## DATA ANALYSIS AND BUSINESS MODELING

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| **Credit points** | 4 CP |
| **Duration of the course** | 6 sem. |
| **Study course annotation** | The course introduces students to the most popular methods in business process modeling and thespectrum of modern business process modeling tools. During the course, students will acquire knowledge of how to develop business process models and proposals for their changes, how to introduce changes at the business process model level, and how, using business process models, to determine requirements for information systems and services that support them |
| **Aim of the study course** | The aim of the course is to prepare students for the following tasks: business process modeling, business process analysis, defining information systems and service requirements based on detailed business process models, as well as familiarization with different business process modeling languages and tools |

| **Study course results** | Knowledge | Skills | Competences |
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| | • know how to use business modeling software to model business processes. <br> • understand that create business modeling use business process description standards and methodology. <br> • know how to use business process modeling for specific tasks. | • use specialized computer programs according to work tasks; <br> • be able to prepare a business process model; <br> • able to systematize and analyze financial information; <br> • be able to assess the correctness of the prepared business model . | • use quantitative and qualitative analysismethods; <br> • summarize the results of financial analysis in decision-making; <br> • use information technology and applications to perform work tasks; <br> • apply their knowledge in practical activities; <br> • independently integrate, synthesize and critically evaluate information from various sources, solve a problem using a logical and systematic approach |

| **Study course content** | Topics | |
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| | 1 | Introduction to business process theory |
| | 2 | Analysis of the organization's activity system |
| | 3 | Basic concepts of business process improvement |
| | 4 | Process improvement organization |
| | 5 | Company structuring and description of organizational activity |
| | 6 | Selection and ranking of business processes |
| | 7 | Typical business processes and management functions |
| | 8 | Business process modeling and description technology |
| | 9 | Standards and methodology for describing business processes |
| | 10 | Business process optimization methods |
| | 11 | Business modeling software |
| **Form of assessment:** | Exam | |

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| **Obligatory literature:** | |
| 1. | Hyndman, RJ, & Athanasopoulos, G. (2018) Forecasting: principles and practice, 2nd edition: Melbourne, Australia.https://otexts.com/fpp2/ Available from Amazon and Google |
| 2. | Adam J. Bock. The Business Model Book: Design, build and adapt business ideas that drive business growth.Pearson Business 2017-12-15. 293 pages |
| **Additional reading:** | |
| 1. | Sukhadev Ashish. (2016). How to choose the right forecasting method. https://www.analyticsinsight.net/how-to-choose-the-right-forecasting-method/ |
| 2. | Swift, L., Piff, S. (2014). Quantitative methods for business, management and finance. 4th Edition. London - NewYork : Macmillan International Higher Education. 728 pp. |
| 3. | OECD. Forecasting methods and analytical tools. http://www.oecd.org/economy/outlook/forecastingmethodsandanalyticaltools. htm |
| 4. | Gerardus Blokdyk. Business Process Modeling A Complete Guide. Emereo Pty Limited, 2019. 314 pages |
| Changes and additions to the program and literature list are possible during the study process | |