



MISKOLCI EGYETEM

**MŰSZAKI FÖLD- ÉS
KÖRNYEZETTUDOMÁNYI
KAR**

INTRODUCTION TO GEOPHYSICAL LITERATURE

MSc in Petroleum Geoengineering

First semester 2023/2024

COURSE COMMUNICATION DOCUMENT

**University of Miskolc
Faculty of Earth and Environmental Sciences and Engineering
Institute of Exploration Geosciences**

Course datasheet

Course Title: Introduction to geophysical literature (Optional courses I.)	Credits: 2
Type (lec. / sem. / lab. / consult.) and Number of Contact Hours per Week: sem. 2	
Neptun code: MFGFT710008	
<p>Type of Assessment (exam. / pr. mark. / other): pr. mark Attendance at lectures is regulated by the university code of education and examination. Writing one article at the end of the term (50 %). Making one powerpoint presentation on an assigned topic (50 %).</p> <p>Grading limits: >86 %: excellent (5), 71-85 %: good (4), 61-70 %: medium (3), 51-60 %: satisfactory (2), <50 %: unsatisfactory (1).</p>	
Position in Curriculum (which semester): first	
Pre-requisites (<i>if any</i>):	
Course Description:	
<p>Acquired store of learning: <u>Study goals:</u> The course provides as a guide to orientate in geophysical literature and make acquaintance with geophysical terminology. <u>Course content:</u> Classification of applied geophysical methods. Applied geophysical exploration and data processing methods are studied and analyzed by technical encyclopedias, book chapters, articles of Scimago ranked journals and conference proceedings. Acquiring the terminology of geophysics using papers, books. Learning the rules of scientific paper writing. Formal and professional requirements of scientific journals. Professional analysis of journal papers. Professional analysis of conference papers. Making an oral conference presentation. Making a poster presentation. Preparing conference talks. Practicing the communication with English-speaking professionals. Practicing of delivering lectures in simulated conference. Practice answering professional questions. Study of geophysical encyclopedias in English. <u>Education method:</u> Continuous dialogue between the instructor and students. Translation exercises, reading, delivering presentation in a simulated conference, contributions. Meeting with English-speaking lecturers and professionals staying at the university.</p> <p>Competencies to evolve: T1, T5, T8, T12, K1, K2, K3, K5, K6, K7, K8, K9, K10, K11, A2, A3, A4, A5, A6, A7, A8, A9, F1, F2, F3, F4, F5</p>	
The 3-5 most important compulsory, or recommended literature resources:	
<ul style="list-style-type: none"> • Kearey P., Brooks M., Hill I., 2002: An Introduction to Geophysical Exploration. Third edition. Blackwell Science Ltd. • Lowrie W., 2007: Fundamentals of Geophysics. 2nd edition. Cambridge University Press. • Telford W. M., Geldart L. P., Sheriff R. E., 1990: Applied geophysics. Second edition. Cambridge University Press. • Ellis D. V., Singer J. M., 2007: Well logging for earth scientists. 2nd edition. Springer. • Sheriff R. E., 2002: Encyclopedic Dictionary of Applied Geophysics. Fourth edition. Society of Exploration Geophysicists. 	

- Selected papers from scientific journals: Geophysics, Mathematical Geosciences, Journal of Petroleum Science and Engineering, Hydrogeology Journal etc.

Responsible Instructor (*name, position, scientific degree*):

Norbert Péter Szabó Dr., full professor, PhD, Dr. habil., DSc

Course schedule

Date	Seminar
15 Sep	Classification of applied geophysics methods. An overview of geophysical exploration methods based on international literature (Kearey et al., 2002).
22 Sep	Presentation of the most prestigious domestic and international English-language (impact factor) journals. Ranking of scientific journals (Q1-Q4 and D1-ranked geophysical journals). Studying an applied geophysical encyclopedia in English and practicing professional terminology (Sheriff, 2002).
29 Sep	Description of the rules of writing articles. Presentation of the Geophysics journal's formal requirements.
6 Oct	Analysis of an English-language article selected from Geophysics.
13 Oct	Analysis of an English-language article selected from Hydrogeology Journal.
20 Oct	Analysis of an English-language article selected from Journal of Petroleum Science and Engineering.
27 Oct	Analysis of English-language articles freely chosen by students.
3 Nov	Holiday declared by the Rector.
10 Nov	Description of the assignment related to writing a scientific paper. Selection of topics. Writing the abstract of the paper to be developed independently by the students. Checking, analyzing, and repairing the abstracts.
17 Nov	Rules for making oral conference presentations.
24 Nov	Description of the assignment related to delivering a conference (powerpoint) presentation.
1 Dec	Presentation of the students' professional results (BSc thesis, scientific student - TDK - thesis etc.) in the form of a conference presentation.

8 Dec	Simulated conference. Practicing how to answer the questions of the audience.
15 Dec	Submission of the articles written by the students.

Sample of Assignment

Individually written English-language article in geophysics, petrophysics or other geosciences. The main chapters of the article are as follows:

1. Title, personal data, and affiliation.
2. Abstract up to 200-300 words.
3. Chapters written on the applied method(s).
4. Chapters written on the results.
5. Discussion.
6. Conclusions.
7. References.