



INVESTMENT, CAPITAL, AND FINANCE

UNIVERSITY *of* WASHINGTON

Course Syllabus

Course Name	TERM/YEAR:
Advanced Financial Economics	Spring 2025
Class Schedule	
Tue. & Thu., 8:30 a.m. - 10:20 a.m., Room: SMI 311 (No live-streaming or recording of the class!)	
Instructor:	Contact Information:
Ali Karimirad	akarimir@uw.edu
Office Hours:	
Thursdays, noon - 1:00 p.m., or by appointment, Room: SAV 336	

Welcome:

Hello and welcome to the course! I'm Ali Karimirad, and I'll guide you through the fascinating world of finance this term. Feel free to call me Ali, though if you're more comfortable with formalities, Professor Karimirad works too. If you'd like to learn more about my background and research interests, you can check out [my faculty page](#) on the university website.

Course Description and Learning Objectives:

This advanced course explores the theoretical foundations and practical applications of derivatives pricing and risk management in financial markets. Students will develop a sophisticated understanding of options, futures, forwards, and other derivative instruments, along with the mathematical models used to price them. The course provides rigorous coverage of stochastic calculus, binomial models, and the Black-Scholes-Merton framework, with emphasis on practical implementation and empirical evidence. Special attention is given to trading strategies and market mechanics that shape modern derivatives markets. By the end of this course, students will be able to:

- Understand the structure and mechanics of options markets and contract specifications
- Analyze and implement various trading strategies involving options and other derivatives
- Construct binomial tree models to price options and understand their convergence properties
- Apply stochastic calculus concepts including Wiener processes and Itô's lemma to financial modeling
- Derive and implement the Black-Scholes-Merton option pricing model
- Value and hedge positions in options, futures, and forwards
- Evaluate the empirical evidence on options pricing models and market efficiency
- Develop risk management strategies using derivatives instruments

Course Pre-requisite(s):

ECON 300 and MATH 124 are required to take this course.

Required Texts and Resources:

Options, Futures, and Other Derivatives, 11th edition by Hull. Published by Pearson (May 29th 2021) - Copyright © 2022

You are in a course that is participating in the Day One Access program. Through this program, some or all of your materials for this course will be delivered digitally through Canvas, at a reduced price. All communication about this program will be sent to your UW email address, and it is your responsibility to read this information. Participation is *optional*, and if you find that Day One Access is not right for you, make sure to opt out by the deadline for this quarter. To opt out, click the “want to opt out?” button on the Vitalsource tool in the Day One Access Materials tab.

Opt-Out/Payment Deadline for Spring 2025 – Sunday, April 20

To access your materials: Your materials are accessible in the Courses tab in Canvas. Click on the Day One Access Materials tab, and you should see a button that says either “launch courseware” or “read book” on the item card displayed on this page.

To opt out of your materials: In the Courses tab in Canvas, click on the Day One Access Materials tab. You should see an item card, and a button that says “Want to opt out?” Click on this button to opt out of your materials. If you change your mind and want to opt back in, follow this same path and click on the “Want to opt back in?” button. You will have until this quarter’s opt-out/payment deadline to opt back in.

To pay for your materials: The balance due for your Day One Access materials will appear on your Accounts page in MyUW, underneath your tuition balance. To pay for your materials, click the “make payment” button underneath the balance, and you will be re-directed to your shopping cart on ubookstore.com. You will receive an order confirmation after submitting payment – **please keep this confirmation for your records**. Your balance due in MyUW will be updated within 24-48 hours.

IMPORTANT NOTE ABOUT PAYMENT: The balance for your Day One Access materials is NOT part of tuition, and must be paid separately. If you have not paid by the posted deadline, you will lose access to your materials.

Questions? Visit <https://www.ubookstore.com/day-one-access-faq> for more information about the program, or contact University Book Store via email at dayoneaccess@ubookstore.com.

Note: While we’re using the 11th edition, previous editions are acceptable for this course. The core concepts remain the same, though page numbers and some examples may differ.

Grade Policy:

The grading schema for the course is as follows:

Assessment Component	Weight	Details
Assignments (3)	20%	Hand-written solutions required- Canvas upload
Quizzes (3)	20%	Tri-weekly multiple-choice quizzes on Canvas
Midterm Exam	30%	May 1, in class, 90 minutes, Closed book/notes
Final Exam	30%	June 5, in class, 90 minutes, NOT cumulative, Closed book/notes
Total	100%	

The median grade for this course is 3.5 per department policy and final grades may be rescaled to obey this rule.

