



Department of Marketing & Consumer Studies

**REAL*2820
REAL ESTATE FINANCE
Winter 2018**

Instructor: Jian Zhou
Office Room: MINS 213A, Ext 56634
Hours: Wed 12-2 or by appointment
Email: jian@uoguelph.ca

Class Times and Location:

Monday/Wednesday 10:00 - 11:20am, MACS 209 (Section 1)
02:30 – 03:50pm, MACS 209 (Section 2)

Course Description and Objectives:

This course examines the financing of both residential and commercial investment real estate. A mathematical approach is used to examine the impact of various lender and borrower decisions on loan terms (amortization periods, pre-payment options, etc.). The evolution of the Canadian housing finance system is contrasted with that in the United States. New methods of financing real estate other than traditional mortgages are discussed.

Course Learning Outcomes:

Upon successfully completing this course, you will be able to:

- 1) Demonstrate thorough understanding of the concepts of real estate financial analysis at the level of the individual decision unit.
- 2) Develop a critical understanding of the impact of decisions about mortgage terms on the household financial position
- 3) Understand the nature, form, and development of financing instruments in Canada and the U.S.
- 4) Demonstrate knowledge of financing in the real estate development process.
- 5) Demonstrate an understanding of the role of government regulation.
- 6) Understand the contrast between the financing of commercial and residential real estate.

Course Philosophy and Approach:

This course is of mathematical nature. We will be using mathematical techniques to evaluate various types of mortgage borrowing and lending decisions. The math involved is primarily simple algebra. If you have concerns

about your math skills please see me early.

This is a course for which a standard textbook is not available. Class attendance is important. Our primary method of instruction is lectures, which will be delivered through PowerPoint slides. The night before each class (usually by 9pm), a condensed version of lecture notes will be posted on the course web. You are expected to read it prior to the class and make it a full-version the next day by taking appropriate notes in class. The full-version notes will be the information base you should rely on to prepare for assignments and exams.

On-Line Communication:

- This course has a website (see <http://courselink.uoguelph.ca/>). Some important announcements will be posted there. So check this site often.
- The primary way to communicate with the instructor is through email (jian@uoguelph.ca). You can reasonably expect a response within 24 hours (weekends/holidays may take longer).

Methods of Evaluation:	<u>Weight</u>	<u>Associated Learning Outcomes (see p1)</u>	<u>Due date</u>
Assignment # 1	10%	1,2	Jan 31
Assignment # 2	8%	1,5,6	Feb 12
Assignment # 3	6%	1,2	Mar 14
Assignment # 4	6%	1,4	Mar 28
Midterm	30%	1,2,5,6	Feb 14 in-class
<u>Final</u>	<u>40%</u>	1-6	Apr 14 2:30-4:30; Room TBA
Total	100%		

Assignments

You can do them on your own or as groups. If choosing group, you decide whom to work with but **at most three** students for a group. You can form a new group or choose to work on your own for the next assignment.

Assignments are due at the **beginning** of the classes as indicated above. Late assignments will **not** be accepted. Clearly list (all of) the name(s) and student ID(s) on your assignment. Assignments should be submitted **stapled** in the top left corner, without a folder.

Midterm Exam

The midterm exam will cover all materials in the course up to and including the class before the test and the format will be discussed prior to the test.

Final Exam

This exam will cover the entire course, including material from the assignments, all reading material and issues discussed during the lectures. The format will be described in the review class.

Course Resources:

1. Real Estate Finance by Auld, J.W. and J. Londerville; available online through CourseLink. Useful material but **not** a text. It does not include everything we discuss in class.
2. Financial calculator: must have one to do the calculations. I recommend Texas Instruments TI-BA-II Plus. However, any calculator with PV, FV, i%, PMT type keys will do. You should learn to use the calculator early on in the course.

Preliminary Class Schedule – subject to revision

(*REF* refers to Real Estate Finance by Auld and Londerville. It's available on CourseLink)

<u>Date:</u>	<u>Topic and readings</u>
Week 1	Introduction to Housing Finance Mortgage mathematics: Discounted cash flow analysis
Week 2	Mortgage mathematics: Effective interest rates, payment calculations, outstanding balances; <i>REF</i> A:4 & A:5 Evaluating other mortgage features: Term, Amortization Period, prepayment options, etc; <i>REF</i> A:11
Week 3	Prepayment penalties; <i>REF</i> A:11 Assignment 1 handout Monday Jan 22 The Lending Decision: Homeowners & Commercial; <i>REF</i> A:2 &A:3
Week 4	The Refinancing Decision; Take up Assignment 1 Assignment 1 due Wednesday Jan 31
Week 5	Insurance; <i>REF</i> A:9; Taxes (including the new HST); <i>REF</i> A:8 Assignment 2 handout Monday Feb 5
Week 6	Take up Assignment 2; Review for Midterm exam Assignment 2 due Monday Feb 12; Midterm Exam Wednesday Feb 14
Week 7	READING WEEK NO CLASSES
Week 8	Take up Midterm exam Mortgage innovations (GPM, PLAM, etc)
Week 9	Mortgage innovations continued ; Financial and Tenure Options of Housing for Older Canadians Assignment 3 handout Wednesday Mar 7
Week 10	Financial and Tenure Options of Housing for Older Canadians continued Take up Assignment 3 Assignment 3 due Wednesday Mar 14
Week 11	Choosing between alternate projects: NPV & IRR, Development Financing; Guest speaker construction financing Wednesday Assignment 4 handout Wednesday Mar 21
Week 12	Secondary Mortgage Market; Canadian vs US mortgage market, subprime mortgage, credit crisis; Take up Assignment 4; Assignment 4 due Wednesday Mar 28

Course Policy regarding the Use of Electronic Device

Any device except the financial calculator is prohibited during exams. Electronic recording of lectures (i.e. photo-, audio- or video-taking) is expressly forbidden without the consent of the instructor.

Academic Consideration

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. See the academic calendar for information on regulations and procedures for

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08>

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Centre for Students with Disabilities as soon as possible.

For more information, contact CSD at 519-824-4120 ext. 56208 or email csd@uoguelph.ca or see the website: <http://www.csd.uoguelph.ca/csd/>

Drop date

The last date to drop one-semester courses, without academic penalty, is the 40th class day. For regulations and procedures for Dropping Courses, see the Academic Calendar:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08>