Ministry of Education and Science of Ukraine National University «Yuri Kondratyuk Poltava Polytechnic» Educational and Research Institute of Oil and Gas

"Confirm" Volodymyr ONYSHCHENKO Rector (signature) (surname and initials) 06

Of Doctors of Philosophy training

In the field of knowledge 18 Production and Technology In the specialty 185 "Oil and Gas Engineering and Technology" Form of study full-time

# CURRICULUM

for 2022 - 2026 academic years for ESP Oil and Gas Engineering and Technology Educational qualification: Doctor of Philosophy in Oil and

Gas Engineering and Technology

Training period 4 years Based on the second (Master's) level

### I. SCHEDULE OF THE EDUCATIONAL PROCESS

## II. COMPREHENSIVE DATA ABOUT TIME BUDGET, WEEKS

Months	Septer	mber		Oct	ober			No	vem	ber		Dec	emb	ег		Ja	nuar	y		F	ebrı	uary			Ma	rch			les.	Ap	oril				May	y			Jun	e				Jul	y				Αι	ıgust		raining	search	- 1	nining	on the	Defense	20	
Weeks	1 2	3 4	5 6	5 7	8	9	1	0 1	1 1	2 1	3 1	4 15	16	17	18	19	20	21	22 :	23	24	25	26	27	28	29	30	31	3.	2	33	34	35	36	37 3	38 3	9 40	0 41	1 4	2	43	44	45	46	47	, 4	8	49	50	51	52	cational T	entific Re	Paper	actical Tra	Attestation	sertation I	Holiday	Total
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final attestation;

preparation for the dissertation defense;

practical training;

holidays;

current attestation;

research work and dissertation

#### III. PRACTICAL TRAINING

		Number	
ame of the Practical Training	Study Course	of weeks	Hours
Pedagogical Practical Training	3	2	90

