



**UNIVERSITY OF  
CALGARY**

DEPARTMENT OF MATHEMATICS AND STATISTICS  
COURSE OUTLINE

**Course:** Math 411 – Linear Spaces with Applications

**Dates:** January 09, 2017– April 12, 2017

1.

Lecture	Day	Time	Location	Instructor	Office	Phone	Email	Office Hours
L01	MWF	14:00-14:50	MS 431	Clifton Cunningham	MS 528	220-6888	<a href="mailto:ccunning@ucalgary.ca">ccunning@ucalgary.ca</a>	F 15:00-15:30

Desire 2 Learn (D2L) course name: Math 411 L01 - (Winter 2017) – Linear Spaces with Applications <https://d2l.ucalgary.ca>  
Department of Mathematics and Statistics – MS476 Telephone number – 403-220-5210

2. **Prerequisites:** Mathematics 311; and one of 331, 353, 367, 377, 381, or Applied Mathematics 309.  
(see Section 3.5C of Faculty of Science [www.ucalgary.ca/pubs/calendar/current/sc-3-5.html](http://www.ucalgary.ca/pubs/calendar/current/sc-3-5.html) and  
Course Descriptions: [www.ucalgary.ca/pubs/calendar/current/course-desc-main.html](http://www.ucalgary.ca/pubs/calendar/current/course-desc-main.html))

3. **Grading:** The University policy on grading and related matters is described sections F.1 and F.2 of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Problem Sets (3)	30%
Tests (2)	20%
Final Examination	50% (3 hours, to be scheduled by the Registrar)

**The tests will be held during the scheduled tutorials, February 15 and March 29.**

Each question on each problem set, test or exam will be assigned a letter grade. When grades are being processed, letter grades will be replaced by their value out of 4 using the University of Calgary undergraduate grading system <http://www.ucalgary.ca/pubs/calendar/current/f-2.html>. The student's grade point average for the various components listed above will be combined with the indicated weights to produce a grade point average, which will be used to determine the final course letter grade using following scale.

Grade Point Average to Letter Grade Conversion, end of term only	
GPA range	Letter Grade
3.90 -- 4.00	A+
3.70 -- 3.89	A
3.50 -- 3.69	A-
3.20 -- 3.49	B+
2.90 -- 3.19	B
2.60 -- 2.89	B-
2.20 -- 2.59	C+
1.90 -- 2.19	C
1.60 -- 1.89	C-
1.20 -- 1.59	D+
1.00 -- 1.19	D
0.00 -- 0.99	F

**4. Missed Components of Term Work:** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in [Section 3.6](#). It is the student's responsibility to familiarize himself/herself with these regulations. See also Section E.6 of the University Calendar. In the unlikely event of a health problem, the [Physician/Counsellor Statement Form](#) must be accompanied by either "[Application for Deferred Final Examinations](#)" or an "[Application for Deferment of Term Work](#)" in order to gain approval for such request. For all other missed term work such as quizzes, assignments or midterms, the [Physician/Counsellor Form](#) must be handed directly to your course instructor for approval.

**5. Course Materials:** There is no required book for this course. There are 2 recommended books:

1. K. Hoffman and R. Kunze, Linear Algebra, Second edition, Prentice Hall
2. S. Lipschutz and M. Lipson, Schaum's Outline of Linear Algebra

**6. Examination Policy:** No calculators, books or formula sheets are allowed on the tests. Students should also read the Calendar, [Section G](#), on Examinations.

#### **7. OTHER IMPORTANT INFORMATION FOR STUDENTS:**

**(a) Academic Misconduct:** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under [Section K](#). Student Misconduct to inform yourself of definitions, processes and penalties

**(b) Assembly Points:** In case of an emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on [assembly points](#).

**(c) Academic Accommodation Policy:** Students with documentable disabilities are referred to the following links: [Calendar entry on students with disabilities](#) and [Student Accessibility Services](#). Students needing an Accommodation in relation to their coursework or to fulfill requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the Associate Head of Mathematics and Statistics, Jim Stallard, by email at [jbstall@ucalgary.ca](mailto:jbstall@ucalgary.ca) or by phone at 403-220-3953.

**(d) Safewalk:** Campus Security will escort individuals day or night (<http://www.ucalgary.ca/security/safewalk/>). Call 403-220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.

**(e) Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information see also <http://www.ucalgary.ca/secretariat/privacy>.

**(f) Student Union Information:** VP Academic Phone: 220-3911 Email: [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca).  
SU Faculty Rep. Phone: 220-3913 Email: [sciencerep@su.ucalgary.ca](mailto:sciencerep@su.ucalgary.ca); [Student Ombudsman](#).

- (g) Internet and Electronic Device Information:** You can assume that in all classes that you attend, your cell phone should be turned off unless instructed otherwise. Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.
- (h)** At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses ([www.ucalgary.ca/usri](http://www.ucalgary.ca/usri)). Your responses make a difference - please participate in USRI Surveys.