

| Module title | | Abbreviation |
|---|-------------------|--------------------------------------|
| Managerial Problem Solving | | 12-MPS-242-m01 |
| Module coordinator | | Module offered by |
| holder of the Chair of Business Analytics | | Faculty of Management and Economics |
| ECTS | Method of grading | Only after succ. compl. of module(s) |
| 5 | numerical grade | -- |
| Duration | Module level | Other prerequisites |
| 1 semester | undergraduate | -- |
| Contents | | |
| The course provides an introduction to data-based methods for modeling and solving quantitative business problems. In particular, Microsoft Excel is used to manage, visualize, and analyze data. In addition, mathematical optimization problems are solved using Excel Solver and the fundamentals of programming with VBA are discussed. | | |
| Intended learning outcomes | | |
| <ol style="list-style-type: none"> 1. Prepare, visualize and analyze data sets using Excel 2. Select and forecast different time series problems 3. Understand simple, multiple and dummy regressions 4. Implement and solve linear optimization problems using the Excel Solver 5. Fundamentals of Excel VBA programming | | |
| Courses (type, number of weekly contact hours, language — if other than German) | | |
| V (2) + Ü (2) Module taught in: English | | |
| Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) | | |
| <ol style="list-style-type: none"> a) written examination (approx. 60 minutes) or b) oral examination in groups of up to 5 candidates (approx. 15 minutes per candidate) or c) portfolio (approx. 20 hours) Language of assessment: English creditable for bonus | | |
| Allocation of places | | |
| 40 places. WA1: (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot as they become available. | | |
| Additional information | | |
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| Workload | | |
| 150 h | | |
| Teaching cycle | | |
| Teaching cycle: summer semester | | |
| Referred to in LPO I (examination regulations for teaching-degree programmes) | | |
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| Module appears in | | |
| Bachelor's degree (1 major) Biology (2011) Bachelor's degree (1 major) Chemistry (2010) | | |

Bachelor's degree (1 major) Psychology (2010)
 Bachelor's degree (1 major, 1 minor) Pedagogy (2013)
 Bachelor's degree (1 major, 1 minor) Political and Social Studies (2013)
 Bachelor's degree (1 major, 1 minor) Russian Language and Culture (2008)
 Bachelor's degree (2 majors) Special Education (2009)
 Magister Theologiae Catholic Theology (2013)
 Bachelor's degree (2 majors) English and American Studies (2009)
 Bachelor's degree (2 majors) German Language and Literature (2013)
 Bachelor's degree (1 major) Chemistry (2015)
 Bachelor's degree (1 major) Geography (2015)
 Bachelor's degree (1 major) Mathematics (2015)
 Bachelor's degree (1 major) Musicology (2015)
 Bachelor's degree (1 major) Physics (2015)
 Bachelor's degree (1 major) Psychology (2015)
 Bachelor's degree (1 major) Nanostructure Technology (2015)
 Bachelor's degree (1 major) Music Education (2015)
 Bachelor's degree (1 major) Computational Mathematics (2015)
 Bachelor's degree (1 major) Political and Social Studies (2015)
 Bachelor's degree (1 major) Functional Materials (2015)
 Bachelor's degree (1 major) Academic Speech Therapy (2015)
 Bachelor's degree (1 major) Indology/South Asian Studies (2015)
 Bachelor's degree (1 major, 1 minor) Egyptology (2015)
 Bachelor's degree (1 major, 1 minor) Pedagogy (2015)
 Bachelor's degree (1 major, 1 minor) History (2015)
 Bachelor's degree (1 major, 1 minor) Musicology (2015)
 Bachelor's degree (1 major, 1 minor) Philosophy (2015)
 Bachelor's degree (1 major, 1 minor) Pre- and Protohistoric Archaeology (2015)
 Bachelor's degree (1 major, 1 minor) Ancient World (2015)
 Bachelor's degree (1 major, 1 minor) Philosophy and Religion (2015)
 Bachelor's degree (1 major, 1 minor) Theological Studies (2015)
 Bachelor's degree (1 major, 1 minor) Political and Social Studies (2015)
 Bachelor's degree (1 major, 1 minor) Russian Language and Culture (2015)
 Bachelor's degree (1 major, 1 minor) German Language and Literature (2015)
 Bachelor's degree (2 majors) Egyptology (2015)
 Bachelor's degree (2 majors) Pedagogy (2015)
 Bachelor's degree (2 majors) Protestant Theology (2015)
 Bachelor's degree (2 majors) Musicology (2015)
 Bachelor's degree (2 majors) Philosophy (2015)
 Bachelor's degree (2 majors) Special Education (2015)
 Bachelor's degree (2 majors) Pre- and Protohistoric Archaeology (2015)
 Bachelor's degree (2 majors) Latin Philology (2015)
 Bachelor's degree (2 majors) Music Education (2015)
 Bachelor's degree (2 majors) Philosophy and Religion (2015)
 Bachelor's degree (2 majors) Theological Studies (2015)
 Bachelor's degree (2 majors) Political and Social Studies (2015)
 Bachelor's degree (2 majors) Russian Language and Culture (2015)
 Bachelor's degree (2 majors) Greek Philology (2015)
 Bachelor's degree (2 majors) European Ethnology (2015)
 Bachelor's degree (2 majors) Indology/South Asian Studies (2015)
 Bachelor's degree (2 majors) Geography (2015)
 Bachelor's degree (2 majors) French Studies (2015)
 Bachelor's degree (2 majors) History (2015)
 Bachelor's degree (2 majors) Sport Science (Focus on health and Pedagogics in Movement) (2015)

