Course Descriptions None 2020-2021

Course Title	Data Visualization
Course Code	EBC4225
ECTS Credits	5,0
Assessment	Whole/Half Grades

Period

Period	Start	End	Mon	Tue	Wed	Thu	Fri
5	12-4-2021	28-5-2021		X		X	

Level	Advanced
Coordinator	Lars Rieser For more information:l.rieser@maastrichtuniversity.nl
Language of instruction	English
Goals	This course is an introduction to the field of Data Visualization. Students will learn the fundamentals of data visualization. We will study different visualization methods and discuss how they can be used to visualize and explore quantitative datasets effectively. We will evaluate several approaches and learn how human perception interprets visualized data in various different ways.
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. In the last decade, big data became an integral part of our economic and social life. This trend was heavily influenced by the technologically capabilities to store and collect data (Computing power, IoT, Cloud Computing, broadband expansion) and the increasing digitilization of social interactions (e.g. Facebook, Twitter, Instagram). Improved technologies are making it possible to process the resulting data sets efficiently and effectively as the potential revenues are in many cases higher than the costs (Olshannikova et al, 2015). This leads to an exponentially growth of the total amount of available data that can be used within industry and business , while the ability to analyze these data increase at much lower rate (Keim et al 2008). The result is that the (proper) use and the ability to correctly interpret data is playing an increasingly important role (Russom, 2013). The improvement of the human ability to manage data, extract information and gain knowledge from it is of vital importance in this context (Olshannikova, 2015). Visualization is an effective way to enhance the human capabilities to extract and interpret information as also to support human decision making. In this course students will learn the fundamentals of data visualization. We will study different visualization methods and discuss how they can be used to visualize and explore quantitative datasets effectively. We will evaluate several approaches and learn how human perception interprets visualized data in various different ways.
Literature	* Course book * Lecture slides * Academic papers and readings
Prerequisites	There are no formal prerequisites.
Keywords	
Teaching methods	PBL / Lecture
Assessment methods	Final Paper / Participation / Assignment
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 Intelligence and Smart Services	Core Course(s)