Course Descriptions None 2022-2023

Course Title	Advanced Operations Research
Course Code	EBC4051
ECTS Credits	6,5
Assessment	Whole/Half Grades

Period

Period	Start	End	Mon	Tue	Wed	Thu	Fri
4	6-2-2023	31-3-2023		X		X	

Level	Advanced
Coordinator	Christof Defryn For more information:c.defryn@maastrichtuniversity.nl
Language of instruction	English
Goals	Deepen the knowledge on a wide variety of optimization techniques through a detailed study of state-of-the-art academic literature. Students learn to make appropriate design choices in algorithmic development for a broad range of real-life problems. Students can implement their own solution procedure and judge its quality and performance. Students can communicate their results in a professional way and translate numerical results in clear recommendations for the decision makers.
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. Students learn how to apply state-of-the-art techniques from mathematical programming, combinatorial optimisation, and heuristics and search methodologies to specific classes of problems as well as to real-life applications in these areas. Students will learn how to read state-of-the-art research articles, to understand the technical details, and to give presentations on the subjects.
Literature	Various recent research articles.
Prerequisites	Algorithms and Optimisation (EBC4049); problems and techniques from combinatorial optimisation and complexity theory, programming skills, heuristics and search methodologies.
Teaching methods	PBL / Presentation / Lecture / Assignment / Papers / Groupwork / Research / Skills / Coaching
Assessment methods	Final Paper / Attendance / Assignment / Computer test / 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 Research - No specialisation	Year 2 Methodology Elective(s)
Master Business Research - Operations Research	Year 1 Compulsory Course(s)
Master Business Research - Operations Research	Year 1 Elective Course(s)
Master Business Research - Operations Research	Year 2 Elective Course(s)
Master Econometrics and Operations Research	E&OR Electives
SBE Exchange Master	Master Exchange Courses
SBE Non Degree Courses	Master Courses