

**ACT240 Mathematics of Investment & Credit**  
**Course Syllabus**  
**Summer 2018**

**General Information:**

- Lecture room: SS (Sidney Smith Hall) 1083.
- Instructor: Alex Yang
- Email: [shuai.yang@mail.utoronto.ca](mailto:shuai.yang@mail.utoronto.ca)
- TA: Lei Sun
- Alex's office hours: Wednesday 3 - 5 pm or by appointment.
- Alex's office hour location: SS1091

**Course Description:**

Interest, discount and present values, as applied to determine prices and values of annuities, mortgages, bonds, equities; loan repayment schedules and consumer finance payments in general; yield rates on investments given the costs on investments.

**Course Material:**

**Required:**

- Prof. Sam Borverman's Coursebook for ACT240 & ACT245.
- Calculator: Society of Actuaries (SOA) approved financial calculator (e.g. Texas Instruments BA II Plus)

**Other useful references:**

- *Mathematics of investment and credit* by Prof. Sam Broverman .
- SOA Exam FM sample questions <sup>1</sup> which can be found at <https://www.soa.org/files/pdf/FM-09-05ques.pdf>

**Course Website:**

All of the lecture notes <sup>2</sup>, practise questions, announcement will be posted on portal at <https://portal.utoronto.ca>

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<sup>1</sup>Only those related to the material covered in this course.

<sup>2</sup>Some of the material from the lecture notes are supported by Prof. Sheldon Lin

## Tentative Schedule:

- May 7 (7 - 9 pm) - Introduction, Section 1.
- May 9 (7 - 9 pm) - Section 2, 3.
- May 14 (**6 - 9 pm**) - Section 4, 5.
- May 16
  - (6 - 7 pm) - Tutorial, quiz 1.
  - (7 - 9 pm) - Section 6.
- May 21 - Victoria day, no class.
- May 23 (**6 - 9 pm**) - Section 7, 8.
- May 28 (**7 - 9 pm**) - **Midterm 1 (Section 1 - 6)**
- May 30 (7 - 9 pm) - Section 9.
- June 4 - No class.
- June 6 - No class.
- June 11 (**6 - 9 pm**) - Section 10, 11.
- June 13
  - (6 - 7 pm) - Tutorial, quiz 2.
  - (7 - 9 pm) - Section 12.
- June 18 (7 - 9pm) - Make up Monday: Section 13 and/or Review.

## Evaluation:

There will be two in tutorial quizzes, one midterm test and one final exam.

$$10\% \times \text{Quizzes} + 40\% \times \text{Midterm test} + 50\% \times \text{Final}$$

The final exam is cumulative. Both the midterm test and final exam are **multiple choice exams, closed book and closed notes**, an SOA-approved financial calculator (e.g. mentioned above in the course material section) or a non-programming calculator is allowed. You can bring multiple calculators to the exam if you wish.

If you miss any of the quizzes or midterm test for a valid reason, for example, illness. You must provide the appropriate document in order to shift the corresponding weight to the final exam. For example, you miss the first quiz and the midterm and you provide doctor notes for both then your final grade will be  $5\% \times \text{Quiz 2} + 95\% \times \text{Final}$ .

## Academic Integrity

You should always keep the academic integrity in mind. The latest version of the student handout 'How not to Plagiarize' is available at <http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize>.

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