



Student Manual

2022/23

MSc Programmes

**Earth Science Engineering
Environmental Engineering
Hydrogeological Engineering
Petroleum Engineering
Petroleum Geoengineering**

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Dean's Welcome

Dear Student!



First of all, congratulations on your successful admission! I warmly welcome You, a Student of the Faculty of Earth Science and Engineering. You probably have learned that the history of our faculty can be traced back nearly 300 years. This long historical past shows that specialists in this field were, are and will be needed. The basis of all this is a continuous renewal, without which we would not be successful.

Due to the economic development, the world's demand for raw materials, energy and water is growing and last time became critical. Our task is to utilize these natural resources in a sustainable way. Transformations are taking place in this sector in all parts of the world.

Therefore, adapting to conditions and industrial needs, today we also have to apply advanced solutions for natural resource exploration and utilization. Our Students will have to solve the challenges in several areas in the near future such like: exploration and environmentally friendly production methods of unconventional oil- and gas resources, groundwater, environmental protection, exploration and utilization of geothermal energy, advanced raw materials exploration (geological and geophysical) methods, exploration and extraction of strategic raw materials for high-tech industry, waste mining, modern raw materials processing technologies, development of environmentally friendly mining methods, sustainable land use, all of which have social and environmental impacts. So, there are plenty of opportunities for innovation and research and learning.

As a result of developments and investments, an integrated system of laboratories notable even by international standards assists now for high-level research activities and practice-oriented teaching.

In addition to expertise, we cannot forget about the values You also receive at the University of Miskolc, which are of increasing importance in the course of "team-work" nowadays. These are solidarity, friendship, mutual support, because we are responsible to each other in the world. These are the foundations of a successful and joyful work.

I am confident that you will be enriched with useful expertise, engineering thinking, and a lot of experience during your university years, which you can utilize in the industry. Finally, I wish everyone very successful studies in the most beautiful years of your lives!

Good luck!

1st September 2022.

Dr. Gábor Mucsi
dean

The history of the Faculty



The roots of the Faculty of Earth Science and Engineering are dated back to 1735, when the first mining school (Bergschule) was established in Selmezbánya (known as Schemnitz at the time, and now Banská Štiavnica). With this school an imperial institution for training senior technical and legal experts in mining and metallurgy took form in the territory of the Austro-Hungarian Empire. Its first teacher was Sámuel Mikoviny, the greatest engineer and polyhistor of his time.

On October 22, 1762, the Empress, Maria Theresa decreed the advancement of the institution to the status of an Academy. The Department of Mineralogical, Chemical and Metallurgical Studies was formed first in 1763 under the leadership of Nikolaus Joseph Jacquin. The structure and operation of the Mining Academy (Academia Montanistica, Bergakademie) was approved by Maria Theresa herself. The three-year course was taught in German.

After 1770 the Selmec Academy became one of the European centres of mining and metallurgical sciences. Numerous experts and students wishing to study sought out the Academy from other nations, and spent various periods of time at the institution, attending lectures and working in the laboratories. Professors Jacquin, Scopoli and Ruprecht established the laboratory practice-based teaching methodology, which made the Academy famous all over Europe. In 1808 a forestry school was formed, led by Heinrich David Wilckens.

Due to the ethnic conflicts arising among the students in 1848-1849 some students from Austria, Bohemia and Moravia left Selmec. Institutions were founded in Leoben for the native German-speaking students and in Příbram for the others; these institutions were later promoted to academies. With the Austro-Hungarian Compromise in 1867 the Academy became a Hungarian state institution called the Hungarian Royal Academy of Mining and Forestry (Magyar Királyi Bányászati és Erdészeti Akadémia).

Hungarian was gradually introduced as the language of instruction between 1868 and 1872.

Up to 1872 the 'mining' course – in recent terms it covers mining, metallurgy and minting equally – was uniform, but in that year it was divided into four branches: mining, ferrous metallurgy, non-ferrous metallurgy, and machinery and civil engineering. Training in forestry included two branches: general forestry and forest engineering. From 1904 the academy operated under the name of the College of Mining and Forestry (Bányászati és Erdészeti Főiskola).

In 1919, after Selmezbánya became part of the newly formed Czechoslovakia, the College moved its equipment, staff and students to Sopron, led by the rector, the mining Professor Géza Réz. In 1922 the name became the College of Mining Engineering and Forest Engineering (Bányamérnöki és Erdőmérnöki Főiskola).

In 1949 a new faculty of mechanical engineering was founded in Miskolc, and together with the Mining and Metallurgy faculties in Sopron, the Technical University for Heavy Industry (Nehézipari Műszaki Egyetem) was established with the headquarter in Miskolc. Until 1959 the first two years were taught in Miskolc, while the upper years received their training in Sopron. Due to the changing needs in mining, the unified mining course was divided in 1948 into programs of mining, fluids mining, mine exploration (geology/geophysics) engineering, and later mine equipment engineering, while a survey engineering program also existed for a short time.

A revised curriculum was established in 1992, introducing new programs in environmental engineering, process engineering, and hydrogeology. Reflecting the transformation in its areas of teaching and research, the name of the faculty became the Faculty of Earth Science and Engineering (Műszaki Földtudományi Kar) from January 1, 2000. The Bologna system was introduced in 2006 and the Faculty regularly receives international students since 2003.

Academic Calendar for the 2022/23/1 semester

For international students starting in September 2022.

29 August – 2 September 2022.	Registration week
5 September 2022. 9:00 AM	Opening ceremony of the Academic year
5 September – 9 December 2022.	Education period (14 weeks)
21 September 2022. (WE)	University Sports Day (no education, mandatory sport activities)
30 September 2022. (FA)	European Researcher's Night
20 October 2022 (TH)	Faculty Professional Day (no education, mandatory attendance of workshops, presentations)
31 October 2022. (MO)	Holiday (no education)
1 – 13 December 2022.	Exam registration period
7 – 11 December 2022. (MO - FA)	Pre-exam session
14 December 2022. - 28 January 2023.	Exam session (6 weeks)
24 December 2022. - 2 January 2023.	Christmas holiday (university buildings are closed except dormitories)

COVID-19 INFORMATION

For up-to-date information on administrative issues related to COVID-19 please visit the Stipendium Hungaricum homepage of the university: <https://stipendium.uni-miskolc.hu/>

Offices for student administration

Stipendium Hungaricum Office

A/4 bld. Second floor, Room 111

Faculty administrator: **Henriett Tóth**

rektheni@uni-miskolc.hu

University-level student guide: <https://www.uni-miskolc.hu/files/9541/SH.pdf>

Dean's Office

Faculty administrator: **Emília Gaszner**

mfkto@uni-miskolc.hu

A/4 bld. base floor, room 28.

