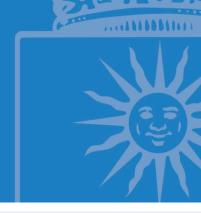


COORDINATION PROCESS OF LEARNING ACTIVITIES PR/CL/001



ANX-PR/CL/001-01 LEARNING GUIDE



SUBJECT

103000933 - Requirements Engineering

DEGREE PROGRAMME

10AZ - Master Universitario En Innovación Digital

ACADEMIC YEAR & SEMESTER

2024/25 - Semester 1





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Learning guide

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1. Description

1.1. Subject details

Name of the subject	103000933 - Requirements Engineering
No of credits	6 ECTS
Туре	Optional
Academic year ot the programme	First year
Semester of tuition	Semester 1
Tuition period	September-January
Tuition languages	English
Degree programme	10AZ - Master Universitario en Innovación Digital
Centre	10 - Escuela Tecnica Superior De Ingenieros Informaticos
Academic year	2024-25

2. Faculty

2.1. Faculty members with subject teaching role

Name and surname	Office/Room	Email	Tutoring hours *
Oscar Dieste Tubio (Subject			Tu - 16:00 - 19:00
coordinator)	D5106	oscar.dieste@upm.es	W - 17:00 - 19:00
			F - 16:00 - 17:00
			Tu - 19:00 - 20:00
Natalia Juristo Juzgado	D5104	natalia.juristo@upm.es	W - 13:00 - 17:00
			F - 15:00 - 16:00

^{*} The tutoring schedule is indicative and subject to possible changes. Please check tutoring times with the faculty member in charge.



3. Skills and learning outcomes *

3.1. Skills to be learned

CB07 - Que los estudiantes sepan aplicar los conocimientos adquiridos y su capacidad de resolución de problemas en entornos nuevos o poco conocidos dentro de contextos más amplios (o multidisciplinares) relacionados con su área de estudio

CB09 - Que los estudiantes sepan comunicar sus conclusiones y los conocimientos y razones últimas que las sustentan a públicos especializados y no especializados de un modo claro y sin ambigüedades

CE-DM04 - Capacidad para analizar las necesidades que se plantean en un entorno industrial para su trasformación digital

3.2. Learning outcomes

- RA129 The students will be able to elicit and conceptualize customer and user's needs
- RA127 The students will be able to analize, specify and validate software requirements
- RA128 The students will be able to manage and negotiate requirements with project stakeholders
- * The Learning Guides should reflect the Skills and Learning Outcomes in the same way as indicated in the Degree Verification Memory. For this reason, they have not been translated into English and appear in Spanish.

4. Brief description of the subject and syllabus

4.1. Brief description of the subject

The requirements engineering course aims to teach or expand students' abilities regarding software requirements: elicitation, analysis, documentation, validation and management. The course will balance lectures and practical activities. Special attention will be paid to tool support. Whenever possible, professional from industry will deliver keynotes about specific requirements engineering topics.





4.2. Syllabus

- 1. Requirements engineering processes
 - 1.1. Lifecycle and process models
 - 1.1.1. IEEE/ISO/IEC 12207-2017 Software life cycle processes
 - 1.1.2. IEEE/ISO/IEC 29148-2018 Life cycle processes -- Requirements engineering
 - 1.2. System operational concept
 - 1.3. Concept of operations
 - 1.4. Business requirements Specification
 - 1.5. Stakeholder requirements specification
 - 1.6. System requirements specification
- 2. Requirements elicitation
 - 2.1. Process actors
 - 2.2. Requirements sources
 - 2.3. Elicitation techniques
 - 2.3.1. Interviews
 - 2.3.2. Scenarios
 - 2.3.3. Regular techniques: observation, competing analysis, document analysis, focus groups, brainstorming
 - 2.3.4. Contrived techniques: Laddering, card sorting, protocol analysis
 - 2.3.5. Elicitation technique selection
- 3. Requirements analysis
 - 3.1. Glossaries
 - 3.2. Weak techniques: analysis checklist, interaction matrix
 - 3.3. Natural languege processing tools
 - 3.4. Conceptual modeling
 - 3.4.1. Goal-oriented models
 - 3.4.2. Concept models
 - 3.4.3. Process models





