Course Descriptions None 2024-2025

Course Title	Networks and Simulations
Course Code	EBC2184
ECTS Credits	6,5
Assessment	Whole/Half Grades

Period

Period	Start	End	Mon	Tue	Wed	Thu	Fri
4	3-2-2025	30-3-2025	X			X	

Level	no level
Coordinator	Leto Peel For more information:l.peel@maastrichtuniversity.nl
Language of instruction	English
Goals	Students will learn: 1. How to use networks to represent complex data 2. How to simulate networks and processes on them 3. How to apply computational tools of network sciences 4. How to interpret patterns and other findings in network analys
Description	Network science is a thriving and increasingly important cross-disciplinary domain that focuses on the representation, analysis, and modeling of complex social, biological and technological systems as networks or graphs. Modern data sets can often be represented by some kind of network. Networks can be temporal, with edges and nodes appearing, disappearing and changing their characteristics over time. Nodes can have locations, directions, memory, demographic characteristics, content, and preferences. Edges can have lengths, directions, capacities, costs, durations, and types. You will learn how to model and understand networks and their rich data using the mathematics of networks and the computational tools for identifying and explaining the patterns they contain. You will also learn about the wide range of applications of network science and some of the insights this field has allowed us to gain.
Literature	The Atlas for the Aspiring Network Scientist by Michele Coscia (2021).
Prerequisites	
Keywords	
Teaching methods	PBL / Presentation / Lecture / Assignment / Groupwork / Research
Assessment methods	Final Paper / Attendance / Participation / Assignment / Presentation
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

Bachelor Business Analytics	Year 3 Elective Courses