

Faculty of Science Course Syllabus (Section A)
Department of Mathematics and Statistics
Theory of Interest – MATH 2600 / STAT 2600
Fall 2020

Instructor: Dr. Gábor Lukács *lukacs@dal.ca* Collaborate Ultra (“Gabi’s Office”)
Lectures: Tuesday & Thursday 08:35 - 09:55 Collaborate Ultra
Office hours: Tuesday 10:30 - 11:30
Thursday 16:30 - 17:30
or by appointment

Course Description

Simple and compound interest are covered in detail. Topics include: nominal and effective rates of interest/discount, force of interest, annuities, perpetuities, and bonds.

Course Prerequisites

MATH 1010.03 or MATH 1115.03 or MATH 1215.03

Course Objectives/Learning Outcomes

Providing foundations for the Interest Theory part of the Financial Mathematics exam of the Society of Actuaries.

Course Materials

Textbook: “Mathematics of Investment and Credit” by Samuel A. Broverman, 7th edition,
ISBN: 978-1-63588-222-3 (digital) or 978-1-63588-221-6 (print).

A special discount is available for students in this course. See page 6 for details.

Website: On Brightspace.

Course Content

We will cover most of the material in Chapters 1-5 in the textbook. If time permits, we will also cover select topics from Chapter 6.

Course Delivery

Live lectures will be delivered using Collaborate Ultra during the official lecture times. Lecture slides will be posted on Brightspace. Videos of lectures will be posted on Brightspace on a best effort basis (i.e., not guaranteed).

Course Assessment

Component	Weight (% of final grade)	Date
Midterm exam (48 hours)	$\begin{cases} 20\% & \text{if midterm} > \text{final} \\ 10\% & \text{if midterm} \leq \text{final} \end{cases}$	October 24-25, 2020
Final exam (72 hours)	$\begin{cases} 20\% & \text{if midterm} > \text{final} \\ 30\% & \text{if midterm} \leq \text{final} \end{cases}$	(Scheduled by Registrar)
Assignments (10 in total)	60% (6% per assignment)	
Bonus marks	up to 5%	

Bonus marks – for finding bugs

Due to the nature of programming of the online assignments and exams on WeBWork, bugs are to be expected. The **first** student to report a bug will receive: 0.25% bonus mark for a minor bug (e.g., rounding error), and 0.5% bonus mark for a major bug.

Bug reports are to be detailed and supported by screenshots, and the basis for the claim that the student's answer was correct.

A student may earn up to 5% bonus marks throughout the term. The bonus mark will be added to the student's final mark.

Other course requirements

You are expected to read through the relevant sections of the textbook *before* each lecture. The sections of the textbook that will be covered in each lecture will be announced on the website.

Additional Learning Opportunities

Review of written work by a marker (voluntary, not for marks)

Learning how to write mathematics is an important skill for getting the correct final answer. To help you develop that skill, five (5) problem sets will be offered throughout the term. The problem sets will be similar to the questions on the assignments.

Submitted work will be reviewed by a marker, who will provide comments and assessment of your work.

Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale

A+ (90-100)	B+ (77-79)	C+ (65-69)	D (50-54)
A (85-89)	B (73-76)	C (60-64)	F (<50)
A- (80-84)	B- (70-72)	C- (55-59)	

Course Policies

Collaboration: Collaboration is strictly prohibited. Treat your assignment and exam solutions as sensitive, confidential documents—**do not** discuss or share them with others.

Assignments: Unexcused late assignments will be assigned a **zero** mark.

If you are unable to submit your assignment on time due to illness or other exceptional circumstances, please contact the instructor right away to discuss alternate arrangements.

Problem sets: Submitting written answers to the problem sets is your main opportunity to improve your skills and get detailed feedback about your performance before the exams. Solutions to problem sets submitted by the deadline will be marked to provide you with feedback. Problem set points **do not** count toward your grade in the course.

Missed exams: Dalhousie students are asked to take responsibility for their own short-term absences (3 days or less) by contacting their instructor by phone or email **prior** to the academic requirement deadline or scheduled time and by submitting a completed Student Declaration of Absence to their instructor in case of missed or late academic requirements.

Only 2 separate Student Declaration of Absence forms may be submitted per course during a term. Alternate arrangements will be made on a case-by-case basis at the instructor's discretion.

