

## Course Descriptions Exchange 2019-2020

Course Title Risk Management  
 Course Code EBC4056  
 ECTS Credits 6,5  
 Assessment None

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

Level Advanced  
 Coordinator Dennis Bams For more information:w.bams@maastrichtuniversity.nl

Language of instruction English

Goals Understand the different dimensions of risk in banks, learns how to measure market-, credit-, liquidity- and operational risk.  
 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.  
 After completion of the course, participants should be able to measure alternative risk types, be able to carry out capital requirements, and determine risk mitigating strategies such as hedging and portfolio selection.

Description The course is built around three important topics: first, it is important to identify financial risks and to measure them. Important 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, warrant a proper discussion of alternative ways to model/measure co-movements (through copulas), as well as 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 non-financial corporations to make heavy use of financial derivatives. Indeed, internationally, over 60% of non-financial corporations are reported using derivatives. As of December 2007, the total notional value of over-the-counter derivatives was \$596 trillion, a 200% increase over its value in December 2005. Financial risk management is reported to be 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 II. Basel II has set new capital requirements standards for credit risk, operational risk and market risk. We will review the Basel II three pillar model and will discuss the three risk types mentioned above in detail as well.

Literature Risk Management and Financial Institutions, 3rd edition, John C. Hull, Pearson Prentice Hall, ISBN: 978-1-118-26903-9.

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 or business administration.  
 Exchange students need to major in finance in their master.  
 An advanced level of English

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                                   | Year 1 Elective Course(s) |
| Master Business Research - Operations Research                                   | Year 2 Elective Course(s) |
| Master Econometrics and Operations Research - Econometrics                       | Elective Course(s)        |
| Master Econometrics and Operations Research - Mathematical Economics             | Elective Course(s)        |
| Master Econometrics and Operations Research - No specialisation                  | Free Elective(s)          |
| Master Econometrics and Operations Research - Operations Research                | Elective Course(s)        |
| Master Economic and Financial Research - Econometrics                            | Year 1 Elective Course(s) |
| Master Economic and Financial Research - No specialisation                       | Year 1 Elective Course(s) |
| Master Financial Economics - Asset Pricing                                       | Elective Course(s)        |
| Master Financial Economics - Banking   | Compulsory Course(s)      |
| Master Financial Economics - Financial Analysis                                  | Elective Course(s)        |
| Master Financial Economics - No specialisation                                   | Elective Course(s)        |
| Master Fiscal Economics  | Economics Elective(s)     |
| Master Human Decision Science  | Elective Course(s)        |
| Master International Business - Accountancy                                      | Elective Course(s)        |
| Master International Business - Controlling                                      | Elective Course(s)        |
| Master International Business - Entrepreneurship and SME Management              | Elective Course(s)        |
| Master International Business - Organisation: Management, Change and Consultancy | Elective Course(s)        |
| Master International Business - Strategic Corporate Finance                      | Elective Course(s)        |
| Master International Business - Strategy and Innovation                          | Elective Course(s)        |
| Master International Business - Sustainable Finance                              | Elective Course(s)        |
| SBE Exchange Master  | Master Exchange Courses   |
| SBE Non Degree Courses   | Master Courses            |