Assignment and Quizzes:

Homework Assignments:

- Three (3) hand-written assignments will be posted on Canvas throughout the quarter
- Each assignment contains 5 questions, worth 5 points each (25 points total)
- Grading philosophy: Focus on learning, not perfection

- Grading scale for each question:
 - 0-2 points: Needs significant improvement
 - 3+ points: Full credit (5 points)
 - All grades will be in whole numbers
 - This generous grading policy is designed to encourage learning and reduce stress about grades
- Submission requirements:
 - Must be hand-written and clearly legible
 - Scanned/photographed and uploaded to Canvas
 - File size must be under 5MB
 - The File must be easily readable (unclear or excessively large files may receive zero points)

Quizzes:

- Available on Canvas
- One attempt only
- 60-minute time limit once started
- Multiple-choice format
- Your lowest grade will be dropped

Remember that the dropped assessment policy is already factored into your grade calculation as a courtesy. It is not meant to encourage skipping assignments but rather to provide flexibility when truly needed.

Important Notes:

- The assignments in this course are designed to develop your critical thinking and analytical skills. Using AI technology will limit your ability to develop these skills and meet the course learning objectives.
- Regular engagement with course materials is essential for success
- You are encouraged to form study groups for discussing concepts
- Office hours are available for additional help and clarification
- Start assignments early to avoid technical issues with submission

Deadlines and Time Management

All deadlines in this course are firm and represent the *latest* possible submission time. Students should note:

1. **Plan ahead:** Assignments are designed to be completed over multiple sessions, not in a single sitting immediately before the deadline.
2. **Technical issues:** Internet connectivity problems, or computer issues that occur close to deadlines will not warrant additional extensions beyond the dropped assessment policy.
3. **Start early:** The educational value of homework assignments comes from engaging with the material over time, allowing concepts to develop fully. Last-minute completion defeats this purpose and often leads to poor performance.
4. **Student responsibility:** Effective time management is an essential skill that this course helps develop. Planning your work schedule to avoid deadline pressure is your responsibility as a student.

Exams:

The course includes two closed-book exams: a midterm and a final.

- **Midterm:** Covers all material presented before May 1.
- **Final:** Covers all material not included in the Midterm exam

Both exams will consist of multiple-choice questions (MCQs) and short essay questions. Cheat sheets (**One-sided** page) are allowed. Simple 4-function or scientific calculators permitted (no graphing calculators). Sharing of calculators is not permitted.

Missed Exams and Make-up Policy:

- Notify the instructor **the same day** if you cannot take an exam.
- Valid reasons for missing an exam:
 - Illness
 - Serious emergency (requires a proper valid documentation)
 - University-sponsored activities (e.g. sport, debate): let me know well in advance and present a proper valid documentation.
- Make-up exams:
 - Must be taken as soon as possible after the original exam date
- Invalid reasons (e.g., travel, weddings, technical issues) will not be accepted for make-ups.

Course Policies:

Academic Honesty:

- Exams are individual work. Cheating, including but not limited to consulting unauthorized sources during exams, will not be tolerated.
- The Department follows University policy on academic misconduct. Review the policy at: <https://econ.washington.edu/policy-academic-conduct>
- Violations may result in sanctions ranging from warnings to expulsion, and a grade of zero for the course.

Accessibility and Accommodations:

- Students with disabilities should contact Disability Resources for Students (DRS) at 206-543-8924, uwdrs@uw.edu, or disability.uw.edu to establish reasonable accommodations.
- Inform the instructor of DRS-approved accommodations as early as possible.

Religious Accommodations:

- UW's policy is available at: <https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/>
- Accommodations for religious reasons must be requested within the first two weeks of the course using the [Religious Accommodations Request form](#).
- DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor and DRS. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law.

Non-Discrimination:

- Respect for diversity is expected from all participants in this course, in accordance with the [UW Student Conduct Code](#).
- This includes respect for: age, cultural background, disability, ethnicity, family status, gender identity, citizenship, national origin, race, religious and political beliefs, sex, sexual orientation, socioeconomic status, and veteran status.

