

	School of Arts & Science MATHEMATICS DEPARTMENT MATH 187 Technical Mathematics 2 Quarter or Semester/Year
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COURSE OUTLINE

1. Instructor Information

(a)	Instructor:	Gilles Cazalais		
(b)	Office Hours:	http://pages.pacificcoast.net/~cazelais/schedule.html		
(c)	Location:	CBA 158		
(d)	Phone:	370-4495	Alternative Phone:	
(e)	Email:	cazelais@camosun.ca		
(f)	Website:	http://pages.pacificcoast.net/~cazelais/187.html		

2. Intended Learning Outcomes

(No changes are to be made to these Intended Learning Outcomes as approved by the Education Council of Camosun College.)

Upon completion of this course the student will be able to:

1. Calculate antiderivatives, indefinite integrals, and definite integrals; integrate natural logarithms and trigonometric functions, and use integral calculus to determine the area under a curve.
2. Use numerical integration techniques such as the trapezoidal rule and Simpson's Rule to approximate a definite integral.
3. Use integration in applications involving area between curves, volumes of revolution, moments of area and mass, centroids and centres of mass, and moments of inertia.
4. Evaluate integrals in basic logarithmic, exponential, trigonometric, and inverse trigonometric forms. Use techniques of integration, including integration by parts, trigonometric substitution, and partial fractions.
5. Calculate power-series expansions of functions, including Maclaurin and Taylor series, and use these expansions to evaluate integrals.
6. Compute integrals involving curves and surfaces in three dimensions.
7. Find partial derivatives of functions in more than one variable.
8. Evaluate double integrals using both Cartesian and cylindrical coordinates and use them to calculate volumes under three-dimensional surfaces.

3. Required Materials

Allyn J. Washington, *Basic Technical Mathematics with Calculus*, 9th Edition

4. Course Content and Schedule

<http://pages.pacificcoast.net/~cazelais/schedule.html>

5. Basis of Student Assessment (Weighting)

- Three term tests: 50%
- Comprehensive final exam: 50%

6. Grading System

(No changes are to be made to this section unless the Approved Course Description has been forwarded through the Education Council of Camosun College for approval.)

Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
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90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	1
0-49	F	Minimum level has not been achieved.	0

Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at camosun.ca for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress:</i> A temporary grade assigned for courses that, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. <i>(For these courses a final grade will be assigned to either the 3rd course attempt or at the point of course completion.)</i>
CW	<i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.

7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College calendar, at Student Services, or the College web site at camosun.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services, and the College web site in the Policy Section.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED