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## Science and Technology Programs

# Bachelor of Science, Majors, Minors and Transfer

## The Program

Students select at least one Major or two Minors (a Double Minor) from the disciplines listed above.

### Science Major or Double-Minor with an Arts Minor

Students completing the requirements for a B.Sc. Major, or a Double-Minor may combine the Science Major or Double-Minor with any Arts Minor. A list of available Arts Minors can be found on the Bachelor of Arts page.

**Note:** An Arts Minor cannot be used with a single Science Minor to complete the B.Sc. degree.

### General Description

VIU's Science degrees build on a strong record of undergraduate education, dating back to 1969. Graduates of VIU have gone on to graduate schools and professional schools at major universities, while others have used their degree to enter successful careers.

A degree in the sciences is both valuable in itself and as a foundation for a wide variety of careers. The science degrees at VIU provide a sound preparation for both employment and further education. Students who may be interested in graduate studies may need to write a Graduate Record Exam (GRE) and may need to complete courses that are considered options for their B.Sc. Students are advised to consult graduate school calendars for specific entrance requirements and to discuss their plans for graduate study with their degree advisor.

## Program Outline

### Degree Planning

At the end of first year or after completing a minimum of 24 credits, students need to declare their educational goals in consultation with the B.Sc. Advisor. Declaration of educational goals will indicate the student's plan to satisfy the requirements for the degree, including the options (Majors/Minors) they intend to pursue. Educational goals can be adjusted later to reflect changed student intent or curriculum offerings.

### Institutional B.Sc. Degree Requirements

To be granted a VIU B.Sc. degree, students must meet the following requirements:

#### Total Requirement

Students must complete a minimum of 120 credits chosen from courses that (a) are numbered 100 or higher; and (b) do not have a "T" or a "G" after the course number. In addition, each 4-credit first year course taken will increase the total requirement by one additional credit.

**Note 1:** Courses consisting primarily of field work, co-op placement, or preceptorship/internship are not normally eligible for selection within this category.

**Note 2:** Students who completed "T" courses should consult with the B.Sc. Degree Advisor in the relevant department regarding the applicability of these courses.

**Note 3:** When selecting electives to meet departmental requirements for Degrees and Minors, please see descriptions for each program.

### Undergraduate Degree English Requirements

All students in undergraduate degree programs at VIU are required to complete 6 credits of first-year English composition and literature courses.

Undergraduate Degree English Requirement - Effective September 2009	
Any <b>two</b> of the following courses: ENGL 115* - (University Writing and Research), or INTR 100 - (Popular Culture and University Writing) ENGL 125 - (Literature and Culture) ENGL 135 - (Literature and Criticism)	6
<b>OR</b>	
LBST 111 - (Ways of Knowing I) <i>and</i> , LBST 112 - (Ways of Knowing II)	12
<b>OR</b>	
<i>Only for programs that <b>require</b> ENGL 204 (Business and Technical Writing):</i> ENGL 115 - (University Writing and Research) or INTR 100 - (Popular Culture and University Writing), <i>and</i> , <i>for programs that require Business and Technical Writing:</i> ENGL 204 - (Business and Technical Writing) (effective September 2012) or, ENGL 225 - (Business and Technical Writing) (prior to September 2012)	6

**Note 1:** Students who have already completed ENGL 111, 112, or 116 can still use these courses to meet the Undergraduate Degree English Requirements.

**Note 2:** In addition to undergraduate degrees, other programs may require these requirements to be met.

Undergraduate Degree English Requirement - Prior to September 2009	
ENGL 115* - (University Writing and Research) and <b>one</b> of the following courses: ENGL 116 - (Intro to Literature) ( <b>recommended</b> ) ENGL 111 - (Literature and Writing I) ENGL 112 - (Literature and Writing II) ENGL 225 - (Business and Technical Writing) <i>for programs that require ENGL 225.</i>	6
<b>OR</b>	
ENGL 111 - (Literature and Writing I) <i>and</i> , ENGL 112 - (Literature and Writing II)	6
<b>OR</b>	
LBST 111 - (Ways of Knowing I) <i>and</i> , LBST 112 - (Ways of Knowing II)	12

**Note:** No more than 6 credits of 100-level English courses may be taken for credit towards the VIU B.Sc. degree.

### Lower-Level Mathematics Requirement

MATH 121/122, or 100/101. **Note:** Students may not obtain credit for MATH 151 or MATH 152.

