

Learning Plan 2022-23

Course Name: : Applied Physics

Course Code: CIVL 11

Program(s): Civil Engineering Technology

Delivery Method: Face to Face ☒ Alternative Delivery ☐ Blended/Mobile ☐ Hybrid ☐ Online ☐

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Name of Associate Dean/Campus Dean: Brad Barbeau

Date prepared: 1/1/2023

Semester: Fall ☐ Winter ☒ Spring ☐ Summer ☐

Campus: Kingston

Sustainability: [Click or tap here to enter text.](#)

Experiential Learning: [Click or tap here to enter text.](#)

Assessment Plan

Students will demonstrate learning in the following ways:

Assessment Type	CLO*	VLO/ PLO**	Description (e.g. Frequency, details)	% of Grade	Total %	Tentative Due Dates
quizzes	1-5	9	x10 blackboard quizzes (multiple tries)	10x1.5	15	wk 2-13
project	1-4	2,3,8	x1 physics report + presentation	5+5	10	wk 14
tests	1-5	9	x2 written tests (single attempt)	2x25	50	wk 6+12
final	1-5	9	x1 written final test (single attempt)	1x25	25	wk 14

*CLO: Course Learning Outcome; **VLO/PLO: Vocational Learning Outcome/Program Learning Outcome – refer to associated Course Outline

Program Specific Continuance Policy

Does this course belong to a program with a [Program-Specific Continuance Policy](#)¹?

Yes ☐ No ☐

If “Yes”, the details of this policy are included in the table below.

If “No”, this table will include a “N/A” and the course will adhere to the standard outlined in the [College Continuance Policy](#)².

N/A

¹ Academic Policy Manual [refer to Appendix C: Continuance Policies for Full-Time Students by Program]

² Academic Policy Manual [refer to Section 10.1 Academic Requirement for Continuation as a Full-Time Student]

Academic Policy

Academic Policies at St. Lawrence College ensure that protocols for grading, advancement and related academic elements are established, reviewed and publicly communicated to students. The [Academic Policy](#)³ is available online via the college website for download.

Required Learning Resources & Materials

The required learning resources (e.g., readings, web links, etc.) and materials (e.g., software, lab equipment, etc.) are listed in the table below.

Text Book:

College Physics by Serway and Vuille (eleventh edition).

The textbook is optional in this course. The textbook will be an essential part of your college career and will be required in other courses in your program. The textbook will provide further explanation on topics covered in class.

Calculator:

A scientific calculator is required in this course. A recommended calculator that will be referred to in class is: Casio fx-991 MS calculator.

Additional Notes

Information pertaining to this course such as regulatory and accreditation requirements are listed below.

Blackboard and YouTube:

Students are required to access their blackboard account to obtain class material, track grades and performance, get access to important announcements, access assessments (such as quizzes and tests) online, get in contact with the instructor. Students are required to access YouTube links (available in blackboard) to watch videos of required lecture material before the assigned dates assigned.

Homework:

You must be prepared and willing to do homework in this course. For each hour in the physical or virtual classroom you should expect to devote approximately one hour to practice questions and assigned homework.

Extra help:

If you have difficulty understanding the course material you must seek assistance immediately. Please speak to the professor after class or during office hours. It is your responsibility to not fall behind in this course; the professor will try to identify at risk students before it's too late but ultimately it is your responsibility.

Assessments:

All assignments, labs and projects are due at the beginning of the class on the due date. A scientific calculator is the only digital device permitted for use during class tests, cell phones are not permitted. You must receive a passing grade on the tests section of this course to pass the course. The course

³ Academic Policy Manual - <https://www.stlawrencecollege.ca/about/reports-and-policies>

cannot be passed with excellent quizzes, take home assignments, project (if applicable) and a failing test mark. Your grade will be calculated as the minimum value of your cumulative mark (including quizzes, assignments, etc.) and your tests mark.

Missed Assessments:

1. Missed assignments will receive a grade of zero:
2. Missed quizzes will receive a grade of zero.
3. Missed tests will receive a grade of zero unless notification of excusable attendance is provided prior to the time of the test. In such cases, permission may be given for you to write a secondary test as soon as you are able.

When there are extenuating circumstances (i.e. illness which requires a physician's note or unsafe travel due to weather) the student must notify the instructor by e-mail within a reasonable time frame indicating reasons for the late submission. In these cases, the assessment will be graded with no penalty applied unless solutions to the assessment have been posted.

Delivery Schedule

Please Note:

- i) If this is a lab-based course, lab safety procedures and protocol must be specifically taught or reinforced prior to any activity taking place in the lab environment.
- ii) Any changes to this delivery schedule will be communicated in writing by the professor to the students.

Modules	Topic	CLO*	Learning Experiences	Resources & References	Dates
1	math review	systems of equations trigonometry and vectors	given problems and projects with solutions	instructor's videos, long and shorthand notes, textbook, in class tutorials	week 1
2	kinematics	equations rate of change dis-vel-acc graphs	given problems and projects with solutions	instructor's videos, long and shorthand notes, textbook, in class tutorials	week 2
3	dynamics	introduction to forces: gravity, friction, normal, ... free body diagram (FBD) Newton's laws static force balance	given problems and projects with solutions	instructor's videos, long and shorthand notes, textbook, in class tutorials	week 3-5
4	dynamics	review of static force balance circular motion and orbits centripetal acceleration	given problems and projects with solutions	instructor's videos, long and shorthand notes, textbook, in class tutorials	week 6-7
5	dynamics	extension of Newton's 2 nd law moments centre of mass	given problems and projects with solutions	instructor's videos, long and shorthand notes, textbook, in class tutorials	week 8-9
6	energy	laws of thermodynamics conservation equations work, power and efficiency	given problems and projects with solutions	instructor's videos, long and shorthand notes, textbook, in class tutorials	week 10-11
7	momentum	extension of Newton's 2 nd law conservation of momentum impulse types of collisions	given problems and projects with solutions	instructor's videos, long and shorthand notes, textbook, in class tutorials	week 12-13

*CLO: Course Learning Outcome

Associate Dean/Campus Dean Signature: Brad Barker Date: 01/16/2023 Enter a date.