

Course and Instructor Information

Course Number: AS.440.643.81.SP23 – Economics of Investments and Financial Management

Term Year: Spring, 2023

Instructor Information

Instructor: John L. Teall

Telephone Number: (202) 452-1940; Skype: johnlteall

Email Address: jteall1@jhu.edu; jteall@jteall.com

Office Hours: By appointment: Telephone, Skype, Zoom, etc.

Course Information

Credit Hours: 3

Class Times: Online, without specific meeting times

Course Location: Online, through the Canvas Platform

Course Description:

This course develops a deeper understanding of financial markets in the context of portfolio theory. In addition to understanding how financial markets operate and relate to the broader economy, students will develop skills to analyze investment decisions and manage investment portfolios. Students will learn the efficient market hypothesis (EMH), criticisms and implications of EMH for investment strategies, modern portfolio theory and practice, and tools for evaluating performance. Throughout the course, several financial models will be analyzed especially as they relate to real-world asset allocation decisions. Prerequisite: 440.601 Microeconomic Theory and 440.640 Financial Economic. Corequisites: 440.606 Econometrics.

About Your Course

Please note that course details are subject to change.

Course Structure

This course is offered online, on an asynchronous basis, making use of the Canvas platform, the instructor's website, Zoom, Skype and a series of video and multimedia presentations. While no in-person sessions will be offered, students are encouraged to reach out to the course instructor for any assistance or further discussion as might be suitable. Students are encouraged to contact the course instructor to resolve any problems or difficulties that might arise.

What to Expect in this Course

This course is 15 weeks in length and includes individual and group activities in weekly cycles and over the course of the term of instruction. Please review the course syllabus thoroughly to learn about specific course outcomes and requirements. Be sure to refer to the readings and calendars each week, which provide a week-at-a-glance and shows targeted dates for the completion of activities.

Course Overview

This course will introduce students to the economics of trading, pricing, management and mathematical foundations of a variety of types of securities and of the markets in which they trade. Students will also learn some basic valuation techniques, risk management, portfolio optimization and term structure models.

Course Learning Objectives

When you successfully complete the course, you will be able to:

- Derive and apply models from economics to estimate market-based prices for various types of securities under varying scenarios.
- Employ various quantitative concepts such as term structure models, probability, statistics and stochastic processes to analyze financial complications in an inter-temporal world of uncertainty.
- Apply important concepts from utility theory, the economics of information, game theory and market microstructure to the analysis of investments and securities markets.
- Evaluate common hedging strategies.
- Characterize and evaluate securities markets, institutions and other market participants.
- Create, analyze, hedge and optimize portfolios of various securities under different risk constraints.
- Evaluate fair payoffs for equities, derivative, fixed income and FX instruments.
- Devise and apply trading strategies in different markets.
- Evaluate and exploit information asymmetries in securities markets.
- Characterize different regulatory regimes and appreciate their significance and histories.

While these objectives are particular to this course and the way that I teach it, AAP has a more formal set of objectives, both for the way that the course fits into its applied economics programs and specific to this course:

- PLO2 Apply advanced economic theory to different economic sectors and disciplines, in this case, finance.
- CLO1: Identify and explain various financial instruments in the broad asset classes of fixed-income, equities, and derivatives.
- CLO2: Describe how to value fixed income, equity, and derivative securities, and describe the roles each play in portfolio construction.

- CLO3: Describe the relationship between risk and return and explain the role of diversification in asset allocation
- CLO4: Evaluate different measures of risk, understand what risks can be hedged, and explain how to implement such hedging strategies.
- CLO5: Explain various pricing models including CAPM, APT, and multifactor models, and describe how they relate to the efficient market hypothesis, behavioral finance theory, and asset allocation strategies.
- CLO6: Define what the term structure of interest rates is, what factors influence interest rates, and how term structure changes over time.

