

MATH2090 – MATHEMATICS of FINANCE, FALL 2017

Monday, Wednesday and Friday 2.00pm-2.50pm; Room: SN 3058

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Instructor: Dr. C. Radford

Reference Texts:

- Michael M. Parmenter, *Theory of Interest and Life Contingencies, with Pension Applications – A Problem Solving Approach*, Third Edition, ACTEX Publications.
- Marek Capiński and Tomasz Zastawniak, *Mathematics of Finance: An Introduction to Financial Engineering*, Springer Undergraduate Mathematics Series. Available as a free download at: <http://poincare.matf.bg.ac.rs/~kmljan/UFM.pdf>

Course Topics: The first part of the course follows quite closely chapters 1-5 of the Parmenter (above); the second part closely follows the first chapter of Capiński and Zastawniak.

Part I: Theory of Interest

Basic theory of interest.

Basic examples in the theory of interest – the equation of value.

Annuities.

Amortization.

Bonds.

Part II: An Introduction to Markets

A simple market model with bonds and shares.

Basic assumptions.

No Arbitrage.

Yield and risk.

Forward contracts and options.

Assignments

There will be weekly assignments.

Assignments will be handed in at the beginning of the lecture on the due date – usually a Friday.

Assignment	1	2	3	4	5	6	7	8	9	10
Due Date	Sept 15	Sept 22	Sept 29	Oct 6	Oct 20	Oct 27	Nov 3	Nov 10	Nov 17	Nov 24

Late assignments will not be marked.

Assignment solutions and other course information will be placed on the web at

<http://www.math.mun.ca/~cradford/>

Assessment

Your final grade will be the weighted average of: Assignments(15%), Mid-Term Test(25%) and Final Exam(60%).

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Important Dates

- Lectures begin: Wednesday, September 6.
- Last day to add courses: Wednesday, September 20.
- **Mid-Semester Test:** Friday, October 13.
- Mid-Semester break: October 9-10.
- Drop date: Wednesday, October 25.
- Lectures end: Friday, December 1.
- Examination Period: December 6 – 15, inclusive.

Supplementary Examinations: The Department of Mathematics and Statistics offers supplementary examinations to students satisfying all of the following:

- * The student is in clear academic standing,
- * the student has a passing term mark, and
- * the student's grade on the final examination satisfies $45 \leq \text{final grade} \leq 49$,
- * the application for supplementary examination is made within 5 working days of the release of marks in the given semester.

For regulations governing supplementary exams see section 5.3 of the Faculty of Science Calendar entry.

Academic Misconduct: The University takes the integrity of University courses and their assessment very seriously, academic offences which compromise that integrity include, but are not limited to, the following: cheating in examinations and other assessable work; impersonating another student or allowing oneself to be impersonated; plagiarism; theft of exam papers or other material; use, and or distribution, of stolen material; submitting false information; submitting work for one course which has, or is, being submitted for another course.

For details you should refer to the University Calendar – online version is available at:

<http://www.mun.ca/regoff/calendar/sectionNo=REGS-0748>

Accommodations for Students with Disabilities: Memorial University of Newfoundland is committed to ensuring an environment of understanding and respect for the dignity and worth of each student and also to supporting inclusive education based on the principles of equity, accessibility and collaboration. If you have any questions about possible accommodations please see me after class, or contact the *Glen Roy Blundon Centre*. The University policy on accommodations for students with disabilities is available online at: <http://www.mun.ca/policy/site/policy.php?id=239>

Office Hours and Contact Details

Office hours:- Thursday 1.00pm - 4.00pm, or by appointment.

Room: HH-3001.

Phone:- extension: 8783.

email:- cradford@mun.ca

web:- <http://www.math.mun.ca/~cradford/>