**ECB 352: Financial Management Seminar**

March & April 2019

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**Classroom:** College Hall 303

**Class Hours**

**9-12** Every weekday

**Office Hours**

**1-2** pm on Monday, Wednesday, Friday or by appointment

**Prerequisites:** ECB 151, ECB 301 or 302, and ECB 225 or ECB 243 or ECB 210

**Course Overview and Objectives**

Financial risk is an inherent part of running any business as well as the investment decisions made by institutions and individuals. Corporations and other market participants face several aspects of financial risk such as interest rate volatility, currency risk and price volatility of stocks, bonds and commodities on a daily basis. Although the financial markets are replete with risk, they also provide a means of dealing with risk. One way to manage financial risk is by using derivatives.

This course provides an introduction to the dynamic world of derivatives. We focus on four main types of derivatives: options, forwards, futures and swaps and will learn about the characteristics of the markets and institutions where these instruments trade as well as pricing models (e.g., the binomial model and Black-Scholes-Merton model), trading strategies (e.g., covered calls, protective puts, and spreads), and the application of derivatives for financial risk management.

Case studies and the software StockTrak will be used to provide you with hands-on exposure to the process of risk management in the investment of derivatives. You will have an opportunity to be a fund manager with $1,000,000 to invest in futures and options.

The course is highly quantitative by nature. It requires significant mathematical reasoning. Mathematical reasoning cannot, and should not, be avoided. Students should also know how to use Excel at the level of ECB 151. I will review the required mathematical background where necessary. If you have any concern, please talk to me as early as possible. You can find a lot of Excel tutorial videos online, such as:

<http://www.youtube.com/watch?v=8L1OVkw2ZQ8>.

Please also note that support is available from the quantitative reasoning studio outside of class (<http://www.cornellcollege.edu/library/ctl/qr/index.shtml>).

*This course supports the Educational Priorities and Outcomes of Cornell College with emphases on reasoning, knowledge, and ethical behavior.*

**Course Material**

**Required Reading**

* **An Introduction to Derivatives and Risk Management**(10th Ed.),by Don Chance and Robert Brooks (ISBN: 978-1-305-10496-9). Available at the College Bookstore (eBook may also be available)
* **Harvard Case Studies:** Links for purchasing cases:

<https://hbsp.harvard.edu/import/617936>

(Also see “case study” on the next page)

**Supplementary Readings**

* **Financial and Economic Press Including:**
  + **Wall Street Journal** (Cole Library 4th floor, Newspapers; or electronically available through ProQuest)

You can use the following link to access WSJ articles using library computers:

https://search.proquest.com/publication/10482/citation?accountid=41461

* + **Economist** (Cole library 3rd floor, Periodical Shelves; or electronically available by checking out an electronic subscription through Zinio)

**Class Format**

The first half of each class will be dedicated to lectures based on our textbook “An Introduction to Derivatives and Risk Management”, In-class problem sets designed to review important concepts and develop analytical skills, reviewing homework assignments and exams. During the second half we will spend our time on, case studies/Excel simulations, and StockTrak project and assignments.

The lecture notes are available on Moodle. However, I will be mostly using the board for lecturing and you will need to take additional notes in class. I expect you to read the lecture notes and the related chapter of the textbook before each session and actively participate in class discussions.

* **Please bring your laptop and calculator every session with key so that you can participate.**
* **Please do not be shy about asking questions or asking me to repeat anything that is not clear to you.**

**Grading**

1. 2 Exams **50%**

(Exam1: 20%, Exam2: 30%)

1. 6 Quizzes **15%**
2. Homework **16%**

(10% individual+6% group case studies)

1. StockTrak Project and assignments **9%**
2. Participation and Chicago field trip **10%**

**100%**

* I reserve the right to use my discretion at the margin, and things such as class participation will be considered in borderline cases.

**Exams**

There is a midterm exam and a final. Both exams are closed book, and to be done independently. You may bring one page of hand-written notes and not share with others. The final exam is cumulative with more focus on materials not covered in the first exam

(20% from Ch. 1 to 5 and 80% from Ch. 6,8,9,11). You can use (financial) calculators during the exam. See the course schedule for the exam dates.

