



Wybierz element.

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Course title: Descriptive statistics

Nazwa odpowiednika w języku polskim: Statystyka opisowa

USOS code: 37S10-STATOP

ECTS credit allocation (and other scores): 4.0

Semester: spring

Level of study: ISCED-6 - first-cycle programmes (EQF-6)

Branch of science: Social sciences

Language: English

Number of hours per semester: 45

Course coordinator/ Department and e-mail: dr hab. Anna Rutkowska-Miczka, e-mail: [aniarek@uwm.edu.pl](mailto:aniarek@uwm.edu.pl)

Type of classes: classes and lectures

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#### Substantive content

**CLASSES:** Classes focus on practical applications of descriptive statistics. Students are introduced to statistical populations, units, variables, and scales of measurement. Practical topics include classical measures of central tendency (arithmetic, harmonic, and geometric means), positional measures (mode, quantiles, quartiles), measures of variability (variance, standard deviation, range, coefficient of variation, quartile deviation), asymmetry and concentration measures, and dynamics analysis using growth rates, indices, and average rates of change.

**LECTURES:** Why descriptive statistics is important to Managers. Lectures provide theoretical foundations of descriptive statistics. Topics include scales of measurement, the distribution of statistical variables, classical and positional measures, measures of central tendency, dispersion, asymmetry, and concentration. Students are introduced to multidimensional statistical variables and methods for analyzing relationships between statistical characteristics. Emphasis is placed on understanding statistical indicators and their interpretation in research and data analysis.

**Learning purpose:** To develop competence in statistical data description and interpretation.

**On completion of the study programme the graduate will gain:**

**Knowledge:** Knowledge of descriptive statistics and methods of statistical analysis

**Skills:** Application of statistics methods to produce useful information for decision-making

**Social Competencies:** Applications of statistics methods in private life and business activity

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**Basic literature:** Aczel A., A., Complete Business Statistics, every edition

**Supplementary literature:** Hanke J., E., Reitsch A., G., (1991) Understanding business statistics. Printed in United States of America.

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The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 50

Student's independent work: 50