Creation date: March 26, 2021
Revision date:

SAMPLE COURSE OUTLINE

Course Code, Number, and Title:

PHYS 1101: Physics I for Life Sciences

Course Format:
[Course format may vary by instructor. The typical course format would be:]

Lecture 4.0 h + Seminar 0.0 h + Lab. 2.0 h

Credits: 4.0 **Transfer Credit:** For information, visit bctransferguide.ca

Course Description, Prerequisites, Corequisites:

This is a calculus-based introductory physics course intended for students planning on a career in the life sciences including biology and the health professions. The course examines, kinematics, including graphs of motion, dynamics, energy, momentum, fluids, oscillations, waves, sound, heat, thermodynamics, geometrical optics and light interference and diffraction, in lectures and laboratories. Examples are chosen, where possible, from applications of interest to students of the life sciences.

Students will receive credit for only one of PHYS 1101 or 1125.

Prerequisite(s): A minimum "C" grade in Physics 12 or PHYS 1118, or a satisfactory score on the Physics Diagnostic Test; and a minimum "C-" grade in one of the following: MATH 1171, 1173 and 1183, 1175, or 1253 (MATH courses may be taken concurrently).

Learning Outcomes:

Upon successful completion of this course, students will be able to…

- Interpret and draw graphs of motion: position-time, velocity-time and acceleration-time
- Use Newton's laws to explain & predict how objects & systems move when they are subject to forces
- Understand & use the concepts of energy conservation and linear momentum conservation
- Demonstrate an understanding of, and solve problems involving: fluids, oscillations, waves, sound, heat, thermodynamics, geometrical optics and light interference and diffraction
- Apply rigorous problem solving techniques
- Take measurements in the laboratory
- Understand and use concepts of measurement uncertainty
- Interpret results and write laboratory reports

Instructor(s): TBA
Office: TBA **Phone: (604) 323-XXXX**
Office Hours: TBA **Email: TBA**

Textbook and Course Materials:
[Textbook selection may vary by instructor. An example of texts and course materials for this course might be:]

For textbook information, visit https://mycampusstore.langara.bc.ca/buy_courselisting.asp?selTerm=3|8

Note: *This course may use an electronic (online) instructional resource that is located outside of Canada for mandatory graded class work. You may be required to enter personal information, such as your name and email address, to log in to this resource. This means that your personal information could be stored on servers located outside of Canada and may be accessed by U.S. authorities, subject to federal laws. Where possible, you may log in with an email pseudonym as long as you provide the pseudonym to me so I can identify you when reviewing your class work.*

Assessments and Weighting:
Final Exam 25%
Other Assessments 75%
[An example of other assessments might be:]

Reading quizzes 6%
Assignments 10%
Quizzes 9%
Worksheet 10%
Midterms (2) 20%
Labs 20%

Grading System:

Specific grading schemes will be detailed in each course section outline.

A+	93 – 100%	B+	76 – 79%	C+	64 – 67%	D	50 – 54%
A	85 – 92%	B	72 – 75%	C	60 – 63%	F	0 – 49%
A–	80 – 84%	B–	68 – 71%	C–	55 – 59%		

Topics Covered:
[Topics covered may vary by instructor. An example of topics covered might be:]

- Review Vector notation and 2D Kinematics
- Newton's Law of Motion, Torque
- Work and Energy
- Linear Momentum
- Fluids
- Oscillations
- Waves and Sound
- Temperature and Heat, Kinetic Theory of Gases
- First and second law of Thermodynamics
- Light and Optics
- Interference and Diffraction

As a student at Langara, you are responsible for familiarizing yourself and complying with the following policies:

College Policies:

E1003 - Student Code of Conduct
F1004 - Code of Academic Conduct
E2008 - Academic Standing - Academic Probation and Academic Suspension
E2006 - Appeal of Final Grade
F1002 - Concerns about Instruction
E2011 - Withdrawal from Courses

Departmental/Course Policies:

Information unavailable, please consult Department for details.