Mays Business School

Finance

FINC 423 Syllabus

Section 501 (34180)
Options and Financial Futures
Fall 2025 - College Station

Course Information

Meeting Times: Meeting Type: LEC
Meeting Days: MW
Start Time: 09:35AM
End Time: 10:50AM
Start Date: 08/25/2025
End Date: 12/16/2025
Meeting Location: WCBA 154

Credit Hours: 3

Instructor Details

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Office Hours
Wednesday 2-330PM or by appointment
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TA Information

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Course Description

This course provides a **comprehensive introduction to derivative securities**—such as forwards and futures, swaps, and options—which are central to modern financial markets and indispensable tools for bankers, treasurers, and CEOs alike. Students will learn both the intuition and the mechanics of the analytical frameworks that govern these instruments, with a focus on their valuation and their application to hedging and risk management.

We will cover fundamental **pricing tools**, beginning with **arbitrage relationships** for forwards and futures, and extending to **option-pricing models** such as the binomial approach and the Black-Scholes framework. Classroom discussions will also include institutional details of derivative markets and practical applications, highlighting how derivatives can lessen (or magnify!) risks posed by interest rates, foreign exchange, commodities, and equity markets.

Through a combination of theory, real-world examples, and case studies, students will develop a conceptual and quantitative understanding of how derivatives are structured, priced, and employed on the field. **The course emphasizes both their strategic role in financial risk management and their broader importance in corporate finance, investment banking, and trading.** By the end, students will be equipped with the skills to analyze derivative contracts, interpret their market context, and apply them to real-world financial problems.

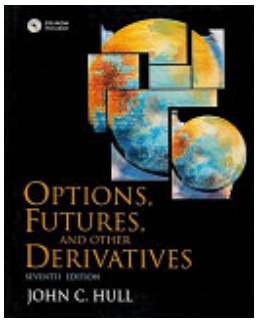
Course Prerequisites

Prerequisite/Corequisite(s): FINC 351 and FINC 361; ACCT 328 or concurrent enrollment.

Course Learning Outcomes

1. Describe how various derivative securities operate and their roles in financial markets.
2. Identify the risks and benefits of different derivative types, including futures, swaps, and options.
3. Differentiate among forwards, futures, and options, and explain how each contracts function.
4. Explain how arbitrage and replication principles govern derivative pricing, particularly for forwards and futures.
5. Model how options' values depend on a limited set of determinants, distinguishing between intrinsic and time value, and relate these to options' moneyness.
6. Apply the Binomial model and the Black–Scholes formula to illustrate option valuation.
7. Demonstrate the put–call parity for European options through concrete examples.
8. Appraise the value of futures, swaps, and options as a function of their main price drivers.
9. Contrast the risk–return tradeoffs embedded in complex trading strategies.
10. Envision and design effective risk management and trading strategies using derivatives across asset classes, including interest rates, exchange rates, commodities, and financial assets.

Textbook and/or Resource Materials



This material Is: Required
Options, Futures and Other Derivatives
Authors: John Hull
Publisher: Pearson Education
Edition: Any edition after the 7th
Notes:
I will refer to chapter, pages, tables, etc, as they appear in the eleventh edition. I will be happy to help you map those references to the material presented in earlier editions.

Additional Instructional Materials

In addition to the required **textbook**—which you may purchase new or used, or rent in either the current 11th edition or any edition after the 7th—you will also need to obtain online copies of **several case studies from Harvard Business Publishing**. Each case study will include accompanying Excel spreadsheets to support the required analyses. The course Canvas page (via the class plan, schedule, or dedicated class page or calendar event) will specify which case study is assigned, when it will be discussed, and the study questions you should prepare in advance.

Additional instructional materials (such as lecture slides, press articles, technical notes, and other resources) will be provided through Canvas. These may appear in the Files section, on the dedicated page for a specific class session, within the class outline, or occasionally they can be shared through Canvas announcements. **Please ensure that you have email notifications enabled so you do not miss important updates.** While I will announce in class whenever new materials are posted, it is ultimately your responsibility to check the Canvas course site regularly and stay current with announcements, assignments, and uploaded resources.

