Financial Derivatives
FINA 5327-001
COBA 140
Mondays 7:00PM-9:50PM
Fall 2017

The course syllabus provides a general plan for the course; deviations may be necessary.

Office: COBA 631
Instructor: John Adams, Ph.D.
Department Phone 817.272.2528
E-mail: jcadams@uta.edu (please check the class website and syllabus before sending email).
Faculty Profile: https://www.uta.edu/profiles/john-adams

Office Hours: Mondays 6:30-7:00pm. I am willing to make appointments if you cannot meet during my office hours. I strongly encourage you to come by and see me if you need to do so.

Email Policy: Please check the class website and syllabus before sending emails. I don’t generally answer HW, quiz, materials covered, exam, etc. type questions via email.

Prerequisites: Successful completion of FINA 5311 and FINA 5323

Description of Course Content: This course is designed to introduce students to the principles of financial derivatives. The course will attempt to strike a balance between institutional details, theoretical foundation and practical application. Topics to be covered will include - role of derivative markets, structure of options and futures markets, principles of option and future pricing, option pricing models, option strategies, futures hedging strategies, and swaps.

- Written Communication Requirement: Several written assignments test students on their persuasive writing skills.
- Oral Communication Requirement: Oral presentation skills will be demonstrated through class participation, presentation of term papers and discussion of current events.
- Computer Applications: Several spreadsheet software packages are available for homework problems. TopHat and PowerPoint presentations will be required for some classroom presentations.
- Ethical Issues Covered: The discussion of ethical decision-making is integrated throughout the course material.

Student Learning Outcomes:
Students who successfully complete this course will be able to:

- Demonstrate a working knowledge of derivatives including futures, forwards, options, and swaps
• Understand derivatives in the context of financial markets
• Be able to price derivatives
• Use derivatives for hedging and risk management

**Required Text:** *Options, Futures & Other Derivatives*, By John C. Hull 9th Ed. Publisher: Pearson.

**Additional Materials:**

**Required Readings:** Two additional readings will be assigned.

Tophat online lecture access. Details to be provided on first day of class.

**Optional Materials:**
Wall Street Journal. Available at
https://buy.wsj.com/backtoschool/?trackingCode=aaqntpz21&cid=WSJ_AFF_NA_ACQ_DSM
&SUBID=ofr-1-1543746707968623818

Overheads, suggested problems solutions, and additional readings can be found on the class website (Blackboard).

**Structure of the Course**
The method of instruction is this course will be centered on the following principal ideas:

A. Preparation, Participation and attendance: Prior to attending a lecture students are required to read the assigned chapter for the day. Students are expected to participate in-class.
B. Reading Assignment: Unless otherwise instructed, students will be responsible for reading the entire chapter and any article covered in class.
C. Problems: Students should attempt the end-of-chapter problems assigned in the syllabus. Solutions to the end-of-chapter problems are provided on Blackboard.
D. Classroom norms: Only students enrolled for the class are allowed to attend class. Students are expected to join class on time and remain for the entire duration of class. Students who are persistently late, habitually leaving early, inattentive or disruptive will be recorded as such and are likely to be penalized in their final grades. Bring financial calculators and all reading materials to class.
E. Examination: Exam questions will follow the material covered in class. However, do not expect to see exam problems that simply substitute different numbers for the problems solved in class. Success during an exam is predicated upon repeated practice of problems.
F. Code of conduct: Students are expected to follow all rules of the university with regards to academic honesty and code of conduct. For assignments that require individual efforts no
outside help shall be sought either from other students, family, friends or acquaintances. Cheating, plagiarism, removal of question booklets from the classroom, or other misconduct in class will result in an automatic F for the course.

Method of Evaluation

Students shall be evaluated on the following basis:

A. In-Class Exams:
   a. Three (3) exams will be conducted in class. All exams count towards the final grade.
   b. Exams will include material covered till the last lecture prior to the exam.

B. BOOK REPORT AND DISCUSSION:
   a. Students (randomly assigned into groups) will write a review and critique of the assigned reading books noted on Blackboard.
   b. Reviews will be approximately 3000 words.
   c. The written report is due on the date indicated on the syllabus.
   d. Assignment will be assessed using the following Writing and Presentation Rubrics provided on Blackboard.

