The Specialist Competencies Vector While Studying Engineering Geometry and Computer Graphics

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The whole world is geometric. The primacy of the geometric image is very characteristic of engineering. The solution of engineering problems is associated with the synthesis and analysis of geometric images of technical systems. With the development of science-intensive mechanical engineering, the methods for synthesizing and analyzing the geometry of engineering systems have increased the requirements for a design tool, and, consequently, for the competence of a design engineer.

A Pareto optimal engineering staffing set is shown. The given modern model of the specialist's business goal showed the scope of the specialist's life cycle. A model of the graph-geometric vector of engineering training for the aerospace industry is proposed. The effectiveness of personnel training in the geometric-graphic field, depending on the time and level of tasks within the life cycle, has a level and iterative character.

Possible areas of application of rapid prototyping technologies in design are shown. It is shown that the verification of the trend in the development of geometric and graphic education goes through the development of legal documentation and through activities in the specialized technical committees of Rosstandart and specialized dissertation councils of the Higher Attestation Commission of the Russian Federation.

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