**Department of Mathematics & Statistics**
**Concordia University**

> **MAST 335**
> Investment Mathematics
> ***Winter 2015***

**Instructor**: Dr. Mélina Mailhot, Office: LB 921-29 (SGW), Phone: 848-2424, Ext. 3830
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**Class Schedule:** Mondays, 13:15-14:30 and Wednesdays, 13:15-14:30.

**Office Hours:** Mondays, 11:00-13:00 and Wednesdays, 11:00-13:00.

**Goal:** This course intends to introduce the student to the notion of interest (compound and simple) and the basic principles of financial mathematics. Topics covered include: accumulation and discount function using compound and simple interest, rate and discount, nominal interest rates, calculation of the present value of constant and varying annuities, amortization schedules, calculation of the outstanding balance of a debt at any point in time, assessing the amount of principle and interest and a payment, determination of the yield rate of an investment, sinking fund and calculation of the price and market value of a bond. Essentially, the first four chapters of the textbook will be covered.

**Reference:** *Mathematics of Investment and Credit,* 5th Edition, by S.A. Broverman, 2010.

**Other Reference:** *The Theory of Interest*, 2nd Edition, by S.G. Kellison, 1991.

**Calculators:** The only calculators allowed in exams for this course are either the Math and Stat approved calculators with the sticker or the battery- or solar powered Texas Instrument calculators, models BA-II Plus*, BA-II Plus, TI-30X, TI-30Xa (the official CAS calculator) or TI-30X II*.

**Assessment:** (a) **Assignments** counted for **10%.**
(b) **Two Midterm Tests** (**15% each**) scheduled in **weeks: 6 and 10.**
(c) **Final Exam** (remaining **60%**).

**Final Grade:** Will be based on the higher of
**Option (A):** the weighted average of assignments (10%), the Midterms (30%) and of the Final Exam (60%), **or**
**Option (B):** the weighted average of assignments (10%) and of the Final Exam (90%).

**Notes:** (1) Late assignments cannot be accepted; each student should submit their assignments before the beginning of class on the announced due date.
(2) There will be no make-up tests.