

COURSE OUTLINE

1. GENERAL

SCHOOL	FACULTY OF ENGINEERING		
DEPARTMENT	ENVIRONMENTAL ENGINEERING		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	150E3N - K1	SEMESTER	9 th
COURSE TITLE	HEALTH RISK ASSESSMENT FROM ATMOSPHERIC PARAMETERS (AND ACCIDENTS)		
TEACHING ACTIVITIES	<i>If the ECTS Credits are distributed in distinct parts of the course e.g. lectures, labs etc. If the ECTS Credits are awarded to the whole course, then please indicate the teaching hours per week and the corresponding ECTS Credits.</i>	TEACHING HOURS PER WEEK	ECTS CREDITS
		3	5
<i>Please, add lines if necessary. Teaching methods and organization of the course are described in section 4.</i>			
COURSE TYPE <i>Background, General Knowledge, Scientific Area, Skill Development</i>	Skill Development		
PREREQUISITES:	Atmospheric Chemistry, Atmospheric Physics, Applied Statistics, Mathematics.		
TEACHING & EXAMINATION LANGUAGE:	Greek		
COURSE OFFERED TO ERASMUS STUDENTS:	NO		
COURSE URL:	https://eclass.duth.gr/courses/TMC379/		

2. LEARNING OUTCOMES

Learning Outcomes

Please describe the learning outcomes of the course: Knowledge, skills and abilities acquired after the successful completion of the course.

1. Knowledge based

- Understand the fundamentals of health risk assessment.
- Understand the basics of toxicology.
- Understand the atmospheric parameters that affect human health.
- Understand the relationship between the exposure-effect and dose-effect.

2. Skills / Competences acquired

- Students will be able to conduct a survey of the parameters that affect air quality and the potential hazards and stresses for human health.
- Students will have the knowledge and the understanding of the methods and procedures used in health risk assessment. They will acquire a professional attitude in interpretation of the available data from toxicological and epidemiological studies for the application in health risk assessment.

General Skills

Name the desirable general skills upon successful completion of the module

Search, analysis and synthesis of data and information, Project design and management

<p><i>ICT Use</i> <i>Adaptation to new situations</i> <i>Decision making</i> <i>Autonomous work</i> <i>Teamwork</i> <i>Working in an international environment</i> <i>Working in an interdisciplinary environment</i> <i>Production of new research ideas</i></p>	<p><i>Equity and Inclusion</i> <i>Respect for the natural environment</i> <i>Sustainability</i> <i>Demonstration of social, professional and moral responsibility and sensitivity to gender issues</i> <i>Critical thinking</i> <i>Promoting free, creative and inductive reasoning</i></p>
--	--

<p><i>Search, analysis and synthesis of data and information,</i> <i>ICT Use</i> <i>Adaptation to new situations</i> <i>Decision making</i> <i>Teamwork</i> <i>Working in an international environment</i> <i>Working in an interdisciplinary environment</i> <i>Project design and management</i> <i>Respect for the natural environment</i> <i>Sustainability</i> <i>Critical thinking</i></p>
--

3. COURSE CONTENT

The course provides the fundamental concepts in health risk assessment, toxicology, epidemiology, exposure assessment, risk assessment and management under European law.

Accidental releases of air pollutants in the case of industrial accidents are also discussed. Furthermore, it provides a basis of understanding the uncertainty factors and the application of health-based guidance values depending on the specific environment.

Emphasis is given on the evaluation of data from different sources, how to deal with the uncertainties and the data gaps in a health risk assessment.

4. LEARNING & TEACHING METHODS - EVALUATION

<p>TEACHING METHOD <i>Face to face, Distance learning, etc.</i></p>	Face to face		
<p>USE OF INFORMATION & COMMUNICATIONS TECHNOLOGY (ICT) <i>Use of ICT in Teaching, in Laboratory Education, in Communication with students</i></p>	Use of ICT during teaching and communication with students		
<p>TEACHING ORGANIZATION <i>The ways and methods of teaching are described in detail.</i> <i>Lectures, Seminars, Laboratory Exercise, Field Exercise, Bibliographic research & analysis, Tutoring, Internship (Placement), Clinical Exercise, Art Workshop, Interactive learning, Study visits, Study / creation, project, creation, project. Etc.</i></p> <p><i>The supervised and unsupervised workload per activity is indicated here, so that total workload per semester complies to ECTS standards.</i></p>	Activity	Workload/semester	
	Lectures	40	
	Projects	30	
	Reading and studying	80	
	Class total	150	
<p>STUDENT EVALUATION <i>Description of the evaluation process</i></p>			

Assessment Language, Assessment Methods, Formative or Concluding, Multiple Choice Test, Short Answer Questions, Essay Development Questions, Problem Solving, Written Assignment, Essay / Report, Oral Exam, Presentation in audience, Laboratory Report, Clinical examination of a patient, Artistic interpretation, Other/Others

Please indicate all relevant information about the course assessment and how students are informed

The course is evaluated by written examination (60%) and project presentation (40%).

5. SUGGESTED BIBLIOGRAPHY

1. E-book «Health risk assessment from atmospheric parameters» G. Loupa, available in the e-class.
2. "PUBLIC HEALTH RISK ASSESSMENT FOR HUMAN EXPOSURE TO CHEMICALS (ENVIRONMENTAL POLLUTION)". ASANTE - DUAH K. SPRINGER, 2008.
3. Papers and free e-books

ANNEX OF THE COURSE OUTLINE

Alternative ways of examining a course in emergency situations

Teacher (full name):	Glykeria Loupa
Contact details:	gloupa@env.duth.gr
Supervisors:	YES
Evaluation methods:	Written examination with distance learning methods
Implementation Instructions:	<p>The examination in the course will take place on the day defined by the Program of the Department. The topics will be posted in the e-class. In the Word file of the topics that each student will "download", he will write his answers.</p> <p>Each of them will post this file in the "Assignments" section of the e-class.</p> <p>This approach is exactly the same as the way students' homework is done.</p> <p>The test will be performed via Teams. The link will be sent to students via e-class exclusively to the institutional accounts of those who have registered for the course and have accepted the terms of the distance examination.</p> <p>Students must log in to the examination room through their institutional account. Otherwise, they will not be able to participate. They will also take part in the examination with a camera which they will have open during</p>

the examination. Before the start of the exam, students will show their academic ID to the camera, so that they can be identified. Any question will be asked through a microphone.

They should also make sure that the issues are processed on a desktop or laptop and not on a tablet or mobile.