- Neptun administration
- management of applications (course registration issues, exam registration issues, issue of certification of attendance)

Stipendium Hungaricum and SCY scholarship faculty coordinator: **Ferenc Mádai**

askmf@uni-miskolc.hu

A/3 bld. 3Rd floor, room 316/B

Stipendium Hungaricum Mentor Coordinator

József Menyhért

menyhert.jozsef@hook.hu

Faculty Students Union (MFK-HÖK)

International affairs referee: **Terézia Szabó**

szab.teri620@gmail.com

Administrative units of the Faculty

Dean's Office:

A/4 bld. 28. tel: (46) 565-051

Web page: <http://mfk.uni-miskolc.hu>

Dean:

Dr. Gábor MUCSI, Full professor

Deputy Deans:

Dr. Norbert Péter SZABÓ, Full Professor, scientific affairs

Dr. Lajos SZALONTAI, Associate Professor, education affairs

Dr. István SZUNYOG, Associate Professor, economic affairs

Éva HUDÁK – office headmaster

Emília GASZNER – education affairs

Viktória NÓTA – scientific and international affairs

Andrea VÁRADI-KOLESZÁR – general administration

Institute of Mining and Geotechnical Engineering

A/4 bld. 2nd floor

Web page: <http://bgi.uni-miskolc.hu>

Director of Institute: Dr. József MOLNÁR, Associate Professor

Administration: Lilla SZEGEDI-KÖRMÖNDI

Departments:

Department of Mining and Geotechnical Engineering,

Head of Dep't.: Dr. Ákos DEBRECZENI, Associate Professor

Department of Geotechnical Equipment,

Head of Dep't.: Dr. József MOLNÁR, Associate Professor

Staff:

Dr. Ákos DEBRECZENI - Associate Professor

Dr. Ferenc KOVÁCS - Professor Emeritus

Dr. József MOLNÁR - Associate Professor

Dr. Zoltán István VIRÁG - Associate Professor

Dr. Géza BOHUS – Honorary Professor

Dr. Tamás HAVELDA – visiting lecturer

Richárd TOMPA – assistant lecturer

Ábel ANTONOVITS – technical assistant

Alex Zoltám JUHÁSZ – PhD student

Institute of Mineralogy and Geology

A/3 bld. 3rd floor

Web page: <http://geology.uni-miskolc.hu>

Director of Institute: Dr. Ferenc MÁDAI, Associate Professor

Administration: Katalin Szász-Kovács

Departments:

Department of Mineralogy and Petrography,

Head of Department: Dr. Ferenc KRISTÁLY, Senior research fellow
Department of Geology and Mineral Resources,
Head of Department: Dr. Norbert ZAJZON, Associate Professor

staff:

Dr. Sándor SZAKÁLL - Professor
Dr. Ferenc MÁDAI - Associate Professor
Dr. Viktor MÁDAI - Associate Professor
Dr. Norbert ZAJZON - Associate Professor
Dr. Ferenc KRISTÁLY – Senior research fellow
Dr. György LESS – Professor
Dr. János FÖLDESSY – Professor Emeritus
Dr. Éva HARTAI – Honorary Professor
Dr. Norbert NÉMETH - Associate Professor
Dr. Felicitász VELLEDETS – Associate Professor
Dr. Ferenc MÓRICZ – Assistant lecturer
Livia LESKÓ-MAJOROS – PhD Student
Hasan ALTRAS – PhD Student
Máté LESKÓ – Assistant research fellow
Boglárka TOPA - Assistant research fellow
Al Hamoud Al Atrash Hasan – PhD Student
Badawi Mohamed Ahmed Mohamed Abdelhadi – PhD Student
Csilla Balassa – PhD Student

Institute of Geophysics and Geoinformatics

A/2 bld. 2nd floor

Web page: <http://geophysics-geoinformatics.uni-miskolc.hu>

Director of Institute: Dr. István HAVASI, Associate Professor

Administration: Sándorné KISFALUSI

Departments:

Department of Geophysics,

Head of Department: Dr. Norbert Péter SZABÓ, Full Professor

Department of Geodesy and Mine Surveying,

Head of Department: Dr. István HAVASI, Associate Professor

Staff:

Dr. Mihály DOBRÓKA – Professor Emeritus
Dr. Endre TURAI - Private Professor
Dr. Norbert Péter SZABÓ – Professor
Dr. Péter Tamás VASS – Associate Professor
Dr. Tamás FANCSIK – Associate Professor
Dr. Ernő TAKÁCS – senior research fellow
Dr. Gábor PETHŐ – Private Professor
Dr. Ákos GYULAI - Professor Emeritus
Dr. Tamás ORMOS – Private Professor
Dr. István HAVASI - Associate Professor
Dr. Gábor BARTHA - Professor Emeritus
Marcell SZILVÁSI – Assistant lecturer
Endre NÁDASI – Assistant lecturer
Roland KILIK – Technical assistant
Dr. Armand ABORDÁN – Assistant lecturer
Ali Gaballah ABDELLATIF MAHMOUD – PhD Student, junior research fellow
Al Marashly Omar – PhD student
Emad N Masri – PhD student
Viktória KISS – PhD student
Brigitta TURAI-VUROM – PhD student

Moataz Mohamed – PhD Student, junior research fellow
Tapdigli Sabuhi – PhD Student
Valadez Vergara Rafael - PhD Student, junior research fellow
Zoltán EKE – PhD student

Institute of Petroleum and Natural Gas Engineering

A/2 bld. ground floor and base floor

Web page: <http://www.kfgi.uni-miskolc.hu>

Director of Institute: Dr. István SZUNYOG, Associate Professor

Administration: Éva Szarka-Galvács

Departments:

Department of Petroleum Engineering,

Head of Department: Dr. Zoltán TURZÓ, Associate Professor

Department of Natural Gas Engineering,

Head of Department: Dr. Marianna VADÁSZI, Associate Professor

Research Institute of Applied Earth Sciences in partnership with the Institute,

Head of Department: Dr. Krisztián BARACZA, Senior Research Fellow

MOL Department

Head of Department: Dr. Hazim DMOUR, Associate Professor

Staff:

Dr. Zoltán TURZÓ - Associate Professor

Dr. Imre FEDERER – honorary associate Professor

Dr. Gábor TAKÁCS – Professor Emeritus

Dr. Elemér BOBOK - Professor Emeritus

Dr. István SZUNYOG - Associate Professor

Dr. Marianna VADÁSZI – Associate Professor

Dr. Hazim DMOUR – Associate Professor

Dr. László TIHANYI - Professor Emeritus

Dr. Anikó Nóra TÓTH – Honorary Associate Professor

Dr. Gabriella FEDERER-KOVÁCS – Senior lecturer

Dr. László KIS – Assistant lecturer

Anna Bella SZOMBATI-GALYAS – Assistant lecturer

Dr. János ZZUGA – honorary Professor

Dr. Jenő CSETE – honorary Professor

Dr. Zsombor SZILÁGYI– honorary associate Professor

Gábor BALI– honorary associate Professor

AL Khalaf Hani– PhD student

ALMALICHY ABDULAMEER MOSHIN KADHIM – PhD student

ANVARI SOBHAN - PhD student

GÓMEZ SOTO FRANKLIN VINICIO - PhD student

Institute of Geography and Geoinformatics

A/4 bld. 3rd floor

Web page: <http://foldrajz.uni-miskolc.hu>

Director of Institute: Dr. Károly KOCSIS, Professor

Administration: Éva GYOPÁR-OROSZ

Departments:

