

CODE : <b>ECO 3</b>	COURSE TITLE: <b>METEOROLOGY AND CLIMATOLOGY</b>			ECTS: <b>3</b>
COORDINATOR: <b>PROF. JANUSZ OLEJNIK</b>		DEPARTMENT: <b>AGROMETEOROLOGY</b>		
COURSE CATEGORY				
VOLUME: (H) <b>30</b>			PERSONAL WORK (H)	
LECTURE: (H) <b>15</b>	PRACTICALS /LAB (H) <b>15</b>	PLACEMENT:(H)	PROJECT: (H)	OTHER MODALITIES: (H)
EVALUATION:		OTHER MODALITIES:	LECTURER(S)	
EVALUATION MODALITIES			<b>LECTURES: PROF. JANUSZ OLEJNIK</b> <b>TUTORIAL: DR BOGDAN CHOJNICKI</b>	
ORAL INDIVIDUAL REPORT				
WRITTEN INDIVIDUAL REPORT	<b>X</b>			
FINAL ORAL EXAM				
FINAL WRITTEN EXAM	<b>X</b>			
COMMENTS OF EVALUATION: LAB: <b>SHORT INDIVIDUAL REPORT</b> LECTURE: <b>MULTICHOICE TEST</b>		TEACHING METHODS: <b>LECTURES AND TUTORIALS</b>		
SEMESTER: <b>WINTER</b>		LANGUAGE: <b>ENGLISH</b>		
PERIOD:		YEAR OF STUDY: <b>THIRD</b>		
OBJECTIVES				
<ul style="list-style-type: none"> <li>▪ FUNDAMENTALS OF METEOROLOGY</li> <li>▪ FUNDAMENTALS OF CLIMATOLOGY</li> <li>▪ - CLIMATE CHANGE</li> </ul>				
CONTENTS				
<b>Lectures</b> (1 lecture 3h) <ul style="list-style-type: none"> <li>▪ Fundamentals of meteorology. - <i>radiation, temperature, moisture</i></li> <li>▪ Fundamentals of meteorology - <i>heat, precipitation, boundary layer, air masses and fronts</i></li> <li>▪ Fundamentals of Climatology - <i>greenhouse effect, heat balance, climate zones,</i></li> <li>▪ Climate today and tomorrow - <i>Global Circulation Model, GHG's sources, global warming (GW)</i></li> <li>▪ Extreme meteorological events - <i>heat waves, storms, floods, droughts, GW long-term effects</i></li> </ul> <b>Tutorials</b> (1 lab 3h of introduction and individual calculations) <ul style="list-style-type: none"> <li>▪ Fundamentals of meteorology: <i>radiation, temperature.</i></li> <li>▪ Fundamentals of meteorology: <i>moisture, precipitation.</i></li> <li>▪ Fundamentals of Climatology: <i>greenhouse effect-atmospheric window, heat balance- Bowen ratio.</i></li> <li>▪ Climate today and tomorrow: <i>global warming potential, effective temperature sum.</i></li> <li>▪ 5. Climate today and tomorrow: <i>mass and energy transfer – eddy covariance method.</i></li> </ul>				
GROUP SIZE:		PRE-REQUISES: <b>BASIC KNOWLEDGE OF PHISICS</b>		