**Quizzes**

You will have 6 quizzes, cumulatively accounting for 15% of your final grades. All policies regarding the exams apply for quizzes as well.

**Homework**

You will have five individual homework assignments, each accounting for 2% of the final grade and two case study memos to be done in groups. The due date for each assignment is showed in the course schedule on the last page. **No late work accepted**. For individual assignments, group discussion is encouraged. However, you need to hand in your own answers in details.

|  |  |
| --- | --- |
| Potential Homework Problems | |
| HW1 | **Ch1:** 1,2,3,4,8,9,10,12  **Ch2:**1,2,3,4,5,8,17,19,21 |
| HW2 | **Ch3:**3,5,6,7,11,13,14,18  **Ch4:**2,6,7,9,11,17 |
| HW3 | **Ch5:** 1,2,3,4,5,6,12,13,22 |
| HW4 | **Ch6:** 1,2,4,7,9,16,17,20,21,23 |
| HW5 | **Ch8:** 1,2,3,5,9,12,14,18,24  **Ch9:** 1,2,4,5,7,8,9,10 |

**Case Studies**

We will study two main cases during this course that will help us apply our knowledge to real life situations. Case studies provide a good opportunity to enhance your teamwork skills. For each case, I will assign questions to guide your preparation for class analysis/discussion and case report. You are expected to read the case carefully and discuss the questions with your team members before class. **I expect your active and effective participation in case analysis and discussions.**  After the class discussion, your group will hand in a brief (approx. two pages) memorandum answering questions which I will provide in class. Your memorandum must be typed and double spaced. The Due date for each case report is included in the course schedule table (last page). **No late work accepted.**

Links for purchasing cases:

<https://hbsp.harvard.edu/import/617936>

**Case 1:** [**MoGen, Inc.**](https://cb.hbsp.harvard.edu/cbmp/product/UV1054-PDF-ENG),by: Kenneth Eades; Alex Holsenbeck. Publication Date: Oct 14, 2008

**Case 2: Betting on Gold Using a Futures-Based Gold ETF**,by: Pedro Matos. Publication Date: Apr 22, 2013

**Stock Track Project and Assignments**

Over the course of the block, you will participate in a real-time, investment simulation via the Stock Trak platform. Your team will be assigned the role of a fund manager with $1,000,000 mainly invest in derivative securities. At the end of the third week, each group will present what you have learned from the StockTrack simulation. Your individual grades in this section is based on the on-time completion of the StockTrak assignments created by the instructor as well as the quality of your group work. Further guidance will be provided in class.

You can use the following link for registration:

<http://www.stocktrak.com/members/registerstudent?className=ECB243Fall2017>

**Participation**

You are expected to **attend every class on time** and **actively participate in class discussions.** If you are late for three times or more, you will lose all participation points. If you miss three days of class or more, you will get a “D” or an “F”. If you are unable to attend the class due to illness, you must email me prior to the class. Students absent from class are still responsible for the respective homework assignments. These assignments can be submitted electronically via Moodle.

* **Electronic policy:** Please keep your cell phones, laptops or any electronic devices turned off during class. The only exception is when I ask you to use laptops for class activities. Please do not use any other electronic devices as calculator.

**Chicago Trip**

We will have a four days trip to Chicago during the 4th week of the block starting from Sunday, April 7th and ending on Wednesday April 10th. We will have a tour of the Chicago Board of Options Exchange, Cboe, guided by a veteran Cboe options trader and tour guide which will include the following components:

* 1-hour "all-access" tour of Cboe trading floor
* 1-hr options class (volatility trading)
* Visitor Q&A Session
* Meeting space with "bird's-eye view" of trading floor
* Customized, souvenir trading badge --- for each attendee

We will also visit the Chicago Fed Money Museum, Allstate Investments as well as Chicago cultural attractions. The detailed Itinerary will be provided as a separate document.

