

# STEAM-education: Preparing Future Primary School Teachers in a New Way!

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STEAM is one of the trends in global education, which involves integrated learning, and promotes the application of scientific knowledge into everyday life. As part of the implementation of the international scientific project "Modernization of Higher Pedagogical Education Using Innovative Teaching Tools (MoPED)" of the Erasmus + Program No. 586098-EPP-1-2017-1-RU-EPPKA2-CBHE-JP the Pedagogical Institute of Borys Grinchenko Kyiv University has introduced the course "Fundamentals of STEAM Education" into the future primary school teacher training.

The course "Fundamentals of STEAM Education" is aimed at developing information-digital, subject-methodological, entrepreneurial, innovative and other professional competencies of future primary school teachers, as well as the ability to implement STEAM education in primary schools. Students are trained at the Center for Innovative Educational Technologies (ICR-class), where future teachers get acquainted with the integrated approach to learning, the features of STEAM education and ways to implement it in the educational process of primary school, innovative pedagogical technologies: PBL (project-based learning), PrBL (problem-based learning), IBL (inquiry-based learning), blended and flipped learning, making, computation thinking and form skills to apply them into their teaching activities. Participants of the course acquire the skills to create simple algorithms, program in the Scratch environment, create simple programs for managing educational robots, use 3D printers, involve students in technical creativity, new technologies and research in intersubject areas, use the ILS GoLab space to create research projects with younger learners, modern digital tools for implementing blended learning and formative assessment. Students learn to implement group and pair methods of teaching and assessment, to form digital competencies in primary school students, in particular, related to the secure Internet usage. The program is aimed at developing intellectual abilities in the process of cognitive activity and involvement in scientific and technical creativity. Training is based on research, practice-oriented and competence-based approaches, and involves the formation of life skills.