

FLORIDA STATE UNIVERSITY

ECO 3933-01/ECO 5056-01: DECISION MAKING UNDER RISK & UNCERTAINTY

Spring 2014

Instructor: Dr. Luke A. Boosey
Office: 278 Bellamy Building
Phone: (850) 644-7208
E-mail: lboosey@fsu.edu
Office Hours: Tuesday and Thursday 9:30-10:30 AM

Course Description:

This course introduces students to the theory of economic decision-making under risk and uncertainty. Particular emphasis will be placed on developing and applying alternative theories of decision-making to insurance markets, financial markets, and the negotiation of contracts.

Course Overview:

This course is designed to introduce students to the economic analysis of risk and uncertainty. Many of the most important economic decisions must be made in the presence of risk or uncertainty. As such, a better understanding of how decisions are (or should be) made in these situations is critical for students in fields such as economics, business, marketing, and law. At the end of this course, the student will be able to (1) explain the formal theoretical models of decision making under uncertainty; (2) critically evaluate decision theory and the implications of risk and uncertainty; and (3) apply the theories of decision making to explain and predict behavior in settings where risk and uncertainty are most prevalent.

The course will include three broad learning modules. We will first develop the classical theory of decision making – the theory of Expected Utility. Second, we will explore theoretical, empirical, and experimental evidence in support of and in opposition to the classical theory, and discuss some of the prominent alternative theories. In the third module, we will study several applications of the different theories to situations characterized by risk or uncertainty, including insurance markets, portfolio choice, and asset pricing.

Prerequisites:

Undergraduate: Passing grade in ECO 2023 (Principles of Microeconomics) and ECO 2013 (Principles of Macroeconomics). Basic knowledge of calculus, probability, and statistics is strongly recommended.

A passing grade (or concurrent registration) in *either* ECO 3104 (Applied Microeconomic Analysis) *or* ECO 4101 (Intermediate Microeconomic Theory) is recommended, but not necessary.

Graduate: There are no formal prerequisites for this course. However, students will need basic knowledge of microeconomics to follow the material.

In addition, if you are not comfortable using calculus, probability, and statistics, the course will present significant challenges.

Textbook

Required:

There is no required textbook for the course. We will rely on detailed lecture notes and focus on assigned readings for the various topics.

Reference:

There are, however, several recommended/reference textbooks that may be of interest to those who wish to do some background reading to help with their understanding of the course. The lecture notes will reflect the most important parts of these recommended readings, so they are not required. In many parts, they are also more difficult (and mathematically rigorous) than what we will cover.

Notes on the Theory of Choice
by David Kreps
ISBN 0-8133-7553-3
Westview Press, 1988

Theory of Decision Under Uncertainty
by Itzhak Gilboa
ISBN 978-0-521-74123-1
Econometric Society Monograph Series
Cambridge University Press, 2009

Economic and Financial Decisions under Risk
by Louis Eeckhoudt, Christian Gollier, and Harris Schlesinger
ISBN 0-691-12215-6
Princeton University Press, 2005

The Analytics of Uncertainty and Information
by Jack Hirshleifer and John G. Riley
ISBN 0521283698
Cambridge University Press, 1992

Uncertainty in Economics: Readings and Exercises
by Peter Diamond and Michael Rothschild
ISBN 0122148517
Academic Press, 1989

Assessment:

2 Homework Assignments; each worth 10% of your grade	20%
1 Group-led discussion session	20%
Midsemester exam	30%
Final Exam	30%

Midsemester Exam

The Midsemester Exam will consist of two sections. The first section will be multiple choice. The second section will include both short answer and calculation exercises, similar to the Homework Assignments. The exam will be 1 hour 15min, during class on Thursday, March 6th, immediately before Spring Break.

Final Exam

On the Final Exam, you will be required to answer 3 questions – (1) a calculation exercise based on the theory of expected utility; (2) a question related to the various critiques of and alternatives to expected utility theory; and (3) a short essay question based on one of the applications we will discuss in the second-half of the course. The exam will be 2 hours, and is scheduled for Friday from 3:00 - 5:00 pm in Finals Week.

Homework Assignments:

These will consist of 4 or 5 exercises – typically 3 or 4 will be calculation-based or with some mathematical steps involved; the other 1 or 2 will be short answer or conceptual questions.

Group Discussion Sessions

At the end of Week 2, you will be divided into groups of 4. Each group will lead a 30 min discussion session during one of our lectures. Groups will be assigned a paper from the reading list, which is to be summarized and presented to the class. The presentation should last for 20 min, then the group will propose 3 or 4 questions for class discussion.

Group #	Topic	Date
Group 1	Insurance Markets (Paper 1)	Tuesday 02/25
Group 2	Insurance Markets (Paper 2)	Tuesday 02/25
Group 3	Portfolio Choice (Paper 1)	Thursday 02/27
Group 4	Portfolio Choice (Paper 2)	Thursday 02/27
Group 5	Financial Markets (Paper 1)	Thursday 03/20
Group 6	Financial Markets (Paper 2)	Thursday 03/20
Group 7	Medical Care (Paper 1)	Tuesday 03/25
Group 8	Medical Care (Paper 2)	Thursday 03/27
Group 9	Environmental Risk (Paper 1)	Tuesday 04/01
Group 10	Environmental Risk (Paper 2)	Tuesday 04/01

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.

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.

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 <http://fda.fsu.edu/Academics/Academic-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 should be done during the first week of class. 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/>

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.

Proposed Schedule:

Week	Class Dates	Course Content
1	01/07, 01/09	Course details; Syllabus Review Introduction; Basics of Probability;
2	01/14, 01/16	Choice, Preferences, and Utility Expected Utility Theory
3	01/21, 01/23	No class Tuesday 01/21 Expected Utility Theory
4	01/28, 01/30	Expected Utility Theory; Risk & Risk Aversion <i>Homework Assignment 1 due Thursday, 01/30</i>
5	02/04, 02/06	Estimating Risk Preferences Evidence on Expected Utility Theory
6	02/11, 02/13	Alternative Models of Decision-Making under Uncertainty <i>Homework Assignment 2 due Thursday, 02/13</i>
7	02/18, 02/20	Insurance Markets
8	02/25, 02/27	Insurance Markets (Groups 1 & 2) Portfolio Choice (Groups 3 & 4)
9	03/04 03/06	Portfolio Choice Midsemester Exam (in class)
10	03/11, 03/13	Spring Break
11	03/18, 03/20	Risk & Uncertainty in Financial Markets Financial Markets (Groups 5 & 6)
12	03/25, 03/27	Medical Care Decisions (Groups 7 & 8)
13	04/01, 04/03	Environmental Risk (Groups 9 & 10)
14	04/08, 04/10	Contracts under Uncertainty
15	04/15, 04/17	Experimental Research on Risk & Uncertainty
16	04/22, 04/24	Review Sessions
	Finals week	Final Exam – Friday, 05/02, 3:00 – 5:00 pm