It likely goes without saying, but it is recommended to read financial news with regularity. If something particularly relevant to the course is reported on the Wall Street Journal (you can have full access for free, by creating an account at https://library.tamu.edu/search/newspapers.php) or the Financial Times, I am likely to mention it in class and ask for your take on it.

Grading Policy

The course grade will be assigned based on how you perform on the midterm exams, final exam, and in-class participation. To aggregate the different components, **I will use the following weighting scheme**:

Grade Weighting Scheme

Assessment	Grade Weight
Participation:	10%
First Midterm Exam:	25%
Second Midterm Exam:	25%
Final Exam:	40%

Each of these assessments are meant to test your **critical thinking, written communication ability, and quantitative skills**, rather than mere memorization of the content we cover in class. Your final grade will be based on your absolute achievement and relative performance in the class. Each learning activity item in the rubric is explained in more detail in the next section.

Note that this is a difficult subject, so the "numerical scores" on the exams may not be very high. I reserve the ability to curve the grade distribution **upward** to ensure that the final grade distribution skews towards the upper part of the letter grade scale. The course has a target grade average between 2.70 and 3.60. Historically, the course distribution for this course has been such that about 44% of students got A, 37% got B, and 18% got C and below. I expect to see a similar grade distribution going forward.

If you work hard and come prepared to class, you have nothing to worry about—I have failed but a minuscule fraction of students.

Learning Activities

The **midterm exams** are in class, not-cumulative, and cover the lecture material and related textbook chapters from the beginning of the course (for the first midterm) or from the first midterm (for the second midterm) until the previous lecture. The **final exam** will be comprehensive and cover all the material included in the course. All exams will be closed-book, but you will be able to use a calculator. If you miss a midterm exam for a legitimate reason, the weight of the midterm will automatically go to the final exam, unless an alternative solution is approved.

Each exam may contain multiple-choice questions, short-answer questions, and problem-solving questions. The best way to prepare for exams is to attend classes, review lecture notes and textbook chapters, and challenging yourself with the recommended exercises. Prior to each midterm, the TAs will hold a Q&A session. Exam questions will be similar to exercises covered in class and during the Q&A sessions.

Prior to each case-study discussion, students will submit a three-to-four slides (professional) deck detailing their analyses of the case, suggested managerial decision, and the calculations that support the recommendation. The slides should be submitted by 8PM the day before the class discussion and are expected to be submitted by a group of up-to-five students.

A student's participation grade will depend both on the slide-deck submission and on the participation to in-class discussion (both during case-study classes and during regular classes). Your participation will be assessed on both the quality and frequency of your contribution, including your ability to raise relevant questions or isues that enhance the class's learning environment.

I expect that we will cover two case studies throughout the course. These cases are carefully selected (and were written) to replicate real-world managerial decision-

making events taken by people in their early career, preparing you for what might come next. They will allow you to apply theoretical frameworks that were covered earlier in the course.

I will not be grading weekly quizzes or homework, but I will assign voluntary training exercises for every chapter in the book. Take the opportunity to do these exercises to check-in with and test your own understanding of the material.

Notice that the class meetings will be a mixture of lecture and group discussion. You are expected to have completed the assigned readings ahead of class and come prepared to contribute to class discussions (every class, but especially for the case-study classes).

Late Work Policy

Work submitted by a student as makeup work for an excused absence is not considered late work and is exempt from the late work policy (Student Rule 7).

Course Specific Late Work Policy

Late submissions will not be accepted. Exceptions will be made if the reason for the delay is considered justified as per the school's policies.

Course Schedule

The outline below provides a tentative plan for the course. While we will generally follow this roadmap, some adjustments may be made to ensure the best possible learning experience. For example, I may add or omit a topic, adjust the order of coverage, or spend more time on areas that prove especially challenging or interesting to the class. Any changes will be made thoughtfully and communicated in advance, no later than one week before the relevant class session.

