DEPARTMENT OF SCIENCE

COURSE OUTLINE
MA 2250 A3 – LINEAR ALGEBRA II
WINTER 2013

INSTRUCTOR:	Dr. Brian Redmond, Ph.D.	**PHONE:**	(780) 539-2093
OFFICE:	J206	**E-MAIL:**	bredmond@gprc.ab.ca

OFFICE HOURS: M W F 10:00AM – 11:00AM

PREREQUISITE: MA1020 or MA1200, and Mathematics 31 or 1000-level Calculus course

REQUIRED TEXT/RESOURCE MATERIALS:

W. Keith Nicholson, Linear Algebra with Applications, 6E, McGraw-Hill, 2009.

CALENDAR DESCRIPTION: Vector spaces; inner product spaces; examples of n-space and the space of continuous functions. Gram-Schmidt process, QR-factorization of a matrix and least squares. Linear transformations, change of basis, similarity and diagonalization. Orthogonal diagonalization, quadratic forms. Applications in a variety of fields, numerical methods.

CREDIT/CONTACT HOURS: 3 (3-1-0) UT

DELIVERY MODE(S):	Lecture:	10:00-11:20	T R	J202
	Seminar:	14:30-15:20	F	J202

TRANSFERABILITY: See www.gprc.ab.ca and www.acat.gov.ab.ca **

**Note: Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability

EVALUATIONS:

Assignments: 12.5% Quizzes: 12.5% Midterm: 25% Final Exam: 50%

STUDENT RESPONSIBILITIES:

Attend all lectures and seminars and check moodle regularly for course updates.

STATEMENT ON PLAGIARISM AND CHEATING:

Refer to the Student Conduct section of the College Admission Guide at http://www.gprc.ab.ca/programs/calendar/ or the College Policy on Student Misconduct: Plagiarism and Cheating at www.gprc.ab.ca/about/administration/policies/**

**Note: all Academic and Administrative policies are available on the same page.

GRADING CRITERIA:

GRANDE PRAIRIE REGIONAL COLLEGE			
GRADING CONVERSION CHART			
Alpha Grade	**4-point Equivalent**	**Percentage Guidelines**	**Designation**
A^+	**4.0**	**95 – 100**	**EXCELLENT**
A	**4.0**	**90 – 94**	
A^-	**3.7**	**85 – 89**	**FIRST CLASS STANDING**
B^+	**3.3**	**80 – 84**	
B	**3.0**	**75 – 79**	**GOOD**
B^-	**2.7**	**70 – 74**	
C^+	**2.3**	**66 – 69**	**SATISFACTORY**
C	**2.0**	**63 – 65**	
C^-	**1.7**	**60 – 62**	
D^+	**1.3**	**55 – 59**	**MINIMAL PASS**
D	**1.0**	**50 – 54**	
F	**0.0**	**0 – 49**	**FAIL**
WF	**0.0**	**0**	**FAIL, withdrawal after the deadline**

COURSE SCHEDULE/TENTATIVE TIMELINE:

Week	**Sections**	**Notes**
1. Jan. 8-11	Appendix A: Complex Numbers	Classes begin: Tuesday, Jan. 8
2. Jan. 14-18	Review of Chapter 5 and §5.5,5.6	
3. Jan. 21-25	Chapter 8 – Orthogonality	Quiz 1
4. Jan. 28-Feb.1		
5. Feb. 4-8		Quiz 2
6. Feb. 11-15	Chapter 6 – Vector Spaces	
7. Feb. 18-22		**WINTER BREAK**
8. Feb. 25-Mar.1		Quiz 3
9. Mar. 4-8	Chapter 7 – Linear Transformations	Tues. Mar. 5 – Midterm
10. Mar. 11-15		Mar.11 (deadline to withdraw) Mar.14 – Pi Day
11. Mar. 18-22	Chapter 9 – Change of Basis	Quiz 4
12. Mar. 25-29		**Friday, Mar. 29 – no classes**
13. Apr. 1-5	Chapter 10 – Inner Product Spaces	
14. Apr. 8-12		Quiz 5
15. Apr. 15-17		Wed., Apr. 17: last day of classes
Apr. 18-29		Final Exams