**Module Syllabus at the Jagiellonian University
Doctoral School in the Social Sciences**

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| **Organisational unit conducting the module** | ***Szkoła Doktorska Nauk Społecznych UJ*Doctoral School in the Social Sciences** |
| **Module name** | R in a researcher’s toolkit |
| **Language of instruction**  | English |
| **Learning objectives**  | To familiarize with R functionalities. To gain confidence to use R for different purposes, not only analytical. To learn basic skills which would enable further learning. |
| **Learning outcomes** | After completing the course, you will be able to run statistical analyses in R on your own, searching internet for solutions of more advanced and complicated analytical problems using R help files and R users forums, have a good starting point to learn more advanced applications, run neat and comprehensive analytical documentation, use R in other than purely analytical applications. |
| **Methods of verification and assessment criteria** **of learning outcomes**  | Analytical report to prepare after the classes. |
| **Module type obligatory / elective** | Elective |
| **Year of education in the DS**  | I, II |
| **Semesterwinter / summer**  | Summer |
| **Teaching modeonline / in-class**  | In-class |
| **Coordinator’s name and / or tutor’s / tutors’ name/s** | Maciej Koniewski |
| **Examiner’s name or the name of the individual granting ECTS points if not a tutor** | Maciej Koniewski |
| **Teaching methods** | Workshop |
| **Entry and additional requirements** | At least basic knowledge of statistics is required. You should be familiar with concepts: estimator, standard error, random sample. You should be able to operate smoothly in MS Excel or similar software. Completion of at least one course in data analysis or your own attempts to run statistical analyses in dedicated software, e.g., SPSS, R or other is a must. You should be able to effectively use computer: installing different software, using multiple programs simultaneously, searching internet to find required information. |
| **Type and number of contact hours if included in the module** | 30 |
| **Number of ECTS pointsallocated to the module** | 2 |
| **ECTS balance** | Participation: 30hPreparation of the analytical report: 15h |
| **Teaching techniques**  | Computer workshop |
| **Form and conditions for module ECTS attainment, including the rules for exam admission and crediting; the form and conditions for passing individual module classes** | Analytical report to prepare after the classes. |
| **Content** | We will use RStudio, graphical user interface for R. Discussed will be basics of quantitative data management and handling in R, data transformation, simple statistical analyses, data visualization. Despite using R as an analytical software, other applications will be demonstrated, such as analytical documentation development and archiving, automatized reports production in PDF/LaTeX, HTML, MS Word. |
| **Obligatory and supplementary reading materials** | R technical documentation indicated during the course. |