Bachelor's degree (2 majors) German Language and Literature (2015)
 Bachelor's degree (1 major) Mathematical Physics (2016)
 Bachelor's degree (1 major, 1 minor) French Studies (2016)
 Bachelor's degree (2 majors) French Studies (2016)
 Bachelor's degree (1 major, 1 minor) Italian Studies (2016)
 Bachelor's degree (2 majors) Italian Studies (2016)
 Bachelor's degree (1 major, 1 minor) Spanish Studies (2016)
 Bachelor's degree (2 majors) Spanish Studies (2016)
 Bachelor's degree (1 major) Romanic Languages (French/Italian) (2016)
 Bachelor's degree (1 major) Romanic Languages (French/Spanish) (2016)
 Bachelor's degree (1 major) Romanic Languages (Italian/Spanish) (2016)
 Bachelor's degree (1 major) Games Engineering (2016)
 Bachelor's degree (1 major, 1 minor) English and American Studies (2016)
 Bachelor's degree (2 majors) English and American Studies (2016)
 Bachelor's degree (1 major) Media Communication (2016)
 Bachelor's degree (1 major) Food Chemistry (2016)
 Bachelor's degree (1 major, 1 minor) Digital Humanities (2016)
 Bachelor's degree (1 major) Biology (2017)
 Bachelor's degree (1 major, 1 minor) Geography (2017)
 Bachelor's degree (1 major, 1 minor) History of Medieval and Modern Art (2017)
 Bachelor's degree (2 majors) History of Medieval and Modern Art (2017)
 Bachelor's degree (2 majors) Comparative Indo-European Linguistics (2017)
 Bachelor's degree (1 major) Aerospace Computer Science (2017)
 Bachelor's degree (1 major) Biochemistry (2017)
 Bachelor's degree (1 major) Chemistry (2017)
 Bachelor's degree (1 major, 1 minor) Museology and material culture (2017)
 Bachelor's degree (1 major) Games Engineering (2017)
 Bachelor's degree (1 major) Computer Science (2017)
 Bachelor's degree (1 major) Media Communication (2018)
 Bachelor's degree (1 major) Biomedicine (2018)
 Bachelor's degree (1 major) Human-Computer Systems (2018)
 Bachelor's degree (2 majors) Classical Archaeology (2018)
 Bachelor's degree (1 major, 1 minor) Classical Archaeology (2018)
 Bachelor's degree (1 major, 1 minor) Digital Humanities (2018)
 Bachelor's degree (2 majors) Digital Humanities (2018)
 Bachelor's degree (1 major) Computer Science (2019)
 Bachelor's degree (1 major, 1 minor) English and American Studies (2019)
 Bachelor's degree (1 major) Indology/South Asian Studies (2019)
 Bachelor's degree (2 majors) Indology/South Asian Studies (2019)
 Bachelor's degree (1 major) Modern China (2019)
 Bachelor's degree (1 major) Biomedicine (2020)
 Bachelor's degree (1 major) Pedagogy (2020)
 Bachelor's degree (1 major) Political and Social Studies (2020)
 Bachelor's degree (1 major, 1 minor) Political and Social Studies (2020)
 Bachelor's degree (2 majors) European Ethnology (2020)
 Bachelor's degree (2 majors) Political and Social Studies (2020)
 Bachelor's degree (2 majors) Special Education (2020)
 Bachelor's degree (1 major) Physics (2020)
 Bachelor's degree (1 major) Nanostructure Technology (2020)
 Bachelor's degree (1 major) Mathematical Physics (2020)
 Bachelor's degree (1 major) Aerospace Computer Science (2020)
 Bachelor's degree (1 major, 1 minor) Museology and material culture (2020)
 Bachelor's degree (1 major, 1 minor) Pedagogy (2020)

