

	<p>School of Arts & Science MATHEMATICS DEPARTMENT</p> <p>MATH 110-01 Linear Algebra 1 2006F</p>
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COURSE OUTLINE

The Approved Course Description is available on the web @ _____

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:	Dan Bergerud		
(b)	Office Hours:	TBA		
(c)	Location:	Ewing 264		
(d)	Phone:	370-3495	Alternative Phone:	
(e)	Email:			
(f)	Website:			

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:

1. Solve linear systems by using row reduction and by using the inverse matrix.
2. Find determinants by row reduction and by cofactor expansion.
3. Compute dot and cross products and use projections to find distances between lines, points, and planes in 3D.
4. Use the vector space axioms to determine whether a mathematical system is a vector space and to prove simple theorems.
5. Determine whether a set of vectors is a basis for a vector space and be able to prove simple theorems about linear independence and spans.

3. Required Materials

(a)	Texts	Anton and Rorres, <i>Elementary Linear Algebra</i> , 9th edition, Wiley 2005.
(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:

Sections

v Systems of Linear Equations and Matrices.	1.1 - 1.6
v Determinants.	2.2 - 2.4
v Vectors.	3.1 - 3.5
v Vector Spaces.	5.1 - 5.6
v Complex Numbers.	10.1 - 10.3

5. Basis of Student Assessment (Weighting)

(Should be linked directly to learning outcomes.)

The final grades in the course will be determined from marks on weekly assignments, 3 class quizzes, and a final exam.

Assignments	20%
Quizzes	30%
Final Exam	50%

*The final can be counted as 100% if the final mark exceeds the term mark.
This, however, is only an option if all of the term work has been satisfactorily completed.

- v Assignment sheets will be handed out weekly. Each assignment will be due one week after the sheet is handed out. Assignments which are one day late will be loose one mark. Assignments later than one day will be recorded as handed in but will not be marked.
- v The quizzes will be 50 minute tests which count for 10% each.
- v The final will be a comprehensive, 3 hour exam.

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 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 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

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 on the College web site in the Policy Section.

STUDY: Mathematics is a subject which is learned only by doing. One must spend as much time doing the math as is required to become accustomed to the notation and to perfect the techniques. (One or two hours for each hour of class!) It is essential to attend classes and not to fall behind. Take pride in carefully completing assignments on your own.

STUDY HELP: Out of class help may be obtained me in my office hours or from the MATH ASSISTANCE CENTRE in Ewing 224. (Operating hours are posted on the door.)