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| 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: Mathematics | | | |
| Professor: lecturer Valentina J. Stankovic, M.Sc | | | |
| Subject status: compulsory | | | |
| ECTS: 6 | | | |
| Requirements: no requirements | | | |
| Aim of the course: The aim of the course is for students to acquire mathematical knowledge in order to fully grasp the laws of nature and society (especially that in an areas such as economics), as well as to apply that knowledge in professional education and everyday business practice. | | | |
| Course outcomes After successfully completing the course, the students will be able to: apply the acquired knowledge for modeling economic functions (supply, demand, income, costs, profit) and to examine their behavior in different market conditions, perform different practical calculations (percentage, interest account, interest and credit). | | | |
| Content of the course <i>Theoretical lectures</i> Mapping and functions, matrices and determinants, limit value and continuity of functions of one variable, Asymptote, Extract functions of one variable, Differential of a function. Fundamental theorems of differential calculus, Monotonic function, extreme values, convexity and concavity. Analysis of the function, indefinite integral, economic functions. Financial mathematics. <i>Practical course work</i> Determining the type of mapping, finding the product mapping, finding inverse functions. Examples of some real functions, Computing of determinates and inverse matrice. Solving matrix equations, calculation of the limit value of functions. Determining asymptote, chain rule and differential function. Analysis of the functions and graphing, Indefinite integral, application of shift methods. Economic function, the function of supply, demand, revenue, costs and profit. Percentage, models of interest accounts. Credits. | | | |
| Literature <ul style="list-style-type: none"> • Станковић, В. <i>Математика за економисте</i>, ВПШСС Лесковац, 2011. • Станковић, В., Јовић, Ј. <i>Збирка задатака из математике за економисте</i>, ВПШСС Лесковац 2011. • М. Ивовић, Финансијска математика, Економски факултет Београд, 2003. • С. М. Богдановић, М. Ђ. Милојевић, Ж.Љ. Поповић, <i>Математика за студенте економије</i>, Економски факултет Ниш, II издање, 2006. • М. Ђ. Милојевић, С. М. Богдановић, <i>Збирка решених задатака из математике за студенте економије</i>, Економски факултет Ниш, II издање, 2006. | | | |
| 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. | | | |
| 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 | / | | |