

Due to the COVID-19 crisis, the information below is subject to change, in particular that concerning the teaching mode (presential, distance or in a comodal or hybrid format).

2 credits

15.0 h

Language :	English
Place of the course	Louvain-la-Neuve
Main themes	Game theory is a bag of analytical tools designed to help us to understand the phenomena that we observe when decision makers interact.
Aims	<i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i>
Evaluation methods	<b>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</b> Homework (50%) + Presentation of a research article (50%)
Teaching methods	<b>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</b> The course consists of lectures. The topics will be introduced during the lectures. Compulsory homeworks will be assigned to students. Reading assignments are also possible.
Content	<p><b>Topics in Game Theory</b></p> <p><b>Part A Network Science and Economics</b></p> <ul style="list-style-type: none"> <li>• Representing, Measuring and Analyzing Networks</li> <li>• Learning and Diffusion on Networks</li> <li>• Games and Behavior on Networks</li> <li>• Game-Theoretic Modeling of Network Formation</li> </ul> <p><b>Part B Market Design and Matching</b></p> <ul style="list-style-type: none"> <li>• The Basic Matching Model</li> <li>• The Medical Match</li> <li>• Assignment Markets</li> <li>• School Allocation</li> <li>• Course Allocation</li> <li>• Kidney Exchange</li> </ul>
Inline resources	Slides, homeworks, exercises, compulsory readings will be available on the course webpage on Moodle UCL ( <a href="http://moodleucl.uclouvain.be/">http://moodleucl.uclouvain.be/</a> ).
Bibliography	<ul style="list-style-type: none"> <li>• Social and economic networks by Matthew O. Jackson, Princeton University Press (2008).</li> <li>• Connections by Sanjeev Goyal, Princeton University Press (2007).</li> <li>• Network science by Albert-Laszlo Barabasi, Cambridge University Press (2016).</li> <li>• The Oxford handbook of the economics of networks edited by Yann Bramoullé, Andrea Galeotti and Brian W. Rogers, Oxford University Press (2016).</li> <li>• Market design: auctions and matching, by Guillaume Haeringer, MIT Press (2018).</li> </ul>
Faculty or entity in charge	ECON

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Economics: Econometrics	ETRI2M	2		