NAME/ID#: _____

**THOMPSON RIVERS UNIVERSITY**

Academic Advising
T: 250-828-5075
E: advising@tru.ca
W: tru.ca/advising

## Bachelor of Science (COMPUTING 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:<br>MATH 1140 AND 1240<br>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 |
| COMP 1130 | COMP 1230 |
| CHEM 1500 | MATH 1700 (or 1220) |
| MATH 1140 | MATH 1240 |
| PHYS 1100 **or** 1150 | BIOL 1110 **or** GEOL 1110 (see important notes) |

### YEAR 2

| FALL SEMESTER | WINTER SEMESTER |
|---|---|
| COMP 2130 | COMP 2210 |
| COMP 2160 | COMP 2230 |
| COMP 2680 | COMP 2920 |
| MATH 2120 | STAT 2000 |
| Non-Science Elective | CMNS 2300 **or** 2290 |

### IMPORTANT NOTES

- ❖ 3 credits must be taken from the following: BIOL 1110 **or** BIOL 1210 **or** GEOL 1110 **or** GEOL 2050.
- ❖ For each semester in Year 2, students can take any of the second-year COMP courses once prerequisites are completed.

## 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<br>PHYS 1150<br>BIOL 1210 | BIOL 1110<br>CMNS 2300<br>MATH 1220 |

# Bachelor Of Science COMPUTING SCIENCE MAJOR Checklist (120 credits)

| 1000-Level CORE courses (27-30 credits) | | 2000-Level CORE courses (27 credits) | | 3000/4000-Level CORE courses (30 credits) | |
|---|---|---|---|---|---|
| COURSE | GRADE | COURSE | GRADE | COURSE | GRADE |
| ENGL 1100 or 1110 [1] | | COMP 2130 - Introduction to Computer Systems | | COMP 3260 - Computer Network Security | |
| ENGL 1100, 1110, 1120, 1210[1] | | COMP 2160 - Mobile Application Development | | COMP 3270 - Computer Networks | |
| COMP 1130 - Computer Programming 1 | | COMP 2210 - Programming Methods | | COMP 3410 - Operating Systems | |
| COMP 1230 – Computer Programming 2 | | COMP 2230 – Data Structures, Algorithm Analysis | | COMP 3450 - Human-Computer Interaction Des. | |
| MATH 1140 – Calculus 1 | | COMP 2680 - Web Site Design and Development | | COMP 3540 – Adv. Web Design & Programming | |
| MATH 1240 – Calculus 2 | | COMP 2920 - Software Architecture and Design | | COMP 3610 - Database Systems | |
| MATH 1700 | | MATH 2120 - Linear Algebra 1 | | COMP 3710 - Applied Artificial Intelligence | |
| CHEM 1500 – Chemical bonding & organic | | STAT 2000 - Introduction to Statistics | | COMP 3520 - Software Engineering | |
| PHYS 1100 or 1150 | | CMNS 2290 or 2300 [1] | | COMP 4910 - Computing Science Project | |
| 1 of BIOL 1110 or 1210 Or GEOL 1110 or 2050 | | **ELECTIVES 1000-4000 level (15-18 credits)** | | COMP 4930 - Professional and Ethical Issues | |
| | | Non-science elective [2,3] | | **3000/4000 Level Computing Electives (12 credits)** | |
| | | Non-science elective [2,3] | | 3000/4000 level COMP elective | |
| | | Non-science elective [2,3] | | 3000/4000 level COMP elective | |
| | | Elective in lieu of 2nd ENGL [1] | | 3000/4000 level COMP elective | |
| | | General elective (1000-4000 level) | | 3000/4000 level COMP elective | |
| | | General elective (1000-4000 level) | | 3000/4000 level COMP elective | |
| | | | | **3000/4000 Level Electives (6 credits)** | |
| | | | | 3000/4000 General elective | |
| | | | | 3000/4000 General elective | |

**Notes:**

1. Students with a B or better in ENGL 1100 or 1110 may proceed into CMNS 2290 or 2300 in their second year without completing an additional 3 credits in ENGL. These students will be required to take an additional 3 credit non-science elective.
2. Electives must include 9-12 credits in at least two disciplines outside of science (other than English). The remaining elective credits may be chosen from any discipline; 6 of these must be in courses numbered 3000 or higher.

**Electives:**

Institutional Learning Outcomes (ILOs) may be required to graduate. Refer to the Degree Works website for more information.

## 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

## 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 (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 | | |