

University of Silesia in Katowice

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Education – Research – Innovation

University of Silesia in Katowice is one of the largest higher educational institutions in Poland. It has 12 departments: of Arts, Biology and Environmental Protection, Ethnology and Education Sciences, Language Studies, Information Technology and Materials Science, Mathematics, Physics and Chemistry, Earth Sciences, Social Sciences, Education and Psychology, Law and Administration, Theology and the K. Kieślowski Department of Radio and Television.

There are also interdepartmental and general university units. The university offers 41 Bachelor's and Master's programmes and over 100 specialities within them. Some of the specialities are not offered at any other university in Poland. At present, almost 40,000 Bachelor's, Master's and doctoral students study at the university on full-time, extramural and evening courses.

Among the most important of the many infrastructure projects now carried out by the university is the construction of the Inter-University Centre of Education and Interdisciplinary Research. The centre will be providing courses to students in mathematical and natural sciences, including medical physics, biophysics, materials and biomedical engineering, nano-carbon technology, physics of nanosystems, quantum information technologies, computational chemistry and pharmaceutical chemistry. Apart from 600 research projects conducted in conjunction with various Polish and foreign institutions, including business organisations, the university is also working on its own projects, whose number exceeds 1,000. Many of them are aimed at innovation and practical application. They include interdisciplinary research in the area of health and medicine, including research on the properties of new porphyrin derivatives as potential photosensitisers in photodynamic therapies for the treatment of cancer; search for stable forms of amorphous drugs, which have excellent bioavailability; research into the structure and properties of the NiTi nanocrystalline shape-memory alloy; research on climate change, like for example polar research, including projections of changes in the Arctic ice cover and a rise in the world ocean level as a result of global warming, climate changes in the Arctic and Antarctic regions, determining

trends in the occurrence of extreme climatic events in Poland and developing indicators which can be used to project the risk of such events; environmental and nature research, including research into renewable geothermal energy, developing and implementing the Tilling platform as a tool for functional genomics, improving the features of plants and developing new plant breeding material.

The University of Silesia was established 41 years ago. The university combines the atmosphere of a traditional academic centre with the constant development of its research base, both for basic research and applied research oriented at an innovative economy. The programmes of study are adjusted to meet the needs of the changing labour market.