

ECO 5281: Financial Economics 1

Spring 2020

MW 3:35–4:50 PM BEL 111

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Office Hours: MW 1:00–2:00 PM or by appointment

Textbook: There is no required textbook for this class. My notes and supplemental readings will be posted on the course Blackboard page. Here are some texts that I have used previously in this class and which may be of interest to you as references:

- *Intermediate Financial Theory, Third Edition.* Jean-Pierre Danthine and John B. Donaldson. Academic Press, 2015.
- *Quantitative Financial Economics: Stocks, Bonds and Foreign Exchange, 2nd, Ed.* by Keith Cuthbertson and Dirk Nietzsche, (Wiley, 2004).
- *Lectures on Financial Economics*, March 2012, by Antonio Mele.
- *Principles of Financial Economics* by Stephen LeRoy & Jan Werner (Cambridge Univ. Press, 2001).
- *Asset Pricing: Revised Edition* by John Cochrane (Princeton Univ. Press, 2005).
- *Financial Economics: A Concise Introduction to Classical and Behavioral Finance* by Thorsten Hens and Marc Oliver Rieger (Springer, 2010).
- *Financial Economics* by Eichberger & Harper (Oxford Univ. Press, 1997).

Course Description: This course is a quick-paced overview of the essential topics in financial economics and is aimed at MS and PhD students in Financial Mathematics, and PhD students in Economics, Finance, Statistics and Computational Science. Topics include: asset pricing theory, asset allocation, futures, swaps, options, the term structure of interest rates, behavioral finance and measuring risk.

Course Objectives: The main course objectives are:

- You will be able to describe and distinguish between the various ways that financial risk is measured.
- You will be able to summarize the main contributions of Modern Portfolio Theory and describe their strengths and weaknesses and how they are used in practice.
- You will be able to describe the Consumption-based Capital Asset Pricing Model (C-CAPM) and you will be able to derive the model using recursive dynamic programming and discuss how it extends the CAPM.
- You will be able to discuss and derive Arrow-Debreu securities and show how they are related to arbitrage pricing theory.

- You will be able to describe the stochastic discount factor, the pricing kernel, and the pricing functionals and show how they are related, when they are equivalent and when they are not.
- You will be able to describe a general equilibrium term structure of interest rates model and how to derive discount, spot and forward rates.
- You will be able to price a forward and a swap contract for fixed-income securities.
- You will be able to price options contracts using the binomial pricing model.
- You will be able to compute the Value-at-Risk for a portfolio including equities, bonds and options.

Grading: Your course grade will be determined from three equally weighted exams. The exam dates will be:

Exam 1: Wednesday, 2/13

Exam 2: Wednesday, 3/27

Exam 3: Wednesday 4/24

Note that the third exam is on the last class day. There will be no final exam during the scheduled final exam week. Do not schedule job interviews, etc., on these exam dates. We will try to stick with these exam dates no matter where we are in the course material. You *must* take all exams. There will be no make-up exams unless you have a verifiable medical excuse.

Assignments and Responsibilities:

Readings: The primary reading is the class notes and readings available on the class blackboard page in the “Course Library” folder. You are expected to read the material *before* coming to class and be prepared for in-class discussion.

Class Discussion: Since this is a graduate level course, I do not intend to *read* the notes to you. You should read the assigned material before coming to class and be prepared to ask questions about material that you did not fully understand. I will focus on problem solving and interpretation of the material but my primary role is to try to answer your questions. I do not take attendance in the class but you will find it difficult to do well in the class if you do not attend regularly.

Projects: I will post regular projects and homework to help you better understand the material to help you prepare for the exams. I will not collect or grade these but I will discuss solutions in class if you have specific questions. I recommend that you work in small groups and help each other understand the solutions.

Approximate Course Schedule: We will follow the notes quite closely with some supplemental material added where needed. Our goal is to cover all of the material so we will be moving at a pretty fast pace.

Here is an *approximate* schedule:

Date	Topics
1/6	Overview of asset pricing theory
1/8, 1/13, 1/15	Decision making under risk.
1/20	No Classes — Martin Luther King Day
1/22, 1/27, 1/29, 2/3	Modern Portfolio Theory
2/5	Exam 1
2/10, 2/12, 2/17	C-CAPM
2/19, 2/24, 2/26	Arrow-Debreu Pricing
3/2, 3/4, 3/9	Pricing Kernels
3/11	Exam 2
3/16, 3/18	No Classes — Spring Break
3/23, 3/25, 3/30	Term structure of interest rates
4/1, 4/6, 4/8	Options
4/13, 4/15	Forwards, Futures and Swaps
4/20, 4/22	Value-at-risk
4/29	Exam 3

University Attendance Policy: Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

Academic Honor Policy: The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to . . . be honest and truthful and . . . [to] strive for personal and institutional integrity at Florida State University. (Florida State University Academic Honor Policy, found at [FSU Honor Policy](#).)

Americans with Disabilities Act: Students with disabilities needing academic accommodation should: (1) register with and provide documentation to the Student Disability Resource Center; and (2) bring a letter to the instructor indicating the need for accommodation and what type.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center
874 Traditions Way

108 Student Services Building
Florida State University
Tallahassee, FL 32306-4167
(850) 644-9566 (voice)
(850) 644-8504 (TDD)
sdrc@admin.fsu.edu
<http://www.disabilitycenter.fsu.edu>

Free Academic Support for FSU Online Learners: FSU provides services and resources to support your academic success. The Academic Center for Excellence (ACE) provides online materials, individual academic consultations with an ACE instructor via Skype, and on-campus tutoring in the ACE Learning Studio in Johnston. The Reading-Writing Center offers online and in-person writing assistance through multiple campus locations, including Johnston, Williams, and Strozier. University Libraries provides research assistance via email, phone, Skype, and virtual reference (Ask a Librarian chat box). Students may also access FSU Library books and articles (<http://www.lib.fsu.edu>), as well as those outside of FSU by using UBorrow and Interlibrary Loan. For more information, please visit the departmental websites:

<http://wr.english.fsu.edu/Reading-Writing-Center>,
and <http://www.lib.fsu.edu/department/distance-learning>.

Free Tutoring from FSU: On-campus tutoring and writing assistance is available for many courses at Florida State University. For more information, visit the Academic Center for Excellence (ACE) Tutoring Services comprehensive list of on-campus tutoring options - see <http://ace.fsu.edu/tutoring> or contact tutor@fsu.edu. High-quality tutoring is available by appointment and on a walk-in basis. These services are offered by tutors trained to encourage the highest level of individual academic success while upholding personal academic integrity.

Syllabus Change Policy: Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.