

## KURSBESCHREIBUNG / COURSE DESCRIPTION

|   |  |
|---|--|
| <b>KURSTITEL</b><br><i>Course title</i>                   | <b>Business Analytics for Data-Driven Decision-Making</b>  |
| <b>KURS-ID</b><br><i>Course number</i>                    | 323  |
| <b>Kursverantwortlicher</b><br><i>Person in charge</i>    | Language and Electives Centre  |
| <b>Art der Lehrveranstaltung</b><br><i>Type of course</i> | Elective (AWP)   |
| <b>Studiengang</b><br><i>Course of studies</i>            | all<br>(except B.A. Business Administration (BW); Business Informatics (WI); Industrial Engineering (WIW))   |
| <b>Niveau</b><br><i>Course Level</i>                      | Bachelor/Master  |
| <b>Voraussetzungen</b><br><i>Prerequisites</i>            | Basics in Mathematics/ Statistics and MS Excel   |
| <b>SWS</b><br><i>Lessons per week</i>                     | 2  |
| <b>ECTS</b><br><i>ECTS (Credits)</i>                      | 2  |
| <b>Art der Prüfung</b><br><i>Course assessment</i>        | Seminar Paper + Presentation   |
| <b>Unterrichtssprache</b><br><i>Course language</i>       | English  |
| <b>Dozent</b><br><i>Lecturer</i>                          | Prof. Dr. Christian Mandl  |
| <b>Kursziele</b><br><i>Course objectives</i>              | <p>The work of a consultant is increasingly driven by data such as macroeconomic indicators, tracked customer data or sensor data from machines. In the course of digitization, consultants (but also company leaders) from business, engineering and IT need to be able to handle and interpret this data carefully.</p> <p>Therefore, they need to know standard data analytics techniques.</p> <p>Students of this course get prepared for the challenges of a data-driven business world. They learn <b>standard data analytics methods</b> and are able to <b>implement</b> them with simple and widely available IT tools (e.g., Excel Solver, Python, R)</p> <p>Furthermore, after successfully completing the course, students are able to <b>derive recommendations</b> for business decisions from their analysis output.</p> <p>Last but not least, students learn how to <b>present their data-driven recommendations</b> to top management in the most appropriate way.</p> |
| <b>Kursinhalte</b><br><i>Course contents</i>              | The course gives an overview of state-of-the-art methods for analytics to derive data-driven decisions for typical   |

|  |   |
|--|---|
|  | <p>business problems such as financial planning, project management, resource allocation, capacity planning, demand forecasting or production planning.</p> <p>The course is divided into 3 core topics:</p> <ol style="list-style-type: none"> <li>1. Descriptive Analytics</li> <li>2. Predictive Analytics</li> <li>3. Prescriptive Analytics</li> </ol> <p>All methods are illustrated based on daily business decisions to be made.</p> <p>Furthermore, the course consists reporting and presentation skills to present their data-driven recommendations to management boards.</p> |
| <p><b>Lehrmethoden</b><br/><i>Teaching methods</i></p>   | <p>The course consists of seminars and a project. During the seminars students get an overview of the major methods for each chapter. They are asked to apply those methods in a project based on provided datasets and to present the results to a management board.</p>   |
| <p><b>Lehrbuch</b><br/><i>Textbook</i></p>   | <p>Albright, Winston. 2016. Business Analytics – Data Analysis and Decision Making. 6th edition. Cengage Learning.</p>  |
| <p><b>Empfohlene Literatur</b><br/><i>Recommended reading</i></p>  |   |
| <p><b>Besonderes</b><br/><i>Specific requests</i></p>  |   |
| <p><b>Kurs gehört zum Zusatzzertifikat ...</b><br/><i>Course is part of the additional certificate</i></p> |   |