

Spring 2009  
ULU 316: Game Theory for Political Scientists  
TOBB-ETÜ

Instructor

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Office Hours: Monday 10:30

**Course Outline**

This class will introduce you to game theory and its uses in international political studies. Game theory is a branch of applied mathematics that is used to analyze strategic interactions. Strategic interactions occur when choices made by two or more actors influence each others' outcomes. These kinds of situations are very common to political life, especially to international politics. In this class, you will be introduced to the basic tools of elementary non-cooperative game theory and learn how game theory is used to analyze strategic interactions among international actors.

Mathematical requirements of this class are not high and not beyond your abilities.

**Readings and Required Textbooks**

The assigned readings for each week are listed in the course schedule below. There is a reasonable amount of readings for each week. Therefore, please do keep up with the readings each week. This class will be far more rewarding for you if you do so. Reading the material every week will enable you to be more engaged while listening to lectures and contributing to discussions. Both your exam and participation grades will be positively affected by reading the material on a regular basis and prior to class.

Please buy the following books:

Avinash Dixit and Susan Skeath. *Games of Strategy*. 2005. Second Edition. W.W. Norton and Company.

Avinash Dixit and Barry Nalebuff. *Thinking Strategically: The Competitive Edge in Business, Politics, and Everyday Life*. 1991. W.W. Norton and Company.

## Course Requirements

Midterm Examination	50%
Final Presentation	40%
Classroom Participation	10%

## Exams and Quizzes

There will be a midterm and a presentation for your final grade.

## Attendance and Participation

Your progress in this class is highly dependent on your perfect attendance. Therefore, participation constitutes a substantial part of your grade (10%). Only health and family emergencies will be accepted as excuses for absences. Attendance will be taken throughout the semester.

## Grading Scale

AA	BA	BB	CB	CC	DC	DD	FF
4,00	3,50	3,00	2,50	2,00	1,50	1,00	0,00
90-100	85-89	75-84	70-74	60-69	55-59	50-54	0-49

## Make-up Policy

No make-up examinations will be granted without a university-approved excuse to miss a scheduled exam or quiz. In cases of severe illness or deaths in the family, I require proof (e.g. a signed doctor's note and an explanation on the doctor's letterhead describing why you cannot take the exam; obituaries; e-mails from your academic advisor explaining the specific situation). Make-up exams will be possible only if you contact me *in advance* by e-mail and provide me with the appropriate document. There will be no make-up assignments or tests for unexcused absences. Also, I usually require a research paper as a replacement of a make-up exam.

## Classroom Etiquette

I expect you to observe all rules of proper classroom conduct to provide an appropriate environment conducive to learning by all:

1. Please turn off your cell phones and pagers. No calls, incoming or outgoing, or text messaging are allowed.
2. Please refrain from talking, eating or other disruptive activity during class;

3. Please come to class on time and do not leave early; if you must do so, let me know beforehand and please sit near the door so your exit will be less disruptive. Unpunctuality will result in a lower participation grade.
4. Please do not read newspapers or any other publications in the classroom. Also, please do not play games or surf on the web when you use a laptop computer.

### **Policy on Academic Honesty**

The academic work of all students must comply with all policies that appear in the TOBB-ETÜ website).

[http://www.etu.edu.tr/mevzuat/YOK\\_yuksekogretim\\_kurumlari\\_ogrenci\\_disiplin\\_yonetmeligi.doc](http://www.etu.edu.tr/mevzuat/YOK_yuksekogretim_kurumlari_ogrenci_disiplin_yonetmeligi.doc)

Academic honesty is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. Academic dishonesty includes, but is not necessarily limited to the following: cheating, plagiarism, unauthorized possession of examinations, unauthorized changing of grades. The academic community regards academic dishonesty as an extremely serious matter, with serious consequences that range from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting or collaboration, consult the course instructor.

### **Office Hours**

You can see me on Mondays at 10:30 in my room. If you have a class that time, please make an appointment with me if you have any questions. The fastest way to make an appointment with me is via email.

### **COURSE SCHEDULE**

Week 1: Introduction

Özgür Özdamar. "Oyun Kuramının Uluslararası İlişkiler Yazınına Katkıları." *Uluslararası İlişkiler*. Cilt 4, Sayı 15, Güz 2007.

Dixit and Skeath Chapter 1

Week 2: Basic Concepts

Dixit and Skeath Chapter 1 and 2

Week 3 and 4: Games with Sequential Moves

Dixit and Skeath Chapter 3

Week 5 and 6: Games with Simultaneous Moves and Nash Equilibrium

Dixit and Skeath Chapter 4

Week 7: Mixed Strategies

Dixit and Skeath Chapter 5

Week 8: Combining Simultaneous with Mixed Strategies

Dixit and Skeath Chapter 6

Week 9: Prisoners' Dilemma

Dixit and Skeath Chapter 8

Week 10: Games with Strategic Moves (Uncertainty and Information)

Dixit and Skeath Chapter 9

Week 11: Collective Action Games

Dixit and Skeath Chapter 11