**OPTIONS AND FUTURES MARKETS**

**Description**

This course covers forwards, futures, swaps, and options. By the end of the course, students will have good knowledge of how these products work, how they are used, how they are priced, and how financial institutions hedge their risks when they trade the products. More advanced material on derivative products and risk management is covered in later electives.

### Required Readings

Hull, John C. *Options, Futures, and Other Derivatives, 11th Edition*

**Assignments**

There are three hand-in assignments during the semester:

Assignment 1: 1A, 1C, 2A, 2B, 3B, 3C, 4A, 4C (due week 5)

Assignment 2: 5B, 5C, 6C, 7A, 7B, 8B, 9A, 10C, 11B (due week 9)

Assignment 3: 12B, 13B, 15B, 15C, 16A, 17A, 17B, 18A, 19A, 19B, 20A (due week 15)

**Assessment**

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| Assignment 1 | 15% |
| Assignment 2 | 15% |
| Assignment 3 | 20% |
| Final Exam | 50% |

The final examination will not be open book. You will be permitted a two-sided “cheat

sheet” with notes and/or formulae.

**Schedule**

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| Week 1: | Introduction and Mechanics of Futures Markets; Chapters 1 and 2 |
| Week 2: | Hedging Strategies Using Futures; Chapter 3 |
| Week 3: | Interest Rates; Chapter 4 |
| Week 4: | Determination of Forward and Futures Prices; Chapter 5 |
| Week 5: | Interest Rate Futures; Chapter 6 |
| Week 6: | Swaps; Chapter 7 |
| Week 7: | Securitization, the Credit Crisis and XVAs; Chapters 8 and 9 |
| Week 8: | Mechanics of Option Markets and Properties of Options; Chapters 10 and 11 |
| Week 9: | Trading Strategies Involving Options and Binomial Trees; Chapters 12 and 13 |
| Week 10: | The Black–Scholes–Merton Model; Chapter 15 (excl. 15.6) |
| Week 11: | Employee Stock Options; Chapter 16 |
| Week 12: | Options on Stock Indices, Currencies and Futures; Chapters 17 and 18 |
| Week 13: | The Greeks; Chapter 19 |
| Week 14: | Volatility Smiles; Chapter 20 |
| Week 15: | Review of Course; Chapter 37 |