

Department of Economics

ECON 5261

**Financial Economics I**

**3 Credit Hours**

Fall 2017

March 21, 2017 version

Days & Times of class meeting in what location over the semester.

Professor Michael Brandl

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**Course Description**

This is the first course, in a two-course sequence, that examines a variety of issues in the field of financial economics from a liberal arts perspective. As such this is an applied economics course. We will rely heavily on the material you learned in your previous economics courses and math courses. This is not a course in corporate training. This course will not teach you how to be a financial analyst. This course will, however, equip you with the intellectual skills to be an outstanding financial analyst, policy analyst, financial market regulator, lawyer and/or a wide variety of other paths.

This class will not offer simple, cookie cutter solutions to the complex problem facing financial market, institutions, and participants. Instead this course will force you to think. It will force you to consider multiple explanations of the same phenomena. This course sequence is not about memorization and regurgitation; it is about seeking answers to pressing questions from an economics perspective.

**Learning Outcomes**

At the end of course the student is expected to know:

* The basic theory of portfolio choice and different equilibrium models for financial markets under one-period uncertainty.
* When, how, and what extent the models discussed are applicable.
* Some elements of empirical research in the field.
* Implications of the theory of capital budgeting and financing decisions in different financial institutional settings.
* Why financial institutions exist and the roles they play.
* The risk financial institutions face and how they are minimized.

**Official Description:** Examination of the evolution of and economic issues facing financial markets, financial institutions, and financial market participants.

**Course Prerequisites:** Prereq: ECON 4001.01, 4001.02, or 4001.03, and 4002.01, 4002.02, or 4002.03, and Math 1151, 1152, 1161, or 2182H, or equiv.; or Grad standing.

**Required Textbooks**

 Danthine, Jean-Pierre and John Donaldson, *Intermediate Financial Theory*, 3rd Edition, Academic Press, 2015. ISBN 9780123865496.

Greenbaum, Sturart I., Anjan V. Thakor and Around W.A. Boot, *Contemporary Financial Intermediation*, 3rd Edition, Elsevier Inc., 2016. ISBN 9780124051966.

Be aware that earlier editions of the textbooks lack coverage of topics covered in the third editions. Thus, it is highly advised you purchase the third edition.

**Additional Sources**

Back, Kerry E., *Asset Pricing and Portfolio Choice Theory*, 2nd Edition, Oxford University press, 2017. ISBN 9780190241148. This is generally viewed as a graduate level text, but is sometimes recommended for advanced undergraduate students. The first 11 chapters are most applicable.

**Grade Determination**

4 Homework Assignments: 20%

Midterm Exam: 40%

Cumulative Final Exam: 40%

Exams

Note the specific time and location of the cumulative final exam are determined by the University and cannot be changed to meet individual schedules. Taking an exam early to accommodate travel plans is NOT possible. Failure to show up for an exam does not warrant a make-up exam. If a medical emergency arises resulting in a student being unable to take an exam at its scheduled time the weight of that exam will be shifted to the final exam. Documented proof, including a signed letter of explanation for a non-relative health care provider must be provided for this exemption. Make-up final exams will be granted under only the most extreme circumstances such as the above described documented serious illness.

All of the exams will be a closed book, closed notes exam. No study sheets, crib notes or other aids will be allowed to be used during the exams. Students may expect time pressure on the exams. The exams will cover material covered in class, the assigned readings, and other material assigned.

The exams are designed to test students’ abilities to solve problems as well as recall and organize information rapidly. Exam questions will require one to solve mathematical problems, be able to explain theoretical concepts and models, require one to tie concepts together, expect one to be able to apply concepts and models to everyday situations, and require one to be familiar with historical occurrences relative to key concepts and models.

Homework Assignments

The Homework assignments are designed to help prepare students for the exams. The homework assignments will be made available through Carmen and will be collected on the dates announced ahead of time in class. Some of the questions on the homework will follow the material covered in class, while others will focus on results that extend material covered in class. The questions on the homework assignments are designed to mimic questions that will appear on the exam.

The Final Grade

The final grade assigned is an informed and **final** evaluation and not the beginning offer in a bargaining process. If an error occurs in the calculation of your grade, please notify Professor Brandl or his TA during the beginning of the following semester and actions will be taken to correct any errors. Please do NOT contact Professor Brandl or any TA to "lobby" for a higher grade. Any lobbying efforts (i.e. asking for a higher grade simply because you want one or need one) will not be tolerated.

*Make-up or extra work* to improve your grade is not possible. Your final letter grade is determined by the above stated method. Your general academic situation (For example, “I need a ‘C’ in this course to graduate.”) and/or personal problems cannot be considered. The final grade in the course, once assigned, will not be changed except in the event of a recording error.

*Religious Conflicts*. Students whose religious observations conflict with the assignment schedule will not be penalized in any way. If your religious observation conflict with the published schedule of assignments for the course, however, you must notify the instructor in writing no later than the third class period so that alternative arrangements can be made.

**Electronic Devices**

Electronic devices (e.g. laptops, smart phones, smart watches, etc.) are not to be used in class. They should be put away during class time. This includes the sending and receiving of text messages. Note: the use of laptops for taking of notes is strictly forbidden. The only except to this electronic devices rule is the use of a tablet ONLY for taking notes – it that case the tablet must remain flat on the writing surface during the course. Tablets are not allowed during quizzes and exams. Persistent violation of this rule will result in a final grade reduction of one full letter grade.

