



PROGRAM PLANNING GUIDE

ID:

Name: _____

Bachelor of Science

Physics



Physics is the study of matter and energy at all scales, from the sub-nuclear to the dimensions of the universe. It is the fundamental science — all other sciences and technologies rely on the principles of physics. The department offers a comprehensive physics major. The foundation of this program is built in the first two years, as you study mechanics, waves, electricity and magnetism, optics, thermal physics and modern physics. In your third and fourth years, you will gain a deeper understanding of the fundamentals and delve into more advanced and specialized areas.

What determines my program requirements?

Please refer to the Academic Calendar (www.ulethbridge.ca/ross/academic-calendar) for complete program information.

Calendar Year: 2024/2025 - Your calendar year is set to the academic year you are admitted (or readmitted) and you should follow the requirements for that year for the duration of your program.

Faculty/School: Faculty of Arts and Science (www.ulethbridge.ca/artsci)

Program(s): Bachelor of Science

Major(s): Physics

Minor: A defined set of courses, designed to provide depth in a particular discipline, study in an interdisciplinary area, or focus on a theme-related topic. To learn more about optional minors see www.ulethbridge.ca/ross/minors.

Am I admissible to this program?

Admission: www.ulethbridge.ca/ross/admissions/undergrad

Transfer: www.ulethbridge.ca/ross/transfer-resources

When/How do I apply to the University?

Deadlines: www.ulethbridge.ca/ross/admissions/undergrad/deadlines

Step-by-Step: www.ulethbridge.ca/ross/admissions/step-by-step

Where can I find information on courses?

Course Catalogue: www.ulethbridge.ca/ross/courses

Registration Guide: www.ulethbridge.ca/ross/registration-guide

When can I register for classes?

Register early! (March for Summer and Fall; November for Winter)

Registration Dates: www.ulethbridge.ca/ross/registration-dates

How can I enhance my program?

Career Bridge: www.ulethbridge.ca/career-bridge

Co-op Education: www.ulethbridge.ca/career-bridge/co-operative-education

Honours Thesis: www.ulethbridge.ca/ross/undergraduate-thesis

Double Major: www.ulethbridge.ca/ross/double-major

What supports are available to students?

Student Services: www.ulethbridge.ca/campus-life/student-services

Student Success Centre: www.ulethbridge.ca/student-success-centre

Accessible Learning: www.ulethbridge.ca/ross/alc

Counselling Services: www.ulethbridge.ca/counselling





Recommended Course Sequence

Shown below is the recommended sequence of courses for your degree. Consult timetables for course offerings, prerequisites, and corequisites before registering each term as some courses may have limited offerings (ie. once a year, alternating years, or only offered in the Fall or Winter terms).

Consult with an Academic Advisor in your faculty if you wish to alter this sequence with regard to the specifically listed courses.

Note that this sequence was prepared based on course scheduling at the time of publication and may change during your studies.

First Year

Computer Science 1620

Mathematics 1410

One of: **Mathematics 1560** or **Mathematics 1565**

One of: **Mathematics 2560** or **Mathematics 2565**

Physics 1000

Physics 2000

Physics 2130

Lib Ed Requirement course

Lib Ed Requirement course

Lib Ed Requirement course

Second Year

Biology 1010 or Biology 1020

Chemistry 1000

One of: **Mathematics 2570** or **Mathematics 2575**

One of: **Mathematics 2580** or an additional course in MATH

Physics 2120

Physics 2150

Physics 2800

Physics 2925

Lib Ed Requirement course

Lib Ed Requirement course

Third Year

¹ Physics 3000/4000 level

¹ Physics 3000/4000 level

¹ Physics 3000/4000 level

¹ Physics 3000/4000 level

¹ Physics 3000/4000 level

¹ Physics 3000/4000 level

¹ Physics 3000/4000 level

¹ Physics 3000/4000 level

Lib Ed Requirement course

Lib Ed Requirement course

Lib Ed Requirement course

Fourth Year

¹ Physics 3000/4000 level

¹ Physics 3000/4000 level

¹ Physics 3000/4000 level

¹ Physics 3000/4000 level

¹ Physics 3000/4000 level

Elective 3000/4000 level

Elective 3000/4000 level

Elective 3000/4000 level

Elective 3000/4000 level

Elective

Elective

1. The term of offering for all senior Physics courses may vary. Students are strongly advised to consult with the Department of Physics and Astronomy regarding the sequencing of courses.

Note: Courses in bold in Years 1 and 2 of the sample sequence are prerequisite(s) for required courses and should be completed early in your program. Students are advised to review the prerequisites for elective courses within the major and plan accordingly.