

Microeconomic Theory I
BPHD 8110-001, Spring 2017

Class meeting time and place: 9:30am-12:15pm M, Friday 212
Instructor: Artie Zillante
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Course Description & Objectives

Study of game theory, its applications in microeconomic theory and finance, and topics on market equilibrium and market failure. The topics cover simultaneous-move games, dynamic games, analysis of competitive markets, market power, adverse selection, and the principal-agent problem.

This is a second semester course in Microeconomic Theory for the Business Administration PhD. As such, it will be a rigorous course which will introduce the student to the basic principles of analyzing strategic games. By the end of the course, students should be familiar with the fundamental concepts of game theory as they are used in the finance discipline and be able to use them in building their own theoretical models.

Books and Materials

Required:

Mas-Colell, Whinston, and Green (MWG). *Microeconomic Theory*. Oxford University Press, 1995.

Supplemental texts and articles will be provided throughout the semester.

Website

The course website is <http://www.belkcollegeofbusiness.uncc.edu/azillant>. From this site you may obtain a copy of the course syllabus, a course calendar, lecture outlines, and problem sets. Other materials may be added during the semester.

Grading

Grades for the course will be based on 2 exams, a research paper and an in-class presentation. The two exams each count for 30% of the final grade and the paper and presentation each count for 20% of the final grade. More information on the research project and presentation will be provided on a separate form.

Attendance

Attendance is not required, but given the rigorous nature of the course it is suggested that students attend all lectures.

Tentative Course Outline

Simultaneous games of complete information

- Nash equilibrium, pure strategies, mixed strategy Nash equilibrium

Sequential games of incomplete information

- Subgame perfect Nash equilibrium, finitely and infinitely repeated games

Games of complete information with a continuum of strategies

- Cournot and Bertrand games

Simultaneous games of incomplete information

- Bayes-Nash equilibria, auctions

Sequential games of incomplete information

- Perfect Bayesian equilibria, separating and pooling equilibria

Topics

- Principal-agent problems
- Nash bargaining
- Cutoff strategies
- Mechanism design
- Markov perfect equilibria
- Others as needed

Academic Integrity and Diversity Statements

Students have the responsibility to know and observe the requirements of The UNC Charlotte Code of Student Academic Integrity (Catalog, page 275). This code forbids cheating, fabrication, or falsification of information, multiple submission of academic work, plagiarism, abuse of academic materials, and complicity in academic dishonesty. Any special requirements or permission regarding academic integrity in this course will be stated by the instructor and are binding on the students. Academic evaluations include a judgment that the student's work is free from academic dishonesty of any type; and grades in this course therefore should be and will be adversely affected by academic dishonesty. Students who violate the code can be expelled from UNC Charlotte. The normal penalty for a first offense is zero credit on the work involving dishonesty and further substantial reduction of the course grade. In almost all cases the course grade is reduced to F. Copies of the code can be obtained from the Dean of Students Office. Standards of academic integrity will be enforced in this course. Students are expected to report cases of academic dishonesty to the instructor.

The Belk College of Business strives to create an inclusive academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.