Instructor: Mustafa Oguz Afacan
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Office: FASS 1029
Course Assistants: TBA

Lectures: Monday: 11:40-2:30 @ FASS 1001A  
          Wednesday: 11:40-2:30 @ FASS 1001A

Recitations: Monday: 5:40-7:30 pm@ FASS 1001A

COURSE OVERVIEW

This course is an introduction to game theory. Game theory consists of a coherent set of concepts and analytical tools to examine interactive or strategic situations between people, that is, situations where the well-being of one actor depends not only what she/he does but also on what others do. Hence in deciding how best to act, each person needs to consider how others are likely to act as well. Game theory has become a widely used tool of analysis in a wide range of disciplines, including economics, business, political science, law, and international relations.
TEACHING METHOD

Lectures and recitations will be physical. All the lectures and recitation recordings will be posted on Sucourse.

BACKGROUND

The mathematical requirements of this course are not high, and topics covered under the first-year mathematics sequence (MATH 101 and 102) are more than sufficient to master the content of this course. However, the course does require students to think and reason in an analytically rigorous and systematic manner. I may review some topics whenever necessary.

TEXTBOOK

The textbook for this course is
Avinash Dixit and Susan Skeath, Games of Strategy, Norton, 2009

For additional source, I recommend the following books:

Martin J. Osborne, An Introduction to Game Theory (Os)

GRADING

Homeworks: %15
Midterm: %40
Final: %45

MAKE UP EXAMS

If a student misses an exam, then s/he has to have a medical report by Sabanci Medline covering the exam date. Otherwise, it will be counted as “zero.” With that valid excuse, the missed midterm weight will be transferred to the final weight. That is, there will be no make-up exam for the midterm. If a student misses the final exam with a medical report by Sabanci Medline covering the exam date, then a make-up will be given for the final
exam. Without that report, it will be counted “zero” whatsoever. No retake exam (Bütünleme) will be offered. Any student who misses both exams will receive “NA” whatsoever.

As the make-up will be harder than the regular final exam, students are strongly advised to treat themselves well in the final exam dates.

SCHOLASTIC DISHONESTY POLICY

The definition for scholastic dishonesty is given in the rules and regulations of the Sabanci University. In the case of scholastic dishonesty, no credits will be given for that particular work. Cheating during written work will result in an F for the course. All incidents of scholastic dishonesty will be reported to university for disciplinary action.

COURSE OUTLINE

**TOPIC 1: Introduction**
* Chapter 1-2.
* Additional reading: Chapter 1 (Os)

**TOPIC 2: Games with simultaneous moves, pure and mixed strategies**

*Chapter 4-5
*Additional reading: Chapter 2-4 (Os)

**TOPIC 3: Games with sequential moves, combining simultaneous and sequential moves**

*Chapter 3; 6
*Additional reading: Chapter 5-7 (Os)

**TOPIC 4: Repeated Games, Collective action games**
*Chapter 11; 12
*Additional reading: Chapter 14; 15 (Os)

**TOPIC 5: Uncertainty and Information, Strategic Moves**
*Chapter 9; 10