Department of Physical Geography and Environmental Sciences,

Head of Dept.: Dr. Endre DOBOS, Associate Professor

Department of Human Geography,

Head of Dept.: Dr. Beáta SISKÁNÉ SZILASI, Associate Professor

Staff:

Dr. Endre DOBOS - Associate Professor
Dr. Attila HEVESI - Prof. Emeritus
Dr. András HEGEDŰS – Associate Professor
Dr. János VÁGÓ – Associate Professor
Dr. Károly KOCSIS KÁROLY – Professor
Dr. Beáta SISKÁNÉ SZILASI - Associate Professor
Dr. Tibor ELEKES - Associate Professor
Dr. Lajos SZALONTAI – Associate Professor
Károly KOVÁCS – Assistant research fellow
Dr. Péter PECSMÁNY – Research fellow
Ferenc MOLNÁR – PhD student, Assistant research fellow
Rajhi Mohamed – PhD student, Assistant research fellow
Tamás DEÁK – PhD student, Assistant research fellow
András DOBAI – PhD student, Assistant research fellow
Krisztina Vécsei-Juhász – Technical assistant
Dr. Seres Anna – Research fellow
Gyurcsikné Bertóti Réka Diána – Assistant research fellow
Csenki Sándor – PhD student
Anett MÉSZÁROS-PÓSS– Assistant research fellow
István JUHÁSZ – Technical assistant
Dr. Dénes SULYOK – Research fellow
Dániel FARKAS – Technical assistant
Attila SZAMOSI – Technical assistant

Institute of Environmental Management

A/4 bld. Base floor

Web page: <http://kgi.uni-miskolc.hu>

Director of Institute: Dr. Tamás MADARÁSZ, Associate Professor

Administration: Ádámné CSANÁLOSI

Departments:

Department of Hydrogeology and Engineering Geology,

Head of Dept.: Dr. Péter SZÚCS, Professor

Department of Environmental Engineering,

Head of Dept.: Dr. Andrea TÓTH KOLENCSEKNÉ, Associate Professor

Staff:

Dr. Péter SZÚCS - Professor
Dr. László LÉNÁRT – Honorary Professor
Dr. Balázs KOVÁCS – Honorary Associate Professor
Dr. Imre SZABÓ - Professor Emeritus
Dr. Tamás MADARÁSZ – Associate Professor
Dr. Balázs ZÁKÁNYI - Associate Professor
Dr. Andrea TÓTH KOLENCSEKNÉ – Associate Professor
Dr. Viktória MIKITA – Senior lecturer
Dr. Márton TÓTH – Senior lecturer
Dr. Enikő TÓTH-DARABOS – Assistant lecturer
Dr. Attila KOVÁCS – Senior research fellow
Dr. Tamás KÁNTOR – Senior lecturer
István SZÉKELY – Assistant research fellow
Csaba ILYÉS - Assistant research fellow
Zsombor FEKETE - Assistant research fellow
Rita MIKLÓS – Assistant research fellow
Gábor NYÍRI – Assistant research fellow

Borjini Malek – PhD student
Eteraf HASAN – PhD student
Hemida Mohamed Hamdy Eid – PhD student
Yetzabel FLORES – PhD student
Gharbia Abdalkarim S. S. - PhD Student
Noémi SZÁSZ – PhD student
Mohammed Musaab Adam Abbakar – PhD student

Institute of Raw Material Preparation and Environmental Processing

A/4 bld. 2nd floor

Web page: <http://ejt.uni-miskolc.hu>

Director of Institute: Dr. Sándor NAGY, Associate Professor

Administration: Norbertné SULCZ

Departments:

Department of Mechanical Processing,

Head of Dep't.: Dr. József FAITLI, Associate Professor

Department of Bioprocessing and Reaction Techniques,

Head of Dep't.: Dr. Sándor NAGY, Associate Professor

Staff:

Dr. Barnabás CSŐKE – Professor Emeritus

Dr. József FAITLI - Professor

Dr. Ljudmilla BOKÁNYI – Associate Professor

Dr. József BŐHM – honorary Professor

Dr. János TAKÁCS - honorary Associate Professor

Dr. Imre GOMBKÖTŐ – Senior research fellow

Dr. Gábor MUCSI - Professor

Dr. Sándor NAGY – Associate Professor

Dr. Lajos NAGY - Honorary Associate Professor

Dr. Géza FARKAS - Honorary Associate Professor

Dr. Ádám RÁCZ – Associate Professor

Valéria MÁDAI-ÜVEGES – Assistant lecturer

Dr. Roland SZABÓ – Research fellow

Roland Róber ROMENDA – Assistant research fellow

Tamás KURUSTA – Assistant research fellow

Izabella Rebeka MÁRKUS – PhD student, Assistant research fellow

Ildikó FÓRIS – PhD student, Assistant research fellow

Mária NAGY-AMBRUS – PhD student, Assistant research fellow

Procedures and rules

The procedures and rules regarding the education, teaching and examinations are registered in the Requirements for Students (volume III. of the Organizational and Operational Regulations of the University of Miskolc). The Requirements for Students contains a general part which is applicable to all students of the University. Implementing Regulations (IR) include specific rules for the MFK Programmes.

Requirements for Students is available at

http://stipendium.uni-miskolc.hu/rules_and_requirements .

Implementing Regulations are available at http://mfk.uni-miskolc.hu/wp/en/?page_id=730

Application forms used at the Faculty can be downloaded from [.http://mfk.uni-miskolc.hu/wp/en/?page_id=730](http://mfk.uni-miskolc.hu/wp/en/?page_id=730)

ELECTRONIC ADMINISTRATION

At the University of Miskolc, the dominant part of the student administration is completed through the NEPTUN student information system. It allows you to complete the registration for a semester, courses and exams as well as to submit applications and manage financial duties.

The NEPTUN 3R site of the university is available through the central homepage (www.uni-miskolc.hu), or directly at the <https://neptun31.uni-miskolc.hu/hallgato/Login.aspx?timeout=> address. A detailed user guide can be reached from that homepage.

Grades of exams and practical marks are also recorded in the neptun. Main rules for exams are as follows:

The student may take the exam only after registration validated in the NEPTUN system.

Identity of the student shall be approved at the start of the exam by showing a valid document of identification containing a picture (identity card, student card, passport, etc.).

When giving an assessment of an oral examination, the examiner will put into the examination record sheet the grade and will sign the examination record sheet, and in case the student requests so, the examiner also puts the grade into the printout of completed records supplied by the student together with his/her signature. On the basis of the examination records sheet, the examiner shall enter the examination grade in the Neptun system on the day of the examination. The examination record sheets shall be kept in the department/institute for five years.

In the case of written examinations, the examiner shall mark the exam and write the grade on the examination paper as well as the examination record sheet, which is to be printed out from the Neptun system beforehand, and shall sign both. On the basis of the examination record sheet, the examiner shall enter the grade in the Neptun system within two days at the latest. Examination papers shall be kept in the given department/institute for one year.

