



Financial Markets and Investments 2018/2019

Financial Modeling 2557B Section 001

Course Outline

Instructor Information

Instructor	Kyle Leistner
Office	WSC214A
Email	Kleistne@uwo.ca
Phone	n/a
Office Hours	Tue 9:30 AM -11:00 AM WSC 250; Thu 9:30 AM -11:00 AM WSC 250; Tue 6:00 PM - 6:30 PM WSC 214A; Thu 6:00 PM - 6:30 PM WSC 214A

Course Information

Course Description	Basic securities, financial market conventions, swaps, arbitrage pricing and hedging of forwards/futures, equity options, bonds, theories of the term structure, factors affecting option prices, arbitrage relations of calls and puts, trading strategies involving options, binomial model for stock prices, option pricing by replication under the binomial model.
Prerequisites	A minimum mark of 60% in Calculus 1501A/B or Applied Mathematics 1413, or Calculus 1301A/B with a minimum mark of 85%.
Antirequisites	AS2557A/B
Pre, Co-requisites	
Warning	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. You can be deregistered at any time even after writing the final exam. 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
Lecture Hours	Tue 6:30 PM-8:30 PM NS7; Thu 6:30 PM-7:30 PM NS7
Tutorial Hours	Thu 7:30 PM-8:30 PM NS7

Book Information

Text Book(s)

Robert L. McDonald (2013). Derivatives Markets 3rd Edition, Pearson Education, ISBN 0-321-254308-4.

SOA Study Note

Michael A. Bean (2017). Determinants of Interest Rates.

<http://www.soa.org/Files/Edu/2017/fm-determinants-interest-rates.pdf>

Reference Books

Derivatives: The Tools that Changed Finance by Phelim P. Boyle and Feidhlim Boyle is freely available at <http://www.thederivativesbook.com>

Library Reserved Books

A copy of John Hull's Options, Futures, and Other Derivatives is available on reserve in the Taylor Library. Other copies are available in the Business Library.

Course Objectives

This course will cover chapters 1 to 5 and 7 to 9 from McDonald's textbook. Supplementary material will be provided via lecture notes.

For actuarial science students, please note that **this course is accredited under the Canadian Institute of Actuaries (CIA) University Accreditation Program (UAP) for the 2018-2019 academic year. Achievement of the established exemption grade in this course may qualify a student for exemptions from writing certain preliminary exams. Please note, a combination of courses may be required to achieve a single exemption. Please see the following link for full details: <http://www.cia-ica.ca/membership/university-accreditation-program---home/information-for-candidates>**

This course covers some of the learning objectives required in the SOA Exam IFM. More information regarding SOA Exam IFM (including its complete syllabus) can be found here:

<https://www.soa.org/Education/Exam-Req/edu-exam-ifm-detail.aspx>

Assessment

Assignments and/or Quizzes

Problem sets that help you understand the course material will be posted in OWL. It is your responsibility to use these questions to enhance your understanding, but those will not be marked.

Midterms or Tests

Two midterm tests will be held on the following dates:

Midterm test 1 on Thursday, Feb 14 7:30 PM-8:30 PM NS7

Midterm test 2 on Thursday, Mar 14 7:00 PM – 8:30 PM NS7

Final Exam

There will be a three-hour final exam during the final examination period (to be scheduled by the Office

of the Registrar).

Evaluation

Your grade comes from:

25% of Midterm Test 1

30% of Midterm Test 2

45% of Final exam.

Course policies on midterm test and final exam

Please do NOT book your travelling tickets that conflict with midterm tests and final exam schedule. No accommodation will be made to such conflict. If you disagree on the grading of your midterm tests, you should report the concern to the instructor within one week after the result is announced; afterward the result will be considered finalized.