**Faculty of Science Course Syllabus (Section B)
Theory of Interest – MATH 2600 / STAT 2600**

University Policies and Statements

This course is governed by the academic rules and regulations set forth in the University Calendar and by Senate

Missed or Late Academic Requirements due to Student Absence (policy)

https://www.dal.ca/dept/university_secretariat/policies/academic/missed-or-late-academic-requirements-due-to-student-absence.html

Academic Integrity

At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect (The Center for Academic Integrity, Duke University, 1999). As a student, you are required to demonstrate these values in all of the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity.

Information: https://www.dal.ca/dept/university_secretariat/academic-integrity.html

Accessibility

The Advising and Access Services Centre is Dalhousie's centre of expertise for student accessibility and accommodation. The advising team works with students who request accommodation as a result of a disability, religious obligation, or any barrier related to any other characteristic protected under Human Rights legislation (Canada and Nova Scotia).

Information: https://www.dal.ca/campus_life/academic-support/accessibility.html

Student Code of Conduct

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner—perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution.

Code: https://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html

Diversity and Inclusion - Culture of Respect

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness.

Statement: <http://www.dal.ca/cultureofrespect.html>

Recognition of Mi'kmaq Territory

Dalhousie University would like to acknowledge that the University is on Traditional Mi'kmaq Territory. The Elders in Residence program provides students with access to First Nations elders for guidance, counsel and support. Visit or e-mail the Indigenous Student Centre (1321 Edward St) (elders@dal.ca).

Information: https://www.dal.ca/campus_life/communities/native.html

Important Dates in the Academic Year (including add/drop dates)

https://www.dal.ca/academics/important_dates.html

University Grading Practices

https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html

Student Resources and Support

Advising

General Advising https://www.dal.ca/campus_life/academic-support/advising.html

Science Program Advisors: <https://www.dal.ca/faculty/science/current-students/academic-advising.html>

Indigenous Student Centre: https://www.dal.ca/campus_life/communities/indigenous.html

Black Students Advising Centre: https://www.dal.ca/campus_life/communities/black-student-advising.html

International Centre: https://www.dal.ca/campus_life/international-centre/current-students.html

Academic supports

Library: <https://libraries.dal.ca/>

Writing Centre: https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html

Studying for Success: https://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html

Copyright Office: <https://libraries.dal.ca/services/copyright-office.html>

Fair Dealing Guidelines <https://libraries.dal.ca/services/copyright-office/fair-dealing.html>

Other supports and services

Student Health & Wellness Centre: https://www.dal.ca/campus_life/health-and-wellness/services-support/student-health-and-wellness.html

Student Advocacy: <https://dsu.ca/dsas>

Ombudsperson: https://www.dal.ca/campus_life/safety-respect/student-rights-and-responsibilities/where-to-get-help/ombudsperson.html

Safety

Biosafety: <https://www.dal.ca/dept/safety/programs-services/biosafety.html>

Chemical Safety: <https://www.dal.ca/dept/safety/programs-services/chemical-safety.html>

Radiation Safety: <https://www.dal.ca/dept/safety/programs-services/radiation-safety.html>

Scent-Free Program: <https://www.dal.ca/dept/safety/programs-services/occupational-safety/scent-free.html>

Department of Mathematics and Statistics
Theory of Interest – MATH 2600 / STAT 2600
Fall 2020

Instructions for Textbook Discount

ACTEX Learning, the publisher of the textbook, has kindly agreed to offer a 20% discount to students taking this course on both the textbook and the solutions manual.

To use the discount and the free subscription, please follow these steps:

1. Go to <https://www.actexmadriver.com/account.aspx>.
2. Create a new account using your Dalhousie email address (username@dal.ca).
3. Log on using your Dalhousie email address.
4. Add the textbook and the solution manual to your shopping cart:
 - (a) Textbook: <https://www.actexmadriver.com/product.aspx?id=453141312>
 - (b) Solutions manual: <https://www.actexmadriver.com/product.aspx?id=453141313>

You will be able to choose between buying a digital copy or a printed copy (or both).

5. Enter coupon code DAL20128CE1ED in checkout. (You will see a box to enter the code after clicking on the green **Continue** button above Shipping Method. Even digital products have a 'shipping method'.)
6. After applying the coupon, your total costs will be as follows: US\$92.00 plus tax for a digital copy of the textbook and US\$28.00 plus tax for a digital copy of the solutions manual; and US\$100.00 plus shipping and tax for a printed copy of the textbook and US\$32.00 plus shipping and tax for a printed copy of the solutions manual.