

Sytnykova, Y., Kyrpenko, V., Palevych, S., Pochuieva, O., Lamtiuhova, S., & Chaika, O. (2025). Implementation of Professionally Oriented Tasks with Interactive Cloud Environment Google Colab. *International Journal of Interactive Mobile Technologies (IJIM)*, 19(09), pp. 73–91.

Abstract. The purpose of the paper is to analyze the necessity of implementing professionally oriented tasks in higher mathematics courses for technical students during practical classes using the interactive cloud environment Google Colab. The results are as follows. The main mathematical concepts are analyzed; the indicators of professionally oriented mathematical tasks are characterized; the aspects of solving professionally oriented tasks are considered. The students' survey as a pilot study has shown that students do not have very high self-esteem, have little problem-solving skills, it affects students' motivation, academic performance. The examples of solving professionally oriented tasks with the interactive cloud environment Google Colab are shown. The conclusion is that a balance between the fundamental mathematical knowledge and the practical value is needed; Google Colab helps a lot. The prospect for further research is to monitor the success of students' learning in other courses using Google Colab.

Keywords: mathematical knowledge, professionally oriented training, solve math tasks, Google Colab, practice training.