

## **MOS 4313: Real Estate Investment Trusts and Mortgage Backed Securities**

### **Course Outline Fall 2013**

Location: SSC 3022

Class time: Thursdays 1:30–3:30

Tutorial time: Wednesdays 1:30–2:30

#### ***Instructor Information***

Name and title: Dr. Diana Mok

Contact information: [dmok3@uwo.ca](mailto:dmok3@uwo.ca)

Office: SSC 4426

Office hour: TBA

Course webpage: [geography.ssc.uwo.ca/faculty/mok](http://geography.ssc.uwo.ca/faculty/mok)

#### ***Course Syllabus***

##### *Description*

The object of the course is to introduce students to the financial analysis of real estate investments. It discusses the fundamentals of real estate investment trusts, securitization and the commercial mortgage-backed securities market. In light of evidence-based management, the course links the concepts to evidence observed in the real world. It provides students with a better understanding of the mechanisms that underlie the real estate financial market.

##### *Objectives*

To introduce students to the principal concepts and theories in real estate investment trusts (REITs), publicly traded real estate, commercial mortgage-backed securities (CMBS) market and securitization. To apply these concepts to the real world and assess the empirical evidence.

##### *Prerequisite(s):*

MOS 2310A/B

##### *Antirequisite(s):*

NA

**Note:** It is students' responsibility to ensure that all prerequisite conditions are met or that special permission to waive these requirements has been granted by the Faculty. Unless the student has either the requisites for this course or written special permission from the Associate Dean's Office to enroll in it, he/she will be removed from this course and it will be deleted from the student's record. It is also the student's responsibility to ensure that he/she has not taken a course listed as an anti-requisite. The student may not be given credit if he/she violates the anti-requisite condition. The decisions regarding either prerequisite or antirequisite may not be appealed. The student will receive no adjustment to tuition fees in the event that he/she is dropped from a course for failing to meet prerequisite and antirequisite conditions.

##### *Approach*

The course is run as a series of weekly lectures. Some class time is set aside for quizzes and course administration.

### *Topics*

The following list of topics will be considered during the term. See the attached reading list for the corresponding required readings.

- Agency and non-agency mortgage-backed securities markets
- Valuation of MBS
- Prepayment models
- Interest rate models
- Default risk models
- Credit default swaps
- Commercial mortgage-backed securities

### ***Course Materials***

#### *Course readings*

The course has no principal required text books. Lectures are based on course readings posted on the course webpage. These readings are drawn from recent articles, book chapters and other academic sources.

Recommended readings include:

Chan, S.H., Erickson, J., and Wang, K. 2003. **Real Estate Investment Trusts: Structure, Performance, and Investment Opportunities**. Oxford University Press.

Kendall, L.T. and Fishman, M.J. **A Primer on Securitization**. 2000. MIT Press.

Allman, K.A. 2007. **Modeling Structured Finance Cash Flows with MS Excel**. New Jersey: Wiley.

Fabozzi, F.J. 2006. **The Handbook of Mortgage-Backed Securities. Sixth Edition**. McGraw Hill.

Hayre, L. (ed.) 2001. **Salomon Smith Barney Guide to Mortgage-backed and Asset-backed Securities**. Wiley Finance.

Loffler, G. and Posch, P.N. 2011. **Credit Risk Modeling Using Excel and VBA. Second Edition**. John Wiley & Sons.

London, J. 2007. **Modeling Derivatives**. New Jersey: FT Press.

Stone, C.A. and Zissu, A. 2005. **The Securitization Markets Handbook**. Princeton: Bloomberg Press.

Tuckman, B. and Serrat, A. 2012. **Fixed Income Securities**. Third Edition. New Jersey: Wiley.

Additional suggested readings will be listed on the course webpage. In addition, references to general topics in finance are:

Brealey, R.A., Myers, S.C., Marcus, A.J., Maynes, E.M., and Mitra, D. 2009. *Fundamentals of Corporate Finance, 4<sup>th</sup> Canadian Edition*. Toronto: McGraw-Hill Ryerson.