Required Text and Other Materials (refer to appendix for full reading list)

Textbook

The following text is required for this course: *Financial Trading and Investing*, 3rd edition, by John L. Teall (2023), Elsevier (Academic Press). There are a few low-budget alternatives to purchasing or renting this text, which, like all university textbooks, is overpriced. A second edition of this book should be floating around online, which might inform your buy/rent/borrow/steal strategy. A thorough online search should uncover free pdf versions of the text (at least in its second edition, current as of 2018), and both hardcopy and electronic editions should be available in the library. The first edition (2013) will be a little out of date and will be missing some material, but that material will be covered in the course videos. I have seen “study guides” available for sale online, but I know nothing about them and suspect that they are either fraudulent or merely materials that will be available to you free through the course Canvas site or my personal website for the course. ISBN numbers for the text are as follows:

ISBN-10: 0323909558

ISBN-13: 978-0-323-90955-6 (Paperback); 9780323984454 (eBook)

All other required readings will be available to students through the Canvas platform, which will include printed materials that I have prepared and slides under the heading "Course Slides." These readings should be available through the instructor's personal website as well at www.jteall.com. The text and these other readings will follow lectures and slides step-by-step and will include problems and exercises. Readings are detailed in **Appendix B** to this syllabus.

Other equipment/software/websites/online resources

While this course does not require technical resources beyond a computer browser, Adobe Reader (or other pdf reader) and basic MS-Office applications such as Excel, there are a variety of software packages and mathematics readings and packages that students might wish to explore. If you need any assistance with these, do let the course instructor know.

Specific Technology Requirements & Skills for this Course

This course requires the use of a computer that complies with the following hardware specifications:

- MS-Windows 10 or 11. In many cases, Windows 7 or 8 operating systems will suffice, or:
- An Apple computer capable of effectively running MS Office, version 2007 or later.

Learning online requires some basic knowledge of and ability to work with computer technology. At a minimum, you need to be able to:

- Navigate in and use Canvas; the Canvas Student Orientation course on your “My Institution” page
- Create, use and save MS Word (version 2007 and later) documents; review [MS Word training and tutorials](#) for PC users (all versions); [Word Help](#) for Mac users
- Create, download and use MS Excel files, including some that are macro-enabled. Students will need to use Excel paste function applications and many students will benefit from using VBA/Excel macros.
- Use audio-enabled PowerPoint slides
- Find basic resources on the Internet
- Create and organize files & folders on your computer
- Send, receive, and manage email

It is further recommended, but by no means required, that students develop some basic knowledge of additional computer-based technology, including:

- Python, for those students wishing to employ more intensive mathematical applications.
- MS Excel Add-ins, as students opt, such as the Regression Analysis add-in.

Evaluation and Grading Policy

<p style="text-align: center;">In the table below, you will find a brief description of the various course requirements including assignment weights, and. Please see Appendix A& B for the full course outline and schedule. Course Requirements</p>	<p style="text-align: center;">Assignment Value</p>
<p>Course Project: <i>Analytical Project for Investments</i> - Students, working individually or in groups of 2, 3 or 4, will be given a list of projects from which to select. One type of project is to develop "user-friendly" entirely original spreadsheet (or C++, Python, or R) files of professional quality capable of performing one of several tasks from a list to be provided on the course Canvas site. Other options will be available as well.</p>	<p style="text-align: center;">25%</p>
<p>Quiz: A quiz covering the first approximately 40% of the course will be administered during the course of the term.</p>	<p style="text-align: center;">25%</p>
<p>Exam: An exam covering approximately the latter 60% of the term will be administered at the end of the term. This exam will be "cumulative only to the extent that course material builds on itself.</p>	<p style="text-align: center;">35%</p>
<p>Course Engagement: You are expected to have an active presence in course discussions, and complete course activities as noted in the assignment guidelines to maximize your learning and to aid in the learning of your classmates. Participation in activities should be consistent, of high quality, and reflect both a high level of academic thinking and your own personal perspectives, opinion, and ideas. Canvas discussions will be key here; do employ appropriate etiquette, remember that your questions and insights can be very helpful to your classmates and instructor and that cogent, relevant and articulate comments can be useful to all of us.</p>	<p style="text-align: center;">15%</p>
<p>Total</p>	<p style="text-align: center;">100%</p>

Grading Scale

A	94 to 100
A-	90 to 93
B+	88 to 89
B	84 to 87
B-	80 to 83
C	70 to 79
F	0 to 69

This course will follow the [Advanced Academic Programs Grading Policies](#).

Assignment Submission

Students are required to adhere to the following guidelines when submitting written work:

- Consistently use either APA, MLA, Chicago or Turabian or other (as approved by the course instructor) formats for papers, original spreadsheets and other work (not exams) as you see fit. The Johns Hopkins University Sheridan Libraries ["Citing Sources" site](#) may be very helpful with this.
- Adhere to constraints and restrictions as posted in assignment notifications
- It is essential that you properly cite sources used for your work. Feel free to discuss this issue with the course instructor.
- Do review the JHU Academic Conduct, Ethics & Plagiarism statements below prior to assignment submission.

