NAME/ID#: _____

THOMPSON RIVERS UNIVERSITY

Academic Advising
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Bachelor of Science (CHEMISTRY MAJOR) Checklist

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 <u>and</u> 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** 1210
CHEM 1500	CHEM 1520 (preferred) **or** 1510
MATH 1140 **or** 1150	MATH 1240 **or** 1250
COMP (3 credits) (see note #4 next page)	BIOL 1110
PHYS 1100 **or** 1150	PHYS 1200 **or** 1250

YEAR 2

FALL SEMESTER	WINTER SEMESTER
CHEM 2120	CHEM 2220
CHEM 2160	CHEM 2250
CHEM 2100	CMNS 2300 **or** 2290
MATH 2110	MATH 2120
Non-Science Elective	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
CHEM 1500 CHEM 2100 CHEM 2120 CHEM 2160 MATH 1150 MATH 2110 PHYS 1150	CHEM 1510 **or** 1520 CHEM 2250 CHEM 2220 CMNS 2300 MATH 1250 PHYS 1250 BIOL 1110

Bachelor Of Science CHEMISTRY MAJOR Checklist (120 credits)

1000-Level CORE courses (27-30 credits)			2000-Level CORE courses (24 credits)			3000/4000-Level (39 credits)		
COURSE		**GRADE**	**COURSE**		**GRADE**	**COURSE**		**GRADE**
ENGL 1100 or 1110 [1,2]	_____	_____	CHEM 2120 - Organic Chemistry 1		_____	CHEM 3060 - Physical Chemistry 1		_____
ENGL 1100, 1110, 1140 or 1210 [1,2]	_____	_____	CHEM 2220 - Organic Chemistry 2		_____	CHEM 3070 - Physical Chemistry 2		_____
			CHEM 2100 - Introductory Analytical Chemistry		_____	CHEM 3080 - Physical Chemistry Lab (1 credit)		_____
CHEM 1500 - Chemical Bonding/Organic Chem		_____	CHEM 2160 Structure, Bonding & Spectroscopy		_____	CHEM 3100[5] - Instrumental Analysis		_____
CHEM 1510 or 1520		_____	CHEM 2250 - Fundamentals of Physical		_____	CHEM 3120[5] - Instrumental Analysis Lab (1 credit)		_____
BIOL 1110 [1] - Principles of Biology 1		_____	MATH 2110 – Calculus 3		_____	CHEM 3140 - Applied Analytical Chemistry		_____
MATH 1140 (or 1150) - Calculus 1	_____	_____	MATH 2120 – Linear Algebra		_____	CHEM 3220 - Advanced Organic Chemistry		_____
MATH 1240 (or 1250) - Calculus 2	_____	_____	CMNS 2290 or 2300 [1,2]	_____	_____	CHEM 3230 - Organic Spectroscopy		_____
PHYS 1100 or 1150	_____	_____	**ELECTIVES (27-30 credits)**			CHEM 3240 - Organic Chemistry Lab (1 credit)		_____
PHYS 1200 or 1250	_____	_____	**COURSE**		**GRADE**	CHEM 3310 - Inorganic Chemistry 1		_____
COMP 3 credits [1,4]	_____	_____	Non-science elective [3]	_____	_____	CHEM 3320 - Inorganic Chemistry 2		_____

Notes:

1. Must be taken prior to third-year.
2. Students with a grade of B or better in ENGL 1100 (or 1110) may proceed to either of the required CMNS 2290 or 2300 in their second year. Students with less than a B grade in their first year English course are required to take another 3 credits of first year English (1110, ENGL 1140, or 1210) before their second year English requirement.
3. Non-Science electives must be in at least two different subject areas (other than English).
4. The 3 credits of COMP: suggest: 3 of COMP 1020, 1030, 1050, 1070, 1080, 1150 OR COMP 1110 OR COMP 1130.
5. These 3000 level courses must be taken in the fall semester of third year.
6. CHEM 4600 is offered in winter semester of alternate "odd" years.
7. CHEM 4220 and CHEM 4320 are offered in winter semester of "even" years.
8. CHEM 3730 is equivalent to BIOL 3130. CHEM 3730 is required.

ELECTIVES (cont.)			3000/4000-Level (cont.)		
Non-science elective [3]	_____	_____	CHEM 3330 - Inorganic Chemistry Lab (1 credit)		_____
Non-science elective [3]	_____	_____	CHEM 3730[8] - Introduction to Biochemistry		_____
Elective in lieu of 2nd ENGL [2]	_____	_____	CHEM 4400 - Advanced Analytical Lab (1 credit)		_____
General elective (1000-4000 level)	_____	_____	1 of CHEM 4070, 4090, 4220[7], 4320[7] or 4600	_____	_____
General elective (1000-4000 level)	_____	_____			
General elective (1000-4000 level)	_____	_____	1 of CHEM 4410L, 4420L or 4430L	_____	_____
3000/4000 level elective	_____	_____			
3000/4000 level elective	_____	_____	1 of CHEM 3010, 3020, 3030, 4070, 4090, 4220[7], 4320[7], 4480 or 4600[6]	_____	_____
3000/4000 level elective	_____	_____			

*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

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

Subject	Courses	Subject	Courses
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 (SOCI)	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		