**ABSTRACT OF THE EDUCATIONAL DISCIPLINE**

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| лого | THE DISCIPLINE OF FREE CHOICE  **«***Materials and Chemical Reagents for Oil and Gas Production***»**  *(full-time form)* |
| Video message: | <https://drive.google.com/file/d/1zoEdnonA4yHkugMPm765Xp7tHTdeFVZK/view?usp=sharing> |
| Teaching language: | English |
| The number of students who can study at the same time (minimum - maximum): | Maximum - limited by license |
| Semester in which teach: | 7 |
| Specialties: |  |
| ECTS credits  academic hours (indicate separately lectures, laboratory classes, practical classes, iSelf-dependent work, etc.) | 5  Lectures – 22 hours.  Practices – 36 hours.  Laboratory works – 0 hours.  Self-dependent works – 92 hours. |
| Form of final control and availability of individual tasks: | Exam |
| Department providing teaching: | Oil and Gas Production |
| The teacher who is scheduled to teach (separately by type of workload): | Lectures – Psiuk Marian, teacher  Practices – Psiuk Marian, teacher |
| Prerequisites for studying the discipline (if applicable): |  |
| 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 of competencies provided for by the educational and professional program:  general:  - skills of using information and communication technologies;  - ability to make informed decisions;  - ability to design and manage projects.  professional:  - ability to develop computational algorithms and software for design and operational calculations of technological parameters of processes of extraction, drilling, transportation and storage of oil and gas and materials and chemical reagents;  - the ability to analyze oil and gas facility operation regimes, to develop and implement methods for optimizing oil and gas facility operation regimes. |
| Features of training on the course: | Student must demonstrate next results of studying including next knowledge and skills:  a. demonstrate the ability to generate new ideas, make non-standard decisions in the design and operation of facilities for the extraction, transportation and storage of oil and gas and in the use of materials and chemical reagents;  b. demonstrate the ability to make technically and economically substantiated calculations of necessary volumes and other parameters which characterize materials and chemical reagents;  c. demonstrate skills in the development and practical implementation of scientific and technical projects in the oil and gas industry. |
| Material and technical support: | Computer engineering, software from Schlumberger (Pipesim, Petrel), classroom 0514. |
| Link to the EOC on the Moodle platform | A link to the developed e-course is provided  <https://dn.nung.edu.ua/course/view.php?id=2139> |
| Link to discipline: | 1. Malcolm A. Kelland. Production chemicals for the oil and gas industry, CRC Press (Taylor and Francis Group), 2009. – 404 p.  2. Håvard Devold. Oil and gas production handbook. An introduction to oil and gas production. ABB, Oslo, 2006. ISBN 978-82-997886-1-8.  3. J. Fink. Petroleum engineer’s guide to oil field chemicals and fluids. Second edition. Gulf Professional Publishing, 2015. Elsevier Inc. Amsterdam, Boston , Heidelberg , London.. |
| Brief description of the discipline, including a list of theoretical course, practical and laboratory classes, seminars, etc. | The basic objective of “Materials and Chemical Reagents for Oil and Gas Production” is to provide the knowledge by students of reagents used in drilling and exploitation of wells, the intensification of industrial production and preparation of hydrocarbons and application of methods to increase oil and gas production, materials and chemical reagents and their properties and parameters that characterize them. |