Assignment Feedback

The instructor will aim to return assignments turned in on time back to you within 5-7 days following the due date, depending on the length of the assignment. You will receive feedback in the My Grades area of the course, which can be accessed via the navigation menu.

Late Policy

You are expected to contact your instructor in advance if you think you cannot meet an assignment deadline. However, if an assignment is late and prior arrangements have not been made with the instructor, the assignment score will be reduced by 10 points for each week or fraction thereof.

Directions for Students

Next Steps: Carefully review the remaining sections of the syllabus before beginning the first week's activities, which are located in the **Lessons/Course Content** area of the navigation menu in your online course.

Once you feel that you are ready to dive into the first week's activities, select **Lessons/Course Content** on the navigation menu. Then, select **Week 1/Module 1** to begin.

Course Policies

Course Participation

Synchronous Sessions (for Online/Hybrid Courses)

At the request of one or more students, the instructor will be available for optional synchronous sessions with students on [Zoom](#) in order to review topics, answer questions and to help prepare students for their exams. If you cannot attend a synchronous session, the course instructor hopes to record each session so that you can watch the recording at your convenience. Even if you cannot attend a synchronous session, feel free to work with your instructor online, over the telephone, on Zoom or by some other means as we find convenient.

Time Management Expectations

It is expected that you plan ahead to schedule your time. Plan to complete coursework across

several days of the week rather than all in one day. Be sure to consider how group activities impact your schedule as well. Some assignments require that you work on them for multiple weeks. Be sure to review the assignment directions at the beginning of the course so that you can plan your time accordingly.

Please seek help before becoming frustrated and spending a significant amount of time to resolve an issue. For some students, one such issue might involve mathematics. Students are expected to have met certain requirements for calculus, matrix mathematics and statistics prior to enrolling in the M.S. program, or by having taken one or more remedial courses. Nevertheless, problems might arise, and these problems should be resolved as quickly as possible, preferably within a week of the course start. The instructor will make reading materials targeted towards students enrolled in this course and will be happy to provide other assistance as affected students might require.

Participation Requirements

Active participation within our online course requires you to log onto Canvas multiple times throughout the week - a daily check-in is recommended. You are expected to have an active presence in course discussions, read all announcements, and complete course activities as noted in the assignment guidelines to maximize your learning. Participation in activities should be consistent, of high quality, and reflect both a high level of academic thinking and your own personal perspectives, opinion, and ideas.

Group Work

Group work may be assigned as part of this course, either in project form for a grade or simply as assignments for class discussion. If group work is required (as with certain projects to be submitted), you are expected to work equitably within your group to complete collaborative group activities. If group work is assigned, you will have an opportunity to privately rate your own participation and that of your groupmates.

Online Etiquette

In this course, online discussion will primarily take place in our online discussion board. In all textual online communication, it is important to follow proper rules of online etiquette - communicating with others in a proper and respectful way. For helpful tips, please refer to these [Ground Rules for Online Discussions](#).

Course Protocols and Getting Help

Amendments to the Course

Changes to the course will be posted in the Announcements section of your course. Please check announcements every time that you log into your online course.

Course Communication

You should communicate often with your classmates and the instructor. Most of the communication will take place within the Discussion forums. Feel free to use these forums for both questions concerning course content and for questions concerning administrative issues (e.g., exam content and dates, etc.). When you have a question about an assignment or a

question about the course, you can also contact your instructor, or post your question in the course's "Syllabus & Assignment Question" forum.

Email Communication

For questions regarding course activities and assignments that would be of general interest to other students, please post those in the Canvas Discussion forum. If you have a question regarding course activities and assignments of a personal nature, please send an email message to the instructor and observe the following guidelines:

- Include the title of the course in the subject field (e.g., JHU Insert Name of Course).
- Keep messages concise, and check spelling and grammar.
- Sign your full name (the sender's email is not always obvious).

If we communicate frequently by email, some of these formalities may be dropped, and feel free to also contact your instructor at his personal email address at jteall@jteall.com or on Skype at [johnlteall](#).

