

## SAMPLE COURSE OUTLINE

### Course Code, Number, and Title:

MATH 1274: Calculus II with Economic and Business Applications

### Course Format:

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

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

**Credits:** 3.0

**Transfer Credit:** For information, visit [bctransferguide.ca](http://bctransferguide.ca)

### Course Description, Prerequisites, Corequisites:

The indefinite integral and techniques of integration. The definite integral and applications to business, differential equations and probability distributions. Introduction to multi variable calculus.

Students will receive credit for only one of MATH 1271, 1273, 1274, or 1275.

Prerequisite(s): A minimum "C-" grade in one of the following: MATH 1171, 1173, 1174, 1175, or 1253. Prerequisites are valid for only three years.

### Learning Outcomes:

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

- Find an indefinite integral using the antiderivative of a given function and solve initial value problems using indefinite integrals
- Evaluate area under a curve using limits of Riemann sums
- Evaluate definite integrals using the limit definition of definite integral and the Fundamental Theorem of Calculus
- Find an indefinite integral using methods of substitutions, integration by parts, partial fractions, integral tables, and numerical techniques
- Use integrals to solve problems involving area, net change, average value, elementary separable and linear differential equations
- Evaluate multivariable functions, find their domains, and determine partial derivatives of a function of two or more variables
- Find equations of planes tangent to a given curve represented by a function of two variables
- Find and classify critical points of a function of two or more variables
- Use the second derivative test to find the local extrema for functions of two or more variables
- Use the method of Lagrange multipliers to optimize a function of two or more variables under constraints

**Instructor(s): TBA**  
**Office: TBA**  
**Office Hours: TBA**

**Phone: (604) 323-XXXX**  
**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\\_course/listing.asp?selTerm=3|8](https://mycampusstore.langara.bc.ca/buy_course/listing.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** 40%

**Other Assessments** 60%

[An example of other assessments might be:]

Assignments 5%

Quizzes 15%

Midterm Examinations 40%

**Grading System:**

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

Grades	F	D	C-	C	C+	B-	B	B+	A-	A	A+
% Range	0-47	48-52	53-57	58-62	63-67	68-72	73-76	77-79	80-84	85-95	≥ 96

**Topics Covered:**

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

- Integrations
- Integration Techniques
- Numerical Integration and Improper Integrals
- Applications of Integrations
- Applications to Business and Economics
- Introduction to Use of Integration in Probability
- Differential Equations
- Introduction to Multivariate Differential Calculus

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.*

SAMPLE