



University of Engineering and Technology
School of Computer Science
Syllabus of Course
Academic Period 2018-II

1. **Code and Name:** CS3909. Pre Professional Project
2. **Credits:** 8
3. **Hours of theory and Lab:** 8 HT;
4. **Professor(s)**

Meetings after coordination with the professor

5. Bibliography

- [Ass08] Association for Computing Machinery. *Digital Libray*. <http://portal.acm.org/dl.cfm>. Association for Computing Machinery, 2008.
- [Cit08] CiteSeer.IST. *Scientific Literature Digital Libray*. <http://citeseer.ist.psu.edu>. College of Information Sciences and Technology, Penn State University, 2008.
- [IEE08] IEEE-Computer Society. *Digital Libray*. <http://www.computer.org/publications/dlib>. IEEE-Computer Society, 2008.

6. Information about the course

- (a) **Brief description about the course** This course aims to learn how to make a research of a scientific nature in the area of computing. The course teachers will determine a study area for each student, and will be given bibliography to analyze and from the same, and additional bibliographic sources (investigated by the student), the student should be able to construct an article of the Type survey of the assigned topic.
- (b) **Prerrequisites:** GH0015. Image and personal brand . (6th Sem)
- (c) **Type of Course:** Mandatory
- (d) **Modality:** Face to face

7. Specific goals of the Course

- Let the student learn how to start a scientific research in the area of computing.
- That the student knows the main sources to obtain bibliography relevant for research works in the area of computation: Researchindex, IEEE-CS¹, ACM².
- That the student is able to analyze the existing proposals on a particular topic and relate them consistently in a bibliographic review.
- That the student can write technical documents in computing using \LaTeX .
- That the student is able to reproducir The results already existing in a given topic through experimentation .
- Los entregables de este curso son:

Partial Advancement: Dominio del tema del artículo y bibliografía preliminar en formato de artículo \LaTeX .

Final: Understanding of the article of the survey type, document concluded where the experimental results of the studied techniques are optionally contained.

¹<http://www.computer.org>

²<http://www.acm.org>

8. Contribution to Outcomes

- b) An ability to design and conduct experiments, as well as to analyze and interpret data. (**Familiarity**)
- 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. (**Familiarity**)
- e) Understand correctly the professional, ethical, legal, security and social implications of the profession. (**Usage**)
- f) An ability to communicate effectively. (**Familiarity**)
- i) An ability to use the techniques, skills, and modern computing tools necessary for computing practice. (**Usage**)
- l) Develop principles research in the area of computing with levels of international competitiveness. (**Familiarity**)
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9. Competences (IEEE)

- C1.** An intellectual understanding and the ability to apply mathematical foundations and computer science theory.⇒
Outcome 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 i,l**
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Outcome 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 i,l**

10. List of topics

- 1.

11. Methodology and Evaluation

Methodology:

Theory Sessions:

The theory sessions are held in master classes with activities including active learning and roleplay to allow students to internalize the concepts.

Lab Sessions:

In order to verify their competences, several activities including active learning and roleplay will be developed during lab sessions.

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: (60)	
Competences Expected: C1,C20,CS2	
Learning Outcomes	Topics
<ul style="list-style-type: none"> • Learn to do a correct research in the area of computing[Usage] • To know the sources of adequate bibliography for this area[Usage] • Know how to write a document according to the characteristics that conferences in this area require[Usage] 	<ul style="list-style-type: none"> • Bibliographic search in computer science. • Writing technical articles in computing.
Readings : [IEE08], [Ass08], [Cit08]	