ABSTRACT OF THE EDUCATIONAL DISCIPLINE

THE DISCIPLINE OF FREE CHOICE

«The technology of petroleum recovery enhancement from the fields»

(full-time form)

Video message:	https://drive.google.com/file/d/11THukH5-D7xK7SxMDKNK9TY0ukxgBksn/view?usp=drive_link
Teaching language:	English
The number of students who can study at the same time (minimum - maximum):	Maximum - limited by license
Semester in which teach:	8
Specialties:	
ECTS credits	4
academic hours (indicate separately lectures, laboratory classes, practical classes, iSelf-dependent work, etc.)	Lectures – 32 год. Practices – 32 год. Laboratory works – 0 год. Self-dependent works – 56 год.
Form of final control and availability of individual tasks:	Differential credit
Department providing teaching:	Petroleum Production Department
The teacher who is scheduled to teach (separately by type of workload):	Lectures – Kondrat Oleksandr, Doc.Eng., Prof. Practices – Smolovyk Liana, PhD, Ass. Prof.
Prerequisites for studying the discipline (if applicable):	No
The list of competencies that the student will acquire after mastering this discipline:	The study of an academic discipline involves the formation and development of students' competencies provided for by the general educational and professional program: - skills in using information and communication technologies; - the ability to make informed decisions; - ability to develop and manage projects. - professionals: - the ability to apply modern mathematical methods for mathematical modeling of technological parameters of advanced technologies of extraction, well drilling, transportation and storage of oil and gas; - the ability to develop computational algorithms and software for design and operational calculations of technological parameters of the processes of extraction, well drilling, transportation and storage of oil and gas; - the ability to design complete technical systems of oil and gas extraction, transportation and storage; the ability to analyze the modes of operation of an oil and gas facility, to develop and implement methods of optimizing the modes of operation of an oil and gas facility.
The sphere of realization of competences in the future profession:	The theoretical and practical material of the discipline is aimed at increasing the technological efficiency of extraction of natural hydrocarbons, ways and methods of achieving the best technological results at oil and gas production enterprises. This

Features of training on the course:	allows students to effectively use all elements of the production process (equipment, technology, materials, personnel). Laboratory for improving gas and oil condensate extraction and productivity of wells 0520B. Modeling of natural hydrocarbon field development processes 0514 Schlumberger software (Eclipse, Petrel, Pipesim); Petroleum Expert software (Gap, Reveal, Prosper).https://cutt.ly/II55GwQ http://library.nung.edu.ua,
Material and technical support:	1. Довідник з нафтогазової справи / За заг. ред. докторів технічних наук В.С. Бойка, Р.М. Кондрата, Р.С. Яремійчука. – К.:Львів, 1996.-620с. 2. Кондрат Р.М. Газоконденсатоотдача пластов.-М.:Недра,1992-255с. 3. Бойко В.С. Розробка та експлуатація нафтових родовищ.-К.:ІСДО,1995.-496с. Інструкція про зміст, оформлення та порядок подання в ДКЗ України матеріалів геолого-економічної оцінки родовищ нафти і газу.-Київ,1999-66с.
Link to the EOC on the Moodle platform	A link to the developed electronic course is indicated (https://dn.nung.edu.ua/course/view.php?id=2142)
Brief description of the discipline, including a list of theoretical course, practical and laboratory classes, seminars, etc.	**The goal of the discipline** is the formation of system knowledge in future engineering and technical workers of the oil and gas industry, regarding modern technologies for increasing oil and gas condensate extraction at various stages of the development of oil and gas deposits, by using physical-hydrodynamic, chemical, gas, thermal and other methods. **In the course of studying the discipline,** students will know the structure and properties of productive layers, their micro and macro heterogeneity; basic physico-chemical properties of formation fluids and their influence on oil and gas condensate extraction processes; sources and characteristics of reservoir energy, modes of development of oil and gas deposits; tasks and methods of active influence on the processes of development of oil and gas deposits; purpose, classification and characteristics of methods of increasing oil and gas condensate extraction; methods of carrying out laboratory studies on reservoir models on the displacement of oil, gas and condensed hydrocarbons from a porous medium by various working agents in conditions as close as possible to reservoir conditions; the choice of the method of impact on the layer depending on the geological and industrial characteristics of the oil and gas deposits and the degree of their depletion; composition and physicochemical properties of working agents used to extract oil, gas and condensed hydrocarbons from porous media; methods of applying various technologies for increasing oil and gas condensate extraction, techniques and technical means used for their implementation; industrial experience of implementing various methods of increasing oil and gas condensate extraction; issues of labor protection, safety technology and environmental protection in the implementation of methods of increasing oil and gas condensate extraction.