Class Outline

Week	Date		Class?	Topic	Chapter/Case
1	8/25/25	Yes	Class 1	Syllabus	
1	8/27/25	Yes	Class 2	Introduction	1
2	9/1/25	**No**	**Labor Day**		
2	9/3/25	Yes	Class 3	Introduction	1
3	9/8/25	Yes	Class 4	Mechanics of Futures Market	2
3	9/10/25	Yes	Class 5	Hedging strategies using futures	3
4	9/15/25	Yes	Class 6	Hedging strategies using futures	3
4	9/17/25	Yes	Class 7	Forward and Futures Prices	4+5
5	9/22/25	Yes	Class 8	Forward and Futures Prices	4+5
5	9/24/25	Yes	Class 9	Forward and Futures Prices	4+5
6	9/29/25	Yes	Class 10	Forward and Futures Prices	4+5
6	10/1/25	Yes	Class 11	Case: Oil Futures	UV6682
7	10/6/25	Yes	Class 12	Interest Rate Futures & Swaps	6+7
7	10/8/25	Yes	Class 13	Midterm 1	
8	10/13/25	**No**	**Fall Break**		
8	10/15/25	Yes	Class 14	Interest Rate Futures	6
9	10/20/25	Yes	Class 15	Interest Rate Futures	6
9	10/22/25	Yes	Class 16	Case: Italian Futures	UV8265
10	10/27/25	Yes	Class 17	Swaps	7
10	10/29/25	Yes	Class 18	Mechanics and Properties of Stock Options	10+11
11	11/3/25	Yes	Class 19	Mechanics and Properties of Stock Options	10+11
11	11/5/25	Yes	Class 20	Mechanics and Properties of Stock Options	10+11
12	11/10/25	Yes	Class 21	Trading Strategies using options	12
12	11/12/25	Yes	Class 22	Midterm 2	
13	11/17/25	Yes	Class 23	Binomial Trees	13
13	11/19/25	Yes	Class 24	Binomial Trees	13
14	11/24/25	Yes	Class 25	The BS Model	15
14	11/26/25	**No**	**Reading Day**		
15	12/1/25	Yes	Class 26	The BS Model & Greeks	15+19

Week	Date		Class?	Topic	Chapter/Case
15	12/3/25	Yes	Class 27	Case: The Heinz Acquisition	UV9067
16	12/8/25	Yes	Class 28	Q&A	

Course Assignment Schedule

First case study discussion: 10/1/2025 (slides due the day before)

Second case study discussion: 10/6/2025 (slides due the day before)

First midterm exam: 10/8/2025

Second midterm exam: 11/12/2025

Third case study: 12/3/2025 (slides due the day before)

Final exam: See Howdy

Additional Course Information

Please notice that derivatives can be both challenging and rewarding. **This course is among the more technical in the Finance major,** with a strong focus on quantitative analysis and a wide range of material. T**o succeed, it is important to stay engaged and dedicate steady effort throughout the semester rather than relying on last-minute preparation**.

Please remember that you are not expected to master the material alone. If you encounter difficulties, I strongly encourage you to reach out early—whether to me, the TAs, or your peers. Asking questions and seeking clarification is an important part of the learning process, and I am here to support you along the way. Taking a proactive approach will make the experience more manageable and ultimately more rewarding.

I will not be grading weekly quizzes or homework, but **I will assign voluntary training exercises for every chapter in the book**. Take the opportunity to do

these exercises to check-in with and test your own understanding of the material.

Technology Support

Technology Services (IT) - Main Campus

Hours	24/7/365
Phone	(979) 845-8300
Email	helpdesk@tamu.edu
Help Desk Central	it.tamu.edu/help

Canvas LMS Technical Support

Hours	24/7/365
Phone	(877) 354-4821
Email	support@instructure.com

Accessing Canvas Support Within Canvas

- Click the **Help** button in the global navigation menu (far left) of any Canvas course.
- **Canvas Resources** are also linked on the **Home** page of each Canvas course.

Learning Resources

While class discussions are designed to promote clarity, it is natural to leave a session with some unresolved questions. If that happens, **you are encouraged to attend office hours** (see the top of the syllabus for time and location). If office hours are not feasible, you may reach out to the teaching team via email—please remember to CC the TAs to maximize the likelihood of a timely response. Keep in mind that course content questions are generally easier to address in person,

while organizational or personal matters should be directed to me directly by email.

