Course Descriptions None 2026-2027

Course Title	Risk Management
Course Code	EBC4056
ECTS Credits	6,5
Assessment	Whole/Half Grades

Period

Period	Start	End	Mon	Tue	Wed	Thu	Fri
5	12-4-2027	4-6-2027	X			X	

Level	Advanced
Coordinator	Dennis Bams For more information:w.bams@maastrichtuniversity.nl
Language of instruction	English
Goals	Understand the different dimensions of risk in financial markets and financial institutions as well as financial risk management hedging strategies for corporations. Learn how to measure market-, credit-, liquidity- and operational risk and to apply it in risk assessment and risk mitigation strategies. Understand the concepts of regulatory- and economic capital in a Basel II context and how to integrate these in a firm wide framework for performance measurement and company steering. After completion of the course, participants should be able to measure alternative risk types, be able to carry out capital requirement calculations, and determine risk-mitigating strategies such as hedging and portfolio selection. Furthermore, participants should be able to gather corporate financial exposure information and financial data to arrive at a proper risk assessment. In the course, we will consider large historical data samples and carry out empirical analyses by making use of the risk management tools from the book. In particular, we will focus on extreme events as well as crisis periods to address the issue ‘how bad things could get'. During the group sessions, we translate these findings into a desire for a balance between ‘just enough risk taking' and profit optimization.
Description	The course is built around three topics: first, it is important to identify financial risks and to measure them. Topics, such as value-at-risk, volatility, correlation and copulas, as well as credit risk loss measurement will be addressed. The increased notion of concentration risk, warrants a proper discussion of alternative ways to model/measure co-movements (through copulas), as well as to provide alternative ways to represent the variability in a financial variable (this includes alternative volatility models, such as GARCH models). Second, this course focuses on understanding alternative approaches to manage risk. This includes the usage of derivative securities such as options and futures. It is a fact that derivatives markets are skyrocketing, and it is becoming increasingly common for both financial institutions and non-financial corporations to make use of financial derivatives. Internationally, over 60% of non-financial corporations are reported using derivatives. Financial risk management is considered the main reason for the use of financial derivatives by non-financial institutions. Third, this course will focus on regulatory developments for banks under Basel IV. Basel IV has set new capital requirements standards for credit risk, operational risk and market risk. We will review the Basel IV three pillar model and will discuss the three risk types mentioned above in detail as well.
Literature	Risk Management and Financial Institutions, 5th edition, John C. Hull, Pearson Prentice Hall, ISBN: 978-1-119-44811-2. Additional literature may be available through Canvas . Data and programs for assignments will be available through Canvas .
Prerequisites	* Exchange students need to have obtained a Bachelor degree in economics, econometrics or business administration. * An advanced level of English.
Transitional Regulations	<ul class="trcohorts"> - Master Business Research - Operations Research [2023-2024 and earlier] - In 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;"><col><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> <ul class="trcohorts">Master Fiscal Economics [2023-2024 or earlier] - In 2024-2025 education and exam/resit opportunities are offered. - In 2025-2026 exam/resit opportunities are offered. - From 2026-2027 onwards, the course is cancelled. <table><col style="width: 200px;"><col style="width: 120px;"><col style="width: 120px;"><col><thead><tr><th>Academic Year</th><th>Education</th><th>Exam/Resit</th><th>Replacement(s)</th></tr></thead><tbody><tr><td>2024-2025</td><td>X</td><td>X</td><td> </td></tr><tr><td>2025-2026</td><td> </td><td>X</td><td> </td></tr><tr><td>2026-2027 onwards</td><td> </td><td> </td><td> </td></tr></tbody></table> <ul class="trcohorts">Master Econometrics and Operations Research [2025-2026 and earlier] - In 2026-2027 and 2027-2028 exam/resit opportunities are offered. - In 2028-2029, the course is cancelled. <table><col style="width: 200px;"><col style="width: 120px;"><col style="width: 120px;"><col><thead><tr><th>Academic Year</th><th>Education</th><th>Exam/Resit</th><th>Replacement(s)</th></tr></thead><tbody><tr><td>2026-2027 - 2027-2028</td><td> </td><td>X</td><td> </td></tr><tr><td>2028-2029</td><td> </td><td> </td><td> </td></tr></tbody></table>
Teaching methods	PBL / Presentation / Lecture / Assignment / Groupwork
Assessment methods	Written 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 Research - Operations Research	In transition - Year 1+2 Elective Courses
Master Econometrics and Operations Research	In transition - Free Electives
Master Economic and Financial Research - Econometrics and Operations Research	Elective Courses
Master Economic and Financial Research - No specialisation	Elective Courses
Master Financial Economics - Asset Pricing	Elective Courses
Master Financial Economics - Banking	Compulsory Courses
Master Financial Economics - Financial Analysis	Elective Courses
Master Financial Economics - No specialisation	Elective Courses
Master Fiscal Economics	Cancelled - Economics Electives
Master Human Decision Science	Elective Courses
SBE Exchange Master	Master Exchange Courses
SBE Non Degree Courses	Master Courses