



PERSONA CIÈNCIA EMPRESA
UNIVERSITAT RAMON LLULL

COURSE: ETHICS

SUBJECT MATTER: Ethics

MODULE: Professional Supplements

PROGRAM: Degree in Chemical Engineering

Page 1 of 5

GENERAL CHARACTERISTICS

Type: Basic formation, Compulsory, Elective

Final Degree Project, Internship

Duration: Semestral

Semester/s: 5

Number of ECTS credits: 5

Language/s: Spanish, Catalan

DESCRIPTION

SHORT DESCRIPTION AND JUSTIFICATION

After a brief introduction to the philosophy of science and the philosophy of the technique, the relations between science, technology and society are analyzed. Subsequently, an introduction to ethics and, in particular, to applied ethics and professional ethics is carried out.

Ethics course aims to provide students with the skills necessary to become aware of the *raison d'être* of their profession; To take into account the consequences of their decisions and professional actions, both at the individual level and the professional group; And finally, to make reasoning that will allow him to solve the ethical problems that may arise in his professional practice.

COMPETENCES

- Be able to incorporate ethical arguments to work in a professional environment in a responsible manner. (T4)
- Be able to understand and apply general knowledge of Ethics for its application in the field of Chemistry. (CB1, E3)
- Ability to become aware of the *raison d'être* of their profession, to take into account the consequences of their professional decisions and actions and to make ethical reasoning in the face of problems and dilemmas that may arise in their professional practice. (CP1)

PREREQUISITES

According to the program planning and academic regulations.

COURSE: ETHICS

SUBJECT MATTER: Ethics

MODULE: Professional Supplements

PROGRAM: Degree in Chemical Engineering

Page 2 of 5

CONTENTS

1. Are Science and technology neutral?
 - 1.1. Analysis of previous ideas
 - 1.2. What is science?
 - 1.3. Technique, technology and technoscience.
 - 1.4. The question of neutrality in science and technology.
 - 1.5. The relations between science, technology and society.

2. Introduction to Ethics.
 - 2.1. Ethics and Morals.
 - 2.2. The moral character of man.
 - 2.3. The different types of standards.
 - 2.4. The main ethical proposals.

3. Professional Ethics.
 - 3.1. Applied Ethics
 - 3.2. Professional Ethics.
 - 3.3. Ethical Codes.
 - 3.4. Case Analysis.

METHODOLOGY

LEARNING ACTIVITIES

Learning activities	Hours	ECTS Credits	Competences
Lectures	24	0,9	CB1, E3, T4, CP1
Case and Problem-Solving Sessions	19	0,7	CB1, E3, T4, CP1
Seminars	-	-	-
Practical & Lab Work	-	-	-
Presentations	-	-	-
Personal study	86	3,2	CB1, E3, T4, CP1
Assessment Tasks (Exams, Continuous Assessment...)	5	0,2	CB1, E3, T4, CP1
TOTAL	134	5,0	

COURSE: ETHICS

SUBJECT MATTER: Ethics

MODULE: Professional Supplements

PROGRAM: Degree in Chemical Engineering

Page 3 of 5

TEACHING METHODOLOGY

Lectures - Presentation and explanation of contents by a professor (possibly including demonstrations).

Case and Problem-Solving Sessions - Resolution of exercises and problems, and exposition / discussion of cases by a professor with the active participation of students.

Personal study activities - Personal work of the student necessary to acquire the competences of each subject matter, and to assimilate the knowledge exposed in lectures and case and problem-solving sessions, using the recommended reference materials. They also include the preparation of tasks related to the other activities, and the preparation of exams.

Assessment Tasks - Oral and / or written tests made during the academic period of a course, or once it has finished (final exams, follow-up controls).

