

## COURSE OUTLINE

### (1) GENERAL

<b>SCHOOL</b>	SCHOOL OF ENGINEERING		
<b>ACADEMIC UNIT</b>	DEPARTMENT OF ELECTRONICS ENGINEERING		
<b>LEVEL OF STUDIES</b>	GRADUATE		
<b>COURSE CODE</b>	8002007	<b>SEMESTER</b>	2
<b>COURSE TITLE</b>	Technology and Society		
<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 (ECTS)</b>	
Lectures	2	3	
E-learning	0		
<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>	Scientific Area		
<b>PREREQUISITE COURSES:</b>	None		
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek and English		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	YES		
<b>COURSE WEBSITE (URL)</b>	<a href="http://ies.teipir.gr">http://ies.teipir.gr</a>		

### (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 successful completion of this course, the students possess advanced knowledge, skills and competences that enable them to:

1. Know and understand, be able to outline and explain the historical evolution of the relationship between technology and society.
2. Analyze the dynamic interaction between these two poles and to forecast the consequences in the future.
3. Examine the formation of the relationship between technology and society under the status of the new conditions which may appear in the future.
4. Define their position and their actions as engineers concerning the integration of their activities in the society.

### 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

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Others...

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- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Working independently
- Team work
- Production of free, creative and inductive thinking

### (3) COURSE CONTENT

#### Lectures:

1. Introduction
2. Definitions of Creation, Technique, Technology and Society and their basic characteristics.
3. Analysis of their bidirectional relationships.
4. Historical flashback.
5. Mechanisms of technological development and determinism of the technology.
6. Socially inspired technological development.
7. Technologically supported social development.
8. Work and technology: relationships and impacts.
9. Economy and politics: interactions with the technology.
10. Education: prerequisite and result of social developments
11. Technophobia and technocracy.
12. Nature and environment: Competition and synergies to the technological and social framework
13. Globalization: Factor of re-specification of the relationships between technology and society

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

<b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i>	<ul style="list-style-type: none"> <li>• Face to face lectures in class</li> </ul>
<b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with students</i>	<ul style="list-style-type: none"> <li>• Use of electronic presentation with multimedia content in class,</li> <li>• Student support through the course webpage and the departmental e-learning platform (moodle),</li> <li>• Electronic communication of instructors and students, through the course webpage and by e-mail.</li> </ul>
<b>TEACHING METHODS</b> <i>The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice,</i>	Lectures, homework assignments / project, study.

<p><i>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>	<b>Activity</b>	<b>Semester workload (hours)</b>
	Lectures	26
	Study lecture material	26
	Homework assignments or project and report	26
	Study and preparation for the exams	10
	Visit a company / production plant / institution	2
	<b>Course Total</b>	<b>90</b>
<p style="text-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>Students will be assessed in this course based on</p> <ul style="list-style-type: none"> <li>• an oral grade based on participation in class and homework assignments / project reports (30%)</li> <li>• the midterm written test (35%)</li> <li>• the final written test (35%)</li> </ul>	

## (5) ATTACHED BIBLIOGRAPHY

### -Recommended Books

1. Bridgstock, Burch, Forge, Laurent, Lowe, *Science, Technology and Society, an Introduction*, Cambridge University Press (March 28, 1998), Online ISBN: 9780511620034.
2. François Russo, *Introduction à l' Histoire des Techniques*, Revue d' histoire des sciences, Année 1988, Vol. 41, Nr. 1, pp. 87-92.
3. Cutcliffe T., Mitcham C., *Visions of STS, Counterpoints in Science, technology and society studies*, 2001, Albany, NY, USA, State University of New York Press.

### -Recommended Books (only in greek)

- 1 Αγραφιώτης Δημοσθένης, *Επιστήμη Τεχνολογία Κοινωνία, Σχήματα Ανάλυσης και Εφαρμογές*, Εκδ. Ελληνικά Γράμματα, Αθήνα.
- 2 Καϊμάκη Βάλια, *Τεχνολογία και Κοινωνία*, Αυτοέκδοση, Ελεύθερη πρόσβαση στο URL: <http://valiakaimaki.gr/>.

### -Useful links

1. <http://www.journals.elsevier.com/technology-in-society/>

2. <http://sts.sagepub.com/>
3. [http://ieeessit.org/technology\\_and\\_society/](http://ieeessit.org/technology_and_society/)