

**Table 5.2.** Course specification

<b>Study program : Advanced Data Analytics in Business</b>			
<b>Course title: R for Data Science</b>			
<b>Teachers: Мирко Савић, Роналд Хохрајтер, Александар Купусинац</b>			
<b>Status of the course: Obligatory</b>			
<b>Number of ECTS: 7</b>			
<b>Condition: None</b>			
<b>Goal of the course</b>			
The goal of the course is students to teach students at the beginning basic tools for management of big data in R language and later on advanced tools and be capable to program in R language. The entire course is in the context of business environment and through examples of good praxis, because the final goal is for student to develop competencies related to R language in order to implement them for the need of business analytics in fast and efficient way.			
<b>Learning outcome</b>			
Student know and understands R language, uses R studio, ggplot2, tidyverse and collection of packages for massive data. Student imports, manipulates, analyse and models data. Student knows how to communicate results of analysis to final users.			
<b>Content of the course</b>			
<i>Theoretical part</i>			
1-2. Basics of R language			
3. Relationship of statistics and R language			
4. Relationship of econometrics and R language			
5. Data visualisation			
6. Data transformation			
7. Writing of scripts			
8. Exploratory data analysis			
9. Projects in R package			
10. Data wrangling			
11-13. Programming			
14. Modelling			
15. Communication of results.			
<i>Practical part</i>			
Work on practical tasks, writing of seminar paper on the basis of theoretical topics and learning R language in computer lab.			
<b>Literature</b>			
1. Wickham, H., & Golemund, G. (2016). R for Data Science - First Edition. O'Reilly, Sebastopol, Canada.			
2. Peng, D. R. (2015). R Programming for Data Science. Lulu Press Inc.			
3. Dalpiaz, D. (2018). Applied Statistics with R. University of Illinois, USA.			
4. Chang, W. (2013), R Graphics Cookbook. O'Reilly, Sebastopol, Canada.			
<b>Number of hours of active teaching</b>	<b>Theoretical teaching: 3</b>	<b>Practical teaching: 2</b>	
<b>Teaching methods</b>			
All lectures are conducted in computer lab.			
<b>Assessment (maximum number of points 100)</b>			
<b>Pre-exam obligations</b>	Points	<b>Final exam</b>	Points
Activities during semester	<b>5</b>	Written exam	<b>15</b>
Practical part	<b>5</b>	Oral exam	<b>15</b>
Colloquium (2 colloquiums times 20 points)	<b>40</b>	.....	
Seminar paper	<b>20</b>		