

## Course Descriptions None 2025-2026

|  |   |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
|--|---|-----------|----------|-----|-----|-----|-----|--|---|--|---|--|-------------------------|---------------------------------------|------------------------------|---|------------------|-------------------------------|------------------|--|------------------|---|------------------|--|------------------|--|--------------------|---|------------------|--|------------------|---|------------------|---|------------------|---|------------------|---|------------------|---|------------------|---------------------|-------------------------|------------------------|----------------|
| Course Title   | Business Intelligence Case Studies  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Course Code  | EBC4107   |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| ECTS Credits   | 6,5   |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Assessment   | Whole/Half Grades   |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Period   | Period  | Start     | End      | Mon | Tue | Wed | Thu | Fri  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
|  | 5   | 13-4-2026 | 5-6-2026 | X   |     |     | X   |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Level  | Advanced  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Coordinator  | Mohsen Pourpounehajafabadi For more information:m.pourpouneh@maastrichtuniversity.nl  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Language of instruction  | English   |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Goals  | This course aims at providing students with tools and experience to analyse real-life data for a real-time, sensitive business intelligence case-study.   |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Description  | <p>This course is highly technical, and treats the practical aspects of producing real-life Business Intelligence, as well as covering the computational tools to implement this. Tools for the analysis of data are discussed, focusing on tools which emphasise the importance of uncertainty in intelligent decision-making. We study how (and how not) to build predictive models to frequently extract information from dynamic data, and how to interpret these methods and summaries intuitively and efficiently develop new services for the organisations that provide the data.</p> <p>These techniques will be implemented with the R open-source software. Cases are selected from the literature and our own research experience.</p>  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Literature   | <ul style="list-style-type: none"> <li>* Kruschke, J. (2014). Doing Bayesian data analysis: A tutorial with R, JAGS, and Stan.</li> <li>* <a href="https://mc-stan.org/users/documentation/">https://mc-stan.org/users/documentation/</a></li> <li>* Gelman, A., Carlin, J. B., Stern, H. S., Dunson, D. B., Vehtari, A., &amp; Rubin, D. B. (2013). Bayesian Data Analysis. CRC Press.</li> <li>* Other materials will be made available through Student Portal.</li> </ul>  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Prerequisites  | <ul style="list-style-type: none"> <li>&lt;ul&gt;&lt;li&gt;Basic Statistics&lt;/li&gt;&lt;li&gt;Regression&lt;/li&gt;&lt;li&gt;Basic R&lt;/li&gt;&lt;/ul&gt;</li> </ul>   |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Transitional Regulations   | <div &gt;&lt;col="" &gt;&lt;div="" &gt;&lt;li&gt;master="" &gt;&lt;thead&gt;&lt;tr&gt;&lt;th&gt;academic="" &gt;transitional="" -="" 2024-2025="" 2025-2026="" 2025-2026&lt;="" 2026-2027="" 2027-2028="" <="" and="" are="" business="" cancelled.&lt;="" class="trcohorts" course="" div&gt;="" div&gt;&lt;ul="" education="" exam="" is="" li&gt;&lt;="" li&gt;&lt;li&gt;from="" li&gt;&lt;li&gt;in="" li&gt;&lt;li&gt;master="" offered.&lt;="" ol&gt;&lt;table&gt;&lt;col="" onwards&lt;="" onwards,="" operations="" opportunities="" regulations&lt;="" research="" research&lt;="" resit="" resit&lt;="" style="width: 120px;" table&gt;&lt;="" tbody&gt;&lt;="" td="" td&gt;&lt;="" td&gt;&lt;td&gt;&amp;nbsp;&lt;="" td&gt;&lt;td&gt;x&lt;="" th&gt;&lt;="" th&gt;&lt;th&gt;education&lt;="" th&gt;&lt;th&gt;exam="" th&gt;&lt;th&gt;replacement(s)&lt;="" the="" thead&gt;&lt;tbody&gt;&lt;tr&gt;&lt;td&gt;2024-2025="" tr&gt;&lt;="" tr&gt;&lt;tr&gt;&lt;td&gt;2026-2027&lt;="" tr&gt;&lt;tr&gt;&lt;td&gt;2027-2028="" ul&gt;&lt;ol&gt;&lt;li&gt;in="" year&lt;=""> </div>  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Teaching methods   | PBL / Presentation / Lecture / Assignment / Groupwork   |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Assessment methods   | Final Paper / Participation / Presentation  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Evaluation in previous academic year   | For the complete evaluation of this course please click <a href="http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM">http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM</a>   |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| This course belongs to the following programme / specialisation                  | <table border="1"> <tr> <td>Master Business Research - No specialisation</td> <td>In transition - Y1 Disc IB Inf Mgmt Bus Int</td> </tr> <tr> <td>Master Business Research - Operations Research</td> <td>In transition - Year 1+2 Elective Courses</td> </tr> <tr> <td>Master Business Research - Operations Research</td> <td>Transitional Regulation</td> </tr> <tr> <td>Master Digital Business and Economics</td> <td>Cancelled - Elective Courses</td> </tr> <tr> <td>Master Economic and Financial Research - Econometrics</td> <td>Elective Courses</td> </tr> <tr> <td>Master Human Decision Science</td> <td>Elective Courses</td> </tr> <tr> <td>Master International Business - Accounting and Business Information Technology</td> <td>Elective Courses</td> </tr> <tr> <td>Master International Business - Entrepreneurship and Business Development</td> <td>Elective Courses</td> </tr> <tr> <td>Master