BUS 494 - 001 – Derivatives and Risk Management

2020 Winter (January 06 – April 09)

Instructor: Dr. Helen Huang
Office: ED 540.6
Class time: MW 11:30am – 12:45pm
Classroom: ED 623
Office hours: MW 10am - 11am or by appointment
Phone: 585-6269
E-mail: helen.huang@uregina.ca
Prerequisites: BUS 395

Course Description:

A wide variety of complex financial instruments have been developed over the past three decades. Many of these products fall under the category of derivatives, instruments whose values derive from other more fundamental assets such as commodities, currency exchange rates, stocks (equities) and bonds (interest rates). The building blocks for many of these complex financial instruments are four basic derivative instruments: forwards, futures, options, and swaps. The purpose of this course is to introduce participants to derivative securities with particular focus on these basic instruments. Towards this end, we will examine the structure of these instruments, their valuation, and their use for speculation and risk management. To success in this course, problem-solving technique is essential.

Text:

The textbook for this course is


*The Solutions Manual and Study Guide*, Ninth Edition, which contains solutions to end-of-chapter questions and problems (but not the assignment questions) is recommended.

Assignments and other materials will be posted on URCourses [https://urcourses.](https://urcourses.)
uregina.ca/ It is the students’ responsibility to check URCourses regularly for new postings and announcements.

Options Trading Simulation:

You are required to form a team (from one student to four) to participate in the Options Trading Simulation. More information about the trading simulation will be provided in class. Participation in the trading simulation is mandatory and is worth 5 percent of your overall mark.

Assessment:

- Assignment 1: due date to be announced in class 7.5%
- Assignment 2: due date to be announced in class 7.5%
- In-class midterm 1: February 5, 2020 20%
- In-class midterm 2: March 18, 2020 20%
- Final Exam: 9am-noon, April 13, 2020 40%
- Participation of options trading simulation 5%

An alternative weight of 5%-5%-70% which will be offered to apply to mid-term 1, mid-term 2, and final exam, respectively. I will take the higher mark of the two grading schemes.

Student Responsibilities:

1. Every effort should be made by you to ensure you write the two mid-terms during their scheduled times. The only exceptions are serious illness of the student or family crisis. In the case of illness, within 5 business days of the missed exam, you must provide me with a physician’s certificate clearly stating that the illness prevented you from being able to write the exam.

   If you must miss a mid-term due to illness or family crisis, no make-up exam will be given. Instead, the 20% weight of the mid-term will be transferred to the final exam (i.e., 60%). However, this weight transfer will not happen automatically. I will only transfer the weight if you provide me with a written request to do so within 5 business days of the missed exam (i.e. if you do not write a mid-term, and do not provide me with a written request to transfer the weight of the missed mid-term to the final within 5 business days, you will automatically receive a grade of zero on the mid-term). This written request must explain the reason why you are unable to write the mid-term, and must state that you wish to transfer the weight of the mid-term to your final.
Weight transfer will **not** be granted for any factors that are within the control of the student – i.e. travel plans, work conflicts, timetabling conflicts with exams in other courses, etc. Please adjust your schedule accordingly.

I will submit your written request and/or medical attestation to the Records Management of the Faculty of Business Administration at the end of the semester.

2. Every effort should be made to ensure you are available to write the Final Exam during its scheduled time. If you are absolutely unable to write the Final during its scheduled time, you must see the general office in the faculty in which you are enrolled and formally request a deferred exam. **Deferred exams** will only be granted in cases of exceptional circumstances (i.e. serious illness of the student, compassionate family reasons, etc.).

Deferred exams will **not** be granted for any factors that are within the control of the student – i.e. travel plans, work conflicts, timetabling conflicts with exams in other courses, etc. Please adjust your schedule accordingly.

3. Regular class attendance is expected. If you must miss a class, it is your responsibility to get notes, assignments, etc., from a classmate.

4. The Faculty of Business Administration has included in the Undergraduate Calendar a statement in section 11.5.4 as follows:

   “Students enrolled in Business courses at the University of Regina are expected to adhere rigorously to principles of intellectual integrity. Plagiarism is a form of intellectual dishonesty in which another person’s work is presented as one’s own. Plagiarism or cheating on examinations/assignments is a serious offence that may result in a zero grade on an assignment, a failing grade in a course, or expulsion from the University. For more information on this matter, please consult 5.13.”

5. If there is any student in this course who, because of a **disability**, may have a need for accommodations, please come and discuss this with me, as well as contacting the Special Needs Services at 585-4631.

6. Communicating with me regarding any course-related matters (questions concerning the material, coverage of exams, etc) must be done either:

   – in person (i.e. during my scheduled office hours, or by making an appointment),
   – by telephone, or
   – by e-mail. When you contact me by email, please do so in UR Courses.

   Please note that when you ask me questions in emails, only short questions (i.e. questions do not require extensive typing or mathematical formulas) will be answered. **Emails within 24 hours before an exam will not be answered.**
7. If you want to talk to me outside of class-time, please plan-ahead. Either make use of my scheduled office hours, or make an appointment to see me. Last-minute (ex. just before an exam) requests by students to talk to me cannot always be met, so planning-ahead is important.

**Course Content:**

The material to be covered in this course will be drawn from the following list:

- Introduction (Chapter 1)
- Futures Markets and Central Counterparties (Chapter 2)
- Interest Rates (Chapter 4)
- Determination of Futures and Forward Prices (Chapter 5)
- Hedging Strategies Using Futures (Chapter 3)
- Swaps (Chapter 7)
- Mechanics of Options Markets (Chapter 9)
- Properties of Stock Options (Chapter 10)
- Trading Strategies Involving Options (Chapter 11)
- Binomial Trees (Chapters 12 and 18)
- Valuing Stock Options: The Black-Scholes-Merton Model (Chapter 13)
- Employee Stock Options (Chapter 14)
- Options in Stock Indices and Currencies (Chapter 15)