

	<p><b>School of Arts &amp; Science</b>  <b>MATHEMATICS DEPARTMENT</b></p> <p><b>MATH 189</b>  <b>Technical Mathematics 3</b>  <b>2007Q3</b></p>
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## COURSE OUTLINE

The Approved Course Description is available on the web @ [leung.disted.camosun.bc.ca/](http://leung.disted.camosun.bc.ca/)

Ω Please note: this outline will be electronically stored for five (5) years only.

It is strongly recommended students keep this outline for your records.

### 1. Instructor Information

(a)	Instructor:	Chi-Ming Leung	
(b)	Office Hours:	M10:30-11:20, Tu, W10:30-12:00, Th,F10:30-11:20, Th3:30-4:20	
(c)	Location:	CBA 147	
(d)	Phone:	4448	Alternative Phone:
(e)	Email:	<a href="mailto:leungc@camosun.bc.ca">leungc@camosun.bc.ca</a>	
(f)	Website:	<a href="http://leung.disted.camosun.bc.ca">http://leung.disted.camosun.bc.ca</a>	

### 2. Intended Learning Outcomes

*(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)*

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

### 3. Required Materials

(a)	Texts	Washing, Allyn J., Basic Technical Mathematics with Calculus (metric Version), 8 <sup>th</sup> Edition, Addison-Wesley Publishing Company  Trushel, Peter J. and Chi-Ming Leung, Intermediate Statistics, Camosun College
(b)	Other	

### 4. Course Content and Schedule

*(Can include: class hours, lab hours, out of class requirements and/or dates for quizzes, exams, lectures, labs, seminars, practicums, etc.)*

#### Outline

Hours	Topic
	<b>Statistics and Probability Topics</b>
2	Counting Techniques
2	Introduction to Probability

1	Introduction to Statistics
2	Pictures of Data
1	Measures of Central Tendency
2	Measures of Variation
1	Interpretations of Standard Deviation
1	Expected Value
2	Binomial Distribution
2	Poisson Distribution
2	The Normal Probability Distribution
2	Confidence Intervals for the Mean
1	Confidence Intervals for the Variance
2	Continuous Probability Density Functions
2	Linear Regression
2	Non-linear Regression

### **Differential Equations**

1	Solutions of Differential Equations
1	Separation of Variables
1	Integrable Combinations
2	The Linear Differential Equation of the First Order
2	Elementary Applications
1	Second-Order Homogeneous Equations
1	Auxiliary Equations with Repeated or Complex Roots
2	Solutions of Non-homogeneous Equations
2	Applications of Second-Order Equations (simple examples)
2	Systems of Linear First-Order Differential Equations and Eigenvalues
2	Euler's Equation
2	Euler Method
2	Runge-Kutta Method

Lecture: 48 hours

Test: 4 hours

Leeway: 3 hours

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### **5. Basis of Student Assessment (Weighting)**

*(Should be linked directly to learning outcomes.)*

(a)	Assignments	10%
(b)	Quizzes	40%
(c)	Exams	50%
(d)	Other (eg, Attendance, Project, Group Work)	

## 6. Grading System

(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)

### Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
95-100	A+		9
90-94	A		8
85-89	A-		7
80-84	B+		6
75-79	B		5
70-74	B-		4
65-69	C+		3
60-64	C		2
50-59	D		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 at [camosun.ca](http://camosun.ca) or 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 are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
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.

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](http://camosun.ca) for information on conversion to final grades, and for additional information on student record and transcript notations.

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

### LEARNING SUPPORT AND SERVICES FOR STUDENTS

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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](http://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 on the College web site in the Policy Section.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED