

## Economics 311 (L01) (Computer Applications in Economics)

Instructor: Grant Freudenthaler

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Office: ZOOM Delivery

Office Hours: MW 11:45-12:45, by appointment

Lecture Location: ZOOM Delivery

Lecture Days/Time: TR 9-11:45

(Spring 2021)

### Course Description:

The main goal of this blended learning course is to provide proficiency in practical applications of economics using computers. Students will learn about the elementary and advanced features of spreadsheets using Excel and using the web to find economic data. Examples will be drawn from Engineering Economics and Financial Economics.

### Course Learning Outcomes:

By the end of the course students will be

- Literate in Excel (comprehend terminology, apply appropriate techniques) for various types of data summaries and analysis.
- Able to obtain data from various sources and import it into Excel and use the appropriate format for graphing different types of data.
- Able to explain the time value of money, and the underlying concepts to be able to assess loans, mortgages, bonds, term deposits and other business projects using multiple methods in Excel and be able to defend his/her choice of the most profitable alternative.
- Able to perform a sensitivity analysis using advanced Excel techniques.
- Able to use advanced Excel database tools to compile, summarize and organize data including creating a PivotTable.

### Course Outline:

May 6th	Introduction to Spreadsheets	Excel terminology, workbooks, worksheets, formulae, logic statements.
May 11th	Introduction to Spreadsheets	formatting, graphing, accounting conventions.
May 14th	Exercise #1	Exercise #1 due at 8:45 am
May 13th	Basics of Financial Economics	Time Value of Money - Present value, Future value, Annuities.
May 18th	Basics of Financial Economics	Evaluating savings, mortgages & loans.
May 20th	Project Analysis	Cashflow analysis
May 21st	Exercise #2	Exercise #2 due at 8:45 am
May 25th	Project Analysis	Sensitivity analysis
May 27th	Project Analysis	Sensitivity analysis
Jun 1st	Database Tools and Pivot Tables	Database tools,

Jun 3rd	Midterm	Introduction to Spreadsheets, Basics of Financial Economics, Cashflow Analysis
Jun 8th	Database Tools and Pivot Tables	Statistical functions,
Jun 10th	Database Tools and Pivot Tables	Statistical functions for Databases,
Jun 11th	Exercise #3	Exercise #3 due at 8:45 am
Jun 14th	Project	Project due at 8:45am
Jun 15th	Database Tools and Pivot Tables	Pivot tables
Jun 17th	Advanced	Monte Carlo and VBA introduction
Jun 17th	Exercise #4	Exercise #4 due at 8:45 am
Jun 21-Jun 23	Final Exam	Course Complete

**Prerequisites/corequisites:**

Economics 201 and 203.

**Required Textbook(s):**

None

**Recommended Textbook(s):**

New Perspectives Microsoft Office Excel 2016, Comprehensive Enhanced Edition, by Parsons, et al, Nelson Publisher. [Optional]

**Online Delivery:**

This course will be delivered online. Students are expected to be able to participate online in accordance with this Course Outline. Lectures, assignments, office hours, exams, readings and other course material, etc. all require online access and this access is the responsibility of the student.

In order to remotely participate in online courses, students will need to have: computer with a current and updated operating system (macOS or Windows will work with all university-supported online learning technologies), a current and updated web browser installed – the latest versions of Firefox, Safari, Chrome or Edge will help to avoid compatibility issues, secure and reliable internet, microphone / headphones, webcam (optional), scanner (or camera to scan your work).

**This course will make use of Microsoft Excel.**

**Desire2Learn:**

This course will make use of the Desire2Learn (D2L) platform. Students who are registered in the course can log on at <http://d2l.ucalgary.ca> through their student centre. Please note that D2L features a class e-mail list that may be used to distribute course-related information. These e-mails go to your University of Calgary e-mail addresses only.

**Lectures:**

Lectures will be delivered online at the Registrar scheduled times and delivered using ZOOM. The lectures will be recorded and subsequently posted to D2L.

**Grade Determination and Final Examination Details:**

4 Exercises	16%
1 Project (June 14)	24%
1 Midterm Examination (June 3)	25%
Final Exam (Scheduled by the Registrar)	35%

The official grading system will be used. See <http://www.ucalgary.ca/pubs/calendar/current/f-1-1.html>.

A passing grade on any particular component of the course is not required for a student to pass the course as a whole.

If a student's letter grade on the final exam exceeds their midterm(s) letter grade, the weight of the midterm(s) may be transferred to the final exam at the discretion of the instructor. The student must have written the midterm(s) or provided supporting documentation for the absence(s) such as a medical note or statutory declaration.

As per the Writing Across the Curriculum Statement in the Calendar, writing and grading thereof will be a factor in the evaluation of student work. See <https://www.ucalgary.ca/pubs/calendar/current/e-2.html>.

The final examination will be an open-book, take-home exam. The exam will be available on D2L 24 hours before the end of the Registrar's scheduled final exam time. Students will hand in their exam, as an unlocked Excel file, on D2L prior to the end of the scheduled completion time of their final exam using DropBox. The exam is intended to be completed in 2 hours. Students will have four hours to complete the exam, at the time of their choosing, within the 24 hour period.

