JOHN WESLEY THEOLOGICAL COLLEGE
COURSE TEMATICS

Corse:	Course type:	Credits:	Course ID:
ENVIRONMENTAL PHYSICS	Lecture	4	KTAK113a
Course responsible:	**Programme type:** full time	**Hours/Week:** 2	**Assessment:** exam

Course objectives:

Study the physical background the phenomena and processes of the environment.

Competencies

Competencies to be improved:

Knowledge: T1, T2, T7
Ability: K2, K3
Attitude: A2
Autonomy and responsibility: F2

Compalsory literature:

Presentations provided by the lecturer
Relevant parts of the following textbooks:
M. Dželalija: Environmental Physics. University of Split, Split, 2004.
http://djelatnici.unizd.hr/~mdzela/nastava/EnvironmentalPhysics.pdf
Raymond A. Serway, Chris Vuille, Jerry S. Faughn: College Physics. Cengage Learning Academic Resource Center, Belmont, 2009.
http://profsite.um.ac.ir/~tavallaii/Meghdadi_A/bahar/Ph1/College%20Physics.pdf

Recommended literature:

Á. Horváth (ed.) : Env ironmental phys ics methods, laboratory practices. Eötvös Loránd University, Budapest, 2002.
http://atomfizika.elte.hu/kornyfizlab/docs/Environmental_physics.pdf

Course content:

Dynamics of large air and water masses
Physics of the atmosphere. Height dependence of air pressure
Physics of movement of large air masses.
Physics of ocean currents.

Physics of the greenhouse effect
Factors of heat reflection and absorption.

Large-scale effects of solar radiation ont he Earth
Route and distribution of the incoming solar radiation

Physics of different forms of renewable and non-renewable energy production
Thermal power plants
Water power plants
Nuclear power plants
Heat pumps

Course requirements:
Attendance at classses, keeping up with the course progress, submitting the expected homeworks
Grading scale:
>90 %: excellent, 81-90 %: good, 66-80 %:satisfactory, 51-65 %:pass

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Course Programme:	**Semester:**	**Lecturers:**
WJLF ENVIRONMENTAL SCIENCE	2022_2023_1	Dr. István Kun