**Expectations at the McLennan Center**

* You are bound by the same conduct policies as those in effect on campus at Cornell. Dismissal for cause is at my discretion and your expense.
* Be courteous of others sharing the living area. Clean up after yourselves and be aware of others’ personal space.
* Be prepared every day on specified times for our group visits.
* Only course-related guests allowed to visit the McLennan Center. Do not share our address with anyone. There are no exceptions to this policy.
* You will have the opportunity to earn 2 bonus points on your final grade by preparing a well written reflection on our Chicago trip, discussing what you learned, and submitting by the end of the Block.

**Academic Honesty**

Academic dishonesty will not be tolerated and will be dealt with in accordance with Cornell’s Student regulations. For more information see <http://www.cornellcollege.edu/registrar/academic-catalogue/index.html#p=32>.

**Special Needs**

Students who need accommodations for learning disabilities must provide documentation from a professional qualified to diagnose learning disabilities. For more information see <http://www.cornellcollege.edu/disabilities/documentation/index.shtml>.

Students requesting services should schedule a meeting with the disabilities services coordinator as early as possible to discuss their needs and develop an individualized accommodation plan. Ideally, this meeting would take place well before the start of classes. At the beginning of each course, the student must notify the instructor within the first three days of the term of any accommodations needed for the duration of the course.

**Tentative Course Schedule**

This schedule is preliminary and will be adjusted as necessary based on the pace of the class. **I expect you to read the chapter listed, prior to the day we begin discussing the material in that chapter.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Topic** | **Chapter** | **Quizzes/Assignment Due Dates** |
| **Week1** | | | |
| Mon, Mar. 18 | Introduction | 1 |  |
| Tue, Mar. 19 | Structure of Derivatives Markets  ***Stock Trak:*** *Practice* | 2 |  |
| Wed, Mar. 20 | Principles of Option Pricing  ***Stock Trak:*** *Trading Opens, Q&A* | 3 | ***HW1*** *at 10pm* |
| Thurs, Mar. 21 | Option Pricing Models: The Binomial Model | 4 | ***Quiz1*** *on chap. 1,2,3* |
| Fri, Mar. 22 | Option Pricing Models: The Binomial Model | 4 |  |
| Sat. Mar 23 |  | | ***HW2*** *at 10 pm* |
| Sun. Mar 24 |  | |  |
| **Week 2** | | | |
| Mon, Mar. 25 | Option Pricing Models: The Black-Scholes-Merton Model | 5 | ***Quiz 2*** *on chap. 4* |
| Tue, Mar. 26 | Option Pricing Models: The Black-Scholes-Merton Model | 5 |  |
| Wed, Mar. 27 | Basic Option Strategies  ***Review of HW 1,2*** | 6 | ***Quiz 3*** *on chap. 5*  ***HW 3*** *at 10 pm* |
| Thurs, Mar. 28 | Review of Quiz 3 and HW3, **Mid-term Exam** (Ch.1,2,3,4, 5) | | |
| Fri, Mar. 29 | Basic Option Strategies | 6 |  |
| Sat. Mar 30 |  |  | ***HW 4*** *at 10 pm* |
| Sun. Mar 31 |  |  | ***Case 1 Report*** *at 10 pm* |
| **Week 3** | | | |
| Mon, Apr. 1 | Principles of Pricing Forwards, Futures, and Options on Futures | 8 | ***Quiz 4*** *on chap. 6* |
| Tue, Apr. 2 | Principles of Pricing Forwards, Futures, and Options on Futures/Futures Arbitrage Strategies | 8,9 |  |
| Wed, Apr. 3 | Swaps  ***Stock Trak:*** *Trading Ends* | 11 | ***Quiz 5*** *on chap. 8,9*  ***HW 5*** *at 10 pm* |
| Thurs, Apr. 4 | ***Review (HW 4,5 and more in-class problem sets)***  ***Stock Trak presentations*** |  | ***Quiz 6*** *on chap 11* |
| Fri, Apr. 5 | Review of Quiz 6, **Final Exam**  (20% from Ch. 1 to 5 and 80% from Ch. 6,8,9,11) | | |
| Sat, Apr. 6 |  |  | ***Case 2 Report*** *at 10 pm* |
| Sun, Apr. 7 | **Chicago Trip** | | |
| Mon, Apr. 8 |
| Tue, Apr. 9 |
| Wed, Apr. 10 |