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| *Title and Code of Course*: **ERPB**-**BPS2625** **Person-oriented statistical methods** |
| *Instructor’s Name*: **Prof. Dr. Vargha András** |
| *Instructor’s Email Address*: vargha.andra@kre.hu   |  |  |  |  | | --- | --- | --- | --- | | Credit Point Value:  **6** | Number of Lessons per Week: **2** | Type of Course:  **Seminar**  **Lecture** | Method of Evaluation:  **Oral Examination**  **In-Class Presentation**  **Other** | |
| **Course Description:**  The aim of the course is to present the most important person-oriented methods applied in empirical psychological research, their theoretical models and their use in statistical softwares ROPstat and SPSS.  Schedule (Tematika)  1. Introduction to ROPstat, data import and export in SPSS, ROPstat, and Excel  2. Classical and person-oriented comparison of groups in ROPstat  3. Classical and person-oriented correlations in ROPstat  4. Cutpoint analysis in ROPstat  5. Structure of missing data, data imputation  6. Residual analysis, configural frequency analysis  7. Hierarchical cluster analysis I.  8. Hierarchical cluster analysis II.  9. Nonhierarchical cluster analysis (relocation analysis, K-means cluster analysis)  10. Validation of a cluster solution  11. Cluster analyses in SPSS  12. Post-analyses after cluster analysis, methods of Centroid and ExaconCourse Requirements:  Preparing an assignment with the application of the statistical methods presented in the course |
| **Bibliography:**  Pardo, M. (2010). Clustering. <http://lectures.molgen.mpg.de/algsysbio10/clustering.pdf>  Vargha, A. (2007). The Statistical Menu System of ROPstat: www.ropstat.com  Vargha, A., Bergman, L. R. (2012). A Method to Maximize the Information of a Continuous Variable in Relation to a Dichotomous Grouping Variable: Cutpoint Analysis. *Hungarian Statistical Review, 90, Special Number 16,* 101-122. http://www.ksh.hu/statszemle\_archive/2012/2012\_K16/2012\_K16\_001.pdf  Vargha, A., Bergman, L. R. & Takács, Sz. (2016). Performing cluster analysis within a person-oriented context: Some methods for evaluating the quality of cluster solutions. *Journal for Person-Oriented Research*, *2 (1-2),* 78–86. http://www.person-research.ouradmin.se/articles/volume2\_1\_2/filer/5.pdf  Vargha, A., Torma, B. & Bergman, L. R. (2015). ROPstat: a general statistical package useful for conducting person-oriented analyses. *Journal for Person-Oriented Research*, *1 (1-2)*, 87-98. <http://www.person-research.ouradmin.se/articles/volume1_1_2/filer/20.pdf>  **Suggested readings**   * Lars R. Bergman, David Magnusson, Bassam El-Khouri (2003) Studying Individual Development in an Interindividual Context: A Person-Oriented Approch. London: Erlbaum. * Bergman, L.R., & El-Khouri, B.M. (1999). Studying individual patterns of development using I-States as Objects Analysis (ISOA). *Biometrical Journal, 41 (6),* 753-770. * Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics*. Boston: Allyn and Bacon. * von Eye, A. (2002). Configural Frequency Analysis - Methods, Models, and Applications. Mahwah, NJ: Lawrence Erlbaum. |