

## COURSE OUTLINE

### (1) GENERAL

<b>SCHOOL</b>	ENGINEERING SCHOOL		
<b>ACADEMIC UNIT</b>	DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING		
<b>LEVEL OF STUDIES</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	EEE. 5.8	<b>SEMESTER</b>	5
<b>COURSE TITLE</b>	ENGLISH FOR SPECIFIC PURPOSES I		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <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>	<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>	
LECTURES	3	3	
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
<b>COURSE TYPE</b> <i>general background, special background, specialised general knowledge, skills development</i>	Special Background Course		
<b>PREREQUISITE COURSES:</b>			
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	English		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	Yes		
<b>COURSE WEBSITE (URL)</b>			

## (2) LEARNING OUTCOMES

### Learning outcomes

*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.*

*Consult Appendix A*

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

Upon completion of the course students will be able to:

- Understand scientific texts relative to the field of Electrical and Electronics Engineering, either globally (global understanding) or thoroughly (scanning-thorough comprehension)
- Acquire the terminology and syntax of scientific texts through various methods and techniques
- Analyze the structure and organization elements of scientific speech on multiple levels (sentence, paragraph, text)
- Produce oral speech and construct written speech of multiple forms (instructions, description of components, functions and processes, essay writing, reports, professional mail etc.)

Specifically, students will be able to:

- Acquire and use technical vocabulary, terminology and structure connected to the field of Electrical and Electronics Engineering
- Extract specific information from texts about components, devices, structures, and processes
- Identify devices, components, structures, processes and explain their function
- Understand the structure and function of devices and components
- Recognize differences between types of devices and components
- Understand the relation between structures, components and processes
- Understand the features and technical specifications of different components and devices
- Describe devices, components, structures, and processes
- Discriminate between different types of processes

### 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?*

*Search for, analysis and synthesis of data and information, with the use of the necessary technology*

*Adapting to new situations*

*Decision-making*

*Working independently*

*Team work*

*Working in an international environment*

*Working in an interdisciplinary environment*

*Production of new research ideas*

*Project planning and management*

*Respect for difference and multiculturalism*

*Respect for the natural environment*

*Showing social, professional and ethical responsibility and sensitivity to gender issues*

*Criticism and self-criticism*

*Production of free, creative and inductive thinking*

*.....*

*Others...*

- Search, analysis and synthesis of data and information, with the use of new technologies
- Individual project
- Group project /Team Work
- Working in an international environment: Communicative competence in the English Language.
- Working in a multidisciplinary field
- Respect for diversity and multiculturalism
- Critical thinking, self-criticism, self-esteem
- Generating free creative and inductive thinking

### (3) SYLLABUS

1. Electric Energy and Power
2. Resistance and Resistors / Conductors, Semiconductors, and Insulators / Capacitors and Capacitance
3. Electromagnetism and Electromagnetic Induction
4. Direct-current Circuits
5. Alternating current and Voltage
6. Energy Systems- Energy storage
7. Analogue & Digital Systems – Digital Processing
8. Logic Circuits
9. Electrical Measurements / Electrical Measuring Equipment
10. Circuit-protective Equipment – Grounding Systems
11. Computer Systems – Computer Networks
12. Electromagnetic Waves –Antennas
13. Transmitters & Receivers

### (4) TEACHING and LEARNING METHODS - EVALUATION

<b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i>	Lectures in class, face-to-face	
<b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with students</i>	Teaching using ICT, Laboratory Education using ICT, Communication and Electronic Submission of projects	
<b>TEACHING METHODS</b> <i>The manner and methods of teaching are described in detail. 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>	<i>Activity</i>	<i>Semester workload</i>
	Lectures	26
	Lecture material study	52
	Independent studying	12

<p>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</p>		
	Course total	90
<p align="center"><b>STUDENT PERFORMANCE EVALUATION</b></p> <p><i>Description of the evaluation procedure</i></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>Final examination: 100%</p> <p>Individual project/paper : up to 20%, added to total score</p>	

**(5) ATTACHED BIBLIOGRAPHY**

<ol style="list-style-type: none"> <li>1. English for Electrical Engineering, Tsatsaros P., Diros editions</li> <li>2. English for Electrical Engineers, J. MacAllister – G. Madama</li> <li>3. Authentic reading texts</li> </ol>
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