



Course Description/Rationale/Overview: This course builds on students' previous experience with functions and their developing understanding of rates of change. Students will solve problems involving geometric and algebraic representations of vectors as well as broaden their understanding of rates of change to include the derivatives of a variety of functions. This course is intended for students who choose to pursue careers in fields such as science, engineering, economics, and some areas of business, including those students who will be required to take a university-level calculus, linear algebra, or physics course.

Class Requirements:

Materials/textbooks/equipment

Texts:

1) Advanced Functions and Introductory Calculus 12 (Harcourt)

2) Geometry and Discrete Mathematics 12 (Harcourt)

Recommended: A scientific calculator, binder, paper, writing utensils and ruler are required daily.

Course Requirements/Department Policies

Students are to be present for test dates. There must be a verified, valid reason when a test is missed. The teacher may provide an alternative opportunity for testing or record an "absent" for that test.

All summative assignments will have a clear *Due Date*. Assignments that are handed after the *Due Date* will be accepted and assessed by the teacher if submitted prior to the *Deadline*. The *Deadline* is defined as the class period in which that graded assignment is returned to the class, unless there are extenuating circumstances.

For the mid-term report, no mark will be recorded for a missed summative assignment.

Where a student has not submitted enough work for the teacher to determine the student's level of achievement the report card will indicate that the student's work is incomplete and no grade will be assigned.

At the semester end, where summative assessments are incomplete, a mark of zero may be assigned and used to calculate the student's final grade.

Assessment Strategies

Each unit or strand of the course will be evaluated using summative evaluations. Students will also be expected to complete assessment activities of a formative nature in order to learn and to practice the specific expectations that will compose these summative evaluations. Examples of summative evaluations are tests, case studies, interviews, reports, presentations, seminars, debates, research and other writing assignments.

Achievement Categories

Knowledge/Understanding	30%
Thinking/Inquiry	20%
Communication	15%
Application	35%

Curriculum strands:

- Rate of Change
- Derivatives and their Applications
- Geometry & Algebra of Vectors

Learning Skills:

- Works Independently
- Team work
- Organization
- Work Habits
- Initiative

Evaluation

The year's work will be based on the following assessment tools that will include one or more of the four Achievement Categories striving to meet the overall percentages established for each category:

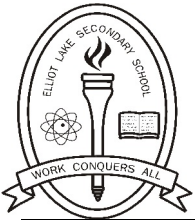
- quizzes
- tests
- assignments
- projects
- exam

FINAL MARK

Semester's Work: 70%

Final Summative Evaluation: 30%

Exam



COURSE OUTLINE

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Unit 1 Brief description of unit of study	List of strands included in unit	Types of activities and the categories of achievement that they evaluate	Percent that unit represents out of the 70% for the Summative Tasks
Unit 2			
Unit 3			
Unit 4			
Unit 5			
Unit 6			
Summative Evaluation Types of evaluation used to determine final 30 % of mark: exam, presentations, scrapbooks, etc..			Percent that each task represents out of 30% for final summative evaluation