**Attendance Policy**

Attendance to each and every lecture is expected and assumed. Each lecture assumes that audience members have read the assigned readings before the lecture. If you do not attend a lecture it is entirely your responsibility to determine what you have missed, including any administrative announcements that may have made.

**Disability Services**

 The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options.  To establish reasonable accommodations, I may request that you register with Student Life Disability Services.  After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. **SLDS contact information:** [slds@osu.edu](mailto:slds@osu.edu); 614-292-3307; [slds.osu.edu](http://www.ods.ohio-state.edu/); 098 Baker Hall, 113 W. 12th Avenue.

**Academic Misconduct**

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University’s Code of Student Conduct, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University’s Code of Student Conduct and this syllabus may constitute “Academic Misconduct.”

The Ohio State University’s Code of Student Conduct (Section 3335-23-04) defines academic misconduct as: “Any activity that tends to compromise the academic integrity of the University, or subvert the educational process.” Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University’s Code of Student Conduct is never considered an “excuse” for academic misconduct, so I recommend that you review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University’s Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the above policy or what constitutes academic misconduct in

this course, please contact me.

Other sources of information on academic misconduct (integrity) to which you can refer

include:

* The Committee on Academic Misconduct web pages

<http://oaa.osu.edu/coam.html>

**Tentative Course Outline** (subject to change – see Carmen for updates)

Note: D&D refers to Danthine & Donaldson, 3rd edition.

GTB refers to Greenbaum, Thakor & Boot, 3rd edition.

**Part A. Introduction and Overview**

Week 1: Introduction, Review & Overview

Required Readings: D&D Ch. 1

Topics:

* Review of key concepts from macroeconomics
* Review of key concepts from microeconomics
* Strictly concave utility functions
* Risk v. uncertainty
* Asymmetric information
* Financial Systems & Economic Growth
* Financial Systems & Social Welfare Functions
* Recent Financial Crises

Week 2: Economics of Asset Pricing

Required Readings: D&D Ch. 2

Topics:

* Discounting Risky Cash Flows
* Equilibrium v. Arbitrage
* Decomposing Risk Premia
* The Stylized Facts
* Banks Balance Sheets

**Part B. Decision Making Under Uncertainty**

Week 3: Making Choices under Uncertainty

Required Readings: D&D Ch. 3

Topics:

* State dominance
* Mean-variance dominance
* Economic Rationality defined
* Expected Utility Theorem
* The von Neumann-Morgenstern utility functions.
* Behavioral Finance

Week 4: Measurement of Risk & Risk Aversion

Required Readings: D&D Ch. 4

Topics

* Absolute v. Relative Risk Aversion
* Odds of a bet
* Risk neutral investors
* Jensen’s Inequality
* Stochastic Dominance
* Mean preserving spreads
* Leverage and Risk

Week 5: Economics of risk aversion and asset purchases

Required Readings: D&D Ch. 5

* Risk Free v. Risky Assets
* Portfolios, Risk Aversion and Wealth
* Risk Aversion and Portfolio Allocation – Cass & Stiglitz (1970)
* Quasi-Hyperbolic Discounting

Week 6: Modern Portfolio Theory

Required Readings: D&D Ch. 6

* Utility maximization under mean-variance utility hypothesis with risky assets
* The optimal portfolio allocation and optimal consumption savings decision at the same time.
* Fat tails and other problems
* Separation Theorem
* Stochastic dominance and diversification

Week 7: Practical limits to Modern Portfolio Theory

Required Readings: D&D Ch. 7

* Costs of getting the parameter estimates wrong
* What if the data is not stationary?
* Maybe naïve is best?
* Siegel’s (2008) stocks are less risky at longer time horizons.
* Is the Modern Portfolio Theory doomed for the ash bin of history?

***MIDTERM EXAM***

**Part C. Equilibrium Pricing**

Week 8: The Capital Asset Pricing Model

Required Readings: D&D Ch. 8

* The Traditional CAPM
* Valuing risky cash flows using CAPM
* Efficient portfolios
* Zero Beta CAPM
* Empirical Assessment of CAPM

Week 9: General Equilibrium Theory Asset Pricing

* The limitations of the CAPM
* Set up of an Arrow-Debreu Economy
* Arrow-Debreu securities
* Competitive equilibrium and Pareto Optimality
* Why Arrow-Debreu framework is not used more often.

Week 10: The Arbitrate Pricing Theory

Required Readings: D&D Ch. 14

* Introduction to Factor Models
* Multifactor Models and CAPM
* APT
* Macroeconomic Factor Models
* Pros and Cons of Factor Models

**Part D. Financial Institutions**

Week 11: Commercial Banks and other financial institutions

Required Readings: GTB Ch. 2 & 3

* Why Financial intermediaries exist
* Types of financial intermediaries
* Depository institutions v. Investment banks
* Credit rating agencies
* Why financial institutions do
* Are banks special?
* Non-bank banks

Week 12: Risks financial institution face

Required Readings: GTB Ch. 4 & 5

* Credit risk
* Enterprise risk
* Term structure of interest rates
* Duration
* Convexity

Week 13: On the future of financial institutions

Required Reading: Wheelock, David C. and Paul W. Wilson, “Why do Banks Disappear? The Determinants of U.S. Bank Failures and Acquisitions” *Review of Economics and Statistics*, vol. 82, No. 1, Feb., 2000, pp 127-138. Provided on Carmen.

* Why have banks consolidated in the United States?
* Is bank consolidation a net positive for the US?
* Will bank consolidation continue into the future?

Week 14: Catch-up and Summary