Course Descriptions None 2020-2021

Course Title	Technology, Networks and the New Economy
Course Code	EBC4142
ECTS Credits	6,5
Assessment	Whole/Half Grades

Period

Period	Start	End	Mon	Tue	Wed	Thu	Fri
2	26-10-2020	11-12-2020	C				

Level	Advanced
Coordinator	Robin Cowan For more information:r.cowan@maastrichtuniversity.nl
Language of instruction	English
Goals	The purpose of this course is to understand the interaction between network structures, knowledge creation and diffusion, and economic performance at various levels of aggregation.
Description	PLEASE NOTE THAT THE INFORMATION ABOUT THE TEACHING AND ASSESSMENT METHOD(S) USED IN THIS COURSE IS WITH RESERVATION. THE INFORMATION PROVIDED HERE IS BASED ON THE COURSE SETUP PRIOR TO THE CORONAVIRUS CRISIS. AS A CONSEQUENCE OF THE CRISIS, COURSE COORDINATORS MAY BE FORCED TO CHANGE THE TEACHING AND ASSESSMENT METHODS USED. THE MOST UP-TO-DATE INFORMATION ABOUT THE TEACHING/ASSESSMENT METHOD(S) WILL BE AVAILABLE IN THE COURSE SYLLABUS. The course examines theoretical and empirical research on the economics of networks, particularly as applied to technology and innovation. Recent research in economics and business has addressed the fact that almost all economic agents interact directly with only a few other agents and that this set of agents changes only slowly over time. When this is the case, a network model is more relevant in capturing the nature of economic interaction than is a pure market model. This is the basic premise of this course. We start by introducing concepts of social network analysis, as this is the analytical basis for research on networks. With these definitions, and technical definitions of the statistics used to describe network structures, we move to a deeper analysis. Part of the goal is to describe existing, relevant economic networks; part of the goal is to understand how networks form and evolve; part of the goal is to understand how an agent's position in a network influence the agent's performance; part of the goal is to understand how different networks perform in aggregate, in achieving some social goal. Empirically, there is a heavy focus on strategic alliance networks (which makes this course of interests to business students as well as economists). Two important empirical question involve how links within a network form and dissolve; and how a firm's position in the network affects is performance. Theoretically, we use both game theory and numerical simulation tools. The basic questions here have to do with issues of stability (a network is a collection of bilateral links; a stable network is one in which agents have no incentives to make new, or break existing links) and efficiency (given a social welfare function, some network structures may perform better than others).
Literature	We make use of recent journal articles.
Prerequisites	Intermediate microeconomics. An intermediate level of economics is recommended. Exchange students should have an intermediate or advanced level of micro economics
Teaching methods	PBL / Papers
Assessment methods	Final Paper
Evaluation in previous academic year	For the complete evaluation of this course please click http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM

This course belongs to the following programme / specialisation

Master Business Research - No specialisation	Year 2 Free Elective(s)
Master Business Research - Operations Research	Year 1 Elective Course(s)
Master Business Research - Operations Research	Year 2 Elective Course(s)
Master Economic and Financial Research - Econometrics	Year 2 Elective Course(s)
Master Economic and Financial Research - No specialisation	Year 2 Elective Course(s)