Department of Accounting & Finance College of Business Texas A&M University-Commerce

FIN 512 (01W) – Derivatives and Risk Management Fall Semester, 2024

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Course Description and Objectives

This course introduces students to the fundamental principles, theories, and techniques used in some of the more common financial derivatives and their respective markets. We will cover the risk management methods of hedging, speculation, and arbitrage within the topics of equity options, futures, forwards, swaps, exotic options, the Greeks (derivations of the Black-Scholes model), and foreign currency options. The course aims to introduce students to the topic of risk management by using derivatives and somewhat complex financial instruments and methods. Students will accordingly enhance their capabilities of analytical problem solving in common business environments.

Prerequisites

FIN 504, FIN 510, and a basic knowledge of Calculus, Statistics, and Accounting.

Textbook

"Financial Derivatives: Pricing and Risk Management," by: Robert Kolb and James A. Overdahl (editors), John Wiley & Sons, Inc., Hoboken, New Jersey, 2010 edition.

We will not strictly follow this textbook. There are topics in the course that somewhat deviate from the book. The textbook can be used as further reading material, but all you need for the course is my Power Point slides and my practice questions and answers already posted.

Exams and Grading

<u>There is no need to submit any of the homework practice questions and answers</u>. There will be 3 relatively short exams during the course. First exam: 12 problems for 75 minutes. Second exam: 8 problems for 60 minutes. Third exam: 5 problems for 45 minutes. These exams will cover the most recent lectures, and they will be non-cumulative. See page 3 of this syllabus. Students can take each exam only once.

Course Content and Communication

All communications will take place through TAMUC official website (D2L).

Grading System

Your final grade will be based on the accumulated correct answers in the 3 exams during the course (since there are 12, 8, and 5 problems in these 3 exams, respectively, it means that there are 25 problems in total, so each question gets 4 points, with a total of 100 points to all three exams together). Once this final score is computed, I will assign a final grade according to: 'A' (from 90 to 100), 'B' (from 80 to 90), 'C' (from 70 to 80), 'D' (from 60 to 70), 'F' (less than 60). *There will be no more optional bonus points or mercy assignments, so make sure to do your best on these exams*!

We will use a lot of calculus, algebra, and statistical methods during the course. I will attempt to clarify these techniques when it is relevant, yet I can only do that concisely. Make sure to refresh your memory with those techniques. The best time to do that is yesterday!

Attendance and General Behavior

This is an online course and students must have high self-discipline. It is your responsibility to listen to the online lectures, to download / print the Power Point presentations and the practice questions and answers, and to take as many notes as you can. If you have additional questions, catch my attention right away (likely through email), or come to discuss it over office hours (please notify me in advance), but please do not wait until the last moment before the exams. We will follow a "progress at your own pace" method, i.e. there are no strict dates for the three exams, but you will have to complete all of them before the end of the semester.

Students with Disabilities

The Americans with Disabilities Act (ADA) is a Federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services, Gee Library Room 132 Phone: (932) 886 – 5150 or (932) 886 – 5835 Email: <u>Rebecca.Tuerk@tamuc.edu</u>

Scholastic Dishonesty

Academic integrity is the cornerstone of the university. Any student, who attempts to gain an unfair advantage over other students by cheating, will fail the course and be reported to Texas A&M University-Commerce. "All students enrolled at the University shall follow the tenets of

common decency and acceptable behavior conductive to a positive learning environment" Student Handbook.

Nondiscrimination Statement

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all Federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information, or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to

((<u>http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34Saf</u> <u>etyOfEmployeesAndStudents/34.06.02.R1.pdf</u>) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

Counseling Center

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel

AI Use Policy

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course. Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided, the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty 13.99.99.R0.10 Graduate Student Academic Dishonesty

Class	Торіс
1	Introduction & Options Markets and Valuation
2	Options Markets and Valuation
3	Options Markets and Valuation
4	Exam #1
5	Futures and Forwards
6	Futures and Forwards
7	Swaps
8	Swaps
9	Exam #2
10	Exotic Options
11	The Greeks
12	Foreign Currency Options
13	Exam #3

Class Schedule

Good luck!