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Albert-Ludwigs-
Universität Freiburg

Abteilung für Wirtschaftsinformatik
Information Systems Research
Prof. Dr. Dirk Neumann

Electronic Markets – Lecture & Exercise
Summer Term 2023

Course Description:

Electronic markets are an essential building block of today's networked service economy. We are facing them in automated stock exchanges, auctions at Ebay, spectrum auctions that allocate mobile frequencies to service provides, and emission certificates. However, the design and implementation of market mechanisms is highly complex and challenging. Markets need to be protected from manipulations of cheating individuals. At the same, any mechanism should maximize global welfare and provide incentives to participate. The course "Electronic Markets" seeks to provide students with a theoretical understanding of game and auction theory, which form the basis of any market mechanism. The exercises cover practical tasks to apply the theoretical contents of the lecture.

Credit Points:

The course can be taken by all students within M.Sc. VWL, M.Sc. BWL, M.Sc. Economics (profiles "Finance" and "Economics & Politics"), M.Sc. Computer Science, Erasmus and EUCOR programs.

Electronic Markets is offered as 6 ECTS only.

Communication:

All announcements and materials will be communicated via ILIAS.

Registration:

Please, register for the lecture via HisInOne. You will receive an email with the password for the course on ILIAS. In addition, the password will be announced during the first lecture. For questions about the registration, refer to bernhard.lutz@is.uni-freiburg.de

Lecture

Wednesday 12am (noon) - 2pm, Room: HS 1010, KG1
Start: April 26, 2023

Exercises

Thursday 12am (noon) - 2pm, Room: HS 1010, KG1
Start: April 27, 2023

Final Exam:

The exam lasts for 90 minutes. Students are allowed to use a non-programmable calculator and a clean dictionary.

Bonus Points:

Students can earn bonus points for submitting their solutions to the exercise sheets. There will be two exercise sheets, each of which is worth three bonus points. This means that students can earn up to 6 bonus points for the exam. However, bonus points are only considered, if the exam is passed without bonus points. This implies that the bonus points do not save students from failing the exam. Submission of bonus point is online via ILIAS.

Accompanying Literature:

There is no single accompanying book to this lecture, but several papers will be announced along the course. To get a general notion on the topics of designing electronic markets, please refer to the following three papers:

- Roth, A. The Economist as Engineer: Game Theory, Experimental Economics and Computation as Tools for Design Economics. *Econometrica* 70(4): 1341-1378, 2002.

- Weinhardt, C., Holtmann, C., Neumann, D. Market Engineering. *Wirtschaftsinformatik* 45(6): 635-640, 2003.

- Wolfstetter, E. *Topics in Microeconomics - Industrial Organization, Auctions, and Incentives*. Cambridge: Cambridge University Press, 1999.

Policies and Procedures

Grading: written exam in presence

Chair:
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