

## SUBJECT SYLLABUS

Degree				Academic year
<b>144.2 BACHELOR'S DEGREE IN COMPUTER ENGINEERING</b>				<b>2012/13</b>
Subject code and title				Duration
<b>44229 Civic and Professional Ethics</b>				<b>Semester 2</b>
Type	Language	UD Credits	ECTS Credits	Group/Language
<b>COMPULSORY</b>	<b>SPA-ENG</b>	<b>6</b>	<b>6</b>	<b>10 / English</b>
Lecturer				
<b>Sasia Santos, Pedro Manuel</b>				

### DESCRIPTION

Student's education in the business world needs to incorporate the ethical dimension that affects both the individual in their professional performance and the company as an organization. For this purpose it is important for the student to be knowledgeable about the major ethical systems that have marked human thought and are still applicable in our culture. Also required is a deep study of the ethical dimensions of the company's activity, thus enabling the student to analyze issues incorporating justice as an unavoidable critical instance.

The practice of Engineering is a source of citizenship. It resembles a real and effective possibility for an active and responsible participation in our society. Participation that is based on the development of the rights and obligations inherently incorporated in our condition as members of social groups, with the Human Rights perspective as an unavoidable horizon.

By implementing this approach we intend to contribute to the Faculty's will to educate graduates who are specially sensitive towards and concerned about the human being and the improvement of society thus contributing with their work to the respect for the fundamental rights and the promotion of equality and democratic culture, at the same time as they help to develop more just, inclusive and egalitarian societies.

### PREREQUISITES

Basic knowledge on the philosophical concepts acquired in the pre-university stage.  
Students are expected to have an advanced level of oral and written English for this course.

### LEARNING OUTCOMES IN TERMS OF GENERIC AND SPECIFIC COMPETENCES

#### Generic Competence 2. C.G.2. ORAL COMMUNICATION

Expressing clearly and opportunely one's ideas, knowledge and feelings in speech, adapting to the audience and situation to ensure good comprehension and attention.

#### Level of Mastery

CG2.2. Taking the floor in groups with ease; conveying conviction and assurance, and adapting discourse to suit formal requirements

#### Generic Competence 7. C.G.7. ETHICAL SENSE

Being positively inclined toward the moral good of oneself or of others (that is, toward everything that is good or tends toward the wholesomeness or realisation of the individual) and perseverance in that moral goodness. Mastery of this competence is closely related to: analytical thinking, systemic thinking, critical thinking, problem-solving, decision-making, oral and written communication skills, interpersonal communication, diversity and interculturality, adaptability, responsibility, autonomy, justice, co-operation, etc.

#### Level of Mastery

CG7.2 Identifying, recognising and applying ethical values and moral sensibility

This subject does not have assigned specific competences

### CONTENTS

#### UNIT 1: TECHNO-SCIENTIFIC PHENOMENON AND ITS SOCIAL RELEVANCE

- ¿ Technological revolution and its social implications (economy, politics, culture).
- ¿ Science, Technology and Society
- ¿ The social challenges of technoscience

#### UNIT 2: TECHNOSCIENCE AND CITIZENSHIP

- ¿ The unavoidable ethical dimension of Technoscience.
- ¿ Human Rights as the ethical guide for techoscientific activities.
- ¿ Citizenship as a social category from the Human Rights perspective.

#### UNIT 3: ENGINEERING AS A PROFESSION

- ¿ Professionalism: a specific way of citizenship.

- ¿ Engineering as a profession: its social contribution
- ¿ Complementarity between Citizen ethics and Professional ethics

**UNIT 4: PROFESSIONAL ETHICS AND ITS PRINCIPLES**

- ¿ Professional Ethics
- ¿ Beneficence / Autonomy / Justice.
- ¿ Deviations in professional ethics.

**UNIT 5: RESPONSIBILITY AS A CENTRAL CATEGORY IN ENGINEERING**

- ¿ Risk: definition, characteristics and management.
- ¿ The virtue of the Prudence. Facing moral dilemmas.
- ¿ Moral responsibility. Responsibility in Engineering.

