

# UNIVERSITY OF CALGARY FACULTY OF SCIENCE DEPARTMENT OF MATHEMATICS & STATISTICS COURSE OUTLINE

## 1. Course: MATH 275, Calculus for Engineers and Scientists -- Fall 2018

Instructor Name	Email	Phone	Office	Hours
L01: ( MWF 16:00 - 1	16:50 in ENC 70)			
Yousry Elsabrouty	yelsabro@ucalgary.ca	403 220 2255	MS 418	Wednesdays 14:00 - 15:00
L02: (TR 14:00 - 15 Jinniao Qiu L03: (TR 15:30 - 16	jinniao.qiu@ucalgary.ca	+1 (403) 210-8474	MS 580	MW: 11am-12pm
Yousry Elsabrouty	yelsabro@ucalgary.ca	403 220 2255	MS 418	Wednesdays 14:00 - 15:00
L04: ( MWF 10:00 - : Yunlong Xiao Coordinator(s):	10:50 in MFH 162) yunlong.xiao@ucalgary.ca	(403) 210-8876	MS352	Friday 11:00-12:00
Yousry Elsabrouty	yelsabro@ucalgary.ca	403 220 2255	MS 418	Wednesdays 14:00 - 15:00

#### **Course Site:**

D2L: MATH 275 All Lectures- Fall 2018.

## **Department of Mathematics & Statistics:**

Office: MS 476

Phone: 403 220-5210 Email: mathinfo@ucalgary.ca

Note:

Students must use their U of C account for all course correspondence.

## 2. Requisites:

See section 3.5.C in the Faculty of Science section of the online Calendar.

**Prerequisite(s)**: A grade of 70 per cent or higher in Mathematics 30-1; and credit in Mathematics 31 or Mathematics 3 offered through University of Calgary Continuing Education. Alternatively, admission to the Faculty of Engineering including credit in Mathematics 30-1; and Mathematics 31 or Mathematics 3 offered through University of Calgary Continuing Education.

Antirequisite(s): Credit for Mathematics 275 and either 249 or 265 will not be allowed.

(See Course Descriptions www.ucalgary.ca/pubs/calendar/current/course-desc-main.html)

# 3. Grading:

The University policy on grading and related matters is described in  $\underline{F.1}$  and  $\underline{F.2}$  of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Component(s)	Weighting %
Assignments (4) (Online using Mathxl)	20%
Midterm test (1) (Out of Class: Friday November 2nd 05:30-07:30 PM)	30%
Final Examination (To be scheduled by the Registrar)	50%

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Component(s)		Weighting %

Each of the above components will be given a letter grade using the official university grading system. The final grade will be calculated using the grade point equivalents weighted by the percentages given above and then converted to a final letter grade using the official university grade point equivalents.

This course has a registrar scheduled final exam.

A Passing Grade in the Final Examination is Essential for an Overall Grade of D or Better in the Course.

## 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/themself with these regulations. See also Section E.3 of the University Calendar.

## 5. Scheduled out-of-class activities:

The following out of class activities are scheduled for this course.

Activity	Location	Date and Time	Duration
Midterm	ENA 201, ENG 60, ICT 102, ST 135, ST 140, ST 141, ST 148	Friday, November 2, 2018 at 5:30 pm	2 Hours

**REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY.** If you have a conflict with the out-of-class-time-activity, please contact your course coordinator/instructor no later than **14 days prior** to the date of the out-of-class activity so that alternative arrangements may be made.

#### 6. Course Materials:

Required Textbook(s):

Robert A. Adams & Christopher Essex, Calculus, A Complete Course With Mathxl Access Card (Eighth or Ninth Edition): Pearson Canada Inc. .

Online Course Component: Online homework through Mathxl is available on any computer that has internet access to those who opt to purchase the above textbook package. Those who do not purchase the textbook will be given access to just the homework component through some select computers labs on campus. Either way, you are responsible for completing the assigned homework in a timely fashion. The choice is up to you: If you prefer the flexibility of working on your homework from anywhere and access to the Study Plan. The homework is a critical component of the course to help prepare you for the exams as well as help you self-assess your progress in the course. Unless otherwise noted by the instructor, all D2L/course webpage materials including lecture notes, lab worksheets and solutions, will be removed from the course site on January 10, 2019

## 7. Examination Policy:

No aids are allowed on tests or examinations

The use of calculators and/or portable computing devices will not be allowed on examinations.

Students should also read the Calendar, Section G, on Examinations.

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## 8. Approved Mandatory and Optional Course Supplemental Fees:

There are no mandatory or optional course supplemental fees for this course

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## 9. Writing across the Curriculum Statement:

For all components of the course, in any written work, the quality of the student's writing (language, spelling, grammar, presentation etc.) can be a factor in the evaluation of the work. See also Section <u>E.2</u> of the University Calendar.

