Course Descriptions None 2022-2023

Course Title	Machine Learning for Smart Services
Course Code	EBC4255
ECTS Credits	5,0
Assessment	Whole/Half Grades

Period

Period	Start	End	Mon	Tue	Wed	Thu	Fri
2	31-10-2022	16-12-2022		X			X

Level	Advanced
Coordinator	Özge Tüncel For more information:o.tuncel@maastrichtuniversity.nl
Language of instruction	English
Goals	After completing this course you: * Know the relationship between machine learning, artificial intelligence and smart services. * Will be able to design and implement intelligent systems. * Will be able to reflect on and evaluate intelligent systems.
Description	PLEASE NOTE THAT THE INFORMATION ABOUT THE TEACHING AND ASSESSMENT METHOD(S) USED IN THIS COURSE IS WITH RESERVATION. A RE-EMERGENCE OF THE CORONAVIRUS AND NEW COUNTERMEASURES BY THE DUTCH GOVERNMENT MIGHT FORCE COORDINATORS 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. Smart services or (more generally) intelligent systems rely on data to automate processes or assist human decisions. There are numerous domains in which they are applied such as predictive maintenance and recommender systems. They all have a set of components in common: input, output and a controller, but they vary on different aspects: such as the level of automation, ranging from suggesting actions to a user to automated, autonomous actions. After following Machine Learning for Smart Services you will understand the concept of intelligent systems, such as what constitutes them and when they are useful to implement. Building on the knowledge you gained in the course Business Analytics you will learn how to implement and evaluate them.
Literature	* Hulten, Geoff (2018). Building Intelligent Systems: A Guide to Machine Learning Engineering. New York, NY: Apress [ISBN 978-1-4842-3431-0] * Additional Papers
Prerequisites	* Experience with programming in R * Basic understanding of predictive modeling and model evaluation
Keywords	
Teaching methods	PBL / Lecture / Assignment / Papers / Research
Assessment methods	Final Paper / Written Exam / 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

Master Business Intelligence and Smart Services	Compulsory Course(s)