



University of Engineering and Technology
School of Computer Science
Syllabus of Course – Academic Period 2017-I

1. Code and Name: GH2010. Ethics and Technology

2. Credits: 2

3. Hours of theory and Lab: 1 HT; 2 HP;

4. Professor(s)

Meetings after coordination with the professor

5. Bibliography

[Alo06] García. Alonso. *Ética o Filosofía moral*. México, Editorial Trillas, 2006.

[Mar05] Alvarado. Martín. *Ética*. México, Editorial Trillas, 2005.

6. Information about the course

(a) **Brief description about the course** This course seeks to provide students with certain frameworks with which to analyze the dilemmas that can be presented in their professional practice. The course puts in practice the critical and responsible reasoning of the students, being this a fundamental competence for the decision-making processes that we will assume as professionals and citizens.

(b) **Prerequisites:**

(c) **Type of Course:** Mandatory

7. Competences

- Introduce students to critical and ethical thinking applied to their professional field.
- Developing the competence to look at a phenomenon from various disciplines and perspectives generates in the person empathy and respect for diversity of opinion.
- Ability to work in a team.
- Ability to identify problems
- Oral communication skills
- He is interested in learning about current issues of Peruvian society and the world.
- Written communication skills..

8. Contribution to Outcomes

d) An ability to function on multidisciplinary teams. (**Usage**)

e) Understand correctly the professional, ethical, legal, security and social implications of the profession. (**Usage**)

f) An ability to communicate effectively. (**Usage**)

n) Apply knowledge of the humanities in their professional work. (**Usage**)

o) Improve the conditions of society by putting technology at the service of the human being. (**Usage**)

9. Competences (IEEE)

C10. Understanding of the impact on individuals, organizations, and society of deploying technological solutions and interventions.⇒ **Outcome d,n,o**

C17. Ability to properly express in oral and written media as expected from a university graduate. ⇒ **Outcome f**

C18. Ability to participate actively and as a member of a team. .⇒ **Outcome f**

C21. Understanding the professional, legal, security, political, humanistic, environmental, cultural and ethical issues. ⇒ **Outcome e**

10. List of topics

1. Ética, ciencia y tecnología.
2. Responsabilidad en la ciencia e ingeniería
3. Ciudadanía y ejercicio de la justicia en la era digital

11. Methodology and Evaluation

Methodology:

Theory Sessions:

The development of the theoretical sessions is focused on the student, through his active participation, solving problems related to the course with the individual contributions and discussing real cases of the industry. The students will develop throughout the course a project of application of the tools received in a company.

Lab Sessions:

Practical sessions are held in the laboratory. Laboratory practices are performed in teams to strengthen their communication. At the beginning of each laboratory the development of the practice is explained and at the end the main conclusions of the activity in group form are highlighted.

Oral Presentations :

Individual and team participation is encouraged to present their ideas, motivating them with additional points in the different stages of the course evaluation.

Reading:

Throughout the course different readings are provided, which are evaluated. The average of the notes in the readings is considered as the mark of a qualified practice. The use of the UTEC Online virtual campus allows each student to access the course information, and interact outside the classroom with the teacher and with the other students.

Evaluation System:

12. Content

Unit 1: Ética, ciencia y tecnología. (12)	
Competences Expected: 4	
Learning Outcomes	Topics
<ul style="list-style-type: none">• Strengthen the student's ability to think interdisciplinarily.	<ul style="list-style-type: none">• Definition and scope of ethics Critical thinking / ethical argumentation.• Science and Technology, are engineering and technology issues objective?• Technology: concept and limits.• Importance of ethics in science and engineering.
Readings : [Alo06]	

Unit 2: Responsabilidad en la ciencia e ingeniería (24)	
Competences Expected: 3	
Learning Outcomes	Topics
<ul style="list-style-type: none"> • Understand professional and ethical responsibilities. 	<ul style="list-style-type: none"> • Scope of the concept Responsibility in science (Imperative of Responsibility) • Introduction to the subject Responsibility / freedom
Readings : [Mar05]	

Unit 3: Ciudadanía y ejercicio de la justicia en la era digital (30)	
Competences Expected: 3	
Learning Outcomes	Topics
<ul style="list-style-type: none"> • Understands the impact of engineering solutions in a global, economic, environmental and societal context. 	<ul style="list-style-type: none"> • Introduction to the issue of citizenship in the digital age • Technology, new activism and citizenship
Readings : [Mar05]	