



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

1. **Code and Name:** XD101. Interdisciplinary Project I

2. **Credits:** 2

3. **Hours of theory and Lab:** 2 HT;

4. **Professor(s)**

Meetings after coordination with the professor

5. **Bibliography**

[Zob14] Justin Zobel. *Writing for Computer Science*. Springer, Londres, 2014.

6. **Information about the course**

(a) **Brief description about the course** Interdisciplinary Projects I is a course in which students work in teams in a research and development or entrepreneurship project, in order to propose a solution to a relevant problem. The development of the project focuses on the use of engineering, technology and computer science tools to propose solutions to technical, technological, scientific and / or social problems. The integration of Knowledge and multidisciplinary and interdisciplinary aspects is an essential element for the success of the project. Throughout the course, the student learns about the design process, to apply the contents of his career to a real context; To identify and acquire new relevant knowledge; And to collaborate interdisciplinarily. In this first course of Interdisciplinary Projects, the student is exposed to problems of moderate complexity, with low level of uncertainty in the problem and solution, and has the support and close supervision of the project advisor. The course emphasizes the development and reinforcement of effective communication and collaboration skills to foster the formation of high performance teams. It learns to manage projects, applying good practices and international standards.

(b) **Prerequisites:** CS113. Programación Orientada a Objetos II. (3^{er} Sem)

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

7. **Competences**

- Identify problems
- Design a component or process to meet the desired needs within realistic constraints

8. **Contribution to Outcomes**

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

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

9. **Competences (IEEE)**

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

C19. Ability to effectively identify the goals and priorities of their project, stating the action, the time and resources required. ⇒ **Outcome n**

10. **List of topics**

1. Interdisciplinary Project I

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: Interdisciplinary Project I (16)	
Competences Expected: C17	
Learning Outcomes	Topics
<ul style="list-style-type: none">• Development of critical thinking in decision making in product design processes or conducting research.	<ul style="list-style-type: none">• Develop ideas related to the multiple disciplines that bring the student to a real idea of a company.
Readings : [Zob14]	