Students may file an objection regarding wrong assessment data appearing in the Neptun system within fourteen days, as a term of preclusion, following the end of the examination period. For decision making regarding the objection, the document of primary relevance and orientation will be the examination record sheet signed by the examiner, which is kept by the department /institute administration as opposed to the data in the Neptun system. In case the assessment in the examination record sheet and the completion sheet or the registration course book are different from each other, those in the registration course book or the completion sheet shall be considered valid.

In the case of end-of-term grades (practical marks), the course leader makes a written record of the grades on a print-out of the student list from the Neptun system, which he/she will duly sign to certify, and then on the basis, of this he/she will enter the grade in the Neptun system. The paper-based record shall be kept by the departmental/institute administration for five years.

Earth Sciences Engineering masters program

- Programme title: **Earth Sciences Engineering masters program (MSc)**
- Degree awarded: **Earth Sciences Engineer**
- minor specialisations:
 - Geology module,
 - Geophysics module,
- Number of semesters: 4; number of contact hours: 1380; required number of credits to be completed: 120
- Field practice: Minimum 4 weeks internship at a mining company, research institute or competent authority.

PROGRAMME OVERVIEW

General courses (Basic subjects form natural sciences – NS; Economic and human subjects – EH; Basic professional subjects – PS)

semester	course	group	Course code	Lect	Prac.	E C T S	assignm ent	lecturer
1	Numerical and Optimization Methods	NS	GEMAK712MA	1	1	2	P	Dr. Körei Attila
1	Engineering physics	NS	MFGFT7100011	2	1	4	E	Dr. Dobróka Mihály
1	Physical geology	NS	MFFTT710001	2	1	4	E	Dr. Hartai Éva
1	Mineralogy and geochemistry	NS	MFFAT710005	2	1	4	E	Dr. Zajzon Norbert
1	Geodesy, spatial informatics	NS	MFGGT710002	2	1	4	E	Dr. Bartha Gábor
1	Computer Sciences for Engineers	NS	GEMAK713MA	0	2	2	P	Dr. Körei Attila
1	Geophysical exploration methods I.	PS	MFGFT7100021	2	1	4	E	Dr. Szabó Norbert Péter
1	Data and information processing	PS	MFGFT7100031	2	1	4	P	Dr. Dobróka Mihály
1	Graduate research seminar	EH	MFFAT710006	0	1	2	P	Dr. Má dai Ferenc
2	Structural geology	PS	MFFAT720020	1	2	4	E	Dr. Németh Norbert
2	Mineral deposits	PS	MFFTT720021	2	1	4	E	Dr. Zajzon Norbert
2	Engineering geology and hydrogeology	PS	MFKHT720020	2	1	4	E	Dr. Szűcs Péter
2	Analytical technics in mineralogy and petrology	PS	MFFAT720025	1	1	2	P	Dr. Zajzon Norbert
3	Geological interpretation and prospecting	PS	MFFAT730026	2	2	4	E	Dr. Földessy János
3	Geophysical interpretation and prospecting	PS	MFGFT730025	2	2	4	E	Dr. Takács Emő
3	Quality management	EH	GTVVE7002MA	2	0	2	P	Dr. Berényi László
3	Legal and economic studies for mining and geology	EH	MFFTT730027	2	0	2	E	Dr. Má dai Ferenc
3	Diploma thesis consultation 1.		MFGFT730028 MFFTT730009			6		

semester	course	group	Course code	Lect	Prac.	E C T S	assignment	lecturer
4	Strategic Management	EH	GTVVE7041MA	2	0	2	E	Dr. Balaton Károly
4	Safety techniques and labor safety	EH	MFKOT740010	2	0	2	E	Dr. Zákányi-Mészáros Renáta
4	Diploma thesis consultation 2.		MFGFT740010 MFFTT740010			24		
Geophysics module (Specific professional subjects – SPS)								
2	Geophysical measurements	SPS	MFGFT720012	2	1	4	E	Dr. Vass Péter
2	Engineering and environmental geophysics	SPS	MFGFT720013	2	1	4	P	Dr. Szabó Norbert Péter
2	Engineering physics II.	SPS	MFGFT720011	1	1	2	P	Dr. Dobróka Mihály
2	Geophysical inversion	SPS	MFGFT720014	1	1	2	E	Dr. Dobróka Mihály
2	Geophysical exploration methods II.	SPS	MFGFT720015	2	1	4	E	Dr. Vass Péter
3	Geophysical data processing	SPS	MFGFT730026	2	2	4	E	Dr. Turai Endre
3	Geostatistics	SPS	MFGFT730017	1	1	2	E	Dr. Szabó Norbert Péter
3	<i>Elective course I.</i>	EL		2	2	4	E	
	Geoelectric lectureship		MFGFT730031					Dr. Turai Endre
	Seismic college		MFGFT730029					Dr. Ormos Tamás
	Well-logging college		MFGFT730030					Dr. Vass Péter
3	<i>Elective course II.</i>	EL		2	2	4	E	
	Global environmental geophysics		MFGFT730027					Dr. Pethő Gábor
	Introduction to English geophysical literature		MFGFT730041					Dr. Szabó Norbert Péter
	Engineering programming		MFGFT6011V					Dr. Vass Péter
Geology module (Specific professional subjects – SPS)								
2	Historical geology	SPS	MFFTT720028	2	1	4	E	Dr. Less György
2	Hydrocarbon geology	SPS	MFFAT720029	2	0	2	E	Dr. Velledits Felicitasz
2	Geological mapping	SPS	MFFTT720029	1	2	4	P	Dr. Less György
2	Sedimentology	SPS	MFFAT720030	1	1	2	P	Dr. Velledits Felicitasz
2	Geochemical prospecting methods	SPS	MFFAT720031	1	2	4	P	Dr. Má dai Ferenc
3	Non-metallic industrial minerals	SPS	MFFTT730030	2	2	4	E	Dr. Kristály Ferenc
3	Applied environmental geology	SPS	MFFAT730032	2	1	4	E	Dr. Má dai Viktor
3	<i>Elective course I.</i>	EL		2	2	4	E	
	Sedimentology of carbonate reservoirs		MFFAT730015	2	2	4	E	Dr. Velledits Felicitasz
	X-ray diffraction applications for Petroleum Geology		MFFAT730042	2	1	4		Dr. Kristály Ferenc
3	<i>Elective course II.</i>	EL		1	1	2	P	

semester	course	group	Course code	Lect	Prac.	E C T S	assignment	lecturer
	Mineral resources of the Carpathians		MFFAT730031					Dr. Szakáll Sándor
	Introduction to ore microscopy		MFFAT730043					Dr. Zajzon Norbert
	Engineering programming		MFGFT6011V					Dr. Vass Péter

Graduation requirements:

- Students must have completed all the core, specialization and elective course requirements.
- Students must have achieved a minimum of 180 credits.
- Students will have successfully completed the mandatory internship.
- Students will have submitted a Thesis Work.
- Students will have fulfilled all administrative and financial requirements towards the university.

Graduation comprises two parts: the defend of the Thesis Work and passing final exams.