In addition to office hours, we will hold **supplemental instruction sessions**. Before each midterm, the teaching assistants (TAs) will host Q&A sessions where you can ask clarifying questions and work through practice problems together. These sessions are an excellent way to prepare for exams and reinforce key concepts.

In the **week leading up to the final exam, we will also review practice questions** that will give you a clear sense of what to expect on exam day.

This course will have TAs who will host review sessions and be available to answer questions about the course material. **The TAs role is to support your learning and help clarify concepts as needed.**

For those who prefer more **visual learning resources**, the *Hull* textbook provides clear explanations of the material, but some students may benefit from additional visual instruction. Khan Academy offers excellent videos on many of the topics covered in this course, available here: Khan Academy – Derivative Securities.

College Policies

This section details college-level policies established by the Deans and Department Heads of Mays Business School.

Mays Food and Beverage Policy

Please follow the policy prohibiting food, tobacco products, and beverages except bottled water in classrooms. Animals are not permitted unless officially approved. Thank you for your cooperation.

Mays Statement on Outside Resources

Students must complete all graded work independently. For team-based assignments, work should be completed independently within your assigned team.

Using work completed by someone else outside of your team or class is considered academic dishonesty.

This includes but is not limited to work obtained through face-to-face conversations, phone calls, text messages, instant messages, chats, Slack exchanges, emails, social media posts, tutoring sites, discussion forums, blogs, and similar platforms.

University Policies

This section outlines the university-level policies that must be included in each course syllabus. The TAMU Faculty Senate established the wording of these policies.

Academic Integrity Statement and Policy

"An Aggie does not lie, cheat or steal, or tolerate those who do."

"Texas A&M University students are responsible for authenticating all work submitted to an instructor. If asked, students must be able to produce proof that the item submitted is indeed the work of that student. Students must keep appropriate records at all times. The inability to authenticate one's work, should the instructor request it, may be sufficient grounds to initiate an academic misconduct case" (Section 20.1.2.3, Student Rule 20).

You can learn more about the Aggie Honor System Office Rules and Procedures, academic integrity, and your rights and responsibilities at aggiehonor.tamu.edu.

University Attendance Policy

The university views class attendance and participation as an individual student responsibility. Students are expected to attend class and to complete all assignments.

Please refer to Student Rule 7 in its entirety for information about excused absences, including definitions, and related documentation and timelines.

Makeup Work Policy

Students will be excused from attending class on the day of a graded activity or when attendance contributes to a student's grade, for the reasons stated in Student Rule 7, or other reason deemed appropriate by the instructor.

Please refer to Student Rule 7 in its entirety for information about makeup work, including definitions, and related documentation and timelines.

Absences related to Title IX of the Education Amendments of 1972 may necessitate a period of more than 30 days for make-up work, and the timeframe for make-up work should be agreed upon by the student and instructor" (Student Rule 7, Section 7.4.1).

"The instructor is under no obligation to provide an opportunity for the student to make up work missed because of an unexcused absence" (Student Rule 7, Section 7.4.2).

Students who request an excused absence are expected to uphold the Aggie Honor Code and Student Conduct Code. (See Student Rule 24.)

Course Specific Makeup Work Policy

If you miss a midterm due to extenuating circumstances, the fraction of the course grade attributed to the final exam will be increased accordingly. Failure to submit an assignment prior to a case-study discussion will result in no participation points for that class. Failure to take the final exam will result in an "incomplete" for the course.

Course Specific Attendance Policy

Class participation is essential for meaningful and lasting learning. **You are expected to engage actively in discussions by answering questions, raising thoughtful points, and—most importantly—sharing your own doubts or asking clarifying and probing questions.**

Although attendance will not be recorded for every class, **your participation will significantly influence your final grade. This is especially true during case-study sessions,** which are designed to replicate real-world managerial decision-making events and allow you to apply theoretical frameworks covered earlier in the course. Case studies are unrivaled in preparing students for what their internships and occupations. **Active contributions to these discussions are particularly important and will weigh heavily in your participation grade.**

Notice of Nondiscrimination

Texas A&M University is committed to providing safe and non-discriminatory learning, living, and work environments for all members of the University community. The University provides equal opportunity to all employees, students, applicants for employment or admission, and the public, regardless of race, color, sex (including pregnancy and related conditions), religion, national origin, age, disability, genetic information, or veteran status.

