«Metrological Support of Innovative Technologies»
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«3D modeling in the study of the basics of computer graphics»

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and O S Kharitonova
Problem statement

• Teaching the basics of computer graphics is included in the process of training bachelors of different directions.

• Knowledge of the theoretical foundations of computer graphics is important for future successful professional activity.

• Students are interested in performing tasks related to 3D modeling. Students develop independence, creative thinking, ability to plan their activities, when they create such models.
Solution methods

- Computer graphics are used in many areas of human activity.
- Modern 3D graphics editors allow to perform realistic models and animations.
Modeling a scene in 3ds Max with different trace depths.

The result of performance a script simulating the location of molecules in the gaseous state of a substance.
The result of modeling the flight of the ball along the given trajectory

The results of modeling the planets of the solar system.
Results of control tests (42 students in 2016 and 32 students in 2019).

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Conclusions

Results, implementation

• The use of active tasks contributes to the good consolidation of theoretical knowledge. Such practical tasks help to develop creative abilities of students, stimulate independence in the planning of educational activities.

• Submission of theoretical material and subsequent consolidation in practice minimized the number of topics, which raise student questions.

• The next stage of work is planned to develop interactive tasks which will be include in the distance course.
Contacts

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