Head of the Department of curricula development and strategic planning
Viktoria Melnikova

Name	Form of assessment							Credits	Total academic hours					Year 1		Year 2		Year 3		Year 4		Assigned department	
														Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8		
	Examination	Pass/ fail test	Pass/ fail exam with a grade	Term project	Course work	Module test	Calculation and graphic work	Fact	As sheduled	Work with a teacher	Class-room	Self-study	Control	Credits	Credits	Credits	Credits	Credits	Credits	Credits	Credits	Code	Name
Unit 1.Disciplines (modules)								216	7776	3378.55	2852	3231.95	1165.5	28	29	28	29	28	26	26	22		
Core part								120	4320	1892.2	1628	1746.05	681.75	24	27	26	20	11	8	4			
Socio-humanitarian module	**13**	**11234 56**	**224**					**28**	**1008**	**488**	**416**	**434.5**	**85.5**	8	6	6	4	2	2				
History (history of Russia, general history)	1							4	144	48.25	30	53	42.75	4								71	Department of History
Philosophy	3							4	144	48.25	30	53	42.75			4						72	Department of Philosophy and Culturology
Law		5						2	72	32.15	30	39.85						2				73	Department of Social sciences, pedagogy and law
Basics of project acticity		6						2	72	32.15	30	39.85							2			51	Department of Economics and finances
Time-management		4						2	72	32.15	30	39.85					2					52	Department of Management
Culturology		1						2	72	32.15	30	39.85		2								72	Department of Philosophy and Culturology
Conflict studies			2					2	72	46.15	30	25.85			2							72	Department of Philosophy and Culturology
Foreign language		13	24					8	288	184.6	176	103.4		2	2	2	2					45	Department of Foreign languages
Basics of business communication		2						2	72	32.15	30	39.85			2							55	Department of Russian language
Module "Physical education and sport"		**16**						**2**	**72**	**32.3**	**32**	**39.7**		1					1				
Basics of PE		1						1	36	16.15	16	19.85		1								56	Department of Physical education
Physical self-perfection		6						1	36	16.15	16	19.85							1			56	Department of Physical education
Mathematics and natural scientific module	**112223**	**113**				**11122 23**		**33**	**1188**	**567.75**	**494**	**381.75**	**238.5**	13	14	6							
Higher mathematics	**123**	**1**				**1223**		**14**	**504**	**251.8**	**210**	**132.95**	**119.25**	6	5	3							
Algebra and geometry	1					1		4	144	62.25	44	39	42.75	4								13	Department of Applied mathematics and information technologies
Mathematical analysis	2	1				22		7	252	139	120	70.25	42.75	2	5							13	Department of Applied mathematics and information technologies
Probability theory and mathematical statistics	3					3		3	108	50.55	46	23.7	33.75			3						13	Department of Applied mathematics and information technologies
Informatics	2							4	144	78.25	60	32	33.75		4							13	Department of Applied mathematics and information technologies
Physics	2	1				12		8	288	127	120	118.25	42.75	3	5							25	Department of Physics
Chemistry	1					1		4	144	64.55	60	36.7	42.75	4								35	Department of Chemistry
Information technologies in professional activities		3						3	108	46.15	44	61.85				3						13	Department of Applied mathematics and information technologies
Module "Safe living environment"	**7**							**4**	**144**	**62.25**	**44**	**48**	**33.75**							4			
Life safety	7							4	144	62.25	44	48	33.75							4		42	Department of Technosphere safety and environmental management
Engineering and technical module	**23346**	**12**	**5**	**4**	**3**		**12**	**32**	**1152**	**438.7**	**376**	**517.55**	**195.75**	2	7	9	5	4	5				
Engineering and computer graphics	2	1					12	6	216	82.4	60	90.85	42.75	2	4							32	Department of Production equipment engineering
Material science, structural materials technology	3	2			3			8	288	99.4	90	145.85	42.75		3	5						32	Department of Production equipment engineering
Theoretical mechanics	3							4	144	64.25	60	46	33.75			4						24	Department of Theory of machines and mechanisms and machine parts
Applied mechanics	4			4				5	180	66.25	46	71	42.75				5					24	Department of Theory of machines and mechanisms and machine parts
Electrical engineering and electricity supply			5					4	144	62.15	60	81.85						4				22	Department of Power engineering
Metrology,thermotechnical measurements and automation	6							5	180	64.25	60	82	33.75						5			32	Department of Production equipment engineering
General technical module	**445**	**334**			**45**			**21**	**756**	**303.2**	**266**	**324.55**	**128.25**			5	11	5					
Fluid dynamics	4	3						6	216	78.4	60	94.85	42.75			2	4					22	Department of Power engineering
Technical thermodynamics	4	3			4			8	288	111.4	102	133.85	42.75			3	5					22	Department of Power engineering
Heat and mass trasfer	5	4			5			7	252	113.4	104	95.85	42.75				2	5				22	Department of Power engineering
Part formed by the educational process participants								96	3456	1486.35	1224	1485.9	483.75	4	2	2	9	17	18	22	22		
Socio-humanitarian module (B)	**6**	**5**						**5**	**180**	**92.4**	**60**	**53.85**	**33.75**					2	3				
Economy and management in a utility company	6	5						5	180	92.4	60	53.85	33.75					2	3			52	Department of Management
Mathematics and natural scientific module (B)	**4**	**4**						**7**	**252**	**96.4**	**62**	**112.85**	**42.75**				7						
Mathematical modelling		4						3	108	48.15	32	59.85					3					13	Department of Applied mathematics and information technologies
Scientific research methods	4							4	144	48.25	30	53	42.75				4					22	Department of Power engineering
