

MODULAR EDUCATIONAL PROGRAM for recruitment to 2021-2022 academic year

Educational program 7M07202 - "Petroleum Engineering"

Group of educational programs M115 - "Petroleum Engineering"

Form of study: full-time

Duration of study: 2 years

Academic degree: Master of Technical Sciences

Year of study	Discipline code	Name of disciplines	semester	Cycle	Credits	Total hours	classroom volume of lek/lab/pr	SRS (including SRSP) in hours	Form of control	Competencies
Basic training module										
University component										
1	LNG210	Foreign language (professional)	1	BD IC	5	150	0/0/3	105	E	BC 2.4
1	HUM210	History and philosophy of science	2	BD IC	4	120	1/0/1	90	E	BC 1, 2, 3
1	HUM209	Higher school pedagogy	2	BD IC	4	120	1/0/1	90	E	BC 2
1	HUM208	Management psychology	1	BD IC	3	90	1/0/1	60	E	BC 2
Component of choice										
1	PET228	Advanced Petrophysics	1	BD OC	5	150	2/0/1	105	E	BC 1,3, PC 2,5,6
	PET229	Advanced Reservoir Engineering					2/0/1			BC 1,3 PC 2,3,5
	PET232	Advanced Production Engineering					2/0/1			BC 1,3 PC 1,2,3
	PET211	Petroleum Reservoir Simulation: Compositional model					2/0/1			BC 3, PC 3,4,5
	PET226	Principles of Reservoir engineering					2/0/1			BC 1, PC 1,3,6
PET213	Enhanced oil recovery	2/0/1	BC 1, PC 1,4							
1	PET262	Basic Coding for Petroleum Engineers	1	BD OC	5	150	2/0/1	105	E	BC 1,3, PC 4,5
	PET230	Advanced Thermodynamics and Phase Behavior of Reservoir Fluids					2/0/1			BC 1,3, PC 2,3
	PET227	Principles of production engineering					2/0/1			BC 1, PC 1,2
	PET246	Principles of drilling technology					2/0/1			BC 1, PC 1,2,4
	PET247	Principles of designing oil and gas storages					2/0/1			BC 1, PC 2,4
PET248	Advanced Drilling Fluids	2/0/1	BC 1,3, PC 2,4,5							
1	PET229	Advanced Reservoir Engineering	2	BD OC	5	150	2/0/1	105	E	BC 1,3 PC 2,3,5
	PET213	Enhanced oil recovery					2/0/1			BC 1, PC 1,4
	PET226	Principles of Reservoir engineering					2/0/1			BC 1, PC 1,3,6
	PET267	Principles of production engineering					2/0/1			BC 1, PC 1,2
	PET232	Advanced Production Engineering					2/0/1			BC 1,3 PC 1,3,4
Profile training module										
Component of choice/University component										
1	PET266	Theory of motion of gas-liquid mixtures	1	PS IC	5	150	2/0/1	105	E	BC 1.3, PC 1.2,6
1	PET263	Research seminar for petroleum graduates	1	PS IC	5	150	2/0/1	105	E	BC 1,3, PC 4,5
Component of choice										
1	PET230	Advanced Thermodynamics and Phase Behavior of Reservoir Fluids	2	PS OC	5	5	2/0/1	105	E	BC 1,3, PC 2,3
	PET228	Advanced Petrophysics					2/0/1			BC 1,3, PC 2,5,6
	PET211	Petroleum Reservoir Simulation: Compositional model					2/0/1			BC 3, PC 3,4,5
	PET268	Basic Coding for Petroleum Engineers					2/0/1			BC 1,3, PC 4,5
1	PET265	Methods to improve the efficiency of oil and gas pipelines	2	PS OC	5	5	2/0/1	105	E	BC 1, PC 4,5,6
	PET216	Petroleum Reservoir Simulation: Black-Oil Model					2/0/1			BC 3, PC 3,4,5
	PET231	Advanced Gas Engineering					2/0/1			BC 1,3 PC 1,2,3
	PET224	Design of pumping and compressor stations					2/1/0			BC 1,3, PC 2,3,6
	PET206	Applied Well Testing					2/0/1			BC 1, PC 2,5,6
	PET 240	Geosteering in drilling					2/0/1			BC 1,3, PC 3,4
	PET222	Advanced Production Engineering					2/0/1			BC 1, PC 1,2
	PET270	Advanced well completion					2/0/1			BC 1, PC 1,3
	PET261	Basic Statistics for Petroleum					2/0/1			BC 1,3, PC 4,5
	PET224	Design of pumping and compressor stations					2/0/1			BC 1,3, PC 2,3,6
1	PET260	Advanced Rock Mechanics	3	PS OC	5	150	2/0/1	105	E	BC 1,3, PC 2,5,6
	PET269	Well construction and workover supervising					2/0/1			BC 1,3, PC 2,5,6
	PET222	Advanced Production Engineering					2/1/0			BC 1,3, PC 2,4,5,6
	PET264	Applied well stimulation					2/0/1			BC 1, PC 1,2
	PET 240	Geosteering in drilling					2/0/1			BC 1, PC 2,5,6
1	PET 240	Geosteering in drilling	3	PS OC	5	150	2/1/0	105	E	BC 1,3, PC 3,4
	PET236	Advanced well completion					2/0/1			BC 1, PC 1,3
1	PET260	Advanced Rock Mechanics	3	PS OC	5	150	2/0/1	105	E	BC 1,3, PC 2,5,6
	PET261	Basic Statistics for Petroleum					2/0/1			BC 1,3, PC 4,5
1	PET231	Advanced Gas Engineering	3	PS OC	5	150	2/0/1	105	E	BC 1,3 PC 1,3,4
	PET224	Design of pumping and compressor stations					2/1/0			BC 1,3, PC 2,3,6
	PET206	Applied Well Testing					2/0/1			BC 1, PC 2,5,6
1	PET216	Petroleum Reservoir Simulation: Black-Oil Model	3	PS OC	5	150	2/0/1	105	E	BC 3, PC 3,4,5
	PET242	Well construction and workover supervising					2/0/1			BC 1,3, PC 2,4,5,6
	PET265	Methods to improve the efficiency of oil and gas pipelines					2/0/1			BC 1, PC 4,5,6
Practice-oriented module										
1	AAP244	Pedagogical practice	2	BD IC	4				Report	BC 1-4, PC 1-6
2	AAP236	Research scientific training	4	PS OC	7				Report	BC 1-4, PC 1-6