The final exam is an oral exam, discussing the the following topics:

- on the Geology module:
 - Geological and geophysical interpretation and prospecting (A1)
 - Geology (A2)
 - Mineral deposits (A3)
- on the Geophysics module:
 - Geological and geophysical interpretation and prospecting (A1)
 - Geophysics (A2)
 - One topic from the elective subjects (A3)

The overall result of the final examination (ZV) is calculated as:

$$ZV=(A1+A2+A3+3\times D) / 6$$

where:

- D = the final grade of the Thesis work, defined by the examination board,
- A1, A2 and A3 = grades of the three exams.
- Grades are integer numbers and given on a scale from 5 (the highest grade) to 1 the lowest grade). The lowest passing grade is 2.

MSc in Environmental Engineering

Programme title: **Environmental Engineering master program (MSc)**

Degree awarded: **Environmental Engineer**

Number of semesters: 4; number of contact hours: 1081 / 1065 depending on specialisation;

Specialisations: Remediation and environmental geotechnics; Waste management

Required number of credits to be completed: 120

Field practice: Minimum 4 weeks internship at a company, research institute or competent authority.

Programme overview									
Basic courses in natural sciences - NS; Economic and human courses - EH; Basic professional courses - PC									
Sem.	course	type	Course code	lect	pract	ECTS	Assign	Course leader	Required base
1	Analytical chemistry	NS	AKKEM6010M	2	2	4	E	Dr. Csaba Váradi	
1	Environmental geology	NS	MFFTT710008	2	1	4	E	Dr. Viktor Mádai	
1	Basics of environmental processing	NS	MFEET710005	1	1	2	P	Dr. József Faitli	
1	Ecology and nature protection	NS	MFKHT710009	1	2	3	P	Dr. Teofil Fülöp	
1	Soil and water chemistry	NS	AKKEM6009M	1	2	4	E	Dr. Endre Dobos	
1	Computer science for engineers	NS	GEMAK713M	0	2	2	P	Dr. Attila Körei	
1	Numerical methods and optimization	NS	GEMAK712M	1	1	2	E	Dr. Attila Körei	
1	Chemical technologies in environmental protection	DP	MFEET730016	1	1	2	P	Dr. Ljudmilla Bokányi	
1	Basics of waste management	PC	MFETT710010	2	1	3	E	Dr. Gábor Mucsi	
2	Applied physical chemistry	NS	AKKEM6008M	2	1	3	E	Dr. Béla Viskolcz	
2	Environmental economics	EH	GTERG204MKMA	2	0	2	E	Dr. Tekla Sebestyén Szép	
2	Waste disposal, landfill operation and reclamation	PC	MFKHT720040	2	1	4	E	Dr. Attila Szabó	
2	Environmental and engineering geophysics	PC	MFGFT720018	2	2	4	E	Dr. Norbert Péter Szabó	
2	Water quality protection	PC	MFKHT720023	1	1	3	E	Dr. Péter Szűcs	
3	Environmental and waste management law	EH	AJAMU04MF1N	2	0	2	E	Dr. Ede János Szilágyi	
3	Methods of environmental assessment	EH	MFKHT730013	0	2	2	P	Dr. Balázs Zákányi	
3	Quality management	EH	GTVVE7002MA	2	0	2	E	Dr. László Berényi	
3	Waste incineration and air quality protection	PS	MAKETT730018	2	1	4	E	Dr. András Kállay	
3	Water and waste water treatment	PC	MFEET730001A	1	1	2	E	Dr. Sándor Nagy	
3	Thesis work 1		MFKHT730045 MFEET730045	0	0	6	R		
4	Occupational health and safety	EH	MFKHT740025	2	0	2	E	Dr. Zákányiné Dr Renáta Mészáros	
4	Elective course 2	EL		2	1	3	P		
4	Thesis work 2		MFKHT740035 MFEET740035	0	0	24	R		
Remediation and environmental geotechnics specialisation (Differentiated professional unit - DP)									
1	Hydrogeology	DP	MFKHT710017	2	2	5	E	Dr. Péter Szűcs	

2	Groundwater flow and contaminant transport modelling	DP	MFKHT720061	2	2	5	E	Dr. Balázs Kovács
2	Geotechnical engineering	DP	MFKHT720025	2	1	4	E	Dr. Tamás Kántor
2	Contaminated site remediation	DP	MFKHT720030	2	1	4	E	Dr. Tamás Madarász
3	Environmental geotechnics	DP	MFKHT730030	1	1	2	E	Dr. Andrea Tóth Kolencsikné
3	Environmental geochemistry	DP	MFFAT730009	2	0	2	E	Dr. Ferenc Móricz
3	Environmental risk assessment and remediation	DP	MFKHT730026	2	0	3	E	Dr. Tamás Madarász
3	Geographic information system	DP	MFKFT730012	2	1	3	E	Dr. János Vágó
3	<i>Elective course 1</i>	EL		2	1	3	E	
	Recycling of Metallic and Rubber Wastes		MFKHT73005					Dr. Nagy Sándor
	Recycling of Plastic and Paper Wastes		MFEET730019					Dr. Gombkötő Imre
	Surfer for Windows hands-on training		MFKHT73005					Dr. Mikita Viktória

Waste management specialisation (Differentiated professional unit - DP)

1	Handling of processing and biodegradable wastes	DP	MFEET710006	2	1	3	E	Dr. Ljudmilla Bokányi
2	Mechanical, - and biological treatment of municipal solid waste	DP	MFEET720015	1	2	4	E	Dr. Ljudmilla Bokányi
2	Sampling and qualification of waste	DP	MFEET720016	1	1	2	P	Dr. József Faitli
2	Treatment and processing of construction, industrial- and glass wastes	DP	MFEET720017	1	1	3	E	Dr. Gábor Mucsi
2	Design fundamentals of waste preparation technological processes	DP	MFEET720018	2	2	5	E	Dr. József Faitli
3	Recycling of metallic and rubber wastes	DP	MFEET730018	0	2	3	P	Dr. Sándor Nagy
3	Recycling of plastic and paper wastes	DP	MFEET730019	0	2	3	P	Dr. Imre Gombkötő
3	Waste processing machines and their operation	DP	MFEET730020	2	2	5	E	Dr. Ádám Rácz
3	<i>Elective course 1</i>	EL		2	1	3	E	
	Environmental Risk assessment and remediation		MFKHT730026					Dr. Madarász Tamás
	Geographic Information System		MFKFT730012					Dr. Vágó János
	Surfer for Windows hands-on training		MFKHT73005					Dr. Mikita Viktória

Graduation requirements:

- Students must have completed all the core, specialization and elective course requirements.
- Students must have achieved a minimum of 120 credits.
- Students will have successfully completed the mandatory internship.
- Students will have submitted a Thesis Work.
- Students will have fulfilled all administrative and financial requirements towards the university.