The midterm exam will be an open-book, take-home exam. The exam will be available on D2L 24 hours before the end of scheduled midterm exam time. Students will hand in their exam, as an unlocked Excel file, on D2L prior to the end of the scheduled completion time using DropBox. Students will have **two hours** to complete the exam, at the time of their choosing, within a designated 24 hour period. The exam is intended to be completed in 75 minutes.

Tests and exams **WILL NOT** involve multiple choice questions.

All other course components will also be accessed, submitted, and returned through D2L.

If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam <https://www.ucalgary.ca/pubs/calendar/current/g-6.html>. Under no circumstance will this be accommodated by the Department.

The format and due dates of the assignments and the project will be discussed during the first week of classes. All assignments and the project are due before 8:45 am, in the dropbox, in D2L. No assignments are accepted by email or on paper. All files must not be locked. **Late assignments will not be accepted for any reason.**

The exact start date for the midterm to is June 3. The exam starts at 9:00am June 3rd and ends 24 hours later 9:00am June 4th.

THERE WILL BE NO MAKEUP OR DEFERRED QUIZZES/TESTS/EXAMS under any circumstances, nor may the quizzes/tests/exams be written early. Students unable to write the quizzes/tests/exams because of documented illness, family emergency, religious observance, or university-sanctioned event will have the weight shifted to the final examination; otherwise a grade of zero will be assigned.

#### **Reappraisal of Grades and Intellectual Honesty:**

*For Reappraisal of Graded Term Work, see Calendar I.2*

<http://www.ucalgary.ca/pubs/calendar/current/i-2.html>

*For Reappraisal of Final Grade, see Calendar I.3*

<http://www.ucalgary.ca/pubs/calendar/current/i-3.html>

### **ACADEMIC MISCONDUCT**

Academic Misconduct refers to student behavior that compromises proper assessment of students' academic activities and includes: cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

Student committing academic misconduct during the final exam will not receive a passing grade for the course.

For information on the Student Academic Misconduct Policy, Procedure and Academic Integrity, please visit: <https://www.ucalgary.ca/pubs/calendar/current/k-3.html>

### **Academic Accommodations:**

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services. SAS will process the request and issue letters of accommodation to instructors. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at

<https://www.ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure>

### **Freedom of Information and Protection of Privacy (FOIP) Act:**

Personal information is collected in accordance with FOIP. Assignments can only be returned to the student and will be accessible only to authorized faculty and staff. For more information, see <https://www.ucalgary.ca/legal-services/access-information-privacy>

### **Copyright Legislation:**

See the University of Calgary policy on Acceptable Use of Material Protected by Copyright at <https://www.ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy> Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

Course materials created by instructors (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed or copied without the explicit consent of the instructor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

### **Recording of Lectures:**

Recording of lectures is prohibited, except for audio recordings authorized as an accommodation by SAS or an audio recording for individual private study and only with the written permission of the instructor. Any unauthorized electronic or mechanical recording of lectures, their transcription, copying, or distribution, constitutes academic misconduct. See <https://www.ucalgary.ca/pubs/calendar/current/e-6.html>.

**Important Dates:**

Please check: <http://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html>.

**Student Organizations:**

Faculty of Arts Students' Association (F.A.S.A.):

Economics Department Representative

E-mail: [econrep@fasaucalgary.ca](mailto:econrep@fasaucalgary.ca) and Web: [www.fasaucalgary.ca](http://www.fasaucalgary.ca).

Society of Undergraduates in Economics:

<https://www.ucalgarysue.com/>.

Society of Undergraduates in Economics is a student run organization whose main purpose is to assist undergraduate economics students to succeed both academically and socially at the University of Calgary. Services include access to the exam bank, career events such as Industry Night and information sessions, mentorship programs, and social events for members. They invite you to join by contacting SUE at [societyofundergradsineconomics@gmail.com](mailto:societyofundergradsineconomics@gmail.com).

**Faculty of Arts Program Advising and Student Information Resources:**

- Have a question, but not sure where to start? The Arts Students' Centre is your information resource for everything in Arts! Call them at 403-220-3580, or email them at [artsads@ucalgary.ca](mailto:artsads@ucalgary.ca). You can also visit the Faculty of Arts website at <http://arts.ucalgary.ca/undergraduate>, which has detailed information on common academic concerns, including program planning and advice.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at 403-210-ROCK [7625].

**Student Support and Resources:**

- See <https://www.ucalgary.ca/registrar/registration/course-outlines> for information on campus mental health resources, the Student Ombuds' Office, Student Success Centre, Safewalk, and Emergency Evacuation and Assembly.
- Online writing resources are available at <https://ucalgary.ca/student-services/student-success/writing-support>.

**Notes:**

1. Students are responsible for all assigned material, e.g., supplementary material posted on D2L, regardless of whether or not the material was covered in class.
2. Email Policy: Please note that the following types of emails will receive no response: emails not addressed to anyone in particular; emails where the recipient's name is not spelled correctly; anonymous emails; and, emails involving questions that are specifically addressed on this course outline

GKF

2021-05-02