Participation and Attendance:

Participation:

Students are expected to:

- Actively engage with course materials, discussions, and assessments
- Complete assigned readings and exercises
- Contribute to an interactive learning environment
- Respect diverse perspectives of peers

Attendance:

- No formal attendance requirement
- Regular participation strongly correlates with academic success
- Students are responsible for catching up on missed material

Technology Use:

- Handwritten notes are encouraged for better retention
- If using laptops or tablets, please be mindful of distractions
- Silence and stow phones during class

Active participation in class activities is strongly encouraged. It's an opportunity to deepen your understanding and develop your economic reasoning skills. The studies show that the students regularly participating in class-activities do much better in the exams than the students who do not. Power point presentations containing a limited amount of information will be posted on Canvas, but most of the important issues will be discussed in the class. Remember, every question you ask is a step towards mastery. There are no "dumb questions" - only opportunities to learn and grow. Thank you for your cooperation.

Communication Policy:

When emailing, please:

- Use your UW email address or Canvas email
- Allow **2 business** days for response
- Include "ECON 426" in the subject line - IMPORTANT: Emails without this subject line tag may be delayed, missed, or receive incorrect guidance (as has happened with students previously)
- Check Canvas announcements and syllabus before emailing

Course Schedule:

The following schedule may be altered according to the instructor's judgment.

Week	Date(s)	Course Content	Readings
1	April 1-3	Introduction Hedging strategies using futures	Ch. 1 Ch. 3
2	April 8-10	Determination of forward and future prices	Ch. 5
3	April 15-17	Mechanics of option markets Properties of stock options	Ch 10 Ch 11
4	April 22-24	Trading strategies involving options	Ch. 12
5	April 29- May 1	Review Session Midterm	
6	May 6-8	Binomial trees	Ch. 13
7	May 13-15	Weiner processes and Ito's lemma	Ch.14
8	May 20-22	The Black-Scholes-Merton model The Greek letters	Ch.15 Ch19.1-8
9	May 27-29	Swaps	Ch.7
10	June 3-5	Review Session Final Exam	

How Do You Study For This Course:

In Econ 426, we build our understanding progressively, starting with foundational concepts and advancing to more complex models. This journey of learning is an opportunity for growth and development of your economic thinking skills.

Time Management and Study Strategies:

- Dedicate at least ten hours a week outside of class time to this course. Consistent effort is key to developing strong problem-solving skills in economics.
- Approach each day as a chance to apply and reinforce your growing economic knowledge. Small, regular study sessions are more effective than cramming.

- When reading assignments, actively engage with the material. Try explaining concepts in your own words, redraw graphs, and connect new ideas to what you already know.
- Experiment with different study techniques to find what works best for you. Self-quizzing, group discussions, and teaching concepts to others are powerful learning tools.
- Some part of your studying is better to be done in small groups of two or three students. Students who study on their own then discuss their work in groups of no more than three understand the material better and feel more engaged with their classes.
- Do not fall behind; keep up with the material on a daily basis; you need to apply your new economics skills every day.
- Read the assignments carefully by keeping pen and paper at your side to work out the various points being made (this is a good idea for any course you take). Redraw every graph to make sure you understand how the graph works and what it shows.
- Highlighting and rereading chapters provide minimal improvements to learning. Instead of rereading use self or group quizzes.

Seeking Support and Collaboration:

- View office hours as an opportunity to deepen your understanding and clarify doubts. Regular attendance can significantly enhance your learning experience.
- Come to office hours to ask questions on a regular basis. Do not put off attending office hours until the day before the exam – it gets too crowded at those times.
- Embrace collaborative learning. Studying in small groups allows you to explain concepts, hear different perspectives, and reinforce your understanding.

Mindset and Approach:

- Remember, economic thinking is a skill that can be developed with practice and persistence. Your abilities are not fixed; they grow with effort and learning.
- Treat challenges and mistakes as valuable learning opportunities. They are not reflections of your capabilities, but stepping stones to deeper understanding.
- Focus on the process of learning and improvement rather than just grades. Your growth in understanding and applying economic concepts is the true measure of success.

By adopting these approaches, you're not just studying for a course; you're developing lifelong learning skills and a mindset that will serve you well beyond this class. Embrace the journey of learning economics with curiosity, persistence, and confidence in your ability to grow and improve.

Recommendation Letters:

If you are considering requesting a letter of recommendation, please note the following requirements:

- You should have taken at least two courses with me.
- Your grades in these courses should be 3.5 or above.
- Active participation in class is expected.
- Provide at least two weeks' notice before the letter is due.

Writing a strong recommendation letter requires substantial time and material. Meeting these criteria ensures that I can write a detailed and effective letter on your behalf. If you meet these requirements and wish to request a letter, please email me with details about the opportunity you're applying for and any relevant deadlines.