

Individual Educational Ways of Independent Engineering Graphics Training in Technical Higher School

Abstract. Nowadays there is a growing demand for qualified engineers, researchers and developers with the information technology competence, and ability in self-development, self-perfection and self-knowledge; and the variative higher education is needed for training such specialists. The paper describes the experience of Izhevsk State Technical University providing the opportunity for individual selection of educational curricula and independent *Engineering Graphics* training aimed at developing spatial imagination, capability of finding the constructive engineering solutions and analysis and synthesis of spatial forms.

The possible individual educational directions are given including the professional, informational and research ones. The paper demonstrates the basic and variant module elements of the *Descriptive Geometry* and *Engineering Graphics* discipline, the competence formation levels of *Engineering Graphics* (basic, reconstructive and creative) being outlined along with the relating estimation methods. The authors recommend the group expert estimation method for selecting individual educational curricula, competence oriented assessment means, and providing the high quality diagnostics.

Keywords: individual engineering graphics training, educational variability, individual educational direction, engineering graphic competence, module elements, method of group expert estimation.

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