**Study program:** Finance, accounting and banking, Management of business and logistics, Business informatics and e-business, Tourism and hospitality, Management of food technology and gastronomy

Course name: Business statistics

Professor: Milena V. Marjanovic, PhD

Subject status: compulsory

**ECTS:** 6

Requirements: no requirements

### Aim of the course

The aim of the course is for students to acquire knowledge necessary for observing and applying statistical methods and research in practice. Moreover, the students will be able to use statistical data in order to make decisions, will develop logical thinking and will know how to study the operations of a business entity from a statistical point of view. This will prepare them for the challenges which await them during their professional career.

## **Course outcomes**

After successfully completing the course the students will be able to understand, that wherever the work process is taking place, wherever there is production, investment of capital, use of resources, raw materials and human resources, there will exist a need for monitoring of such data and their quantification. The students will thus be able to make conclusion on a statistical collection on the basis of a sampling.

### Content of the course

#### Theoretical lectures

Basic notions and categories in statistics; Основни статистички појмови и категорије, Measures of central tendency; Measures of variability, asymmetry and ellipticity; Basic theories of probability and models of the theory of distribution; Statistical inference; Hypothesis tests,  $\chi^2$  test, Correlation and regression analysis, Index numbers, Analysis of time series, Industrial capacity statistics, raw material statistics, labor force statistics, Production statistics, Productivity statistics, Price statistics, Earnings statistics.

#### Practical course work

Basic notions and categories in statistics; Mean values; Positional mean; Absolute measures of variation; Relative measures of variation; Asymmetry and ellipticity measures, Models of continuous distribution theories; Choice of samples and types of samples;

Simple linear regression; simple curvilinear regression and correlation; Individual dynamics index numbers; Group dynamics index numbers; Trend; Seasonal component; Cyclical component, Nomenclature of production.

# Literature

- Марјановић, М. Спасић, К. Пословна статистика, ВПШСС Лесковац, 2015.
- Марјановић, М. Спасић, К. Збирка решених задатака из пословне статистике, ВПШСС Лесковац, 2015.
- Марјановић, М. Пословна статистика, ВПШСС Лесковац, 2009.
- Марковић, М., Петковић, С. Пословна статистика, ВПШ Београд, 1999.
- Марковић, М. Збирка решених задатака из статистике, ВПШ Београд, 1999.

Total number of active teaching classes	Lectures: 30	Practical course work: 30
---	--------------	---------------------------

## Teaching methods

Lectures; practical course work, presentations of good examples of professional practice, case studies, preparation and presentation of term papers

## **Evaluation (maximum points 100)**

Pre-exam activities	Points	Final exam	Points
Active participation in lecture classes	5	Written exam	20
Active participation in practical course work	5	Oral exam	25
Colloquium 1	25		
Colloquium 2	20		
Term paper(s)	1		