Graduation comprises two parts: the defend of the Thesis Work and passing final exams. The final exam is an oral exam, discussing the following topics:

On the '**Remediation and environmental geotechnics**' specialisation:

Topic 1	Waste management, waste incineration
Topic 2	Remediation of contamination (Water chemistry, Soil treatment, Remediation, Risk assessment)

On the '**Waste management**' specialisation:

Topic 1	Waste management, waste incineration
Topic 2	Environmental processing: Process engineering, Design of waste processing technologies

The overall result of the final examination (ZV) is calculated on the '**Waste management**' as:

$$ZV = \frac{\frac{A1 + A2}{2} + D}{2}$$

where:

- D = the final grade of the Thesis work, defined by the examination board,
- A1, A2 = grades of exams.
- **Grades are integer numbers and given on a scale from 5 (the highest grade) to 1 the lowest grade). The lowest passing grade is 2.**

The overall result of the final examination (ZV) is calculated on the '**Remediation and environmental geotechnics**' as:

$$ZV = \frac{\frac{A1 + A2}{2} + D}{2}$$

where:

- D = the final grade of the Thesis work, defined by the examination board,
- A1, A2 = grades of exams.
- **Grades are integer numbers and given on a scale from 5 (the highest grade) to 1 the lowest grade). The lowest passing grade is 2.**

MSc in Hydrogeology engineering program

- Programme title: Hydrogeology **Engineering masters program (MSc)**
- Degree awarded: Hydrogeologist **Engineer**
- Number of semesters: 4; number of contact hours: 1305; required number of credits to be completed: 120
- Field practice: Minimum 4 weeks internship at a mining company, research institute or competent authority.

PROGRAMME OVERVIEW

General courses (Basic subject from natural sciences – NS; Economical and human subjects – EH; Basic Subjects in hydrogeology – H; Special subjects in hydrogeology and diploma work – DW)

Sem.	Subject		Neptun code	L	P	Cr	assignment	lecturer	pre-requirement	
1	Computer sciences for engineers	NS	GEMAK713MA	0	2	2	P	Dr. Körei Attila	no	
1	Numerical methods and optimization	NS	GEMAK712MA	1	1	2	P	Dr. Körei Attila	no	
1	Environmental geology	NS	MFFTT710008	2	1	4	E	Dr. Mádai Viktor	no	
1	Geodesy, spatial informatics	NS	MFGGT710002	2	1	4	E	Dr. Bartha Gábor	no	
1	Mineralogy and geochemistry	NS	MFFAT710005	2	1	4	E	Dr. Zajzon Norbert	no	
1	Soil mechanics	NS	MFKHT710008	2	1	4	E	Dr. Kántor Tamás	no	
1	Gradual research seminar	EH	MFFAT710006	0	2	2	P	Dr. Mádai Ferenc	no	
1	Waterworks, water supply	DW	MFKHT720027	1	1	3	E	Dr. Madarász Tamás	no	
1	Hydrogeology	H	MFKHT710017	2	2	5	E	Dr. Szűcs Péter	no	
				30						
2	Groundwater prospecting, water resources management	H	MFKHT720021	2	1	4	E	Kolencsikné Dr. Tóth Andrea	no	
2	Applied and engineering hydrology	H	MFKHT720022	1	1	2	P	Dr. Tóth Márton	no	
2	Water quality protection	H	MFKHT720023	1	1	3	E	Dr. Szűcs Péter	no	
2	Geophysics of exploration for water	H	MFGFT720024	2	2	5	E	Dr. Vass Péter	no	
2	Geotechnical engineering	H	MFKHT720025	2	1	4	E	Dr. Kántor Tamás	no	
2	Water chemistry	H	AKKEM6005	1	1	2	E	Dr. Tóth Márton	no	
2	Hydrogeology of Hungary	H	MFKHT720026	2	0	2	E	Dr. Tóth Márton	no	
2	Fluid mechanics	H	MFKGT710005	2	1	3	E	Dr. Tóth Anikó Nóra	no	
2	GW flow and contaminant transport modeling	DW	MFKHT720028	2	2	5	E	Dr. Kovács Balázs	MFKHT710017	
				30						
3	Quality management	HS	GTVVE7002MA	2	0	2	E	Dr. Berényi László	no	
3	Legal and economic studies with reg. to mining and geol.	HS	MFFTT730027	2	0	2	E	Dr. Mádai Ferenc	no	
3	Geothermics	DW	MFKGT730021	1	1	2	E	Dr. Tóth Anikó Nóra	no	
3	Watermining	DW	MFKHT740021	2	0	3	E	Dr. Tóth-Darabos Enikő	no	
3	Hydrogeological interpretation	DW	MFKHT730024	1	1	2	P	Dr. Tóth Márton	MFKHT710017	
3	Drilling, deep drilling	DW	MFKOT730029	1	1	2	P	Dr. Kovácsné Federer Gabriella		
3	Water and waste water purification	DW	MFEET730028	1	1	2	P	Dr. Nagy Sándor	no	

Sem.	Subject		Neptun code	L	P	Cr	assignment	lecturer	pre-requirement	
3	Environmental risk assessment and remediation	DW	MFKHT730026	2	0	3	E	Dr. Madarász Tamás	no	
3	Environmental geotechnics	DW	MFKHT730030	1	1	2	E	Kolencsikné Dr. Tóth Andrea	MFKHT710008	
3	Diploma work consultation	DW	MFKHT730033	0	0	6	R			
3	<i>Optional subject group (1)</i>	DW		2	1	3	E		no	
	<i>Surfer for Windows hands-on training</i>	DW	MFKHT73005					Dr. Mikita Viktória	no	
3	<i>Optional subject group (2)</i>	DW		1	2	3	P		no	
	<i>Well-field and groundwater resources protection</i>	DW	MFKHT730032					Dr. Perger László	no	
	<i>Remote sensing</i>	DW	MFFTT730032					Dr. Németh Norbert	no	
						32				
4	Safety techniques, labour safety	EH	MFKOT740010	2	0	2	E	Dr. Zákányi-Mészáros Renáta	no	
4	Strategic management	EH	GTVVE7041MA	2	0	2	E	Dr. Balaton Károly	GTVVE7002MA	
4	Diplom work consultation II.	DW	MFKHT740022	0	0	24	R			
						28				

Graduation requirements:

- Students must have completed all the core, specialization and elective course requirements.
- Students must have achieved a minimum of 120 credits.
- Students will have successfully completed the mandatory internship.
- Students will have submitted a Thesis Work.
- Students will have fulfilled all administrative and financial requirements towards the university.

Graduation comprises two parts: the defend of the Thesis Work and passing final exams.

The final exam is an oral exam, discussing the the following topics:

- Hidrogeology and Watermining subjects (A1)
- Groundwater prospecting, water resources management and Geotechnical engineering subjects (A2)

The overall result of the final examination (ZV) is calculated as:

$$ZV = \frac{\frac{A1 + A2}{2} + D}{2}$$

where:

- D = the final grade of the Thesis work, defined by the examination board,
- A1 and A2 = grades of the two exams.
- Grades are integer numbers and given on a scale from 5 (the highest grade) to 1 the lowest grade). The lowest passing grade is 2.

MSc in Petroleum Engineering program

- Programme title: **MSc in Petroleum Engineering**
- **Specialisations: Petroleum engineering, Geothermal engineering**
- Degree awarded: Petroleum Engineer
- Number of semesters: 4; number of contact hours: 1051; required number of credits to be completed: 120
- Field practice: Minimum 4 weeks internship at a mining company, research institute or competent authority.

