

**THE MASTER OF SCIENCE DEGREE PROGRAM
“SUSTAINABLE THERMAL AND ENERGY SYSTEMS”**

№	Courses	credits			
		1 semester	2 semester	3 semester	4 semester
Compulsory modules. Basic part					
1	Philosophy and Innovative Thinking in Engineering			2	
2	Russian Language	2	2		
3	Fundamentals of Systems Analysis and Design	3			
4	Energy saving contemporary issues and sustainable development		4		
5	Impact Pathways Analysis			4	
Compulsory courses. Variable part					
6	Economy and business planning in industrial power engineering			4	
7	Automated control systems for technological processes in heat power engineering, heat engineering and heat technologies	5			
8	Computer aided design engineering		4		
9	Heat and mass transfer equipment at enterprises	4			
10	Hydrogen and electrochemical power systems		6		
11	Statistical methods for scientific research			5	
Elective courses					
Section 1					
12	Energy audit and energy saving of industrial enterprises		5		
13	Indoor microclimate analysis and design		5		
Section 2					
14	Thermal engineering software	5			
15	Fuel supply systems	5			
Section 3					
16	Mathematical modeling and optimization of energy systems	5			
17	Mathematical modeling of processes and equipment	5			
Practice and investigations					
18	Teaching practice			6	
19	Research work	6	9	9	3
20	Predegree practice				6
21	Production practice				15
22	State exam				6
Total per semester		30	30	30	30