

JOHN WESLEY THEOLOGICAL COLLEGE COURSE TEMATICS

Geophysical methods of investigation of environmental systems Course	Course type: lecture	Credits:	Course ID: KTAK134/1
Course responsible: Dr Plank Zsuzsanna	Programme type: full time	Hours/Semester : 28	Assessment: exam

Course objectives:

Students get to know the geophysical methods used to assess the quality of the environment

Competencies to be improved.

Knowledge: T1, T3, T6

Ability: K5, K8 Attitude: A1, A2, A3

Autonomy and responsibility: F1, F2

Compalsory literature:

Recommended literature:

Pethő Gábor, Vass Péter: Geophysics 3, 6, 8, 9, 10, 11

Course content:

Investigaation of atmosphere and hydrosphere

- 1. Air pollution and its measurement
- 2. Investigation of hydrosphere contamination

Geophysical survey methods

- 1. Remote sensing methods
- 2. Seismic exploration methods
- 3. Ground Penetration Radar method
- 4. Induction EM method
- 5. Geoelectric survey method

Well logging, probing

- 1. Borehole geophysical methods
- 2. Engineer geophysical method
- 3. Cone Penetration Test

Sampling and Sample Analytics

- 1. Sampling plan
- 2. Sampling
- 3. Sample preparation
- 4. Sample analytics

Sources of environmental data,

1. Public databases

Course requirements:

Completion of the semester requires the completion of one written assignment at least at a sufficient level.

Oral exam.

Grading scale:

>90 %: excellent, 89-80 %: good, 79-66 %:satisfactory, 65-50 %:pass



JOHN WESLEY THEOLOGICAL COLLEGE COURSE TEMATICS

Course Programme:	Semester:	Lecturers:
WJLF ENVIRONMENTAL	2022_2023_2	Nagy Attila Zoltán
SCIENCE		