Ross, S. A., Westerfield, R. W. and Jordan, B. D. 2006. *Corporate Finance, 7<sup>th</sup> edition*. New York: McGraw Hill.

Gitman, L. J. and Hennessey, S. 2004. *Principles of Managerial Finance, 1<sup>st</sup> Canadian edition*. Pearson.

### **Methods of Evaluation of Assignments**

The course has four components: Class Activities, Excel Assignments, In-class Quizzes, and a Group Project.

**(a) Class Activity 20%.** Class activity is worth 20 percentage points towards the final course grade. There will be 5 in-class excel activities; each is worth 4% towards the final course grade. It is important that students be involved in these activities in order to benefit from the course.

**(b) Short Excel model 30%.** There are three excel assignments, each is worth 10% towards the final course grade. The Excel models aim to assist students develop simple Excel models to price financial securities.

**(c) Group Project 30%.** The group project requires students to form groups of no more than 4 students to work on a case project. Of the 30%, 20% is allocated towards the writeup of the report and the remaining 10% is for class presentation.

**(d) Mini quizzes 20%.** There will be 4 mini in-class quizzes. Each is worth 5% towards the final course grade. The dates of the quizzes will be announced a week in advance.

In sum, the breakdown of the course grades is given as follows:

| <b>Components</b> | <b>Grade</b> | <b>Date due</b> |
|-------------------|--------------|-----------------|
| Class activity    | 20%          | NA              |
| Excel assignments | 30%          | TBA             |
| Mini quizzes      | 20%          | TBA             |
| Group project     | 30%          | TBA             |

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Students are responsible for any lectures and/or labs that they have missed. The material will not be re-taught. Missed class activities cannot be waived without proper prior notifications except unpredictable serious medical circumstances.

Late assignments will be penalized at 10% per day late, including weekends. Assignments more than a week late will not be graded.

Projects and assignments are to be submitted to Dr. Diana Mok directly or to her email address ([dmok3@uwo.ca](mailto:dmok3@uwo.ca)). If submitting by email, use ASCII (plain text), RTF (rich text format), MS Word, or PDF (portable document format); no other format will be accepted.

Requests to have an assignment re-read, re-checked, or re-graded must normally be made no later than two business days following return of the assignment, and must include a brief written explanation. The instructor reserves the right to adjust the grade both upward and downward, where appropriate.

### **Email policies:**

The professor will not respond to emails from non-uwo.ca addresses (e.g., hotmail.com, gmail.com, yahoo.com, etc.).

Subject line must include course and section number.

Acceptable emails include:

- questions about the course content or materials that require no more than two sentences in the instructor's email reply
- asking to set up or reschedule an appointment
- notification of illness or special circumstances
- providing constructive comments or feedback about the course

Non-acceptable emails include:

- questions that may be answered on the course webpage or the course outline
- asking when grades will be posted
- asking what grade a student received or whether the student passed the test/exam
- asking when or where an exam/test is scheduled
- asking which material will be covered on an exam/test
- asking for tips about an exam/test
- requests for grade increases, extra assignments, or reweighting of course components
- questions about the course content or materials that require more than two sentences in the instructor's email reply
- questions about course administration (e.g., additional office hours, changes in lecture schedule) that has been announced in class
- questions related to exam/test materials after the exam/test and before the exam/test is returned to class

Note that the instructor will not reply any non-acceptable emails.

The instructor will not re-teach in emails any material covered in class. Students are responsible for any missed material.

The instructor performs many other academic responsibilities in addition to teaching. Do not expect an immediate reply from the instructor. The instructor will try to reply student emails within a couple of days either through email or directly in class.

### ***Additional Statements***

#### **Prerequisite checking - the student's responsibility**

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

#### **Statement on Academic Offences**

Students must write their essays and assignments in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations.

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: <http://www.uwo.ca/univsec/handbook/appeals/schloff.pdf> .

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com> ).

#### **Support Services**

Registrarial Services: <http://www3.registrar.uwo.ca/index.cfm>

Student Development Services: <http://www.sdc.uwo.ca/>