COURSE DISCRIPTION

1. GENERAL

SCHOOL	ENVIRONMENT, GEOGRAPHY AND APPLIED ECONOMICS
DEPARTMENT	GEOGRAPHY
LEVEL OF COURSE	Undergraduate

COURSE CODE	1603		**SEMESTER**	3rd
COURSE TITLE	METEOROLOGY-CLIMATOLOGY			

STRUCTURE OF TEACHING ACTIVITIES	TEACHING HOURS PER WEEK	NUMBER OF CREDITS ALLOCATED (ECTS)
Lectures and Laboratory Classes	3	5

TYPE OF COURSE	Compulsory
PREREQUISITES	-
LANGUAGE OF INSTRUCTION	GREEK
COURSE OFFERED TO ERASMUS STUDENTS	YES (in English if required)
(URL)	http://meteoclima.hua.gr/images/stories/projects/kallipos/00_master_document_9926.r1.html

2. EXPECTED LEARNING OUTCOMES

Learning outcomes
Describe the objectives of the course as well as the expected learning outcomes
The course of Meteorology-Climatology is an introductory course in the fields of atmospheric science and applied climatology. At the end of the course the student is expected to be able to understand and analyze the basic atmospheric processes and their spatiotemporal variability. The practical session of the course provides fundamental knowledge on plotting meteorological charts and atmospheric stability conditions while the laboratory work is essential for the learner in order to demonstrate its skills on data processing and its long-term statistical analysis. At the end of the course the student is expected to be able to understand and analyze the basic atmospheric processes and their spatiotemporal variability. The practical session of the course provides fundamental knowledge on plotting meteorological charts and atmospheric stability conditions while the laboratory work is essential for the learner in order to demonstrate its skills on data processing and its long-term statistical analysis.

3. COURSE CONTENTS

1. Basic characteristics of the Earth system
2. Principals on Atmospheric thermodynamics
3. Atmospheric dynamics

4. Atmospheric stability
5. Spatiotemporal scales of motion in the atmosphere
6. Fronts and weather systems
7. Fundamentals of the global climate system

4. TEACHING AND ASSESSMENT METHODS

TYPE OF LECTURES	In class lectures Laboratory Lectures and Practice	
ICT USE	ICT use, course website, interactive experiments, meteorological data and e-class	
TEACHING STRUCTURE	**Activity**	**Hours per semester**
	Lectures	26
	Laboratory	13
	Weekly assignments	13
	Project	13
	Studying	65
	TOTAL	*130*
ASSESSMENT METHODS	Assessment Language: Greek The basic assessment type of the course is the written examination at the end of the semester (3 hours). It is combined with a final written paper including a case study with real data gathered from meteorological stations. There is also a short time (~10 minutes) compulsory test at the beginning of each laboratory session based on the contents of the previous laboratory course. The possible results of each practice test are *pass* or *no pass* and the student is necessary to pass 9 out of 12 tests in order to participate in the procedure of the final examination.	

5. RECOMMENDED READING

Katsafados P. and E. Mavromatidis, 2015: "An Introduction to Atmospheric Physics and Climate Change". Digital textbook in the framework of the funded action "Kallipos", pp. 350 (in greek).