**UNIT 6: REGULATORY FRAMES: PROFESSIONAL DEONTOLOGY AND ORGANIZATIONAL ETHICS**

- ¿ Professional Codes.
- ¿ Organizational ethics
- ¿ Specific cases: Companies / Public Administration / NGOs

**TEACHING-LEARNING STRATEGY**

The strategy is based on a simultaneous development of the theoretical contents and the practical activities, both in class and outside it, looking for a progressive feedback between them.

At the beginning of the course, the students will answer an anonymous questionnaire, aimed to check the expectations, preconceptions and level on knowledge regarding civic and professional ethics.

Each Unit is structured according to the following activities:

- Initial presentation by the Lecturer, introducing the general structure of the unit and the basic concepts, pointing out its relevance and putting them in relation with the rest of the units.
- GROUP ACTIVITY: Written report realized in class by each group about questions raised in a text about actual implications of the unit contents, to motivate the reflection about these unit contents
- PRESENTATION of the Unit performed by one group. The group will use the contents raised in the first two activities, as well as bibliography and other relevant documents.
- Final conclusions by the Lecturer, stressing some points raised during the previous activities and answering questions presented by students.

In parallel to this unit-based structure, the course will include the following activities:

- In classroom DEBATES. Debates will be performed between two groups of students and the topic will be related to relevant ethical questions in engineering. The position to be defended during the debate should be prepared by each group by means of bibliographical search, argument elaboration, etc. Before the debate, each group must prepare a written dossier with a general description of its position and the basic arguments that will be used. During the debate, every member of the group must participate at least once.
- INDIVIDUAL Exercises: Once per month, the students will deliver an individual written report about some specific ethical questions in engineering. These reports will be individually checked and commented in classroom.
- TEXT READING: At least once during the semester, the student will perform a written report about a text. The contents of that report must include a critical vision of the ideas offered by the text, making connections with different topics of the civic and professional ethics. The report will be individually checked and commented in classroom.

At the end of the course, the students will answer again the anonymous questionnaire presented in the first session, in order to assess the evolution of the preconceptions and level of knowledge regarding civic and professional ethics.

Time Distribution:

In Classroom Hours and Activities: 50 hours.

- Initial Presentation by Lecturer 10 hours.
- Group Activities 8 hours.
- Debates 8 hours.
- Group Presentations 8 hours.
- Final Questions 16 hours.

Outside Classroom Hours and Activities: 100 hours.

- Text Reading and report: 30 hours.
- Individual Reports: 32 hours.
- Preparation of presentations and debates: 16 hours.
- Preparation and realization of Final Exam: 22 hours.

**ASSESSMENT SYSTEM**

Generic competences will be evaluated by the progressive learning methodology described above. Final assessment will be achieved according to the following distribution:

201213-144-2-44229-EN

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- CONTINUOUS ASSESSMENT (70%):  
Individual Reports (20%): CG1 5% CG2 15%  
Debate (15%): CG1 10% CG2 5%  
Presentation (15%): CG1 10% CG2 5%  
Group Activities in classroom (10%): CG1 5% CG2 5%  
Report on text Reading (10%): CG1 5% CG2 5%

- FINAL EVALUATION (Final Exam) (30%): CG1 5% CG2 25%

The delivering of all the Individual Reports and the Text Reading Report is a compulsory condition to pass the course. Having a minimum score of 50% in the continuous evaluation (CE) is also required.

Resit examination period: the student will be evaluated of the failed competences in a resit examination period. This evaluation will be performed by means of the same assessment structure as in the regular course.

The competences that have been passed in the regular course are not re-evaluated in the resit examination period, but will not be considered as passed in the next years, when the student will have to perform the whole assessment process.

## **BIBLIOGRAPHY**

Basic Lectures:

Davis, M. (2009). Is engineering a profession everywhere? *Philosophia*, 37, 211-225.

Tavani, H. (2004), *Ethics and Technology: Ethical Issues in an Age of Information and Communication Technology*, Hoboken, NJ: John Wiley and Sons; Second Edition, 2007

Van den Hoven, J. and J. Weckert (2008), *Information Technology and Moral Philosophy*, Cambridge: Cambridge University Press.

Weiss, J. W. (2009): *Business ethics : a stakeholder and issues management approach with cases*, South-Western

Web pages:

Stanford Encyclopedia of Philosophy: <http://plato.stanford.edu/>