Research module										
1	AAP242	Master's student scientific research, including an internship and a master's thesis	1	MSRW	6				Report	BC 1-4, PC 1-6
1	AAP242	Master's student scientific research, including an internship and a master's thesis	2	MSRW	6				Report	BC 1-4, PC 1-6
2	AAP242	Master's student scientific research, including an internship and a master's thesis	3	MSRW	6				Report	BC 1-4, PC 1-6
2	AAP242	Master's student scientific research, including an internship and a master's thesis	4	MSRW	6				Report	BC 1-4, PC 1-6

Final certification module

Required component

2	ECA205	Registration and defense of the master's thesis (RaDMT)	4	FA	12				Defense of dissertation	BC 1-4, PC 1-6
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The number of credits for the entire period of study

Discipline cycles	Credits
Cycle of basic disciplines (BD IC, BD OC)	35
Cycle of special disciplines (PS IC, PS OC)	52
<i>Total of theoretical study :</i>	87
MSRW	24
Writing and defending a doctoral dissertation	12
TOTAL:	123

The decision of the Academic Council of Kazntu named after K.Satpayev. Protocol № 3 " 25 " 06 2021 г.

Decision of the Academic Council of the Institute Protocol № 5 " 24 " 12 2020 г.

Vice-Rector for Academic Affairs

B.A.Zhautikov

Director of the Institute GandOB

A.H. Syzdykov

Head of the Department "Petroleum engineering"

G.Zh.Yeligbayeva

Representative of the Specialty Council from employers

N.A. Nysangaliev