



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

1. **Code and Name:** GH2011. Innovación y Desarrollo de Productos
2. **Credits:** 2
3. **Hours of theory and Lab:** 4 HP;
4. **Professor(s)**

Meetings after coordination with the professor

**5. Bibliography**

[Mar13] Morales. Mario. *Adiós a los Mitos de la Innovación : Una Guía Práctica para Innovar en América Latina*. San José, Costa Rica: Innovare, 2013.

**6. Information about the course**

- (a) **Brief description about the course** This course is designed to provide students with a sound understanding of the innovation process within a company. It focuses on applying entrepreneurial innovation skills within a well-established company. This is known as Intrapreneurship. It's the third of a set of three courses designed to accompany students as they transform an idea into a prospective business or venture. The student will experience the process from the phase of ideation to reviewing current business strategies. The material seen in this course answers 2 main questions: What should you do? and How should you get it done?.
- (b) **Prerequisites:** BM101. Gestión de Empresas. (4<sup>to</sup> Sem)
- (c) **Type of Course:** Mandatory

**7. Competences**

- Identify how innovation relates to the entrepreneurial and intrapreneurial process.
- Familiarize themselves with innovation tools and practice how to make use of them.
- Learn how to integrate innovation into the business cycle.
- Understand the importance of strategy and implementation and how an idea needs to be accompanied by an effective implementation plan.
- Information analysis.
- Interpreting information and results.
- Teamwork.
- Ethics.
- Oral communication.
- Written communication.
- Graphical communication.
- Understands the need to learn on a continuous basis.

**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. Innovation and Product development.

## 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

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| <b>Unit 1: Innovation and Product development. (12)</b>   |  |
| <b>Competences Expected: 4</b>  |  |
| <b>Learning Outcomes</b>  | <b>Topics</b>  |
| <ul style="list-style-type: none"> <li>• Students will have acquired a set of tools to help them along the innovation process ,including innovation management strategies.</li> </ul> | <ul style="list-style-type: none"> <li>• Creativity:understanding how our brain works.</li> <li>• Innovation :Who,what ,why,when, where?</li> <li>• The big myths on innovation.</li> <li>• Innovation strategies :how to introduce innovation within a company .</li> <li>• The innovation process.</li> <li>• Managing innovation.</li> <li>• How to structure and coordinate innovation.</li> <li>• Implementing and managing innovation.</li> <li>• Corporate spinouts.</li> <li>• Entrepreneurs and intrapreneurs.</li> <li>• Circular economy</li> <li>• Carbon footprint</li> <li>• Eco efficiency.</li> <li>• Product development</li> </ul> |
| <b>Readings :</b> [Mar13]   |  |