Texas A&M University will promptly, thoroughly, and fairly investigate and resolve all complaints of discrimination, harassment (including sexual harassment), complicity, and related retaliation based on a protected class in accordance with System Regulation 08.01.01, University Rule 08.01.01.M1, Standard Administrative Procedure (SAP) 08.01.01.M1.01, and applicable federal and state laws. In accordance with Title IX and its implementing regulations, Texas A&M does not discriminate on the basis of sex in any educational program or activity, including admissions and employment.

The following person has been designated to handle inquiries and complaints regarding the non-discrimination policies: Jennifer M. Smith, TAMU Associate VP & Title IX Coordinator at YMCA Ste 108, College Station, TX 77843, 979-458-8407, or email civilrights@tamu.edu. For other reporting options, visit the U.S. Department of Education Office for Civil Rights Complaint Assessment System to locate the address and phone number of the office that serves your area, or call 1-800-421-3481.

Civil Rights, Free Speech, and Title IX Policies

Texas A&M University is committed to fostering a learning environment that is safe and productive for all. University policies and federal and state laws prohibit discrimination and harassment based on an individual's race, color, sex, (including pregnancy and related conditions), religion, national origin, age, disability, genetic information, veteran status, or any other legally protected characteristic. This includes forms of sex-based violence, such as sexual assault, sexual harassment, sexual exploitation, dating/domestic violence, and stalking.

Students can report discrimination/harassment, access supportive resources, or learn more about their options for resolving complaints on the University's Civil Rights & Title IX webpage.

Students should be aware that all university employees (except medical or mental health providers) are mandatory reporters, which means that if they observe, experience or become aware of an incident that they reasonably believe to be discrimination/harassment alleged to have been committed by or against a person who was a student or employee at the time of the incident, the employee must report the incident to the university.

Americans with Disabilities Act (ADA) Policy

Texas A&M University is committed to providing equitable access to learning opportunities for all students. If you experience barriers to your education due to a disability or think you may have a disability, please contact the Disability Resources office on your campus (resources listed below). Disabilities may include, but are not limited to, attentional, learning, mental health, sensory, physical, or chronic health conditions. All students are encouraged to discuss their disability-related needs with Disability Resources and their instructors as soon as possible.

To request academic accommodations, contact the designated ADA office based on your location:

- Texas A&M University, College of Nursing, College of Dentistry, Irma Lerma Rangel College of Pharmacy College Station, College of Medicine, School of Public Health, Institute of Biosciences and Technology, EnMed Program, Bush

School in Washington DC, Mays Business School – CityCentre, TAMU Engineering Academies, Texas A&M University Higher Education Center at McAllen and Texas A&M University at Galveston should contact Disability Resources at (979) 845-1637 or disability@tamu.edu.

- Texas A&M University School of Law should contact the Office of Student Affairs at (817) 212-4111 or law-disability@law.tamu.edu to request accommodations.
- Irma Lerma Rangel College of Pharmacy in Kingsville should contact the Disability Resource Center at Texas A&M University-Kingsville at (361) 593-3024 or drc.center@tamuk.edu to request accommodations.
- Texas A&M University College of Veterinary Medicine & Biomedical Sciences in Canyon should contact the Office of Student Accessibility at West Texas A&M University – Canyon at (806) 651-2335 or osa@wtamu.edu.

If you are experiencing difficulties with your approved accommodations, contact the office responsible for approving your accommodations or the Texas A&M ADA Coordinator Julie Kuder at ADA.Coordinator@tamu.edu or (979) 458-8407.

