

1. Name of discipline: “*Computer methods of analysis and optimization of oil and gas equipment constructions*”

2. Direction: “*Oil and gas Engineering*”

3. Profile: “*Machines and equipment for oil and gas fields*”

4. Degree: *Master*

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6. Goals of the discipline – formation of basic knowledge of students, related to the use of mathematical methods and modern computer modeling tools for analysis and optimization of designs of the main types of oil and gas field equipment

7. Results of training (knowledge, skills, experience, competence)

**R1** Acquisition of professional knowledge and a broad outlook in the field of mathematical sciences and their use in professional activities

**R9** To identify, systematize and obtain the necessary data for research activities in the engineering and oil and gas industries

**R10** To plan, conduct, analyze, process experimental studies with interpretation of the results obtained using modern modeling methods and computer technologies

8. The program of this discipline is compiled in accordance with the requirements of *Federal Education Standards*, criteria of the *Association for Engineering Education of Russia* coordinated with the requirements of the National standards *EURACE* and *FEANI*