Programme overview

(BASIC COURSES IN NATURAL SCIENCES - NS; ECONOMIC AND HUMAN COURSES - EH; DRILLING TECHNOLOGY COURSES - DT; PETROLEUM PRODUCTION COURSES - PP; RESERVOIR MECHANICS COURSES - RM; PETROLEUM TRANSPORTATION COURSES -PT; ELECTIVE COURSES - EL)

Sem.	course	type	Course code	lect	pract	ECT S	Assig n	Course leader	Required base	
1	Applied geology	NS	MFFTT710003	2	1	3	E	Dr. Velledits Felicitász	no	
1	Computer applications II.	NS	MFKOT720021	0	3	3	P	Dr. Turzó Zoltán	no	
1	Applied geophysics	NS	MFFGT7100051	2	1	3	E	Dr. Pethő Gábor	no	
1	Oilfield chemistry	NS	MFKOT720011	2	1	3	E	Dr. Lakatos István	MFKOT710004	
1	Geothermal energy	NS	MFKGT740011	2	0	3	P	Dr. Tóth Anikó	no	
1	Petroleum economics	EH	MFKOT720012	2	0	2	E	Dr. Komlósi Zsolt	no	
1	HSE in petroleum engineering	EH	MFKOT71011	2	0	3	E	Dr. Zákányiné Mészáros Renáta	no	
1	<i>Compulsory electives I.</i>	EL		2	0	2	E		no	
	Gas Processing		MFKOT77003					Dr. Turzó Zoltán		
	Basic concepts of Geology		MFFFT250					Dr. Hartai Éva		
1	<i>Compulsory electives II.</i>	EL		2	0	2	E		no	
	Hydrogeology		MFKHT730017					Dr. Szűcs Péter		
	Geothermal well drilling		MFKOT730025					Dr. Federer Imre		
1	<i>Free electives</i>	EL		2	0	2	E			
	Process Simulation using ASPEN HYSYS		MFKOT710021					Dr. Turzó Zoltán		
	Basic concepts of Geology		MFFFT250					Dr. Hartai Éva		
						25				
2	Computer applications I.	NS	MFKOT10019	0	3	3	P	Dr. Turzó Zoltán	no	
2	Graduate research seminar	EH	MFFAT720006	0	1	2	P	Dr. Má dai Ferenc	no	
2	Drilling engineering I.	DT	MFKOT720022	2	2	6	E	Dr. Kovácsné Federer Gabriella	no	
2	Well control lab.	DT	MFKOT730014	0	3	3	P	Dr. Kovácsné Federer Gabriella	no	
2	Production engineering fundamentals	PP	MFKOT720025	2	2	6	E	Dr. Takács Gábor	no	
2	Reservoir engineering fundamentals	RM	MFKOT720024	2	2	6	E	Dr. Hazim Dmour	no	
2	Fluid mechanics	PT	MFKGT710005	3	0	3	K	Dr. Tóth Anikó	no	
						29				
3	Drilling engineering II.	DT	MFKOT730033	2	2	5	E	Kovácsné Dr. Federer Gabriella	MFKOT720022	
3	Flow in porous media	RM	MFKOT730035	0	3	3	P	Dr. Turzó Zoltán	MFKOT720024	
3	Thesis work I.		MFKOT730030	0	13	13	R			
						21				

4	Well completion design	DT	MFKOT720014	2	1	3	E	Dr. Federer Imre	MFKOT720022	
4	Artificial lifting II.	PP	MFKOT730031	2	2	6	E	Dr. Takács Gábor	no	
4	Thesis work 2.		MFKOT7400021	0	17	17	R		MFKOT730020	
					29					
Petroleum engineering specialisation										
Sem.	course	type	Course code	lect	pract	ECT S	As sign	Course leader	Required base	
1	Numerical methods and optimization	NS	GEMAK712MA	1	1	2	P	Dr. Körei Attila	no	
2	Transport of hydrocarbons	PT	MFKOT730036	2	0	2	P	Dr. Turzó Zoltán	no	
3	Artificial lifting I.	PP	MFKOT720017	2	2	6	E	Dr. Takács Gábor	no	
3	Material balance	RM	MFKOT730026	2	1	3	E	Dr. Hazim Dmour	MFKOT720024	
4	NODAL analysis applications	PP	MFKOT730016	0	2	2	P	Dr. Turzó Zoltán	MFKOT720025	
4	Reservoir management simulation lab.	RM	MFKOT730015	0	3	3	P	Dr. Turzó Zoltán	MFKOT730035	
4	EOR methods	RM	MFKOT740013	2	1	3	E	Dr. Hazim Dmour	MFKOT730035	
Geothermal engineering specialisation										
1	Hydrogeology		MFKHT730017	2	0	2	E	Dr. Szűcs Péter		
2	Decision making and risk analysis			2	0	2	E			
3	Principles of shallow and deep geothermal energy recovery and thermodynamics		MFKGT730112	2	1	3	E	Dr. Tóth Anikó Nóra		
3	Hydrochemistry and corrosion		MFKHT730029	1	1	3	E	Dr. Tóth Márton		
3	Energy transport and networks			1	1	3	E			
4	Surface facilities for geothermal energy			2	1	3	E			
4	Geothermal reservoir engineering		MFKOT740035	3	2	5	E	dr. Hazim Dmour		

Graduation requirements:

- Students must have completed all the core, elective course requirements.
- Students must have achieved a minimum of 120 credits.
- Students will have successfully completed the mandatory internship.
- Students will have submitted a Thesis Work.
- Students will have fulfilled all administrative and financial requirements towards the university.

Graduation comprises two parts: the defend of the Thesis Work and passing final exams.
The final exam is an oral exam, discussing the following topics:

Petroleum engineering specialisation:

Drilling engineering and well completion; Reservoir mechanics; Petroleum production technology

Geothermal engineering specialisation:

The overall result of the final examination (ZV) is calculated as:

$$ZV = \frac{\frac{A1 + A2 + A3}{3} + D}{2}$$

where:

- D = the final grade of the Thesis work, defined by the examination board,
- A1 = grade of final exam on Drilling engineering and well completion topics,
- A2 = grade of final exam on Reservoir mechanics topics,
- A3 = grade of final exam on Petroleum production topics.

Grades are integer numbers and given on a scale from 5 (the highest grade) to 1 (the lowest grade). The lowest passing grade is 2

MSc in Petroleum Geoengineering program

- Programme title: Petroleum Geoengineering masters course (MSc)
- Degree awarded: Petroleum Geoeineer
- Number of semesters: 4; number of contact hours: 1148; required number of credits to be completed: 120
- Field practice: Minimum 4 weeks internship at a mining company, research institute or competent authority.

