

## Content

| Course Code | Course Name       | Semester | Theory | Practice | Lab | Credit | ECTS |
|-------------|-------------------|----------|--------|----------|-----|--------|------|
| ECK 556     | Microeconomics II | 2        | 3      | 0        | 0   | 3      | 8    |

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|------------------------|--|
| Prerequisites          |  |
| Admission Requirements |  |

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|-------------------------|--|
| Language of Instruction | Turkish  |
| Course Type             | Compulsory   |
| Course Level            | Masters Degree   |
| Objective               | This course is an introduction to microeconomic theory designed to meet the needs of students who will apply to economics doctoral programs.   |
| Content                 | In the first part of this course, individual decision making was studied. In the second part, the course discusses how to design the interaction between individuals in order to achieve the desired outcomes and choices in collective decision making situations. The study of collective decision making starts first with social choice and voting mechanisms, then mechanism design and auctions are discussed. The course ends with the introduction of social networks. |
| References              | Yoav Shoham and Kevin Leyton-Brown, Multiagent Systems: Algorithmic, Game-Theoretic, and Logical Foundations Cambridge University Press, 2009.<br>Matthew O. Jackson A Brief Introduction to the Basics of Game Theory.<br>Matthew O. Jackson (2008) Social and Economic Networks, Princeton University Press  |

## Theory Topics

| Week | Weekly Contents   |
|------|---|
| 1    | I. Introduction to social choice and voting schemes                     |
| 2    | a. Problems in collective decision making                               |
| 3    | b. Arrow theorem  |
| 4    | II. Mechanism design - Examples   |
| 5    | a. Revelation principle   |
| 6    | b. Gibbard-Satterthwaite and Muller-Satterthwaite theorems              |
| 7    | c. Transferable utility and mechanism design as an optimisation problem |
| 8    | Midterm   |
| 9    | d. Vickrey-Clarke-Groves mechanism (examples and limitations)           |
| 10   | III. Introduction to auctions   |
| 11   | a. Strategic behaviour in auctions                                      |
| 12   | b. Revenue equivalence theorem  |
| 13   | IV. Social networks   |
| 14   | Erdos-Renyi graphs  |