Universidad Zaragoza
1542

**Year : 2018/19**

# 30243 - Prerequisite Engineering

## Syllabus Information

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| **Academic Year:** | 2018/19 |
| **Subject:** | 30243 - Prerequisite Engineering |
| **Faculty / School:** | 110 - |
| **Degree:** | 439 - Bachelor's Degree in Informatics Engineering |
| **ECTS:** | 6.0 |
| **Year:** | 3 |
| **Semester:** | Indeterminate |
| **Subject Type:** | |
| **Module:** | --- |

## General information

## Aims of the course

1. To provide a deep introduction to the students to one of the most relevant Software Engineering cycles.
2. To succeed in providing the student with the necessary skills for developing a Software Requirements Engineering process.
3. To provide students with useful techniques in Requirements Engineering.
4. To provide students with meaningful procedures used in Requirements Engineering.
5. To train the students in software analysis tools so that to apply them to real problems.

## Context and importance of this course in the degree

Requirements Engineering is an obligatory subject in the Software Engineering area which is tough in the third year of the Computer Science Degree. Its scheduling is aimed to provide the students with specific knowledge for software requirements elicitation together with other essential issues related to the software cycle. These are developed in other subjects such as Projects, Software Architecture and Verification and Validation.

## Recommendations to take this course

The student should have done previous subjects in the following topics:

- Programming, and advanced Programming
- Data Structures and Algorithms

## Learning goals

## Competences

## Learning goals

## Importance of learning goals

## Assessment (1st and 2nd call)

## Assessment tasks (description of tasks, marking system and assessment criteria)

## Methodology, learning tasks, syllabus and resources

## Methodological overview

The learning process for this subject has been conceived according to the following issues:

1. Master classes.
2. Personal study.
3. Practical Seasons and Problems
4. Deveolpment of a real practical problem.

## Learning tasks

The program offered to the student consists of the following activities:

1. Development of the program for the subject in lectures.
2. Application of specific concepts and techniques presented in the subject program along the term in practical lessons.
3. Application of concepts and techniques along the course in guided lessons.

## Syllabus

I. Introduction and Basic Concepts

L1. Introduction to Software Engineering

L2. Introduction to Requirements Engineering

II. Analysis and Requirements Engineering

L3. Inception and Elicitation of Requirements

L4. Writing and Reviewing Requirements

L5. Analysis of Requirements

III. Qualification and Management of Requirements

L6. Quality and Management of Requirements

L7. Verification and Validation of Requirements

## Course planning and calendar

The schedule for the subject will be defined according to the academic calendar defined by the School.

Temporal Distribution

- 30 hours for theoretical lessons
- 15 hours for problem sessions

- 15 hours for practical sessions
- 15 hours for individual work

## Bibliography and recommended resources

[BB: Bibliografía básica / BC: Bibliografía complementaria]


- [BB] 2. Sommerville, Ian. Ingeniería del software / Ian Sommerville ; Traducción José Alejandro Domínguez Torres ; Revisión técnica Sergio Fuenlabrada Velázquez...[et al.] . - 6a ed. Mexico [etc.] : Pearson Educación, 2002
- [BB] 3. Jacobson, Ivar. El proceso unificado de desarrollo de software UML / Ivar Jacobson, Grady Booch, James Rumbaugh ; Traducción Salvador Sánchez...[et al.] . - [1a. ed. en español] Madrid [etc.] : Addison Wesley, D.L.2000
- [BB] 4. Pressman, Roger S.. Ingeniería del Software : un enfoque práctico / Roger S. Pressman . - 7ª ed. México D. F. : McGraw-Hill Interamericana, cop. 2010
- [BB] 5. Kontoya, Gerald. Requirements Engineering: Processes and Techniques / Gerald Kontoya, Ian Sommerville Wiley, 1998
- [BB] 6. Sommerville, Ian. Requirements Engineering: A Good Practice / Ian Sommerville, Pete Sawyer. Guide Wiley, 1997
- [BB] 7. Lauesen, Soren. Software Requirements: Styles and Techniques / Soren Lauesen Addison-Wesley Professional, 2002
- [BB] Hull, Elizabeth. Requirements engineering / Elizabeth Hull, Ken Jackson, Jeremy Dick . 3rd ed. London [etc.] : Springer, cop. 2011