

# Course Descriptions Master 2024-2025 DRAFT

| Course Title  | Data Visualization  |          |       |     |     |     |     |     |     |   |           |          |  |   |  |   |  |
|---|---|----------|-------|-----|-----|-----|-----|-----|-----|---|-----------|----------|--|---|--|---|--|
| Course Code   | EBC4225   |          |       |     |     |     |     |     |     |   |           |          |  |   |  |   |  |
| ECTS Credits  | 5,0   |          |       |     |     |     |     |     |     |   |           |          |  |   |  |   |  |
| Assessment  | Whole/Half Grades   |          |       |     |     |     |     |     |     |   |           |          |  |   |  |   |  |
| Period  | <table><thead><tr><th>Period</th><th>Start</th><th>End</th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thu</th><th>Fri</th></tr></thead><tbody><tr><td>5</td><td>14-4-2025</td><td>8-6-2025</td><td></td><td>X</td><td></td><td>X</td><td></td></tr></tbody></table>  | Period   | Start | End | Mon | Tue | Wed | Thu | Fri | 5 | 14-4-2025 | 8-6-2025 |  | X |  | X |  |
| Period  | Start   | End      | Mon   | Tue | Wed | Thu | Fri |     |     |   |           |          |  |   |  |   |  |
| 5   | 14-4-2025   | 8-6-2025 |       | X   |     | X   |     |     |     |   |           |          |  |   |  |   |  |
| Level   | Advanced  |          |       |     |     |     |     |     |     |   |           |          |  |   |  |   |  |
| Coordinator   | Lars Rieser For more information: <a href="mailto:l.rieser@maastrichtuniversity.nl">l.rieser@maastrichtuniversity.nl</a>  |          |       |     |     |     |     |     |     |   |           |          |  |   |  |   |  |
| Language of instruction   | English   |          |       |     |     |     |     |     |     |   |           |          |  |   |  |   |  |
| Goals   | This course is an introduction to the field of Data Visualization. Students will learn the fundamentals of data visualization. We will study different visualization methods and discuss how they can be used to visualize and explore quantitative datasets effectively. We will evaluate several approaches and learn how human perception interprets visualized data in various different ways.  |          |       |     |     |     |     |     |     |   |           |          |  |   |  |   |  |
| Description   | Over the last decades organizations have started to accumulate enormous amounts of data both through their internal information systems as well as from external sources such as sensors or external vendors. While this data is partly used to support algorithmic and automated decision-making, many tasks still require a human in the decision-making process. For these types of processes, it often becomes necessary to present complex, multidimensional datasets in a way that supports knowledge discovery or understanding. To do so efficiently and effectively, visualization designers need to have a fundamental understanding of the principles governing human visual perception as well as how to translate these principles into best practices. In this course students will develop both, academic skills related to the systematic and scientific design of visualizations as well as practical knowledge on how to implement these theoretical skills using the Tableau Desktop Software Package. |          |       |     |     |     |     |     |     |   |           |          |  |   |  |   |  |
| Literature  | Textbook, Academic Articles   |          |       |     |     |     |     |     |     |   |           |          |  |   |  |   |  |
| Prerequisites   | There are no formal prerequisites.  |          |       |     |     |     |     |     |     |   |           |          |  |   |  |   |  |
| Keywords  |   |          |       |     |     |     |     |     |     |   |           |          |  |   |  |   |  |
| Teaching methods  | Lecture / Groupwork   |          |       |     |     |     |     |     |     |   |           |          |  |   |  |   |  |
| Assessment methods  | Final Paper / Participation / Assignment  |          |       |     |     |     |     |     |     |   |           |          |  |   |  |   |  |
| 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 | Master Business Intelligence and Smart Services      Core Course(s)   |          |       |     |     |     |     |     |     |   |           |          |  |   |  |   |  |