Course Descriptions None 2022-2023

Course Title	Planning and Scheduling
Course Code	EBC4149
ECTS Credits	6,5
Assessment	Whole/Half Grades

Period

Period	Start	End	Mon	Tue	Wed	Thu	Fri
1	5-9-2022	21-10-2022	C				

Level	Advanced
Coordinator	Tjark Vredeveld For more information:t.vredeveld@maastrichtuniversity.nl
Language of instruction	English
Goals	In this course students will learn the state-of-the-art techniques for a broad variety of scheduling problems. In particular, it is expected that after this course students will be able to construct mathematical models for the basic problems, classify them, address the questions on computational complexity of the problems, and apply standard algorithmic techniques to solve the problems.
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. This is a course track for students interested in Operations Research (OR) of the Business Research Master. The course addresses the issues of * Modelling production and planning problems as combinatorial optimisation problems; * Classification of scheduling environments and objectives; * Tractability of scheduling problems; * Solution methods for scheduling problems, e.g., combinatorial, LP-, and DP-based techniques, including exact algorithms, approximations and fast heuristics.
Literature	Scientific articles. Michael Pinedo, "Scheduling: Theory, Algorithms, and System" (recommended not obligatory).
Prerequisites	Good working knowledge of algorithms and optimisation techniques.
Teaching methods	PBL / Presentation / Lecture / Assignment
Assessment methods	Final Paper / Participation / Written Exam / Oral Exam / Assignment / 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 Free Elective(s)
Master Business Research - Operations Research	Year 1 Elective Course(s)
Master Business Research - Operations Research	Year 2 Elective Course(s)