

# Implementation of Active Cybersecurity Education in Ukrainian Higher School

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## Abstract

Cybersecurity as a part of information technology requires constant professional development for teachers. Therefore it is indicative of the study of the implementation of active learning methods. The experience of higher technical educational institutions in the countries of the European Union (Germany, France, Sweden, etc.) shows that the introduction of active learning elements and Conceive-Design-Implement-Operate (CDIO) methods dramatically increases student engagement and improves their learning outcomes. The article considers the stages of formation of the process of training specialists in cybersecurity. In addition, the experience of introducing active learning methods into the educational process is presented, and its results are analyzed. The technology of implementation of active learning and the results obtained have been presented concerning training professionals of the 2nd (Master's) degree for the specialty 125 "Cybersecurity" in Borys Grinchenko Kyiv University. These actions are confirmed by the study results of the average score of graduate students, which has increased by three points from 76.3 to 79.3. © 2023, The Author(s), under exclusive license to Springer Nature Switzerland AG.

## Author keywords

Active learning; CDIO; Conceive-Design-Implement-Operate; cybersecurity; practice-oriented training

## About this paper

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