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| 1.  | <b>Module code:</b>   | B19A07E   |
| 2.  | <b>Title:</b>   | <b>BUSINESS STATISTICS</b>  |
| 3.  | <b>Credit points:</b>   | 7   |
| 4.  | <b>Start term:</b>  | fall  |
| 5.  | <b>Module leader:</b>   | <b>MÓNKA GALAMBOSNÉ TISZBERGER, DR.</b>   |
| 6.  | <b>Accredited by:</b>   | MUBS  |
| 7.  | <b>Module restrictions:</b>   |   |
|     | • Pre-requisite   | none  |
|     | • Programme restrictions  | BSc in Business Administration and Management   |
|     | • Level restrictions  | 5   |
| 7.  | • Other restrictions or requirements  | none  |
|     | <b>8. Aims:</b><br>The module aims to provide students with an understanding of both the theory and practice of Business Statistics. Using the MS Excel as a statistical tool, students will be able to use the special features of a commonly used program and at the same time they will get an overview over the background of the calculations. The main focus of the module is to introduce students to the complex tools of statistics to enable them to research business and management problems in their further studies and work.   |   |
|     | <b>9. Learning outcomes:</b><br>On completion of this module, the successful student will be able to:   |   |
|     | <ol style="list-style-type: none"> <li>1. match statistical methods and procedures with business problems to solve them with the help of MS Excel</li> <li>2. explain and critically evaluate outcomes of analyses</li> <li>3. illustrate results to a general audience in a proper way considering ethical issues as well</li> <li>4. construct and administer statistical datasets</li> <li>5. propose effective quantitative research</li> <li>6. explain numerical results</li> </ol>   |   |
| 10. | <b>Syllabus:</b>  | <ul style="list-style-type: none"> <li>• Recall of descriptive and inferential statistics</li> <li>• Analysis of Variance</li> <li>• Chi-square test</li> <li>• Nonparametric procedures</li> <li>• Correlation</li> <li>• Simple Linear Regression</li> <li>• Multiple Linear Regression</li> <li>• Non-linear regression</li> <li>• Time series analysis (trends and forecasting)</li> <li>• Seasonal changes in time series</li> </ul> |
| 11. | <b>Learning and teaching strategy:</b><br>This module will be taught through joint application of theoretical and practical teaching methods, which should enable students to understand mechanisms of business decision making applying statistical methods. To achieve this objective “flipped classroom” techniques are applied. Before the lecture the students have to prepare from the coming topic and fill in the online quiz. Feedback on quiz will be given weekly for the class in general and individually if necessary. During the lecture time students work in random groups of 3-4 and work out the guiding questions of the topic. At the end of the class they also have to solve a group work exercise. Feedback is given weekly. At the tutorials the teacher and the students solve the exercises together with MS Excel. Continuous learning is necessary to keep up with the course. |   |

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| 12. | <p><b>Formative assessment scheme</b><br/>QA sessions before midterm tests and drop-in office hours</p> | <p><b>Summative assessment scheme</b><br/>Online quiz (10%) weekly<br/>Online quiz through Neptun (multiple choice, T/F) before and after the topics. 10 questions for 10 minutes. It is a readiness/reading assessment. (LOs 1 and 2)<br/>Group work (10%) weekly<br/>Topic related problem solution in 10-15 minutes at the end of the lecture part. (LOs 3)<br/>Midterm test 1 (15%) in Week 6<br/>Problem solution with the help of MS Excel from the first four new topics. Solutions are detailed and explained in the midterm paper. 4-5 problems for 70 minutes. (LOs 1, 2, 5 and 6)<br/>Midterm test 2 (15%) in Week 13<br/>Problem solution with the help of MS Excel from topics of regression and time series analysis. Solutions are detailed and explained in the midterm paper. 4-5 problems for 70 minutes. (LOs 1, 2, 5 and 6)<br/>Elements 1-4. cannot be resat.<br/>Final exam (50%) in Exam Period<br/>Problem solution with the help of MS Excel. Problems are more complex; students have to be able to match the problems with the proper methodology. Solutions are detailed and explained in the midterm paper. 4-5 problems for 70 minutes. (LOs 1, 2, 4, 5 and 6) It can be resat during the exam period.</p> |
|     | <b>Seen examination</b>   | 0%   |
|     | <b>Unseen examination</b>   | 80% (LOs 1, 2, 4, 5 and 6)   |
|     | <b>Coursework examination (no examination)</b>  | 20% (LOs 1, 2, and 3)  |
| 13. | <b>Timetabled examination required</b>  | YES  |
| 14. | <b>Length of exam</b>   | 1.5 hours  |
| 15. | <b>Learning materials Essential</b>   | Essential reading<br>Berenson, M.L. – Levine, D.M. – Szabat, K.A. (2015): Basic Business Statistics: Concepts and Applications, 13th Edition, Pearson  |
|     | <b>Recommended</b>  | Recommended books<br>Levine, D.M. – Stephan, D.F. – Szabat, K.A. (2017): Statistics for Managers Using Microsoft Excel, 8th Edition, Pearson   |