Bachelor's degree (2 majors) Pedagogy (2020)
 Bachelor's degree (1 major) Psychology (2020)
 Bachelor's degree (1 major) Biology (2021)
 Magister Theologiae Catholic Theology (2021)
 Bachelor's degree (2 majors) History (2021)
 Bachelor's degree (1 major, 1 minor) History (2021)
 Bachelor's degree (1 major) Media Communication (2021)
 Bachelor's degree (2 majors) Theological Studies (2021)
 Bachelor's degree (1 major, 1 minor) Theological Studies (2021)
 Bachelor's degree (1 major, 1 minor) English and American Studies (2021)
 Bachelor's degree (2 majors) English and American Studies (2021)
 Bachelor's degree (1 major) Functional Materials (2021)
 Bachelor's degree (1 major) Computer Science und Sustainability (2021)
 Bachelor's degree (2 majors) Comparative Indo-European Linguistics (2021)
 Bachelor's degree (1 major) Food Chemistry (2021)
 Bachelor's degree (1 major) Quantum Technology (2021)
 Bachelor's degree (2 majors) Special Education (2021)
 Bachelor's degree (1 major) Human-Computer Systems (2022)
 Bachelor's degree (1 major, 1 minor) Museology and material culture (2022)
 Bachelor's degree (1 major) Biochemistry (2022)
 Bachelor's degree (1 major) Biology (2022)
 Bachelor's degree (1 major) Mathematical Data Science (2022)
 Bachelor's degree (1 major) Artificial Intelligence and Data Science (2022)
 Bachelor's degree (2 majors) Ancient Near Eastern Archaeology (2022)
 Bachelor's degree (1 major, 1 minor) Ancient World (2022)
 Bachelor's degree (2 majors) Ancient Near Eastern Studies (2022)
 Bachelor's degree (1 major) Franco-German studies: language, culture, digital competence (2022)
 Bachelor's degree (1 major) European Law (2023)
 Bachelor's degree (1 major, 1 minor) English and American Studies (2023)
 Bachelor's degree (2 majors) English and American Studies (2023)
 Bachelor's degree (1 major) Artificial Intelligence and Data Science (2023)
 Bachelor's degree (1 major) Mathematics (2023)
 Bachelor's degree (1 major, 1 minor) History of Medieval and Modern Art (2023)
 Bachelor's degree (2 majors) History of Medieval and Modern Art (2023)
 Bachelor's degree (2 majors) Special Education (2023)
 Bachelor's degree (1 major) Geography (2023)
 Bachelor's degree (2 majors) Geography (2023)
 Bachelor's degree (1 major, 1 minor) Geography (2023)
 Bachelor's degree (2 majors) European Ethnology/Empiric Cultural Studies (2023)
 Bachelor's degree (1 major) Mathematical Physics (2024)
 Bachelor's degree (2 majors) German Language and Literature (2024)
 Bachelor's degree (1 major, 1 minor) German Language and Literature (2024)
 Bachelor's degree (1 major) Music Education (2024)
 Bachelor's degree (2 majors) Music Education (2024)
 Bachelor's degree (1 major, 1 minor) Music Education (2024)
 Bachelor's degree (1 major) Indology/South Asian Studies (2024)
 Bachelor's degree (2 majors) Indology/South Asian Studies (2024)
 Bachelor's degree (1 major, 1 minor) Indology/South Asian Studies (2024)
 Bachelor's degree (1 major, 1 minor) Ancient World (2024)
 Bachelor's degree (2 majors) Digital Humanities (2024)
 Bachelor's degree (1 major, 1 minor) Digital Humanities (2024)
 Bachelor's degree (1 major) Midwifery (2024)
 Bachelor's degree (2 majors) Greek Philology (2024)

Bachelor's degree (2 majors) Latin Philology (2024)
Bachelor's degree (1 major) Business Information Systems (2024)
Bachelor's degree (1 major) Econometrics (2024)
Bachelor's degree (1 major) Business Management and Economics (2024)
Bachelor's degree (1 major) Artificial Intelligence and Data Science (2024)
Bachelor's degree (1 major) Human-Computer-Interaction (2024)
Bachelor's degree (2 majors) Art Education (2024)
Bachelor's degree (1 major) Digital Business & Data Science (2024)
Bachelor's degree (1 major) Classics (2024)
Bachelor's degree (1 major) Diversity, Ethics and Religions (2024)
Bachelor's degree (1 major) Functional Materials (2025)
Bachelor's degree (1 major) (2025)
Bachelor's degree (1 major) Food Chemistry (2025)
Bachelor's degree (1 major, 1 minor) European Ethnology/Empirical Cultural Studies (2025)
Bachelor's degree (1 major) Pedagogy (2025)
Bachelor's degree (2 majors) Pedagogy (2025)
Bachelor's degree (1 major) Econometrics (2025)
Bachelor's degree (1 major) Academic Speech Therapy (2025)
Bachelor's degree (1 major, 1 minor) Pedagogy (2025)
Bachelor's degree (1 major) Games Engineering (2025)