Feel free to contact your instructor with comments, questions, and concerns. I emphasize this point, in part because our physical distance inhibits our ability to meet. All email messages will be sent to you via your JHU email account, so you should be in the habit of checking that account every day or you should ensure that your JHU email account forwards messages to another account of your choice. I will aim for timely responses to email messages, usually in less than 24-48 hours.

University Policies

General

This course adheres to all University policies described in the academic catalog. Please pay close attention to the following policies:

Academic Conduct

All JHU students assume an obligation to conduct themselves in a manner appropriate to the Johns Hopkins University's mission as an institution of higher education and with accepted standards of ethical and professional conduct. Students must demonstrate personal integrity and honesty at all times in completing classroom assignments and examinations, in carrying out their fieldwork or other applied learning activities, and in their interactions with others. Students are obligated to refrain from acts they know or, under the circumstances, have reason to know will impair their integrity or the integrity of the University. Students and faculty in Advanced Academic Programs are required to adhere to the academic integrity guidelines and process laid out in the Policy. Refer to the website for more information regarding the academic misconduct policy.

Please note that student work may be submitted to an online plagiarism detection tool at the discretion of the course instructor. If student work is deemed plagiarized, the course instructor will follow university policy and procedures governing academic misconduct.

Ethics & Plagiarism

JHU Ethics Statement: The strength of the university depends on academic and personal integrity. In this course, you must be honest and truthful. Ethical violations include cheating on exams, plagiarism, reuse of assignments, improper use of the Internet and electronic devices, unauthorized collaboration, alteration of graded assignments, forgery and falsification, lying, facilitating academic dishonesty, and unfair competition. Report any violations you witness to the instructor.

Read and adhere to JHU's [Notice on Plagiarism](#).

Copyright Policy

All course materials are the property of JHU and/or John L. Teall and are to be used for the student's individual academic purpose only. Any dissemination, copying, reproducing, modification, displaying, or transmitting of any course material content for any other purpose is prohibited, will be considered misconduct under the [JHU Copyright Compliance Policy](#), and may be cause for disciplinary action. In addition, encouraging academic dishonesty or cheating by distributing information about course materials or assignments which would give an unfair advantage to others may violate AAP's [Code of Conduct](#) and the University's [Student Conduct Code](#). Specifically, recordings, course materials, and lecture notes may not be exchanged or distributed for commercial purposes, for compensation, or for any purpose other than use by students enrolled in the class. Other distributions of such materials by students may be deemed to violate the above University policies and be subject to disciplinary action.

Students with Disabilities

Johns Hopkins University is committed to providing reasonable and appropriate accommodations to students with disabilities. Students with documented disabilities should contact the coordinator listed on the [Disability Accommodations](#) page. Further information and a link to the Student Request for Accommodation form can also be found on the [Disability Accommodations](#) page.

Dropping the Course

You are responsible for understanding the university's policies and procedures regarding withdrawing from courses found in the current catalog. You should be aware of the current deadlines according to the [Academic Calendar](#).

Getting Help

You have a variety of methods to get help on Canvas. Please consult the resource listed in the "Canvas Help" link for important information. If you encounter technical difficulty in completing or submitting any online assessment, please immediately contact the designated help desk listed on the [AAP online support page](#). Also, contact your instructor at the email address listed in the syllabus.

Title IX Confidentiality and Mandatory Reporting

As an instructor, one of my responsibilities is to help create a safe and inclusive learning environment on our campus. I also have mandatory reporting responsibilities related to my role as a Responsible Employee under the Sexual Misconduct Policy & Procedures (which prohibits sexual harassment, sexual assault, relationship violence and stalking), as well as the General Anti-Harassment Policy (which prohibits all types of protected status-based discrimination and harassment). It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep the information you share private to the greatest extent possible. However, I am required to share information that I learn regarding sexual misconduct, as well as protected status-based harassment and discrimination, with the Office of Institutional Equity (OIE). For a list of individuals/offices who can speak with you confidentially, please see Appendix B of the [JHU Sexual Misconduct Policies and Laws](#).

For more information on both policies mentioned above, please see: [JHU Relevant Policies, Codes, Statements and Principles](#). Please also note that certain faculty and other University community members also have a duty as a designated Campus Safety Authority under the Clery Act to notify campus security of certain crimes, as well as a duty under State law and University policy to report suspected child abuse and/or neglect.

