

Applied Mathematics 3613B
Mathematics of Financial Options
Winter 2013 (January – April)

Course Outline

- Description:** This course is an introduction to financial mathematics from an applied mathematics perspective. Students will be introduced to fundamental concepts in quantitative finance with a focus on building financial intuition to support their mathematical results. Concepts covered will include:
- Risk & return
 - Bond pricing
 - Basic financial engineering
 - Discounted cash flow evaluation
 - Portfolio theory
 - Modelling stock returns (i.e. random walks)
 - Pricing & hedging stock options
- Instructor:** Melissa Mielkie, MC275K, mmielkie@uwo.ca
- Office Hours:** Monday & Wednesday, 10am – 11am, or by appointment
- Lectures:** Monday, Wednesday, & Friday, 1:30pm – 2:30pm, Thames Hall Rm. 3101
- Course Webpage:** <https://www.owl.uwo.ca>
- Textbook:** Notes will be provided by the instructor
- Pre-requisite:** Applied Mathematics 2402A or the former Differential Equations 2402A; or Applied Mathematics 2503A/B
- Anti-requisite:** None
- Evaluation:**
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| Quizzes (approximately 11) | 10% |
| Midterm Test I (Wednesday, Feb. 13, 2013, 7pm – 9pm, Room TBA) | 20% |
| Midterm Test II (Wednesday, Mar. 20, 2013, 7pm – 9pm, Room TBA) | 20% |
| Final Exam (Date & Room TBA) | 50% |
- Email Policy:** Only emails originating from UWO email accounts will be responded to

Accessibility Statement:

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

Addendum to all Applied Mathematics Course Outlines:

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to your faculty's Dean's Office as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with their instructor once the accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from your faculty's Dean's Office immediately. For further information, please see:

<http://www.uwo.ca/univsec/handbook/appeals/medical.pdf>

A student requiring academic accommodation due to illness should use the Student Medical Certificate when visiting an off-campus medical facility or request a Records Release Form (located in the Dean's Office) for visits to Student Health Services. The form can be found here:

https://studentservices.uwo.ca/secure/medical_document.pdf

Plagiarism and Scholastic Offences:

Students must write their own essays and assignments in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence (see Scholastic Offence Policy in the Western Academic Calendar).

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 website:

http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_undergrad.pdf