

<b>Course Code</b>	<b>Multivariate Statistics</b> UNYP 81375
<b>Level</b>	Upper-level course in a Bachelor's degree program
<b>Credits</b>	3 semester credits / 6 ECTS
<b>Pre-requisite(s)</b>	C- or better in Statistics for Social Sciences

<b>Scheduled meetings</b>	45 hours
<b>Average preparation time</b>	105 hours
<b>Total student work time</b>	150 hours

**Description** Presentation of different statistical methods and their interrelations with special attention to regression and other multivariate statistical techniques and models. Usefulness of statistical way of thinking in different area of analysis with more concrete forms on applications in psychology.

**Learning outcomes** Upon successfully completing this course, the student will be able to:

- use Multivariate statistical data analysis for the Comparison of two and more populations or groups;
- conduct Exploratory data analysis and Simultaneous confidence intervals and tests;
- understand Classical and generalized linear regression model and individual contribution of explanatory variables and problem of co-linearity;
- conduct Analysis of variance and covariance;
- understand Data reduction methods (principal components method and factor analysis);
- explore Classification methods (discriminant and cluster analysis) and other specialized multivariate statistical methods.

**Study literature** Howitt, D., & Cramer, D. (2011). Introduction to Statistics in Psychology (5th ed.). Harlow, England: Pearson Prentice Hall.

Software: SPSS (available in the PC lab)

Additional readings available on UNYP E-Learn or in the UNYP Library.

All courses are taught in English, with the exception of language courses. UNYP's 3-year and 4-year Bachelor's programs are accredited by the Czech Accreditation Commission, a part of the Czech Ministry of Education, Youth and Sports, and lead to the award of a *bakalář* (Bachelor's) degree. UNYP's 3-year Bachelor's of Business degree is also accredited by the the U.S.-based International Assembly for Collegiate Business Education (IACBE), a CHEA-recognized accreditor.