Module "Safe living environment" (B)		**4**						**2**	**72**	**46.15**	**30**	**25.85**					2						
Ecology and environmental management		4						2	72	46.15	30	25.85					2					44	Department of Water bioresources and aquaculture
Professional module	**155667 78**	**3566**	**57**	**5678**	**7**			**56**	**2016**	**841.9**	**702**	**868.1**	**306**	4		2		15	15	15	5		
Introduction to profession	1							4	144	46.25	30	64	33.75	4								22	Department of Power engineering
Combustion theory		3						2	72	32.15	30	39.85				2						22	Department of Power engineering
Technical measurements		5						2	72	32.15	30	39.85						2				32	Department of Production equipment engiring
Renewable energy sources			5					3	108	62.15	60	45.85						3				22	Department of Power engineering
Water treatment	5							4	144	50.25	46	51	42.75					4				22	Department of Power engineering
Turbines of thermal and nuclear power plants	5			5				6	216	80.25	60	93	42.75					6				22	Department of Power engineering
Energy saving in heat power engineering and heat technology	6							4	144	64.25	60	46	33.75						4			22	Department of Power engineering
Boiler plants and steam generators	6			6				6	216	96.25	74	77	42.75						6			22	Department of Power engineering
Electrical equipment of power plants		6						3	108	46.15	44	61.85							3			22	Department of Power engineering
Thermal and nuclear power plants	7	6		7				8	288	128.4	104	125.85	33.75						2	6		22	Department of Power engineering
Thermal mechanical and auxiliary equipment of power plants	7				7			6	216	81.25	60	101	33.75							6		22	Department of Power engineering
Modes of operation and operation of thermal power plantsй			7					3	108	62.15	60	45.85								3		22	Department of Power engineering
Thermal processes automation	8			8				5	180	60.25	44	77	42.75								5	11	Department of Production processes automation
Elective courses		**2**						**2**	**72**	**32.15**	**22**	**39.85**			2								
Development of Russian power engineering		2						2	72	32.15	22	39.85			2							71	Department of History
Development of regional power engineering		2						2	72	32.15	22	39.85			2							71	Department of History
Elective modules	**788**	**7888**						**24**	**864**	**377.35**	**348**	**385.4**	**101.25**							7	17		
Elective module 1. Operation of thermal power plants (TPP)	**788**	**7888**						**24**	**864**	**377.35**	**348**	**385.4**	**101.25**							7	17		
Combined-cycle and gas turbine plants	7							4	144	64.25	60	46	33.75							4		22	Department of Power engineering
Installation, testing, adjustment and diagnostics of thermal power equipment	8	7						7	252	106.4	100	111.85	33.75							3	4	22	Department of Power engineering
Environmental technologies at thermal power plants		8						3	108	44.15	34	63.85									3	42	Department of Technosphere safety and environmental management
Fundamentals of district heating		8						3	108	46.15	44	61.85									3	22	Department of Power engineering
Water-chemical regimes of power plants	8							4	144	70.25	66	40	33.75								4	22	Department of Power engineering
Rationing of fuel and energy resources at thermal power plants		8						3	108	46.15	44	61.85									3	22	Department of Power engineering
Elective module 2. Water and fuel technology at thermal power plants (TPP)	**788**	**7888**						**24**	**864**	**387.35**	**358**	**375.4**	**101.25**							7	17		
Technology of fuel and energy oils at thermal power plants	7							4	144	64.25	60	46	33.75							4		22	Department of Power engineering
Design of auxiliary heat and power equipment	8	7						7	252	106.4	100	111.85	33.75							3	4	22	Department of Power engineering
Fuel supply of TPP		8						3	108	54.15	44	53.85									3	22	Department of Power engineering
Automation of water treatment plants at thermal power plants		8						3	108	46.15	44	61.85									3	22	Department of Power engineering
Fundamentals of chemical and technological processes at thermal power plants	8							4	144	70.25	66	40	33.75								4	22	Department of Power engineering
Water desalination and wastewater treatment at thermal power plants		8						3	108	46.15	44	61.85									3	22	Department of Power engineering
Unit 2.Practical training								18	648	648													
Core part								18	648	648													
Academic training			**24**					**6**	**216**	**216**													
Introductory practice			2					3	108	108												32	Department of Production equipment engineering
Major practice			4					3	108	108												22	Department of Power engineering
On-the-job training			**68**					**12**	**432**	**432**													
Technological practice			6					6	216	216												22	Department of Power engineering
Pregraduation practice			8					6	216	216												22	Department of Power engineering
Unit 3.Pregraduation practice								6	216				216										
Preparation for the defense procedure and defense of the final qualification work								6	216				216									22	Department of Power engineering
Elective courses								8	288	126.6	126	161.4				2		2		2	2		
Research workshop		5						2	72	30.15	30	41.85						2					
Information and bibliographic culture		3						2	72	16.15	16	55.85				2							
Practice-oriented course "Internet of things"		7	8					4	144	80.3	80	63.7								2	2		
Elective disciplines (modules) in Physical education and sport									330	330	330												
Module"Physical education and sport" (B)		**246**							**330**	**330**	**330**												
Practical training in PE and sport (elective course)		246							330	330	330											56	Department of Physical education