**Table 5.2.** Course specification

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| **Study program : Advanced Data Analytics in Business** | | | | |
| **Course title: Big Data Fundamentals** | | | | |
| **Teachers: Boris Radovanov, Aleksandar Kupusinac, Dragan Stojić** | | | | |
| **Status of the course: Obligatory** | | | | |
| **Number of ECTS: 7** | | | | |
| **Condition: No** | | | | |
| **Goal of the course**  To provide the students with basic knowledge of big data: big data characteristics, storing, cleansing and analysing big data, with the emphasis on predictive and prescriptive analytics. | | | | |
| **Learning outcome**  Students will be able to apply the methods of data collection and data analytics to solve business related problems in support of business decision making. Students will develop competencies necessary to use related softwaretools to perform data collection, cleansing and analytics. | | | | |
| **Content of the course**  *Theoretical part*  1-2. Introduction to Course  3. Relational databases  4. Structural and non-structural data  5-6. Data cleansing  7-8. Data visualisation  9. Descriptive statistics and  10. Correlation  11-12. Association analysis and  13. Cluster analysis  14-15. Principles of classification  *Practical part*  Work on case studies based on real-world data using computer laboratory. | | | | |
| **Literature**   1. Provost, F., Fawcett, T.(2013). Data Science for Business, ISBN 978-1449361327 2. Erl, T., Khattak, W., Buhler, P.(2015). Big Data Fundamentals: Concepts, Drivers & Techniques. | | | | |
| **Number of hours of active teaching** | **Theoretical teaching: 2** | | **Practical teaching: 3** | |
| **Teaching methods**  Teaching will be done in classrooms, computer labs using appropriate teaching resources (multimedia presentations, software packages, etc.). Teaching takes place through lectures, exercises and independent work. Proof of knowledge is done through written and oral exams. | | | | |
| **Assessment (maximum number of points 100)** | | | | |
| **Pre-exam obligations** | Points | **Final exam** | | Points |
| Activities during semester | **5** | Written exam | | **15** |
| Practical part | **5** | Oral exam | | **15** |
| Colloquium | **40** | *..........* | |  |
| Seminar paper | **20** |  | |  |