

Course Descriptions None 2025-2026

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

Period	Start	End	Mon	Tue	Wed	Thu	Fri
4	2-2-2026	27-3-2026		X		X	

Level Advanced
 Coordinator Lissa Melis For more information:lissa.melis@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 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.

Transitional Regulations <div class="trreg"><div class="subtitle">TRANSITIONAL REGULATIONS</div><ul class="trcohorts">Master Business ResearchMaster Business Research - Operations ResearchIn 2024-2025 and 2025-2026 education and exam/resit opportunities are offered.In 2026-2027 exam/resit opportunities are offered.From 2027-2028 onwards, the course is cancelled.<table><col style="width: 200px;"><col style="width: 120px;"><col style="width: 120px;"><thead><tr><th>Academic Year</th><th>Education</th><th>Exam/Resit</th><th>Replacement(s)</th></tr></thead><tbody><tr><td>2024-2025 - 2025-2026</td><td>X</td><td>X</td><td> </td></tr><tr><td>2026-2027</td><td> </td><td>X</td><td> </td></tr><tr><td>2027-2028 onwards</td><td> </td><td> </td><td> </td></tr></tbody></table></div>

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	In transition - Y2 Methodology Electives
	Master Business Research - Operations Research	In transition - Year 1 Compulsory Courses
	Master Econometrics and Operations Research	Elective Courses
	Master Economic and Financial Research - Econometrics	Elective Courses
	Master Economic and Financial Research - Econometrics	Year 1 Core Courses
	SBE Exchange Master	Master Exchange Courses
	SBE Non Degree Courses	Master Courses