C. IN CLASS QUIZZES
   a. Every class period will include mini-quizzes administered via the Tophat app.
   b. Participation grade is based on attendance and involvement. Participation grade is necessarily subjective, assigned at the instructor’s discretion, and not appealable.

Grading scale: (no +/-)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>90-100</td>
</tr>
<tr>
<td>B</td>
<td>80-89</td>
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<tr>
<td>C</td>
<td>70-79</td>
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<tr>
<td>D</td>
<td>60-69</td>
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<tr>
<td>F</td>
<td>Below 60</td>
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</tbody>
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Missed Assignments/Make-up Policies: Make-up exams in general are not administered. Certain exceptions may be made on a case-by-case basis only upon furnishing proper documentation of the reason(s) for absence. The exceptions are entirely up to the discrimination of the professor. In general advance notification will be required to seek approval for a make-up test. No make-up provision is available for assignments relating to presentations. It is the student’s responsibility to verify the accuracy of the online grade sheet and notify me within 7 days of any errors. After 7 days the grades will not be changed.

Course Outline
<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to Derivatives</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Futures Markets and Hedging Using Futures</td>
<td>2, 3</td>
</tr>
<tr>
<td>3</td>
<td>Pricing Futures and Forwards</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Interest Rates and Interest Rate Futures</td>
<td>4, 6</td>
</tr>
</tbody>
</table>

EXAM 1: Chapters 1-6  
Monday, October 2, 2017

6    | Swaps                                                        | 7       |
7    | Mechanics of Option Markets                                  | 10      |
8    | Properties of Stock Options                                  | 11      |
9    | Option Trading Strategies                                    | 12      |

EXAM 2: Chapters 7, 10-12  
Monday, November 6, 2017

11   | Binomial and Black Scholes Option Pricing Models             | 13, 15  |

Book Review Outline  
Monday, November 13th, 2017

12   | Employee Stock Options and Options on Indices                | 16, 17  |
13   | Options on Futures and The Greeks                           | 18, 19  |

EXAM 3: Chapters 13, 15-19  
Monday, December 4th, 2017

Presentation of Book Reviews and Special Reports  
Monday, December 11, 2017

University and College Policies:

Religious Holidays: Students who anticipate being absent from class due to a major religious observance must provide a written notice of the date(s) and event(s) by the second meeting.

Academic Integrity: Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington’s tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

All students are expected to pursue their scholastic careers with honesty and integrity. It is the philosophy of this Department, this instructor, and the University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from...
the University. “Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, or any act designed to give unfair advantage to a student or the attempt to commit such acts.” (Regents Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22) Institutional procedures regarding charges of academic dishonesty are outlined in Part II, Chapter 2, of the Handbook of Operating Procedures of The University of Texas at Arlington. Copies of the Handbook are available at more than 75 locations on campus, including the Student Congress office, the Library, and the Finance/Real Estate Department office.

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. Students will not be automatically dropped for non-attendance. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (http://www.uta.edu/aaio/fao/).

Student Support Services: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at http://www.uta.edu/universitycollege/resources/index.php

Disability Accommodations: UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including The Americans with Disabilities Act (ADA), The Americans with Disabilities Amendments Act (ADAAA), and Section 504 of the Rehabilitation Act. All instructors at UT Arlington are required by law to provide “reasonable accommodations” to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of a letter certified by the Office for Students with Disabilities (OSD). Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:
The Office for Students with Disabilities, (OSD) www.uta.edu/disability or calling 817-272-3364.

Counseling and Psychological Services, (CAPS) www.uta.edu/caps/ or calling 817-272-3671.

Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Title IX Policy: The University of Texas at Arlington (“University”) is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. For information regarding Title IX, visit www.uta.edu/titleIX or contact Ms. Jean Hood, Vice President and Title IX Coordinator at (817) 272-7091 or jmhood@uta.edu.

Electronic Communication: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as “lecture,” “seminar,” or “laboratory” shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student’s feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit http://www.uta.edu/sfs.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date
during or following this week unless specified in the class syllabus. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

**Campus Carry:** Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit [http://www.uta.edu/news/info/campus-carry/](http://www.uta.edu/news/info/campus-carry/)

**Emergency Exit Procedures:** Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which is located immediately outside the main entrance to this room. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

**Emergency Phone Numbers:** In case of an on-campus emergency, call the UT Arlington Police Department at 817-272-3003 (non-campus phone), 2-3003 (campus phone). You may also dial 911. Non-emergency number 817-272-3381