ASSESSMENT

ASSESSMENT METHODS

Assessment Methods	Weight (%)	Competences
Final Exam	40	CB1, E3, T4, CP1
Midterm Exam/s	--	
Follow-up Activities	30	CB1, E3, T4, CP1
Reports and Presentations	30	CB1, E3, T4, CP1
Lab or Field Work	-	
Projects	-	
Host Student Evaluation	-	
Participation	-	

LEARNING OUTCOMES

1. The student will be able to define in detail the concepts "science", "technique", "technology", and "technoscience" (CB1, E3, CP1).
2. The student will be able to characterize scientific knowledge (CB1, E3, CP1).
3. The student will be able to describe the main proposals that explain the evolution of science (CB1, E3, CP1).
4. The student will be able to characterize the scientific and technical subsystems, as well as the relationships of these with the rest of the subsystems that compose the social and natural systems (CB1, E3, CP1).
5. The student will be able to give reason for the non-neutral axiology of the science and the Technique (CB1, E3, T4, CP1).



COURSE: ETHICS

SUBJECT MATTER: Ethics

MODULE: Professional Supplements

PROGRAM: Degree in Chemical Engineering

Page 4 of 5

6. The student will be able to characterize the relationship of man with the technique over time (CB1, E3, T4, CP1).
7. The student will be able to distinguish between Ethics and Morals (CB1, E3, T4, CP1).
8. The student will be able to give reason for the moral character of Man (CB1, E3, T4, CP1).
9. The student will be able to distinguish between legal norm, social norm, technical norm and moral norm (CB1, E3, T4, CP1).
10. The student will be able to characterize and compare the main currents of ethical fundamentals (CB1, E3, T4, CP1).
11. The student will be able to give reason for the fundamentals of Professional Ethics (CB1, E3, T4, CP1).
12. The student will be able to give reason for the meaning of his profession (CB1, E3, T4, CP1).
13. The student will be able to formulate the main elements of the business ethic (CB1, E3, T4, CP1).
14. The student will be able to analyze professional codes (CB1, E3, T4, CP1).
15. The student will be able to formulate and argue ethical judgments based on the cases proposed to him (CB1, E3, T4, CP1).

QUALIFICATION

The grade corresponding to the course of Ethics is obtained by means of the weighted average* of the marks of the different assessment methods indicated in the table of the section "Assessment" according to the following values:

- 40% Final Exam
- 30% follow-up Activities performed at class time
- 30% Jobs

* The average will be carried out only if the mark of each assessment method is equal to or greater than 3 (over 10). If the mark of any one of the methods is less than 3 (over 10), the course will be failed with a maximum grade of 3 (over 10).

In the second and subsequent calls, only the qualifications of follow-up and final Examination Activities can be improved. To improve the qualification of Reports and Presentations, you should consult with the professor.



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COURSE: ETHICS

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Page 5 of 5

ASSESSMENT OF THE COMPETENCES

For the evaluation of competence CB1/E3, it will be used as an indicator the mark of continuous assessment activities and the mark of reports and presentations.

For the evaluation of competence T4, it will be used as an indicator the mark of reports, case-based exercises and the mark of the final exam.

For the evaluation of the CP1 competence, the final grade of the subject will be used as an indicator.

BIBLIOGRAPHY

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- Arendt, H., *Eichmann en Jerusalén*, Debolsillo, Barcelona, 2006.
- Etxeberria, X., *Temas básicos de ética*, Desclée de Brouwer, Bilbao, 2002.
- Florensa, A. *La vida humana en el medi tècnic*, Claret, Barcelona, 2010.
- Florensa, A., Sols, J., *Ética de la investigación científica*, Desclée de Brouwer, Bilbao, 2017.
- Han, Byung-Chul, *La sociedad del cansancio*, Herder, Barcelona, 2012.
- Mishra Pankaj, *La edad de la ira*, Galaxia Gutenberg, Barcelona, 2017.

DOCUMENT HISTORY

PREVIOUS REVISIONS

September 4th, 2017, Dr. Albert Florensa

CURRENT REVISION

September 10th, 2018, Dr. Albert Florensa