

IMPROVEMENT OF THE METHOD OF EXECUTION OF GRAPHIC WORKS ON THE ENGINEERING GRAPHICS

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Engineering graphics is one of the disciplines that make up the basics of engineering education. While studying this discipline in higher educational establishments was always considered that its basics are laid in the pre-university education system. However, in the conditions of intensive reformation of the education system, based on sometimes groundless considerations, in school programs in Ukraine the study of drawing is planned as an optional lesson. As a result, students without sufficient training in engineering graphics come to the first year of course. In a number of cases, even among students of Industrial and Civil Engineering specialty of Odessa state academy of Building and architecture.

In such circumstances, teachers have to deal with mixed audience of students and devote much of their time to explaining the elementary graphic constructions. Of course, this cannot favor the full-fledged level of the lecture. Naturally, in these conditions it is necessary to seek out own reserves for activation of the educational process, moreover, the number of classrooms studies of engineering graphics in the curriculum of higher education is steadily decreasing with the emphasis on self-study.

At the department of drawing geometry and engineering graphics of OSABA (OGASA), the activation of the educational process under the current conditions the work is conducted systematically on determining the effectiveness of various proposals and recommendations, for example, the Bologna Process [1, p 74]. In a number of scientific works of the department, including those published in co-authorship with Polish colleagues, experimentally-proved were substantiated, often they are not in favor for the recommendations "from above".

In search of their own reserves to improve the methodology teaching of engineering graphics, significant research work on the department was devoted to the search for time reserves for the successful performance of classroom graphic work by students. As an experiment, the teachers developed and tested individual assignments for most of the course topics.

The peculiarity of such tasks was that the A3 drawing paper contained the initial data, brief methodological instructions for the implementation of each of them, and a part of the graphical constructions was executed, which would take students a lot

of time to build them, but, at the same time, do not require special graphic training. In this case, students had the opportunity to focus on the main part of the assignment, which contributed to its successful implementation and a deeper assimilation of the material by the students.

As an example, Fig. 1, *a* shows the format A3 with the condition of the task, intended for the graphical work "Construction of contours of excavation work on arrangement the building site", and in Fig. 1, *b* – the task fulfilled by the student in accordance with Fig. 1, *a*. In this case, the time savings for a student is about an academic hour.

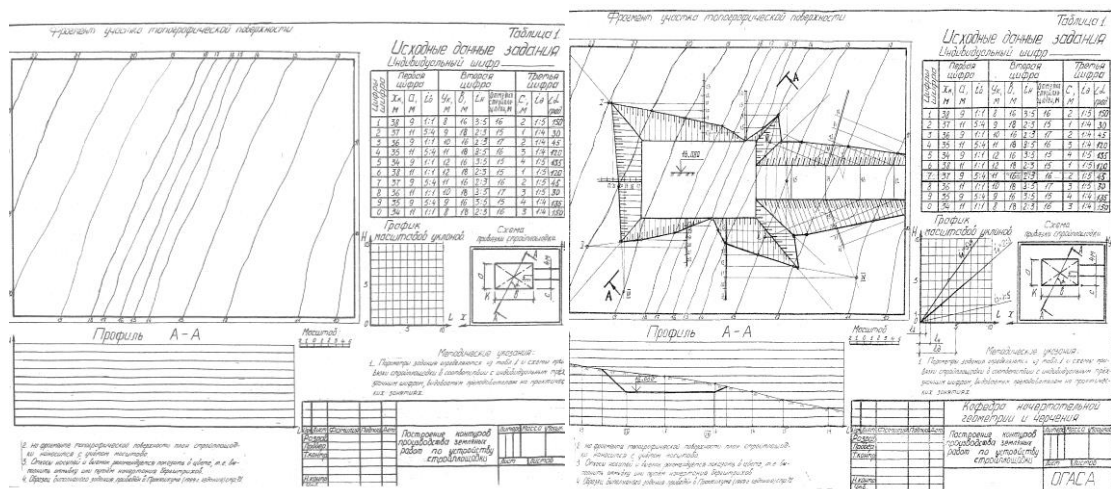


Fig. 1. Work "Construction of the contours of excavation work on arrangement the construction site"

- a) A3 format with the conditions of the task
- b) the task completed by the student

In the current situation, on the basis of conducted research, teachers should pay more attention to the preparation of the initial graphic materials for ensuring implementation by students tasks on practical classes within the time provided in the work program.

References

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