Diversity

Johns Hopkins is a community committed to sharing values of diversity and inclusion in order to achieve and sustain excellence. We firmly believe that we can best promote excellence by recruiting and retaining a diverse group of students, faculty, and staff and by creating a climate of respect that is supportive of their success. This climate for diversity, inclusion, and excellence is critical to attaining the best research, scholarship, teaching, health care, and other strategic goals of the Health System and the University. Taken together these values are recognized and supported fully by the Johns Hopkins Institutions leadership at all levels. Further, we recognize that the responsibility for excellence, diversity, and inclusion lies with all of us at the Institutions: leadership, administration, faculty, staff, and students.

For more information on JHU's commitment to diversity, please visit the [Diversity at JHU](#) website.

Student Conduct Code

The fundamental purpose of the Johns Hopkins University's (the "University" or "JHU") regulation of student conduct is to promote and to protect the health, safety, welfare, property, and rights of all members of the University community as well as to promote the orderly operation of the University and to safeguard its property and facilities. As members of the University community, students accept certain responsibilities which support the educational mission and create an environment in which all students are afforded the same opportunity to succeed academically.

For a full description of the code please visit the [Student Conduct Code](#) website.

Course Evaluation

Please remember to complete an online course evaluation survey for this course. These evaluations are an important tool in the ongoing efforts to improve instructional quality and strengthen programs. The results of the course evaluations are kept anonymous – your instructor will only receive aggregated data and comments for the entire class. An email with a link to the online course evaluation form will be sent to your JHU email address close to the end of the semester.

Appendix A

Tentative Course Schedule

Activity and assignment details will be explained in detail within each week's corresponding learning module (Lessons on Canvas). If you have any questions, please contact your instructor. This schedule is subject to change with fair notice. Any changes will be posted via Announcements on Canvas.

Week/ Module	Primary Topics and CLOs	Detailed Topics	Activities & Assessments ¹	Due Dates
1 (01/23)	Introduction to Securities Trading and Markets CLO1, CLO4	Securities Trading, Securities, Markets, Bargaining, Auctions, Winner's Curse, Market Microstructure, Liquidity, Depth, Day Trading, Financialization	Readings: Sections 1.1 to 1.8; Exercises 1.1 to 1.14	
2 (01/30)	Securities Markets CLO1	Exchanges, OTC and ATS Markets, Upstairs Markets, Quotation and Clearing Systems, Brokerage Operations, Fixed Income Securities and Markets, Global Markets, Commodities and Futures Instruments	Readings: Sections 2.1 to 2.11; Exercises 2.1 to 2.11	
3 (02/06)	Financial Market Utilities and Securities Trading Support & Institutional Trading CLO1	Trading Infrastructure, Price and Quotations Systems, Brokerage Operations, Clearing and Settlement, Other Financial Market Utilities, SIFMUs, Market Impact, Registered Investment Companies, Unregistered Investment Companies, HFT	Readings: Sections 3.1 to 3.6, 4.1 to 4.3, 4.8; Exercises 3.1 to 3.11, 4.5 to 4.15	
4 (02/13)	Regulation of Securities Markets and Adverse Selection CLO1	Regulatory Approaches, History of Regulation; Regulation Around the World, Privatization of Regulation, Liquidity, Spreads, Adverse Selection, Noise Traders	Readings: Sections 5.1 to 5.10, 6.1 to 6.3; Exercises 5.1 to 5.13, 6.1, 6.2	

¹ On this page, all readings and exercises are from the textbook Teall [2023].

