

<b>Study Programme:</b> Industrial engineering in exploitation of oil and gas			
<b>Course Unit Title:</b> The collection, preparation of drilling fluids and environmental security			
<b>Course Unit Code:</b> OAS269			
<b>Name of Lecturer(s):</b> Assistant Professor Snežana Filip, PhD			
<b>Type and Level of Studies:</b> Bachelor Academic Degree			
<b>Course Status (compulsory/elective):</b> Elective			
<b>Semester (winter/summer):</b> Summer			
<b>Language of instruction:</b> English			
<b>Mode of course unit delivery (face-to-face/distance learning):</b> Face-to-face			
<b>Number of ECTS Allocated:</b> 3			
<b>Prerequisites:</b> None			
<b>Course Aims:</b> The objective of this course is to introduce students to basic environmental elements, global environmental problems and basic principles of using natural resources, with a special emphasis on the problem of petroleum and gas exploitation and international legal regulations. The mastering of materials should enable students to understand complex industrial processes in the case of exploitation of deposits and the petroleum and gas processing industry.			
<b>Learning Outcomes:</b> The acquired knowledge should be used by students in further education in the field of management safety and design of industrial systems of oil and gas and systems for the reduction of environmental pollution.			
<b>Syllabus:</b> <i>Theory</i> Biospheres, ecosystems, human and environmental interactions, global environmental problems, sustainable use of natural resources, basic economic principles of environmental protection. Procedures and installations for the protection of the environment in the exploitation of oil and gas. Principles of environmental protection during design, construction, operation and after the use of industrial plants in the oil and gas industry. Economic principles of the management of oil and gas resources. National and international legal regulation and international cooperation in the field of environmental protection. <i>Practice</i> The exercises deal with appropriate examples in relation to lecture materials with more active participation of students and arrange professional visits to the respective localities.			
<b>Required Reading:</b> 1. Daniel B. Botkin, Edward A. Keller. Environmental Science. John Wiley & Sons, inc, 2003 2. Pal Skalle. Drilling fluid engineering. Bookboon, 2012.			
<b>Weekly Contact Hours:</b> 3	<b>Lectures:</b> 2	<b>Practical work:</b> 1	
<b>Teaching Methods:</b> Lecture, auditory exercises and consultations. In the lectures the theoretical part of the material is presented with examples that aim to have easier material mastering. Examples of materials are discussed in more detail on auditory exercises.			
<b>Knowledge Assessment (maximum of 100 points):</b>			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points

Active class participation	5	written exam	40
Practical work	5		
Test I and Test II	20	oral exam	10
Colloquium	20		