



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

1. **Code and Name:** CS403. Final Project II

2. **Credits:** 4

3. **Hours of theory and Lab:** 2 HT; 4 HP;

4. **Professor(s)**

Meetings after coordination with the professor

5. **Bibliography**

[Ass08] Association for Computing Machinery. *Digital Library*. <http://portal.acm.org/dl.cfm>. Association for Computing Machinery, 2008.

[Cit08] CiteSeer.IST. *Scientific Literature Digital Library*. <http://citeseer.ist.psu.edu>. College of Information Sciences and Technology, Penn State University, 2008.

[IEE08] IEEE-Computer Society. *Digital Library*. <http://www.computer.org/publications/dlib>. IEEE-Computer Society, 2008.

6. **Information about the course**

(a) **Brief description about the course** This course aims at the student to conclude his thesis project.

(b) **Prerequisites:** CS402. Proyecto de Final de Carrera I. (8^{vo} Sem)

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

7. **Competences**

- That the student is in the capacity to formally present his thesis project with the theoretical framework and complete bibliographic survey.
- That the student master the state of the art of his area of research.
- The deliverables of this course are:

Avance parcial: Thesis plan progress including motivation and context, problem definition, objectives, schedule of activities up to the final thesis project and the state of the art of the topic addressed.

Final: Complete thesis plan and advancement of Thesis including theoretical framework chapters, related works and preliminary (formal or statistical) results oriented to your thesis topic.

8. **Contribution to Outcomes**

a) An ability to apply knowledge of mathematics, science. (**Assessment**)

b) An ability to design and conduct experiments, as well as to analyze and interpret data. (**Assessment**)

c) An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability. (**Assessment**)

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

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

h) A recognition of the need for, and an ability to engage in life-long learning. (**Assessment**)

i) An ability to use the techniques, skills, and modern computing tools necessary for computing practice. (**Assessment**)

1) Develop principles research in the area of computing with levels of international competitiveness. (**Assessment**)

9. Competences (IEEE)

C1. An intellectual understanding and the ability to apply mathematical foundations and computer science theory.⇒
Outcome a,b,c

C20. Ability to connect theory and skills learned in academia to real-world occurrences explaining their relevance and utility.⇒ **Outcome e,f,g**

CS2. Identify and analyze criteria and specifications appropriate to specific problems, and plan strategies for their solution.⇒ **Outcome h,i,l**

10. List of topics

1. Thesis project
2. Thesis progress

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: Thesis project (30)	
Competences Expected: C1,C20,CS2	
Learning Outcomes	Topics
<ul style="list-style-type: none">• Description of the format used by the University for the thesis[Assessment]• Conclude the thesis project plan[Assessment]• Present the state of the art thesis topic(50%)[Assessment]	<ul style="list-style-type: none">• Thesis project.
Readings : [IEE08], [Ass08], [Cit08]	

Unit 2: Thesis progress (30)	
Competences Expected: C1,C20,CS2	
Learning Outcomes	Topics
<ul style="list-style-type: none"> • Description of the format used by the University for the thesis[Assessment] • Conclude the chapter of the theoretical framework of the Thesis[Assessment] • Complete the chapter on related works(35%)[Assessment] • Plan, develop and present results (formal or statistical) of experiments oriented to your thesis topic (35%)[Assessment] 	<ul style="list-style-type: none"> • Thesis Progress.
Readings : [IEE08], [Ass08], [Cit08]	