Department Policy on Missed Course Requirements and Student Health and Wellness

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or supporting documentation to the Academic Counselling Office of your home faculty as soon as possible. If you are a Science student, the Academic Counselling Office of the Faculty of Science is located in WSC 140, and can be contacted at scibmsac@uwo.ca. If accommodation is approved by your Dean's office, your instructor will be notified, and it is your responsibility to make alternative arrangements with your instructor.

For further information, please consult the university's medical illness policy at http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf.

If you miss the Final Exam, please contact your faculty's Academic Counselling Office as soon as you are able to do so. They will assess your eligibility to write the Special Exam (the name given by the university to a makeup Final Exam). For those that are approved by their faculty to write a special exam, a "Recommendation of Special Examination Form" will be provided to the student (by their faculty) and the student must then follow-up on the completion of this form directly with their instructor.

You may also be eligible to write the Special Exam if you are in a "Multiple Exam Situation" (see http://www.registrar.uwo.ca/examinations/exam_schedule.html).

Missed Midterm or Test: The policy of the department of Statistical and Actuarial Sciences is that there will be no make-up exams for a missed midterm. For those that do legitimately miss a midterm and provide the required supporting documentation, the standard practice will be that the weight of the midterm will be reassigned to the final exam. If your reason is not deemed valid, then you will receive a mark of 0.

Student Health and Wellness: As part of a successful student experience at Western, we encourage students to make their health and wellness a priority. Western provides several on campus health-related services to help you achieve optimum health and engage in healthy living while pursuing your degree. For example, to support physical activity, all students, as part of their registration, receive membership in Western's Campus Recreation Centre. Numerous

cultural events are offered throughout the year. Please check out the Faculty of Music web page <http://www.music.uwo.ca/>, and our own McIntosh Gallery <http://www.mcintoshgallery.ca>. Information regarding health- and wellness-related services available to students may be found at <http://www.health.uwo.ca/>.

Students seeking help regarding mental health concerns are advised to speak to someone they feel comfortable confiding in, such as their faculty supervisor, their program director (graduate chair), or other relevant administrators in their unit. Campus mental health resources may be found at http://www.health.uwo.ca/mental_health/resources.html.

To help you learn more about mental health, Western has developed an interactive mental health learning module, found here: http://www.health.uwo.ca/mental_health/module.html.

This module is 30 minutes in length and provides participants with a basic understanding of mental health issues and of available campus and community resources. Topics include stress, anxiety, depression, suicide and eating disorders. After successful completion of the module, participants receive a certificate confirming their participation.

Accessibility: Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 ext. 82147 if you have questions regarding accommodation.

Support Services: Learning-skills counsellors at the Student Development Centre (SDC) (<http://www.sdc.uwo.ca>) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling. Additional student-run support services are offered by the USC, <http://westernusc.ca/services>. The website for Registrarial Services is <http://www.registrar.uwo.ca>.

Email Communication

You are welcome to communicate with your instructor by email, but email communication should only be used to provide them with information or to ask a question that requires a brief response. For more lengthy discussions and for discussions on lectures/course material please see your instructor during their scheduled office hours or by appointment. If you do email them, please use your UWO account, as these are often the only emails read (as emails sent from other addresses often get spammed).

Academic Policies

The website for Registrarial Services is <http://www.registrar.uwo.ca> .

In accordance with policy, <http://www.uwo.ca/its/identity/activatenonstudent.html> , the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner.

Cell phones and all other electronic devices are prohibited during tests, quizzes and exams.

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at this website: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf .

Attendance

Classroom attendance is viewed as an important part of the learning process. Students are advised that excessive absenteeism may result in the student being disbarred from the final exam (see Western Academic Calendar).

Classroom Environment

The Department has adopted a "Mutual Expectations" policy governing the classroom environment and all work submitted by students. The full text of the policy can be found at: <http://www.uwo.ca/stats/undergraduate/mutual-expectations.html>. In summary, the policy was developed under the premise that all interactions between students and faculty should be governed by the principles of courtesy, respect and honesty.