Pregnancy Accommodations

Texas A&M provides reasonable accommodations to students due to pregnancy and/or related conditions, such as childbirth, recovery, and lactation. Students should contact the University's Pregnancy Coordinator as soon as they become aware of the need for accommodation. Depending on the circumstances, accommodations could include extended time to complete assignments or exams, changes in course sequence, or modifications to the physical classroom environment.

Texas A&M will also allow a voluntary leave of absence, ensure the availability of lactation space, and maintain grievance procedures to provide for the prompt and equitable resolution of complaints of sex discrimination. For information regarding pregnancy accommodations, email TIX.Pregnancy@tamu.edu.

Statement on Mental Health and Wellness

Texas A&M University recognizes that mental health and wellness are critical factors influencing a student's academic success and overall wellbeing. Students are encouraged to engage in healthy self-care practices by utilizing the resources and services available through University Health Services. The TELUS Health Student Support app provides access to professional counseling in multiple languages anytime, anywhere by phone or chat, and the 988 Suicide & Crisis Lifeline offers 24-hour emergency support at 988 or 988lifeline.org.

Texas A&M College Station

Students needing a listening ear can contact University Health Services at 979.458.4584. Call 911 or visit your nearest emergency room if you are currently experiencing a life-threatening situation or if your safety is at risk. 24-hour emergency help is also available through the 988 Suicide & Crisis Lifeline (988) or at 988lifeline.org.

Statement on the Family Educational Rights and Privacy Act (FERPA)

FERPA is a federal law designed to protect the privacy of educational records by limiting access to these records, to establish the right of students to inspect and review their educational records, and to provide guidelines for the correction of inaccurate and misleading data through informal and formal hearings.

Currently enrolled students wishing to withhold any or all directory information items can do so within howdy.tamu.edu using the Directory Information Witholding Form. The complete FERPA Notice to Students and the student records policy is available on the Office of the Registrar webpage.

Items that can never be identified as public information are a student's social security number, citizenship, gender, grades, GPR, or class schedule. All efforts will be made in this class to protect your privacy and to ensure confidential treatment of information associated with or generated by your participation in the class.

Directory items include name, UIN, local address, permanent address, email address, local telephone number, permanent telephone number, dates of

attendance, program of study (college, major, campus), classification, previous institutions attended, degrees, honors and awards received, participation in officially recognized activities and sports, medical residence location, and medical residence specialization.

Artificial Intelligence (AI) Statement

Important Notice: You are allowed to use AI tools to further your understanding of the material in this course. For example, tools such as ChatGPT can be effective at summarizing long documents, explaining in simple terms the difference between two related concepts, or helping refine your writing. That said, AI chatbots are prone to errors and may confuse, rather than clarify, your understanding. **When in doubt, trust your own reasoning or raise the question in class.**

Engaging in the various aspects of creative pursuits (e.g., writing, coding, drawing) is critical to education in a broad sense. While AI technologies will continue shaping how we approach these creative tasks, the critical work of creativity relies on integrity, originality, and ethical conduct in regard to appropriate representation as an author or creator. **Thus, submitting work with a significant percentage of AI-generated content, unless otherwise permitted, can be considered academic misconduct under Texas A&M University Student Rule 20.**

Learning to use AI tools responsibly, effectively, and critically is an important skill in and of itself. While this course will not feature the usage of AI tools directly, I invite you to share with the class any successes or drawbacks you experience when using AI to prepare for class.

Please see below for specific policies regarding AI usage

During Class: Please refrain from using AI tools in class. If you have a doubt, raise your hand and share it with the class: the shared conversation will both be more productive and will benefit your fellow learners.

During Homework and Cases: You may use AI tools as a supplement to clarify concepts while you prepare your homework. However, all work you submit must be entirely your own. When preparing for the cases we will cover in class, you may not

upload the case to a chatbot or ask the chatbot to recommend a decision or an approach for a situation similar to what is presented in the case. AI should never be used to generate answers for you. **If you use AI to help you study or prepare, you must disclose and explain that use in your submission**. You must be able to elaborate on the reasoning and defend the calculations that are presented in any material you submit.

During Exams: The use of AI tools is strictly prohibited on midterms and finals.