

30242 - Warantee and Security

Syllabus Information

Academic Year: 2020/21

Subject: 30242 - Warantee and Security

Faculty / School: 110 - Escuela de Ingeniería y Arquitectura

Degree: 439 - Bachelor's Degree in Informatics Engineering

ECTS: 6.0

Year: 4

Semester: Second semester

Subject Type: ---

Module: ---

1.General information

1.1.Aims of the course

1.2.Context and importance of this course in the degree

1.3.Recommendations to take this course

2.Learning goals

2.1.Competences

2.2.Learning goals

2.3.Importance of learning goals

3.Assessment (1st and 2nd call)

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

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of teaching and learning are implemented, such as:

- Lectures
- Problem-solving classes.
- Laboratory sessions.
- Practical work.
- Study and personal work.

4.2.Learning tasks

The course includes the following learning tasks:

- Lectures
- Problem-solving classes.
- Laboratory sessions.
- Practical work.
- Study and personal work.

4.3.Syllabus

The course will address the following topics:

- Mission Critical Facilities and RAS (Reliability, Availability, Serviceability)
- Techniques to increase reliability and fault tolerance in the processor, memory and I/O. Chips and systems-oriented server chip. Case Study: IBM, Oracle, Intel, AMD, ARM, etc.
- Role of the operating system in the supply RAS: partitioning, paging and reconfigurable migration. Graduation system failures, preventive diagnosis, hot repair and degraded operation. Protection mechanisms and security policies and user identification security. Case Study: Oracle Solaris, IBM z series (OS, VM, VSE, etc.)
- Virtual machines (VM): VM user and VM system. Performance and architecture support the execution of MV. Applications and advantages of the MV: administration, security, migration and consolidation. Case Study: VirtualBox, Parallels, VMware, QEMU, Windows Virtual PC, etc.
- System Architecture: e-mail and web

4.4.Course planning and calendar

Schedule sessions and presentation of works

It will be published when the academic calendar is approved.

4.5.Bibliography and recommended resources

[BB: Bibliografía básica / BC: Bibliografía complementaria]

<http://psfunizar7.unizar.es/br13/egAsignaturas.php?codigo=30242&Identificador=14707>

- [BB] Smith, James Edward. Virtual machines : versatile platforms for systems and processes / James E. Smith, Ravi Nair . Elsevier, 2005