

COURSE OUTLINE

1. GENERAL

SCHOOL	ENVIRONMENT AND AGRICULTURAL ENGINEERING		
ACADEMIC UNIT	NATURAL RESOURCES DEVELOPMENT & AGRICULTURAL ENGINEERING		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	258	SEMESTER	8 th
COURSE TITLE	ELECTROMECHANICAL INSTALLATIONS OF AGRICULTURAL BUILDINGS		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		WEEKLY TEACHING HOURS	CREDITS
LECTURES		3	3
LABORATORY EXERCISES		2	2
TOTAL		5	5
<i>The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	SCIENTIFIC AREA – SKILLS DEVELOPMENT		
PREREQUISITE COURSES:	<ul style="list-style-type: none"> • ELECTROTECHNICS – ELECTRICAL MACHINES • MEASUREMENTS AND SENSORS • TURBINES AND PUMPING UNITS 		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	NO		
COURSE WEBSITE (URL)	To be constructed		

2. LEARNING OUTCOMES

<p>Learning outcomes</p> <p><i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i> • <i>Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i> • <i>Guidelines for writing Learning Outcomes</i>

Building Facilities and to acquire skills related to the design and surveying of a building installation, as well as supervision during its construction. Specifically, the objectives of the course are:

- To help students understand the basic principles of design and calculation of the basic facilities of a rural building.
- To acquaint them with the relevant regulations and decrees for the completion of studies.
- To teach the process of issuing building permits, as well as the obligations of the engineer in the construction and supervision phases of a project.
- To be able to draft technical proposals.

Upon completion of the course, the student will be able to:

1. Complete and prepare studies of Rural Building Facilities.
2. Effectively apply regulations and standards related to the requirements for Rural Building Facilities.
3. Understand modern technologies in the implementation of Rural Building Facilities.

Handle specific packages of advanced technical software, widely used in the preparation of studies for Rural Building Facilities.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

<i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i>	<i>Project planning and management</i>
<i>Adapting to new situations</i>	<i>Respect for difference and multiculturalism</i>
<i>Decision-making</i>	<i>Respect for the natural environment</i>
<i>Working independently</i>	<i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i>
<i>Team work</i>	<i>Criticism and self-criticism</i>
<i>Working in an international environment</i>	<i>Production of free, creative and inductive thinking</i>
<i>Working in an interdisciplinary environment</i>	<i>.....</i>
<i>Production of new research ideas</i>	<i>Others...</i>
	<i>.....</i>

Searching, analyzing, and synthesizing data and information using necessary theoretical knowledge and established technologies

Application of theoretical knowledge into practice

Autonomous work

Teamwork

Working in an interdisciplinary environment

Making decisions

Promoting free, creative, and inductive thinking

3. SYLLABUS

<p>SECTION A: MECHANICAL INSTALLATIONS</p> <ol style="list-style-type: none"> 1. General information on Mechanical Installations 2. Basic Concepts 3. Standards and Regulations 4. Internal Hydraulic Installations (Water supply-sewerage installations for rural buildings) 5. Fire Detection and Suppression Installations 6. Heating, Cooling, and Air Conditioning Installations 7. Natural Gas Installations 8. Biomass Energy Installations 9. Basic Regulations, Calculations, and Designs for Installations <p>SECTION B: ELECTRICAL INSTALLATIONS</p> <ol style="list-style-type: none"> 1. Introduction - Basic Concepts of Electrical Installations - HD 384 Standard - Dangers of Electric Current 2. High Voltage Conductors & Cables 3. Electrical Installation Materials 4. Protection and Control Arrangements 5. Lighting Circuits (Design - Study - Construction) & Electrical Diagrams (Single-line, Multi-line) 6. Motor Circuits 7. Electrical Power Supplies - Electrical Panels 8. Inspection of Electrical Installations According to HD 384 Standard

4. TEACHING and LEARNING METHODS - EVALUATION

<p>DELIVERY <i>Face-to-face, Distance learning, etc.</i></p>	Face to face	
<p>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i></p>	<p>✓ The use of ICT in teaching and communicating with students</p> <p>✓ Laboratory Training</p>	
<p>TEACHING METHODS <i>The manner and methods of teaching are described in detail.</i></p> <p><i>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i></p> <p><i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i></p>	<p>Activity</p>	<p>Semester workload</p>
	Lectures	90
	Laboratory exercises	60
		Course total
<p>STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure</i></p>	<p>1. Written Examination (Conclusive on Theory): 100%</p>	

<p><i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i></p> <p><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p>	<p>2. Technical Laboratory Reports: 40%</p> <p>3. Oral Examination in a Laboratory Environment: 60%</p>
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5. ATTACHED BIBLIOGRAPHY

<p>- Suggested bibliography:</p> <p>- Related academic journals:</p>
