

# PHYS 319. INTRODUCTION TO BIOPHYSICS.

---

Credits: 3

Offered by: Physics (Faculty of Science)

Terms offered: Winter 2026

[View offerings for Winter 2026 in Visual Schedule Builder.](#)

## Description

Emerging physical approaches and quantitative measurement techniques are providing new insights into longstanding biological questions. This course will present underlying physical theory, quantitative measurement techniques, and significant findings in molecular and cellular biophysics. Principles covered include Brownian motion, low Reynolds-number environments, forces relevant to cells and molecules, chemical potentials, and free energies. These principles are applied to enzymes as molecular machines, membranes, DNA, and RNA.

- Winter. Students with training in physics and biology will be well-suited to the course.
- Prerequisites: BIOL 200 or BIOL 219; MATH 222; PHYS 230 and (PHYS 232 or PHYS 253), or permission of the instructor.
- Restriction: Not open to students who have taken or are taking BIOL 319

Most students use Visual Schedule Builder (VSB) to organize their schedules. VSB helps you plan class schedules, travel time, and more.

[Launch Visual Schedule Builder](#)