

CODE: ECO 4.1	COURSE TITLE: MATERIALS AND TECHNOLOGIES IN CIVIL ENGINEERING			ECTS: 6
Coordinator: Anna Maria Grabiec		Department: Institute of Construction and Geoengineering		
Course category				
Open				
VOLUME: 60 H			PERSONAL WORK: 40 H	
LECTURES: 30 H	PRACTICALS 30 H	PLACEMENT: H	PROJECT:	OTHER MODALITIES: (H)
EVALUATION:		OTHER MODALITIES:		LECTURER(S)
EVALUATION MODALITIES				Anna Maria Grabiec Daniel Zawal Ireneusz Laks
ORAL INDIVIDUAL REPORT	X			
WRITTEN INDIVIDUAL REPORT	X			
FINAL ORAL EXAM				
FINAL WRITTEN EXAM	X			
COMMENTS OF EVALUATION:		TEACHING METHODS: Multimedia presentations; auditorium classes; laboratory classes		
SEMESTER: SUMMER		LANGUAGE: ENGLISH		
PERIOD: 15 WEEKS		YEAR OF STUDY: OPEN		
OBJECTIVES				
Gaining knowledge of contemporary and future trends in civil engineering (including building materials and technologies)				
CONTENTS				
<p>Lectures: Principles of building materials' selection in the context of sustainability. Waste materials for civil and environmental engineering; eco-cements; additives and admixtures for concrete; ways of reduction of CO2 emission in cement and concrete industry; special concretes; heat insulation materials; modern plastics for civil engineering.</p> <p>Classes: Auditorium activities – studies on source materials (literature and EU standards) connected with lecture topics regarding concrete technology. Laboratory activities on concrete technology. Practical applications of environmentally friendly material and technological solutions on the example of Kujawy cement plant and Jeziorsko reservoir.</p>				
GROUP SIZE: 10		PRE-REQUIRES: Basics of environmental sciences		