Week/ Module	Primary Topics and CLOs	Detailed Topics	Activities & Assessments	Due Dates
5 (02/20)	Modern Portfolio Theory CLO2, CLO3, CLO4, CLO5	Elementary Portfolio Arithmetic, The Efficient Set, The Capital Asset Pricing Model, Arbitrage, Arbitrage Pricing Theory	Readings: Teall: “Mean-Variance Analysis and the Capital Asset Pricing Model;” Section 7.3 (in textbook); “Arbitrage Pricing Theory;” Exercises MVA&CAPM: 1-13, and APT: 1-3	
6 (02/27)	Portfolio Performance Evaluation CLO3, CLO4, CLO5	Evaluating Portfolio Performance, Timing vs. Selection, Value at Risk	Readings: Sections 10.1 to 10.2 & 10.5; Exercises 10.1 to 10.5, 10.9 to 10.12	
7 (03/06)	Quiz	Quiz	Quiz	Approx. 03/12
8 (03/13)	Valuation CLO1, CLO2, CLO3, CLO4	Common Stock Analysis, Fundamental Analysis, Growth Models, Discount Rates, Financial Statement and Ratio Analysis, Comparables	Readings: Teall: “Valuation;” Exercises 1-9	
9 (03/27)	Fixed Income Instruments and Currencies CLO1, CLO2, CLO3, CLO4, CLO6	Fixed Income Arbitrage, Fixed Income Hedging, Immunization, Term Structure, FX Arbitrage, FX Contracts, Hedging FX Exposure	Readings: Sections 8.1 to 8.6; Exercises 8.1 to 8.20	
10 (04/03)	Options CLO1, CLO2, CLO3, CLO4, CLO5	Calls and Puts, Put-call Parity, Binomial Option Pricing, Black-Scholes Valuation, Implied Volatilities	Readings: Sections 9.1-9.3, Appendices 7.A.2 and 7.A.3, Teall “Options”; Exercises 9.1-9.8, Appendix 7.A.1 exercises; Teall “Options” exercises 1 to 5	

Week/ Module	Primary Topics and CLOs	Detailed Topics	Activities & Assessments	Due Dates
11 (04/10)	Behavioral Finance CLO5	Rational Investor Paradigms, Utility Theory for Investment, Prospect Theory, Physical Attributes, Consensus Opinions	Readings: Sections 11.1 to 11.6; Exercises 11.1 to 11.10	
12 (04-17)	The Efficient Market Hypothesis CLO3, CLO5	Market Efficiency, Random Walks, Weak, Semi-Strong and Strong-Form Efficiency, Testing Efficiency, Anomalies	Readings: Sections 7.1, 12.1-12.8; Exercises 7.1 to 7.3, 12.1 to 12.10	
13 (04/24)	Arbitrage and Trading Gone Awry CLO2, CLO3, CLO4	Limits to Arbitrage, Financial Abuses, Insider Trading, Front Running, Late Trading, Fat Fingers and the Like, Rogue Trading, Camouflaging Illegal Trading	Readings: Sections 7.4, 13.1 to 13.8; (Don't try to memorize all the many illustrations); Exercises 13.1 to 13.8	
14 (05/01)			Study	
15 (08-08)	Final Exam	Final Exam	Project; Exam	Approx. 08/13: Exam; 08/13: Project

Readings identified by section numbers are all from the textbook by Teall (2023) as are exercise listings following those readings. Additional readings (all by Teall) are provided in the similarly numbered PowerPoint slides, which are narrated in the videos for the course. Readings for Units 4 and 7 are not in the textbook but can be located on the course Canvas page and the course website. These readings are followed by exercises as well. The additional readings for Unit 9 are also on the Canvas and instructor personal websites. Work through all exercises as listed above at the end of the corresponding textbook chapters and additional readings. Solutions to exercises are near the end of the textbook or immediately follow the exercises in the additional readings.

Appendix B

Timeline for Course and Detailed Topics & Readings

The following are the readings and detailed listing of topics for this course. All readings except as otherwise labeled are sections in the textbook (Teall, 2023). Other readings are available on the Canvas platform and on the instructor's personal website for this course.

Week 1. Introduction

- 1.1. Trades, Traders, Securities and Markets
- 1.2. Securities Trading
- 1.3. Bargaining
- 1.4. Auctions
- 1.5. Introduction to Market Microstructure
- 1.6. Orders, Liquidity and Depth
- 1.8. Financialization

Week 2. Securities Markets

- 2.1. Exchanges and Floor Markets
- 2.2. The Way It Was
- 2.3. Over The Counter Markets and Alternative Trading Systems
- 2.4. The Decline of Brick and Mortar
- 2.5. Crossing Networks and the Upstairs Markets
- 2.6. Fixed Income Securities and Money Markets
- 2.7. Markets Around the World
- 2.8. Currency Exchange and Markets
- 2.9. Cryptocurrency and Bitcoin Trading
- 2.10. Commodities and Futures
- 2.11. Swaps and Swap Execution Facilities

Week 3. Financial Market Utilities, Securities Trading Support & Institutions and Trading

