


UNIVERSIDAD DE SEVILLA
Escuela Técnica Superior
de Ingeniería Informática
Departamento de Lenguajes
y Sistemas Informáticos

RE Presentation

2016-2017

*Software Engineering and Databases Group
Department of Computer Languages and Systems
University of Seville
September 2016*

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- Course learning objectives (I)
 - When passed, the student should be able to:
 - Understand the basics of **requirements engineering** and its relationship with the rest of software development.
 - **Interact** with **customers & users** in structured interviews and meetings.
 - Analyze **problem domains** and develop **glossaries of terms**.
 - Analyze **organizations** and model their **business processes**, their **positive and negative aspects** and their **business objectives**.


1. Subject goals

2. Theory

3. Project

4. Tools


5. Evaluation



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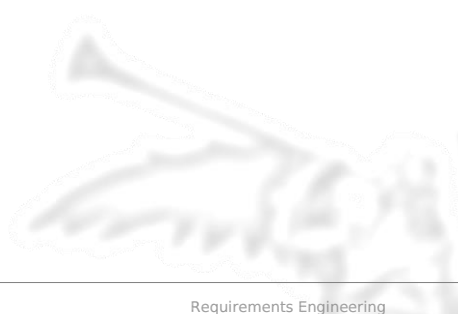
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- Course learning objectives (II)
 - When passed, the student should be able to:
 - Understand the different types of **requirements**, how to **write them** and their most usual attributes.
 - Develop complex **conceptual models** from requirements.
 - Understand and set **traceability** relationships between RE and other development **products**.



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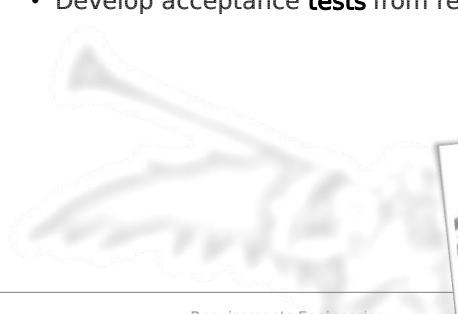
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- Course learning objectives (III)
 - When passed, the student should be able to:
 - Work in groups on a **project** to develop a complete **Requirements Specification**.
 - Verify the **quality** of a requirements specification.
 - Validate a requirements specification using user interface **prototypes**.
 - Develop acceptance **tests** from requirements.



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- **Module I: IISSI Revision**
 - Basics of Software Engineering
 - Software project & products
 - Software lifecycles
- **Module II: Requirements Engineering**
 - Introduction to Requirements Engineering:
 - RE in the development process
 - RE process
 - Requirement types and attributes

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- **Module II: Requirements Engineering**
 - Requirements Elicitation:
 - Problem domain: documentation and glossary
 - Customers & users business: business models
 - Customers & users needs
 - Interviews and meetings
 - User interface prototyping
 - Requirements Documentation:
 - Requirements as a solution to C&U needs
 - Writing system/software requirements

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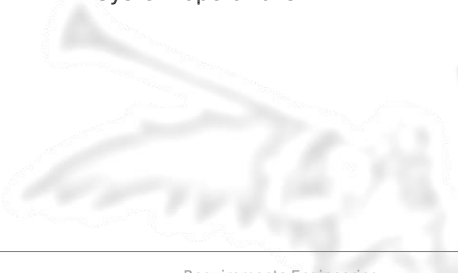
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- **Module III: Requirements Analysis**
 - Requirements Modeling (UML)
 - Data / Static Modeling:
 - Class diagrams revision
 - Advanced concepts in class diagrams
 - Functional and behavioral / dynamic model:
 - Statecharts
 - Sequence diagrams
 - System operations



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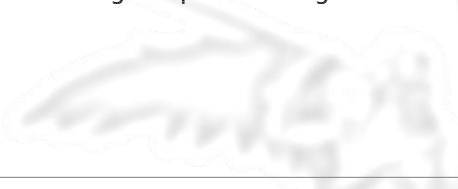
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- **Module IV: Advanced RE**
 - Requirements Verification:
 - Requirements quality model
 - Requirements quality assessment
 - Requirements Validation:
 - User Interface prototyping
 - Acceptance tests from requirements
 - Requirements Management:
 - Requirements traceability
 - Change request management



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- Course project
 - Throughout the semester, a **project** worked out in **groups** must be developed:
 - Development of the initial stages of a software system «as real as possible»
 - System Requirements Document (SRD)
 - System Analysis Document (SAD)
 - Each group will have a **tutor** professor.
 - There will **two deliveries** during the semester, before the final delivery for evaluation.
 - The **tools** proposed for project management and version control **must** be used.



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- Tools for the semester project
 - All tools can be either used in the **cloud** or can be installed on the student's **laptop** computer.
 - **projETSII** (project management)
 - **Subversion** (version control)
 - **Signavio** (BPMN and UML)
 - **REM** (requirements management)
 - **Balsamiq** (user interface prototyping)
 - Equivalent tools can be used if **approved** by the project tutor.



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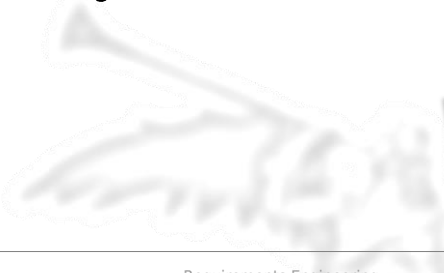
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- Per-course / 1st call evaluation
 - Theoretical exam: 50%
 - Passed project:50%


≥ 5 →Passed
- If project is not passed:
 - Qualification = min((T+P)/2, 4.5)
- If not passed, only the **passed parts are saved** for September and December calls.
- Nothing** is saved for next course.



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- Per-course / 1st call evaluation
 - Students with an A qualification (Sobresaliente) in per-course evaluation can apply for **honors** (Matrícula de Honor) developing an extra work.




Only per-course, A-grade students can apply for honors!



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- Ordinary evaluation – Sept. & Dec. calls
 - Same criteria as per course.
 - Students must sit for all **failed parts**.
 - Not sitting for a **failed part** implies a **0 (zero)**.
 - Sitting for a passed part implies **renunciation** of the previously obtained grade.



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- Comments, suggestions, ...



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