International Business - Managerial Decision-Making and Control</td> <td>Elective Courses</td> </tr> <tr> <td>Master International Business - Information Management and Business Intelligence</td> <td>Compulsory Courses</td> </tr> <tr> <td>Master International Business - Marketing-Finance</td> <td>Elective Courses</td> </tr> <tr> <td>Master International Business - Organisation: Management, Change and Consultancy</td> <td>Elective Courses</td> </tr> <tr> <td>Master International Business - Strategic Corporate Finance</td> <td>Elective Courses</td> </tr> <tr> <td>Master International Business - Strategic Marketing</td> <td>Elective Courses</td> </tr> <tr> <td>Master International Business - Strategy and Innovation</td> <td>Elective Courses</td> </tr> <tr> <td>Master International Business - Supply Chain Management</td> <td>Elective Courses</td> </tr> <tr> <td>Master International Business - Sustainable Finance</td> <td>Elective Courses</td> </tr> <tr> <td>SBE Exchange Master</td> <td>Master Exchange Courses</td> </tr> <tr> <td>SBE Non Degree Courses</td> <td>Master Courses</td> </tr> </table> |           |          |     |     |     |     | Master Business Research - No specialisation | In transition - Y1 Disc IB Inf Mgmt Bus Int | Master Business Research - Operations Research | In transition - Year 1+2 Elective Courses | Master Business Research - Operations Research | Transitional Regulation | Master Digital Business and Economics | Cancelled - Elective Courses | Master Economic and Financial Research - Econometrics | Elective Courses | Master Human Decision Science | Elective Courses | Master International Business - Accounting and Business Information Technology | Elective Courses | Master International Business - Entrepreneurship and Business Development | Elective Courses | Master International Business - Managerial Decision-Making and Control | Elective Courses | Master International Business - Information Management and Business Intelligence | Compulsory Courses | Master International Business - Marketing-Finance | Elective Courses | Master International Business - Organisation: Management, Change and Consultancy | Elective Courses | Master International Business - Strategic Corporate Finance | Elective Courses | Master International Business - Strategic Marketing | Elective Courses | Master International Business - Strategy and Innovation | Elective Courses | Master International Business - Supply Chain Management | Elective Courses | Master International Business - Sustainable Finance | Elective Courses | SBE Exchange Master | Master Exchange Courses | SBE Non Degree Courses | Master Courses |
| Master Business Research - No specialisation                                     | In transition - Y1 Disc IB Inf Mgmt Bus Int   |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master Business Research - Operations Research                                   | In transition - Year 1+2 Elective Courses   |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master Business Research - Operations Research                                   | Transitional Regulation   |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master Digital Business and Economics  | Cancelled - Elective Courses  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master Economic and Financial Research - Econometrics                            | Elective Courses  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master Human Decision Science  | Elective Courses  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master International Business - Accounting and Business Information Technology   | Elective Courses  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master International Business - Entrepreneurship and Business Development        | Elective Courses  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master International Business - Managerial Decision-Making and Control           | Elective Courses  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master International Business - Information Management and Business Intelligence | Compulsory Courses  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master International Business - Marketing-Finance                                | Elective Courses  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master International Business - Organisation: Management, Change and Consultancy | Elective Courses  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master International Business - Strategic Corporate Finance                      | Elective Courses  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master International Business - Strategic Marketing                              | Elective Courses  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master International Business - Strategy and Innovation                          | Elective Courses  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master International Business - Supply Chain Management                          | Elective Courses  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| Master International Business - Sustainable Finance                              | Elective Courses  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| SBE Exchange Master  | Master Exchange Courses   |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |
| SBE Non Degree Courses   | Master Courses  |           |          |     |     |     |     |  |   |  |   |  |                         |                                       |                              |   |                  |                               |                  |  |                  |   |                  |  |                  |  |                    |   |                  |  |                  |   |                  |   |                  |   |                  |   |                  |   |                  |                     |                         |                        |                |