

Calculus 12



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Introduction

Calculus 12 builds on and expands the concepts learned in Pre-Calculus 12. Much like its precursor, Calculus 12 is focused on mathematical theory, algebra, and graphing. Calculus 12 is the appropriate class for students planning to study something like math, science, engineering, or computer science at a university. Check the specific requirements of your desired program. Taking Calculus 12 at the secondary level can be very beneficial for students planning to take Calculus courses at the university level even if it is not required by the university.

In this online class, students watch video lessons and do practice questions through a service called Content Connections, which acts like an online textbook and homework resource. As they work through the lessons, students will complete short (mostly multiple choice) quizzes. Each unit finishes with an assignment and a test.

Topics

- Unit 1 General Review of Functions
- Unit 2 Limits and Continuity
- Unit 3 Differentiation
- Unit 4 Applications of Derivatives
- Unit 5 Integration
- Unit 6 Applications of Integration

Unit Contents

Each unit contains:

- Video lessons
- Online practice questions
- Quizzes
- A Review Assignment
- A Test

Grades

Quizzes	10%
Assignments	35%
Tests	55%

Curriculum Big Ideas

The **concept of a limit** is foundational to calculus.

Differential calculus develops the concept of **instantaneous rate of change**.

Integral calculus develops the concept of determining a product involving a **continuously changing** quantity over an interval.

Derivatives and integrals are **inversely related**.

Resources

Online Classes: <https://nlps.instructure.com>

Jupiter Grades: <https://jupitergrades.com>

School Website: <https://island-connected.sd68.bc.ca>

BC Curriculum: [Pre-Calculus 12](#)

Attendance

Please be aware that Island Connect K-12 does not have a general attendance requirement. However, it is in your best interests to make a habit of checking in with your teacher – either face to face, by email, phone or through video conference. Past learners have stated that such contact promotes engagement with the course materials and serves to motivate them to complete the work in a timely fashion.

Completion Timeline Expectations

You should plan to complete this class within 4 months of signing up – the duration of a normal high school semester. However, online classes are self-paced. It is up to you if you would like to complete the class more quickly or need more time. Either way, it is recommended that you make yourself a schedule and stick to it so that you can meet your personal goal for completing your online class.

Some online classes have a hard deadline at the end of the school year (end of June), depending on when you activated. Check with your teacher if you are concerned about class deadlines.

If you require a final grade for post-secondary applications, scholarships, etc. it is up to you to meet that deadline and allow time for your teacher to mark your work and send in a final grade.