#### 10. Human studies statement:

Students will not participate as subjects or researchers in human studies.

See also <u>Section E.5</u> of the University Calendar.

## 11. Reappraisal of Grades:

A student wishing a reappraisal, should first attempt to review the graded work with the Course coordinator/instructor or department offering the course. Students with sufficient academic grounds may request a reappraisal. Non-academic grounds are not relevant for grade reappraisals. Students should be aware that the grade being reappraised may be raised, lowered or remain the same. See Section 1.3 of the University Calendar.

- Term Work: The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within 15 days of either being notified about the mark, or of the item's return to the class. If the student is not satisfied with the outcome, the student shall immediately submit the Reappraisal of Graded Term work form to the department in which the course is offered. The department will arrange for a reassessment of the work if, and only if, the student has sufficient academic grounds. See sections <a href="L1">L1</a> and <a href="L2">L2</a> of the University Calendar
- 2. **Final Exam:**The student shall submit the request to Enrolment Services. See <u>Section I.3</u> of the University Calendar.

#### 12. OTHER IMPORTANT INFORMATION FOR STUDENTS:

- a. Mental Health The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, Mental Health Services Website) and the Campus Mental Health Strategy website (Mental Health).
- b. **SU Wellness Center:** The Students Union Wellness Centre provides health and wellness support for students including information and counselling on physical health, mental health and nutrition. For more information, see <a href="https://www.ucalgary.ca/wellnesscentre">www.ucalgary.ca/wellnesscentre</a> or call 403-210-9355.
- c. **Sexual Violence:** The University of Calgary is committed to fostering a safe, productive learning environment. The Sexual Violence Policy (<a href="https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf">https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf</a>) is a fundamental element in creating and sustaining a safer campus environment for all community members. We understand that sexual violence can undermine students' academic success and we encourage students who have experienced some form of sexual misconduct to talk to someone about their experience, so they can get the support they need. The Sexual Violence Support Advocate, Carla Bertsch, can provide confidential support and information regarding sexual violence to all members of the university community. Carla can be reached by email (<a href="mailto:sysa@ucalgary.ca">sysa@ucalgary.ca</a>) or phone at 403-220-2208.
- d. **Misconduct:** 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 <u>Section K</u>. Student Misconduct to inform yourself of definitions, processes and penalties. Examples of academic misconduct may include: submitting or presenting work as if it were the student's own work when it is not; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; collaborating in whole or in part without prior agreement of the instructor; borrowing experimental values from others without the instructor's approval; falsification/fabrication of experimental values in a report. **These are only examples**.
- e. **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on <u>assembly points</u>.
- f. **Academic Accommodation Policy:** Students needing an accommodation because of a disability or medical condition should contact Student Accessibility Services in accordance with the procedure for accommodations

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for students with disabilities available at procedure-for-accommodations-for-students-with-disabilities.pdf.

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 the Department of Mathematics & Statistics, Jim Stallard by email jbstall@ucalgary.ca or phone 403-220-3953. Religious accommodation requests relating to class, test or exam scheduling or absences must be submitted no later than **14 days** prior to the date in question. See <u>Section E.4</u> of the University Calendar.

- g. **Safewalk:** Campus Security will escort individuals day or night (See the <u>Campus Safewalk</u> website). Call <u>403-220-5333</u> for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.
- h. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). 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 <u>Legal Services</u> website.
- i. **Student Union Information:** <u>VP Academic</u>, Phone: <u>403-220-3911</u> Email: <u>suvpaca@ucalgary.ca</u>. SU Faculty Rep., Phone: <u>403-220-3913</u> Email: <u>sciencerep@su.ucalgary.ca</u>. Student Ombudsman, Email: <u>suvpaca@ucalgary.ca</u>.
- j. **Internet and Electronic Device Information:** Unless instructed otherwise, cell phones should be turned off during class. All communication with other individuals via laptop, tablet, smart phone or other device is prohibited during class unless specifically permitted by the instructor. Students that violate this policy may be asked to leave the classroom. Repeated violations may result in a charge of misconduct.
- k. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction (<u>USRI</u>) survey and the Faculty of Science Teaching Feedback form provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. Your responses make a difference please participate in these surveys.

Date: 2018-09-07 12:05

**Department Approval:** Electronically Approved **Date:** 2018-09-07 11:03

Associate Dean's Approval for out of regular class-time activity:

Electronically Approved

## **Course Outcomes**

- Adapt to the language and notion of calculus.
- Develop an understanding of the key concepts of calculus and use it to compute Limits, Derivatives, and Integrals of appropriate real valued functions of a single real variable
- Perform calculus techniques to solve a wide variety of practical problems
- Analyze appropriate real-world problems in interdisciplinary fields.
- Explore the relationship between key calculus concepts and its geometric representation for an enhanced interpretation of certain physical or natural Property.
- Recognize that not only the technology can be used to achieve some desired results; but also it has limitations.

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