklist**

**HIGH SCHOOL PREREQUISITES**

**ENGLISH**

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

**BIOLOGY**

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

**CHEMISTRY**

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

**PHYSICS**

IF YOU TOOK	YOUR GRADE	CHOOSE
Physics 11 <b>AND</b> Pre-Calculus 12	67% or higher	→ PHYS 1100 <b>AND</b> 1200
Physics 12 <b>AND</b> Pre-Calculus 12	67% or higher	→ PHYS 1150 <b>AND</b> 1250
Physics 11	Below 67%	→ PHYS 0500
<b>IF YOU NEED</b>		
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
MATH 1140	MATH 1240
CHEM 1500	MATH 1700 (or 1220)
ECON 1900	ECON 1950
PHYS 1100 or 1150	BIOL 1110 or GEOL 1110 (see important note below)

### YEAR 2

FALL SEMESTER	WINTER SEMESTER
MATH 2110	ECON 2950
MATH 2120	MATH 2700
MATH 2240	COMP 1130
STAT 2000 or ECON 2320	CMNS 2300 or 2290
ECON 2900	Non-Science Elective (not ECON)

### IMPORTANT NOTE

❖ 3 credits must be taken from the following: BIOL 1110 or BIOL 1210 or GEOL 1110 or GEOL 2050

### COURSE OFFERINGS – 1000/2000 level

FALL SEMESTER ONLY	WINTER SEMESTER ONLY
CHEM 1500	BIOL 1110
PHYS 1150	CMNS 2300
BIOL 1210	ECON 2950
MATH 2110	MATH 2700
MATH 2240	
ECON 2900	

## Bachelor Of Science MATHEMATICS & ECONOMICS MAJOR Checklist (120 credits)

1000-Level CORE courses (30-33 credits)		2000-Level CORE courses (24 credits)		3000/4000-Level (30 credits)	
COURSE	GRADE	COURSE	GRADE	COURSE	GRADE
ENGL 1100 or 1110 <sup>1</sup>	_____	MATH 2110 - Calculus 3	_____	ECON 3200 - Introduction to Mathematical	_____
ENGL 1110, 1120, 1140 or 1210 <sup>1</sup>	_____	MATH 2120 - Linear Algebra 1	_____	ECON 3900 - Intermediate Microeconomics	_____
CHEM 1500 - Chem Bonding/Organic Chem	_____	MATH 2240 - Differential Equations 1	_____	ECON 3950 - Intermediate Macroeconomics	_____
PHYS 1100 or 1150	_____	MATH 2700 - Discrete Mathematics 2	_____	ECON 4320 - Econometrics	_____
ECON 1900 – Principles of Microeconomics	_____	ECON 2320 or STAT 2000	_____	ECON 4330 - Forecasting in Business &	_____
ECON 1950 – Principles of Macroeconomics	_____	ECON 2900 - Intermediate Microeconomics 1	_____	<b>Choose ONE of 3 STREAMS (15 credits)</b>	
MATH 1140 - Calculus 1	_____	ECON 2950 - Intermediate Macroeconomics 1	_____	<b>MATHEMATICS STREAM</b>	
MATH 1240 - Calculus 2	_____	CMNS 2290 or 2300 <sup>1</sup>	_____	STAT 3060 - Applied Regression Analysis	_____
MATH 1700 or 1220	_____	<b>ELECTIVES (33-36 credits)</b>		MATH 3160 - Differential Equations 2	_____
1 of BIOL 1110, 1210, GEOL 1110 or 2050	_____	<b>COURSE</b>	<b>GRADE</b>	MATH 3400 - Introduction to Linear	_____
		Non-science elective (not ECON)	_____	MATH 4410 - Modelling of Discrete	_____
COMP 1130 - Computer Programming 1	_____	Elective in lieu of 2 <sup>nd</sup> ENGL <sup>1</sup>	_____	3000/4000 Level MATH	_____
<b>Notes:</b> 1. Students with a B or higher 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. At least 24 credits of electives must be science courses (BIOL, CHEM, GEOL, COMP SCI, MATH or PHYS) and 18 credits must be Upper Level. Remaining electives can be from any academic area. At least two disciplines outside of science must be represented (can include the non-science elective.)	_____	Elective <sup>2</sup>	_____	<b>OR STATISTICS STREAM</b>	
		Elective <sup>2</sup>	_____	MATH 3020 - Introduction to Probability	_____
		Elective <sup>2</sup>	_____	STAT 3060 - Applied Regression Analysis	_____
		Elective <sup>2</sup>	_____	MATH 3030 & 6 cr. of 3000/4000 level STAT <b>or</b> 9 cr. of 3000/4000 level STAT	_____
		3000/4000 level elective <sup>2</sup>	_____		_____
		3000/4000 level elective <sup>2</sup>	_____	<b>OR GENERAL STREAM</b>	
		3000/4000 level elective <sup>2</sup>	_____	STAT 3060 - Applied Regression Analysis	_____
		3000/4000 level elective <sup>2</sup>	_____	4 of MATH 3020, 3030, 3160, 3400, 4410, STAT 3050 or 4040 or other 3000/4000 level MATH	_____
		3000/4000 level elective <sup>2</sup>	_____		_____
		3000/4000 level elective <sup>2</sup>	_____		_____
		<b>General Electives: Institutional Learning Outcomes (ILOs) may be required to graduate.</b> Refer to the <a href="#">Degree Works website</a> for more information.			

**\*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.

### 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		