

# Course Descriptions Master 2019-2020

Course Title Smart Decision Support Systems  
 Course Code EBC4223  
 ECTS Credits 5,0  
 Assessment Whole/Half Grades

Period	Start	End	Mon	Tue	Wed	Thu	Fri
5	14-4-2020	5-6-2020		X			X

Level Advanced  
 Coordinator Niels Holtrop For more information:n.holtrop@maastrichtuniversity.nl

Language of instruction English

Goals After this course, students should be able to:  
 1.Explain and work with the basic concepts of several structured and unstructured data types  
 2.Explain and understand existing models and methods to analyse structured and unstructured data types published in the academic literature  
 3.Evaluate existing models and methods published in the academic literature  
 4.Identify suitable methods to analyse structured and unstructured data types  
 5.Estimate a suitable model using empirical data and statistical software  
 6.Interpret an estimated model, and draw managerial implications  
 7.Develop their own models and provide interpretations thereof based on the learned methods and available data

Description With the increasing amount of data available within organizations, firms and managers are faced with the task of creating insights from these new and expansive sources of data. To make these insights accessible to end-users, firms have developed and used decision support systems (DSS) that aim to unlock data-driven insights for the use in day-to-day decision making. In general, DSS are software solutions that seek to combine data with analytical models in order to analyse these data and guide managerial decision making. This way, they create value for the firm. In this course we focus on developing the models underlying a DSS by combining data available to modern firms ) with analytical techniques to analyse these data. The focus of the course is on unstructured data types such as text and image data, which can provide valuable insights for managerial decision making, but are hard to interpret without proper analysis. The focus of the course will therefore lie on developing models appropriate for the data at hand, and interpreting the results from these analyses in order to base decisions on.

Literature A selection of articles/book chapters will be made available.

Prerequisites Experience in R, such as gained in the course Business Analytics. Prior experience in business modelling and statistics is highly recommended (e.g. obtained in courses such as Business Analytics and/or Descriptive and Predictive Analytics)

Keywords

Teaching methods PBL / Presentation / Lecture

Assessment methods Attendance / Participation / Take home exam

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)