

## Course Descriptions None 2023-2024

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

Period	Start	End	Mon	Tue	Wed	Thu	Fri
2	30-10-2023	15-12-2023		X			X

Level Advanced  
Coordinator Özge Tüncel For more information: [o.tuncel@maastrichtuniversity.nl](mailto: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  
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)