Course Unit Descriptor

Study Programme: Psychology

Course Unit Title: Multivariate Analysis

Course Unit Code: 21ПС045

Name of Lecturer(s): Associate Professor Tanja Jevremov, Full Professor Dejan Pajić, Luna Radević

Type and Level of Studies: Bachelor Academic Degree

Course Status (compulsory/elective): Compulsory

Semester (winter/summer): Winter

Language of instruction: Serbian / English

Mode of course unit delivery (face-to-face/distance learning): face-to-face

Number of ECTS Allocated: 4

Prerequisites: Acquired knowledge on correlation measures and multivariate regression

Course Aims:

a) Introducing students:

- to concepts and operators which are necessary for understanding complex latent (structural and dynamic) relations among psychic phenomena and processes
- to algorithms and programs which enable performing basic multivariate statistical procedures

b) Train students:

- to choose methods of statistical supports for the complex research plots referring to the latent space
- to interpret results of the multivariate analyses on their own
- to make decisions based on the multivariate analyses' results

Learning Outcomes:

At the end of this course, students are expected to be prepared:

- to choose adequate statistical methods of the multivariate analysis for supporting the problems typical for psychology investigations
- to carry out multivariate data analyses using the specified statistical programs
- to interpret results of the multivariate data analyses

Syllabus:

Theory

I Basis of the geometry of the vector space and matrix algebra; II Factor and component analysis; III Canonical correlation analysis; IV Discriminant analysis; V Cluster analysis; VI Multidimensional scaling

Practice

Conducting the multivariate statisical tecniques using adequate statistical software and interpretation of the results

Required Reading:

Kovačić, Z. (1994). Multivariate analysis. Belgrade: Faculty of Economy.

Supplementary literature: StatSoft, Inc. (2018). Electronic Statistics Textbook. Tulsa, OK: StatSoft.

Weekly Contact Hours:	**Lectures:**	**Practical work:**
4 hours weekly	6 lectures / themes	2 hours weekly

Teaching Methods: Lectures and exercises			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	**Final exam**	points
Active class participation	10	written exam	35
Practical work	30	oral exam	25
Preliminary exam(s)		…….	
Seminar(s)			
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			