### Lower-Level Sciences Requirement

Students completing a B.Sc. Major or a B.Sc. Double Minor must complete a minimum of 6 credits from **each** of three science disciplines. None of MATH 100, 101, 121, or MATH 122 may be used to meet this requirement. Computing Science Majors or Minors may take 6 credits of Business in lieu of six credits from one science discipline. Students completing a B.Sc. Minor in Psychology or Geography shall be deemed to have met the requirement of taking six credits from one science discipline. Students should consult the B.Sc. Degree Advisor to confirm how to meet this requirement for their chosen degree.

**Note:** Statistics Courses: Only one of the following introductory statistics courses may be taken for credit towards the VIU B.Sc. degree: MATH 181, MATH 211, PSYC 300A, HSD 425.

### Non-Science Elective Requirement

In addition to fulfillment of the Degree English Requirement, a minimum of 6 credits is required from non-science courses that (a) are numbered 100 or higher, and (b) do not have a "T" or a "G" after the course number. The following courses may **not** be counted to meet this requirement, although they may be counted as general electives:

- Any course beginning with the following discipline identifiers: AQUA, ASTR, BIOL, CHEM, CSCI, ENGC, ENGE, ENGM, ENGR, FISH, FRST, GEOL, MATH, PHYS, RMOT, QUME and SCIE.
- Anthropology: ANTH 111, 213, 214, 341B, 342, 343, 344, 350, 351, 352, 361, 401, 430, 449, 460.
- Geography: GEOG 211, 212, 221, 226, 228, 326, 328, 372, 373, 374, 376, 428.
- Psychology: PSYC 200, 204, 205, 206, 300A, 300B, 301, 302, 315, 316, 317A, 319, 323, 324, 345A, 365, 400, 445, 490, 491.
- Physical Education: PHED 201, 210, 220, 302, 400.

**Note:** Students completing a B.Sc. degree with a Minor in an Arts discipline shall be deemed to have met the Non-Science Elective Requirement.

## **Upper-Level Requirement**

A minimum of 42 VIU credits in courses numbered 300 or higher, with a minimum 2.0 ("C") grade point average calculated on all upper-level courses attempted or completed. If such a course has been repeated, *grades from all attempts will be included in the calculation.*

## **Residency Requirement**

A minimum of 60 credits must be taken at VIU. In exceptional circumstances, with written approval of the relevant Dean, this minimum may be reduced by up to 15 credits.

## **Upper-Level Exchange Agreements**

VIU has exchange agreements with some universities that allow up to a year of upper-level work to be completed at the partner institution. Check with Degree Advisors in individual departments for details.

## **Senior Project**

A senior project is required for certain Majors; students are expected to plan their senior project during third year and to schedule its completion prior to the end of their fourth year. Each senior project will have a designated project supervisor, who will assist the student to identify the resources required to complete the project successfully.

## **Admission Requirements**

- General admission requirements apply for admission to first year.

### **Notes on Admission**

- A minimum "B" grade in either Pre-calculus 12 or Principles of Mathematics 12 is a prerequisite for required Mathematics courses.
- Other high school science courses may be required for the different Majors and Minors.
- No more than 60 credits can be transferred from elsewhere towards a VIU degree.
- In their first two years, students should choose courses with their intended degree and/or Major/Minor in mind.
- Concurrent B.Sc./B.Ed. students should also consider the lower-level requirements for Education when selecting courses during their first two years.

## **Start Date and Application Deadline**

Programs start in September and applications are accepted between the first business day in October, and March 31. For further information regarding late applications and contact information check the Program Availability List.

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