



**SILESIA
UNIVERSITY**
SCHOOL OF BUSINESS
ADMINISTRATION
IN KARVINA

Topics for the entrance examinations for entry into the first year of the Bachelor's degree programme

Microeconomics

- Basic concepts and phenomena in microeconomics

Macroeconomics

- Basic concepts and phenomena in macroeconomics

Mathematics and statistics

- Introduction to the theory of mathematical logic and set theory. Sets. Numerical sets (natural numbers, integer numbers, real numbers, rational numbers). Absolute value of number.
- Algebraic expressions
- Algebraic equations and inequations. System of linear equations with two unknowns.
- Function. Operations with functions, basic properties of functions. Linear functions. Quadratic function. Exponential functions. Exponential and logarithmic functions. Domain of a function.
- Analytical geometry. Line equations. Conic sections. Relative position of a line and a conic section.
- Sequences and series. Arithmetic and geometric sequence. Infinite series and its sum.
- Combinatorics, probability, statistics. Variations and permutations. Combination. Equations and inequations with combination numbers and factorials.
- Basics of probability calculus
- Statistics. Characteristics of the statistical set.



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Literature

- [1] MANKIEW, N.G., 2018. Principles of Microeconomics, 8th Edition. Stamford: Cengage Learning. ISBN 978-1305585126.
- [2] ACEMOGLU, D., LAIBSON, D., LIST, J. A., 2019. Microeconomics. 2nd Edition. Harlow: Pearson Education limited. ISBN 978-1-292-21435-1.
- [3] JONES, CH. I., 2018. Macroeconomic. 4th Edition. W. W. Norton & Company. ISBN 978-0-393-61533-3.
- [4] MANKIEW, N.G., 2017. Principles of Macroeconomics. 8th Edition. Stamford: Cengage Learning. ISBN 978-1305971509.
- [5] GOLDIE, S., PORKESS, R., HANRAHAN, V., FEU, J., MUSCAT, J.P., JEWEL, R. Cambridge International AS & A Level Mathematics Pure Mathematics 1. 2nd edition. Hoder Education, 2018. ISBN 978-1510420748.
- [6] PRICHET, G. D., SABER, J.C. Mathematics with Applications in Management and Economics. Boston, Sydney: IRWIN, Burr Ridge, 2004. ISBN 0-256-09237-0.