

Class meets MWF 1-1:50pm @ BKH 102

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**Syllabus for ECON 443 – Financial Economics
Camelia Bejan
Rice University - Spring 2013**

1. Course Description

The course gives an overview of the major theories, tools and results in financial economics related to portfolio theory and asset pricing, with the goal of helping you understand how stock, bond, and option prices are determined, and how financial assets are used for investment decisions. The emphasis will be on theoretical issues rather than the institutional details of securities trading, but we will also apply the ideas to some real-world examples and relate the material to current financial news and problems relevant to the practitioner. The goal is to provide you with a solid understanding of the principles of financial economics, as well as the analytical and quantitative tools necessary to be successful in the modern financial world.

The course starts with the theory of choice under uncertainty and applies it to optimal portfolio selection. Building on the portfolio theory, the equilibrium model of capital asset pricing is introduced. The arbitrage pricing model is then offered as an alternative asset pricing theory. The second half of the course focuses on the analysis of stock and option pricing based on the arbitrage principle and the time value of money.

The course is highly quantitative and relies heavily on analytical tools and economic theory. Students should be comfortable with probability, statistics and regression analysis. Use of Excel will be vital for the homework assignments. Some use of calculus and linear algebra will also be required.

2. Prerequisites

ECON 301 (former ECON 370) and STAT 310 (or ECON 307 or ECON 382). Knowledge of calculus and familiarity with Excel are required.

3. Course Materials

Required textbook: Bodie, Z., A. Kane, A. Marcus, *Investments*, 9th Edition, Irwin McGraw Hill.

Calculator: You will need a simple calculator that handles exponents and logarithms.

Course website: <http://www.owl.net.rice.edu/~camelia/teaching/Econ443> or OWL-space. A copy of the syllabus will be available online. Material from lectures, as well as important announcements will also be posted on the website; it is your responsibility to visit it frequently. The homework assignments will be available for downloading on the class homepage. The homepage also provides links to some useful web sites related to Economics.

4. Homework Assignments

There will be six homework assignments, which will be posted on the class webpage. Their due dates will be clearly specified. Solutions will be posted on the due date. No late assignments are accepted. If you miss a homework, the average of the other homework sets will be applied towards the missed homework.

Homework will consist of problems and data exercises. In order to receive credit on homework questions all intermediate steps must be shown (if you provide a correct answer without explaining how you derived it, you will get only a **low** partial credit). Excel will be needed to solve some of the problems.

You can work with some of your classmates to derive solutions to homework assignments, as long as each of you has a fair contribution. However you cannot receive help from anyone outside the class (such as a tutor), and are not allowed to use the textbook's solution manual (or any other resource that contains solutions of the assigned problem sets). If you choose to form a study group with some of your classmates, you still have to write and submit the homework individually, and acknowledge the help you received. You should also be able to reproduce (with ease and without any help) the solution you submitted. Keep in mind that homework assignments are the best preparation for the exams. A superficial approach to homework will most certainly be reflected in low exam scores.

Solutions to homework assignments need not be typed, but the handwriting must be legible. The solutions must be dropped in the teaching assistant's mailbox located in BB 277. Your papers will be graded by the teaching assistant and returned the following week.

The teaching assistant will be available during his office hours to answer questions about previous homework assignments and the material covered in class. He will never help to solve specific questions of an upcoming homework assignment. The

teaching assistant is also ready to organize some additional review sessions regarding the homework assignments, if requested by some students.

5. Exams

There will be a midterm and a final exam. Both exams are closed-book, but you can bring one regular size (i.e., 8x11in) sheet of notes (one side for the midterm, two sides for the final).

The midterm is scheduled for Friday, February 22nd, during regular class hours. Individual requests to modify the date of the exam will not be accepted. In exceptional cases (such as a medical emergency), if the midterm must be missed for a documented excuse, the student can either reschedule the exam or choose to have the final carry the extra weight. If proper documentation is not provided, the final will carry the extra weight of the missed midterm.

The final exam will be a three-hour written exam consisting mostly of exercises directly related to the material covered in class and similar to those solved in the homework assignments. It will be comprehensive and account for 45% of your final numerical score.

You need to bring a simple calculator that handles exponents and logarithms for all the exams. No devices that can be connected to the net or that can serve as database storage (i.e., palms) are allowed.

6. Grading

The final numerical score will be the weighted average of the scores obtained on the homework assignments, the two partial exams and the final exam. The weights are defined as follows:

- 25% for homework assignments,
- 30% for the midterm,
- 45% for the final exam (75% if the midterm is missed).

The following table will be used to convert the final numerical score on the course to letter grades. I reserve the right to lower the cutoffs but not to raise them.

Score > 95%	A+
Score ≤ 95% and > 90%	A
Score ≤ 90% and > 85%	A-
Score ≤ 85% and > 75%	B+
Score ≤ 75% and > 70%	B
Score ≤ 70% and > 66%	B-
Score ≤ 66% and > 63%	C+
Score ≤ 63% and > 60%	C
Score ≤ 60% and > 55%	C-

Score \leq 55% and \geq 50%	D
Score < 50%	F

Class participation is strongly encouraged. Students who enhance the quality of the class discussion can also receive up to 3% bonus points towards the final grade.

I do not discuss grades or grading policies with students under any circumstances. If you discover mistakes in grading, you may submit a written request that your material be re-graded. Re-graded materials will be considered in their entirety. Once the final grade has been awarded, re-grading requests are handled by the University.

7. Review Sessions

The teaching assistant will organize one review session before each exam. The exact dates will be announced later. Students are encouraged to attend these sessions and to prepare specific questions.

8. Rice Honor Code

The Rice Honor System (<http://www.ruf.rice.edu/~honor/>) applies to all work in the class. For each item submitted for grading, please print and sign the entire honor code as follows: "On my honor, I have neither given nor received any unauthorized aid on this (examination, quiz or paper)." [Your signature].

Please be aware that you should clearly acknowledge, in writing, any authorized help you receive (that includes, but it is not limited to, Internet resources, books and help from your colleagues). Failure to do so is considered plagiarism and thus a violation of Rice's honor code!

9. Disability-Related Accommodations

If you have a documented disability that will impact your work in class, please contact me to discuss your needs. Additionally, you will need to register with the Disability Support Services Office in the Ley Student Center. All discussions will remain confidential.