- 3.1. Securities Trading Infrastructure
- 3.2. Price and Quotation Systems
- 3.3. Brokerage Operations
- 3.4. Clearing and Settlement
- 3.5. Other Financial Market Utilities and Functions
- 3.6. Systemically Important Financial Market Utilities
- 4.1. Institutions and Market Impact
- 4.2. Registered Investment Companies
- 4.3. Unregistered Investment Companies
- 4.8. High Frequency Trading

Week 4. Regulation of Securities Markets and Adverse Selection

- 5.1. Regulatory Approaches and the Regulatory Balance
- 5.2. Pre-1930s Securities Regulation: The Background
- 5.3. U.S. Securities Market Legislation: The Foundation
- 5.4. Crises and Updating the Regulatory System
- 5.5. Deregulation, Corporate Scandals and the Financial Crisis of 2008
- 5.6. Dodd-Frank
- 5.7. Government Oversight of Self-Regulation
- 5.8. Impact of Regulatory Activity
- 5.9. Regulation: The International Arena
- 5.10. Privatization of Regulation and Exchange Rules

- 6.1. Market Microstructure, Liquidity and Spreads
 - 6.2. Information and Trading
 - 6.3. Noise Trading
- Week 5. Modern Portfolio Theory (Coursepack Chapter Online)**
- 1. Elementary Portfolio Arithmetic
 - 2. The Efficient Set
 - 3. The Capital Asset Pricing Model
 - 4. Mathematics Underlying Arbitrage Pricing Theory
 - 5. Deriving the APT Model
 - 6. Index Models and Applications of APT
- Week 6. Portfolio Performance Evaluation**
- 10.1. Evaluating Investment Portfolio Performance
 - 10.2. Market Timing Versus Selection
 - 10.5. Value at Risk
- Week 7. Quiz**
- Week 8. Valuation (Coursepack Chapter Online)**
- 1. Introduction to Common Stock Analysis
 - 2. Introduction to Fundamental Analysis
 - 3. Growth Models
 - 4. Setting the Discount Rate
 - 5. Financial Statement Analysis: An Introduction
 - 6. Ratio Analysis and Risk
 - 7. Misreading and Misreading Financial Statements
 - 8. Comparables-Based Valuation
- Week 9. Fixed Income Instruments**
- 8.1. Arbitrage with Riskless Bonds
 - 8.2. Fixed Income Hedging
 - 8.3. Fixed Income Portfolio Immunization
 - 8.4. Term Structure, Interest Rate Contracts and Hedging
 - 8.5. Arbitrage with Currencies
 - 8.6. Arbitrage with Currency Forward Contracts
- Week 10. Options**
- 7.A.2. Calls and Puts
 - 9.1. Derivative Securities Markets and Hedging
 - 9.2. Put-Call Parity
 - 9.3. Options and Hedging in a Binomial Environment
 - 9.A.2. A Primer on Black-Scholes Pricing
 - 9.A.3. Estimating Implied Variances
- Week 11. Behavioral Finance**
- 11.1. Rational Investor Paradigms
 - 11.2. Prospect Theory
 - 11.3. Behavioral Finance
 - 11.4. Body and Mind of the Trader
 - 11.5. Neurofinance: Getting Into the Investor's Head
 - 11.6. The Consensus Opinion: Stupid Investors, Rational Markets?

- Week 12. The Efficient Market Hypothesis**
- 7.1 Market Efficiency and Random Walks
 - 12.1. Introduction to Market Efficiency
 - 12.2. Weak Form Efficiency
 - 12.3. Testing Momentum and Mean Reversion Strategies
 - 12.4. Semi-strong Form Efficiency
 - 12.5. The Event Study Methodology
 - 12.6. Strong Form Efficiency and Insider Trading
 - 12.7. Anomalous Efficiency and Prediction Markets
 - 12.8. Epilogue
- Week 13. Arbitrage and Trading Gone Awry (Special Topics)**
- 7.4 Limits to Arbitrage
 - 13.1 The Dark Side of Finance
 - 13.2 Illegal Insider Trading
 - 13.3 Front Running and Late Trading
 - 13.4 Bluffing and Market Manipulation
 - 13.5 Payment for Order Flow
 - 13.6 Fat Fingers, Hot Potatoes and Technical Glitches
 - 13.7 Rogue Trading and Rogue Traders
 - 13.8 Hiding Trading Losses with Ponzi Schemes
- Week 14. Study**
- Week 15. Final Exam**