Title of Course	**Rheology of bitumens**		
Semester	**Autumn/Spring**		
Teaching Hours per Course:	**Total**	**- Lectures:**	**- Tutorials:**
	30	30	0
ECTS Credits	2		

The content of education	
Aims of Course	Knowledge and skills acquiring relating to estimation of rheological properties of bitumen substances and determining their impact on the exploitation properties of products.
Program	Classification of bitumen substances. Obtaining and chemical structure of oil bitumen. Obtaining and chemical structure of carbon bitumen. Modification of bituminous substances with polymers. Basic knowledge (information) on rheology: mechanical rheological models. Rheological classification of liquids. Mathematical descriptions of flow curves (rheological models). Viscosity and viscoelasticity. Rheological properties of bitumen of oil and carbon origin. Rheological properties of bitumen/polymer system. Test methods of rheological properties: measuring apparatus, static and dynamic measurements. Selected methods of predicting rheological results.
Conditions of completion	Prerequisites the course is to receive a positive grade from the final test. During the semester, two partial tests are planned. Obtaining positive marks from both tests is exempt from the obligation to pass the final test.
Teacher	PhD. Eng. Wiesława Ciesińska