PROGRAMME OVERVIEW

Basic courses in natural sciences – NS; Economic and human courses – EH; Basic professional courses – BP, Differentiated professional courses - DP)

seme ster	course	type	Course code	lect.	prac.	EC TS	Assign	Course leader
1	Structural geology	NS	MFFTT710004	1	2	3	p.m.	Dr. Németh Norbert
1	Stratigraphy	NS	MFFTT710005	2	1	3	exam	Dr. Less György
1	Sedimentology of carbonate reservoirs	NS	MFFTT710006	1	1	2	exam	Dr. Velledits Felicitász Margit
1	Introduction to applied geophysics	NS	MFGFT7100052	2	1	3	exam	Dr. Vass Péter
1	Introduction to petrophysics	NS	MFGFT710006	2	1	3	exam	Dr. Szabó Norbert Péter
1	Applied petrology	NS	MFFAT710008	2	1	3	exam	Dr. Má dai Ferenc
1	Oilfield hydrogeology	BP	MFKHT730014	2	1	3	exam	Dr. Szűcs Péter
1	Geostatistics	BP	MFGFT710007	2	1	3	exam	Dr. Szabó Norbert Péter
1	Drilling engineering, HSE	BP	MFKOT710010	2	2	4	p.m.	Kovácsné Dr. Federer Gabriella
	Elective course 1.	EH		0	2	2	p.m.	
1	Introduction to geophysical scientific literature		MFGFT710008					Dr. Szabó Norbert Péter
1	Graduate research seminar		MFFAT720007					Dr. Má dai Ferenc
						29		
2	Basin modeling	BP	MFFAT720011	2	2	4	p.m.	Dr. Má dai Viktor
2	Exploration seismic techniques and interpretation	BP	MFGFT720016	2	2	4	exam	Dr. Fancsik Tamás
2	Petrophysics-Well log interpretation	BP	MFGFT720019	2	2	4	exam	Dr. Vass Péter
2	Exploration geochemistry of hydrocarbons	BP	MFFAT720012	2	1	3	exam	Hámorné Dr. Vidó Mária
2	Geothermal systems and transport modeling	DP	MFKGT720016	2	1	3	exam	Dr. Tóth Anikó Nóra
2	Oilfield Chemistry	BP	MFKOT720011	2	1	3	exam	Dr. Lakatos István János
2	Analysis of petroleum systems, prospect evaluation	DP	MFFAT730003	0	2	2	p.m.	Kiss Károly
2	Core analysis	DP	MFFAT720015	0	3	3	p.m.	Dr. Velledits Felicitász Margit

semester	course	type	Course code	lect.	prac.	EC TS	Assign	Course leader
2	Sedimentology of clastic reservoirs	DP	MFFTT720005	2	1	3	exam	Dr. Juhász Györgyi
						29		
3	Estimation of resources/reserves	DP	MFFAT720014	1	1	2	p.m.	Kiss Károly
3	Reservoir geology and modelling	DP	MFFAT730002	2	1	3	exam	Dr. Mádai Viktor
3	In-field seismic techniques and interpretation	DP	MFGFT730012	1	3	4	p.m.	Dr. Gombár László
3	Petroleum economics	DP	MFKOT730022	2	0	2	p.m.	Dr. Komlósi Zsolt
3	Wellsite geology	BP	MFFTT710007	1	2	3	p.m.	Dr. Velledits Felicitász
3	Planning, implementing and managing E&P projects	DP	MFFAT730005	1	1	2	p.m.	Dr. Mádai Ferenc
3	Reservoir and production engineering	DP	MFKOT730023	3	1	4	exam	Dr. Turzó Zoltán
3	Project work	DP	MFFAT730006	0	8	8	p.m.	Dr. Less György
	Elective course 1.	DP		1	1	4	p.m.	
3	X-ray diffraction applications for petroleum geology		MFFAT730008					Dr. Kristály Ferenc
3	Basic data processing methods for oilfield geophysics and petrophysics		MFGFT730013					Dr. Turai Endre
3	Computer-aided well log analysis		MFGFT73012					Dr. Vass Péter
						32		
4	Thesis work I.	DP	MFGFT740003			18		
4	Thesis work 2	DP	MFFTT740002			12		
						30		

Graduation requirements:

- Students must have completed all the core, specialization and elective course requirements.
- Students must have achieved a minimum of 180 credits.
- Students will have successfully completed the mandatory internship.
- Students will have submitted a Thesis Work.
- Students will have fulfilled all administrative and financial requirements towards the university.

Graduation comprises two parts: the defend of the Thesis Work and passing final exams.

The final exam is an oral exam, discussing the the following topics:

- Integration of geophysical and geological methods in exploration
- Implementation of exploration projects
- Integration of geosciences and engineering

The overall result of the final examination (ZV) is calculated as:

$$ZV = \frac{\frac{A1+A2+A3}{3} + D}{2}$$

where:

- D = the final grade of the Thesis work, defined by the examination board,
- A1, A2 and A3 = grades of the three exams.
- Grades are integer numbers and given on a scale from 5 (the highest grade) to 1 the lowest grade). The lowest passing grade is 2.

Students' Union (HÖK) information

Dear Freshman Students!

First of all let me welcome you in the name of the Students' Union of the University of Miskolc, Faculty of Earth Science and Engineering, and let me congratulate you for your successful admission!

These couple of lines were made for your sakes, to help you get a brighter picture about the operating organizations in the University of Miskolc.

Advocacy is provided by the Students' Union of the University of Miskolc (ME-HÖK). The Students' Union as a part of the University's council provides students their subjective rights. Everyone who is studying in the University of Miskolc is part of the Students' Union. Thanks to that, this organization is trying to protect every student's collective and personal rights. Their role is to contact the leaders of the University, HÖK and HÖÖK.

Students of the Faculty of Earth Science and Engineering choose certain people from each year and department to represent them in:

- Faculty Council,
- Committee of Studies,
- Disciplinary Committee,
- controls the scholarship cases,
- proposes ideas about the curriculum,
- Admissions Committee,
- reviews the teachers.

One of the Students' Union committee is the Students Scholarship Committee (DÖB). This committee is in control of the social supports, single supports and emphasized scholarships.

Another committee is the Committee of the Dormitories (KB). Affairs that affect the University itself each faculty gets to send 3 person and each faculty's Students' Union presidents decides about the case.

Their job is:

- They choose the president of the Students' Union,
- control student's advocacy,
- take part in the University Council,
- take part in cultural and sport activities,
- take part in national and international studies.

Best of luck to your studies!

With best regards:

Marcel Csörgics
MFK-HÖK president

Be our member!



The Student Research Group on Natural Resources Exploration and Utilization is waiting You!

The Student Research Group collects the most talent BSc and MSc students of the Faculty. Our members receive efficient support from industrial and academic mentors, do activities according to an individual training plan, in the same time join an active community. The Research Group organizes or promotes several professional events such as field trips, company visits, workshops, conferences, lectures of Hungarian or foreign industry professionals and researchers.

Members of the Research Group have priority to join research activity at our departments. The most important advantage of the Research Group is to be a member of an active, mindful community, what is the powerful engine of any scientific activity.

Dear young friend! If you feel extra capacity, please join our community and blossom your talent! We are waiting for your application by sending your short CV to the below e-mail address.

Sincerely

János Földessy
Professor Emeritus
President of the Student Research Group
foldfj@uni-miskolc.hu

Location of important places

