

Bachelor of Science, Majors, Minors and Transfer

Bachelor of Science - Transfer

Physics

- **University Transfer Program**
- **Program Fees: Domestic Students, International Students**
- **Apply for Admission: Forms and Information**

General Description

The primary reason for becoming a physicist is curiosity. Whether it is the strange world of sub-atomic particles, the operation of a laser, the motion of the planets, or even the formation of a rainbow, physicists want to understand how the universe really works.

A physics degree will provide even more than this. With training in quantitative thinking, problem solving, modeling, and experimental techniques, a physics background provides entry into a wide variety of fields. Indeed, physicists are at the forefront in many of the hottest science and technology fields such as superconductivity, nanotechnology, fuel cells, and medical imaging.

VIU offers the first two years of a four-year B.Sc. program in Physics. Students can transfer to the University of British Columbia (UBC) or the University of Victoria (UVic) after either first or second year. Students who wish to transfer to Physics programs offered at other universities need to check the program requirements of the receiving institution to determine the required courses. For further information, students should contact VIU's Physics department or the Advising Centre at 1-888-920-2221 local 6410.

UBC Transfer *

| YEAR 1 | Credits |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| CHEM 140* - (Chemistry Fundamentals I) <i>and</i> , CHEM 142* - (Chemistry Fundamentals II) | 4 |
| Degree English Requirement | 6 |
| MATH 100 - (Calculus for Engineering and Physical Sciences I) MATH 101 - (Calculus for Engineering and Physical Sciences II) <i>or</i> MATH 121 - (Calculus I) MATH 122 - (Calculus II) MATH 110 - (Additional Calculus Topics) | 6 <i>or</i> 7 |
| PHYS 121 - (Physics for the Physical Sciences I) PHYS 122 - (Physics for the Physical Sciences II) | 8 |
| Electives (a,b) | 9 <i>or</i> 10 |

* Effective September 2011: **CHEM 140 will replace CHEM 122, and CHEM 142 will replace**

CHEM 121. Students who have already completed the old Chemistry courses can still use those courses to meet the **1st-year** chemistry requirements.

(a) A Computing Science course CSCI 160 is recommended.

(b) One course in Biology is required for the honours program.

| YEAR 2 | Credits |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| PHYS 211 - (Mechanics) PHYS 212 - (From Relativity to Quarks) PHYS 214 - (Introduction to Electronics) PHYS 215 - (Introductory Quantum Physics) PHYS 216 - (Introductory Electricity and Magnetism) | 15 |
| MATH 200 - (Calculus of Several Variables) MATH 241 - (Linear Algebra) MATH 251 - (Differential Equations) | 9 |
| Electives | 6 |

UVic Transfer

| YEAR 1 | Credits |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| PHYS 121 - (Physics for the Physical Sciences I) PHYS 122 - (Physics for the Physical Sciences II) | 8 |
| MATH 100 - (Calculus for Engineering and Physical Sciences I) MATH 101 - (Calculus for Engineering and Physical Sciences II) <i>or</i> MATH 121 - (Calculus I) MATH 122 - (Calculus II) MATH 110 - (Additional Calculus Topics) | 6 or 7 |
| Select <i>one</i> of the following pairs: CHEM 140* - (Chemistry Fundamentals I) <i>and</i> , CHEM 141* - (Chemistry Fundamentals II) <i>or</i> CHEM 142* - (Chemistry Fundamentals II) | 8 |
| CSCI 160 - (Computing Science I) | 4 |
| Degree English Requirement, as required (*b) | 6 |
| Electives (*c) | 15 |

* Effective September 2011: **CHEM 140 will replace CHEM 122, CHEM 141 will replace CHEM 111, and CHEM 142 will replace CHEM 121.** Students who have already completed the old Chemistry courses can still use those courses to meet the **1st-year** chemistry requirements.

| YEAR 2 | Credits |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| PHYS 211 - (Mechanics) PHYS 212 - (From Relativity to Quarks) PHYS 214 - (Introduction to Electronics) PHYS 215 - (Introductory Quantum Physics) PHYS 216 - (Introductory Electricity and Magnetism) | 15 |
| MATH 200 - (Calculus of Several Variables) MATH 241 - (Linear Algebra)(*d) MATH 251 - (Differential Equations) | 6 or 9 |
| Electives | 6 or 9 |

(*a) Required for Honours.

(*b) First-year English courses are not required if UVic is satisfied that students are proficient in English.

(*c) Additional Computing Science courses may be helpful for entry into the Co-operative Education option.

(*d) Required for Honours; recommended for Major. **Note: Program is being revised - MATH 241 will be required for both the Physics Major and Physics Honours programs at UVic.**