#### IV. Final Attestation

Form of the Attestation	Year
Dissertation Defense	4

### V. EDUCATIONAL PROCESS PLAN

		V. I	יעב	LA	TIO	NA	LF	ΚU	CES	3 1	r L A	LIN							
	EPP		SL		N	umber o	of hours	5		Dist	tributio	on by	seme	sters	Di	stribution o	f hours per	week	
	5		number of credits ECTS			Classr	oom		<u>.</u>			Co	urse					T	형
<u></u>	according	NAME OF THE EDUCATIONAL	redi	Ë		in	cludin	g	work	s	ests			<u>e</u>					Department code
	acci	DISCIPLINE	rofi	Total volume	Total	SE SE	Laboratory	- F	Individual	Exams	Credit Tests	projects	papers	CGP, GP	l year	II year	III year	IV year	part.
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1 2	EC 1	Foreign Language for Academic Purposes Philosophy and Scientific Thinking	6,0 4,0	180 120	62 42	20		62 22	118 78	L					6,0 4,0		ļ	ļ	21 70
3	EC 3	Modern Educational Technologies in Higher Education	3.0	90	32	20		12	58	1					3,0	<del> </del>	† ·	<b></b>	70
4	EC 4	Modern Information Technologies in Scientific Activity	3,0	90	32	32			58						3,0		<del>                                     </del>	<del> </del>	40
5	EC 5	Management of Scientific and Innovative Projects	3.0	90	32	20		12	58						3,0				52
H	-	Total	19,0	570	208	92 . Select	ive edi	108	370	5 inline	0	0	0	9	19,0	0,6	0,0	0,0	$\vdash$
6	υгмι	Advanced Mathematics for Oil and Gas Engineering									Ī				I	T	1		$\vdash$
Н	UFM 2	Data and Information Analysis  Risk and Uncertainty Assessments in Petroleum	3,0	90	32	20		12	58		2	ļ				3.0	1		60
8	UFM 3	Exploration and Production														ļ	<u>.</u>		<u> </u>
Н		Total	3,0	90	32	20	0	12	58		1	0	0	0	9,0	3,0	0,0	0,6	$\vdash$
Ш		Together according to the general training cycle	22,0	668	232	112	0	120	428	5	1	0	0	0	19,0	3,0	0,0	0,0	_
Н		1	<b>'</b>	2. V	OCAT	IONAI	L TRA	LININ	G CYC	LE	i	ì	<u> </u>	<u>,                                     </u>	i	1	<u> </u>	<b>1</b>	
Ц				,	2.1.	Requi	red ed	ucatio	nal dis	ciplin	ies	,		,		<del>,</del>	,	1	$\sqsubseteq$
9	EC 6	Reservoir Engineering and Characterization Practice Methods	4.0	120	48	30		18	72	2				[ .		4,0			60
10	EC 7	Reservoir Characterization and Volumetric with Pressure- Rate-Time Data Course Description	3.0	90	36	26		10	54	2		!				3.0	1	<b> </b>	60
11	EC 8	Reservoir Flow Modelling and Simulation in Porous	4.0	120	48	30		18	72	2				$\vdash$		4.0			60
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12	EC 9	Pedagogical Practical Training	3,0	90					90	_	3			L		L	3.0		60
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13	IFM 1	Rock Mechanics for Drilling	3.0	90	32	20		ł2	58		3				Ϊ́Τ	T	3,0		60
14	IFM 2	Advanced Enhanced and Improved Oil Recovery (EOR&IOR) Methods	3.0	90	32	20		12	58		3						3,0		60
15	IFM 3	A Multifractured Horizontal Well Analytical and Numerical Modeling and Simulations	3,0	90	32	20		12	58	,	3						3,0		60
16	IFM 4	Advanced Well Testing Methods with Mathematical Modelling Techniques	3.0	90	32	20		12	58		3						3,0		60
17	IFM 5	Fluid Filtration Simulation by Using Computational Methods	3,0	90	32	20		12	58		3						3,0		60
18	IFM 6	Physical Chemistry of Hydrocarbon Production	3.0	90	32	20		12	58		3						3,0	1	60
19	IFM 7	Methods of In-Depth Core Research	3,0	90	32	20		12	58		3						3.0		60
20	IFM 8	Naturally Fractured Reservoirs Modelling and Simulations - Unconventional Reservoirs Practices	3.0	90	32	20		12	58		3						3.0		60
21	IFM 9	Modern Well Testing Methods and Interpretation	3.0	90	32	20		12	58	-	3		$\vdash$				3,0	<del> </del>	60
1		Advanced Methods of Enhanced Oil Recovery and									<del></del> -			-		1	<del>                                     </del>		1
22	IFM 10	Intensification	3.0	90	32	20		12	58	<u> </u>	3	ļ	<u> </u>	ļ		$\bot \bot$	3.0		60
23	IFM (1	Innovative Methods of Operating Wells in Difficult Conditions During Hydrocarbon Extraction	3.0	90	32	20		12	58		3		<u> </u>				3,0		60
24	1FM 12	Processes and Apparatus of Hydrocarbon Collection and Preparation Systems	3,0	90	32	20		12	58		3						3,0		60
25	1FM 13	Offshore Field Developments and Production Techniques	3.0	90	32	20		12	58		3					1-1-	3.0		60
26	IFM 14	Well Decommissioning Carbon Capture and Storage	3,0	90	32	20		12			3					<del>      -   -                            </del>	3,0	<b>†</b>	60
27	IFM 15	Technologies. Geothermal Energy  New Technical Solutions and Calculation Methods for	3,0	90	32	20		12	58		3	-		-			3.0		60
Н		Oil and Gas Equipment Innovative Methods of Unconventional Reservoirs		-				-			-	$\vdash$	$\vdash$			+ +	<u> </u>		+
28	IFM 16	Exploration and Development	3.0	90	32	20		12	58	ļ	3	<u> </u>					3.0		60
Ц		Total	9,0	270	96	60		36	174		3		<u> </u>			$\perp \perp$	9,0		<u> </u>
		Total according to the professional training cycle	23	690	228	146	0	82	462	3	1	0	0	0		11	12	0	
П		Total number of educational classes	42	1260	160	258	0	202	800	8	4	B	0	0	19	14	y	0	
		Pedagogical Practical Training	3	90					90		1						3		
$\Box$		Total for the preparation of Doctors of Philosophy	45	1350	460	258	0	202	890	8	5	0	0	0	19	14	12	0	
П		Final Attestation		90															
_	Number o	of exams of credit tests				$\vdash$				8	5	ļ	ļ		5	3	4	<u> </u>	
		of course projects							<u> </u>	<u> </u>			一			<u> </u>			$\vdash$
$\square$		of course papers																	$\sqsubseteq$
Ш	Number o	of CGP, GP	L	Ь	<u> </u>		<u> </u>	Ł	L		Щ.	ł	Ц	Ц	1		<u></u>	L	ــــــــــــــــــــــــــــــــــــــ

Branimir CYETKOVIC

Approved by the Academic Council of the Institute from 23. 02. 2022 protocol No. 8

Approved by the Academic Council of the University from 07.06 · 2022 protocol % 13

Director of the Department of Educational Process Organization Accreditation and Licensing

Head of the Licensing and Accreditation Department