



# Legal and economic studies with regard to mining and geology

MFFAT730027

Földtudományi mérnöki mesterszak, Hidrogeológus mérnöki mesterszak

2020/21 I. félév

TANTÁRGYI KOMMUNIKÁCIÓS DOSSZIÉ

**Miskolci Egyetem**  
**Műszaki Földtudományi Kar**  
**Ásványtani-Földtani Intézet**

<b>Course Title:</b> Legal and economic studies with regard to mining and geology	<b>Code:</b> MFFTT730027																						
<b>Instructor:</b> Dr. Mádai Ferenc, associate professor	<b>Responsible department/institute:</b> Institute of Mineralogy and Geology																						
	Type of course: Compulsory																						
<b>Position in curriculum (which semester):</b> 3	<b>Pre-requisites (if any):</b> -																						
<b>No. of contact hours per week (lecture + seminar):</b> 2+0	<b>Type of Assessment (examination/ practical mark / other):</b> exam																						
<b>Credits:</b> 2	<b>Course:</b> full time																						
<p><b>Course Description:</b></p> <p>The main objective is to provide an in-depth and practical knowledge of the supranational and national legislation and regulatory framework with regard to mining and geology.</p> <p>The short curriculum of the subject:</p> <ol style="list-style-type: none"> <li>1. Essential legal terms and definitions</li> <li>2. Specific Community legislation of the European Union (the „acquis”)</li> <li>3. International conventions and standards</li> <li>4. The Hungarian national mining and geology legislation</li> <li>5. Other Hungarian acts on the environment, energy, water, etc.</li> <li>6. Other national quasi-legislation (orders of MBFH) and the licensing framework</li> </ol> <p>-----</p> <ol style="list-style-type: none"> <li>1. The concept of sustainable development, its role for the mineral extractive industry, marginal cost defining factors, concept of mineral rent,</li> <li>2. The Hotelling rule and its resolution under certain conditions,</li> <li>3. Financial analysis of mining projects, cost types, deposit parameters (flow, fund, bonity, quality),</li> <li>4. Discounted cash flow methods in the mineral industry, mineral taxation.</li> </ol> <p>Competencies to evolve:</p> <p>Knowledge: T6, T7  Ability: K10, K11, K12, K15  Attitude: A4, A5, A8  Autonomy and responsibility: F2, F4, F5</p>																							
<p><b>Assessment and grading:</b></p> <p>Students will be assessed with using the following elements.</p> <table> <tr> <td>Attendance:</td> <td>15 %</td> </tr> <tr> <td>Short quizzes</td> <td>10 %</td> </tr> <tr> <td>Midterm exam</td> <td>40 %</td> </tr> <tr> <td>Final exam</td> <td>35 %</td> </tr> <tr> <td>Total</td> <td>100%</td> </tr> </table> <p>Grading scale:</p> <table> <tr> <td>% value</td> <td>Grade</td> </tr> <tr> <td>90 -100%</td> <td>5 (excellent)</td> </tr> <tr> <td>80 – 89%</td> <td>4 (good)</td> </tr> <tr> <td>70 - 79%</td> <td>3 (satisfactory)</td> </tr> <tr> <td>60 - 69%</td> <td>2 (pass)</td> </tr> <tr> <td>0 - 59%</td> <td>1 (failed)</td> </tr> </table>		Attendance:	15 %	Short quizzes	10 %	Midterm exam	40 %	Final exam	35 %	Total	100%	% value	Grade	90 -100%	5 (excellent)	80 – 89%	4 (good)	70 - 79%	3 (satisfactory)	60 - 69%	2 (pass)	0 - 59%	1 (failed)
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<p><b>Compulsory or recommended literature resources:</b></p> <ul style="list-style-type: none"> <li>• Wagner H. et al. 2006: Minerals planning policies and supply practices in Europe – European Commission Directorate, General Enterprise, University of Leoben</li> <li>• Hámor T. 2004: Sustainable mining in the European Union: The legislative aspect – Environmental Management, Vol. 33., pp. 252-261.</li> <li>• Pearce, D.W. &amp; Turner R.K. Economics of natural resources and the environment (Harvester</li> </ul>																							

Wheatsheaf, London, 1990)

- The minerals and metals policy of the Government of Canada: Partnerships for the sustainable development Ministry of Public Works and Government Services Canada, 1996
- Whateley, M.K.G. & Harvey, P.K. (eds.) Mineral resource evaluation II: Methods and case stories (Geological Society Spec. Publ. No. 79., London, 1994)
- J. Otto & J. Cordes. The Regulation of Mineral Enterprises: A Global Perspective on Economics, Law and Policy; (RMMLF, 2002.)

## Féléves órabeosztás

2020/2

1. félév

Csütörtök 14-16 Pettkó terem

dátum	foglalkozás témája
2020.09.10	Mineral law basics
2020.09.17	individual work: INTRAW scenarios
2020.09.24	EU system of regulation, primary and secondary legislation, international conventions
2020.10.01	individual work: Aarhus convention 9.3 issue
2020.10.08	EIA, SEA, Nature conservation regulations
2020.10.15	individual work: N2000 best practice analysis
2020.10.22	Mining waste regulations, MWD,
2020.10.29	Water and industrial safety regulations: WFD, Seveso
2020.11.05	Mining cycle, main challenges, players, policies, RMI
2020.11.12	Planning regulations, mineral planning models
2020.11.19	financial system, DCF model
2020.11.26	financial system for waters
2020.12.03	resource taxation systems
2020.12.10	Externality, environmental economics

A tárgyhoz kapcsolódó előadás anyagok, tananyagok és a szükséges háttér információ (cikk sablon stb.) letölthető a tantárgy Moodle oldaláról:

Moodle: <http://edu.uni-miskolc.hu/edu/> Műszaki Földtudományi Kar ⇨ Ásványtani-Földtani Intézet  
⇨ MFFAT730027

## Félévközi beadandó feladatok:

- Find the evidence how the principle of the Security of tenure is incorporated in the national mining law of your country
  - határidő: szeptember 24.
- Evaluation of main action points of the Raw Materials Initiative: which ones are coordinated on national and which ones on EU level
  - határidő: október 8.
- Evaluation of the tailings management facility security criteria (Tailings Hazard Index)
  - ([https://www.umweltbundesamt.de/sites/default/files/medien/1411/beratungshilfe/annex\\_13\\_template\\_for\\_calculation\\_tailings\\_hazard\\_index\\_thi\\_method.pdf](https://www.umweltbundesamt.de/sites/default/files/medien/1411/beratungshilfe/annex_13_template_for_calculation_tailings_hazard_index_thi_method.pdf))
  - határidő: november 12
- Analysis of the three scenarios of resource supply security in 2050 (INTRAW scenarios)
  - ([https://www.rdm.iao.fraunhofer.de/en/Collaborative\\_RTD/EU\\_Projects/INTRAW/Scenarios.html](https://www.rdm.iao.fraunhofer.de/en/Collaborative_RTD/EU_Projects/INTRAW/Scenarios.html))
  - határidő: november 19.
- Evaluation of a DCF model for resource projects with different country parameters
  - 1. Calculate in the DCF model the NPV of the mentioned countries (Bolivia, Brasil, W-Australia, Kazakhstan, Ghana, Bulgaria, Portugal),
  - 2. calculate the IRR
  - 3. give the ranking of the analysed countries from investment point of view
  - The excel sheet is reached through the moodle (<http://edu.uni-miskolc.hu/edu/>)
  - Határidő: december 10.