- 3.4.4. State/event models
- 4. Requirements documentation
 - 4.1. Requirements
 - 4.1.1. Types
 - 4.1.1.1. Non-functional requirements
 - 4.1.2. Properties
 - 4.2. User stories
 - 4.3. Use cases
 - 4.4. Software requirements specification
 - 4.4.1. Specification properties
 - 4.4.2. Templates
 - 4.5. Traceability
 - 4.6. Requirements tools
 - 4.6.1. Jira-like tools
 - 4.6.2. DOORS Next Generation
- 5. Requirements validation
 - 5.1. Requirement reviews
 - 5.2. Prototyping
 - 5.3. Requirements testing
 - 5.4. User manual development
 - 5.5. Model checking
 - 5.5.1. jSpin/Promela
- 6. Requirements management/release planning
 - 6.1. Prioritization
 - 6.2. Effort and cost estimation
 - 6.3. Change management
 - 6.4. Release planning
- 7. Transition
 - 7.1. Relationship with Software Architecture





- 7.2. Relationship with Verification and Validation
- 7.3. Relationship with Software Design
- 7.4. Relationship with Documentation and Training





5. Schedule

5.1. Subject schedule*

Week	Type 1 activities	Type 2 activities	Distant / On-line	Assessment activities
	Requirements importance			Identify software requirements for an
	Duration: 00:10			existing software system
	Lecture			Individual work
				Progressive assessment
	Requirements engineering lifecycles and			Not Presential
	processes: Introduction			Duration: 01:00
	Duration: 00:20			
	Lecture			Lecture 1 self-evaluation
				Written test
	Course goals and methodology			Progressive assessment
	Duration: 00:15			Not Presential
	Lecture			Duration: 01:00
1				
	Software project proposal			
	Duration: 00:15			
	Additional activities			
	Software requirements: Concept and			
	types			
	Duration: 00:30			
	Inverted classroom			
	How to write software requirements			
	Duration: 01:30			
	Problem-solving class			
	User stories, features, and use cases			Creation of a requirements specification
	Duration: 00:25			using DOORS
	Inverted classroom			Individual work
				Progressive assessment
	Software requirements specifications			Not Presential
	Duration: 00:15			Duration: 02:00
	Inverted classroom			
				PROJECT: Software project proposal
	Requirements and specification			(the proposal will get improved thorough
	properties			the course)
	Duration: 00:20			Group work
2	Lecture			Progressive assessment
				Not Presential
	Tool support for requirements			Duration: 10:00
	specification: Jira or a similar tool			
	Duration: 00:30			Lecture 2 self-evaluation
	Laboratory assignments			Written test
				Progressive assessment
	Tool support for requirements			Not Presential
	specification: DOORS Next Generation			Duration: 01:00
	Duration: 01:30			





		1	
	Requirements engineering lifecycles and		Perform a requirements testability
	processes (revisited): Early stages		exercise
	Duration: 00:20		Individual work
1	Lecture		Progressive assessment
1	Locitaro		-
1			Not Presential
1	Requirements validation		Duration: 01:00
1	Duration: 00:20		
1	Inverted classroom		Lecture 3 self-evaluation
1			Written test
1	Bandinamanta varianta		
1	Requirements reviews		Progressive assessment
1	Duration: 00:20		Not Presential
1	Lecture		Duration: 01:00
	Other validation approaches:		
	requirements testing and user manual		
3			
1	development		
1	Duration: 00:20		
1	Problem-solving class		
1	Conduct a requirements review using	l	
1		l	
	DOORS		
	Duration: 01:00	l	
	Laboratory assignments	l	
		l	
	Perform requirements validation using	l	
1			
1	requirements testing and user manual		
1	development		
1	Duration: 01:40		
1	Laboratory assignments		
			DDO IFOT: One-star a baseline and animate d
1	Requirements elicitation		PROJECT: Create a business-oriented
1	Duration: 00:20		specification
1	Inverted classroom		Group work
1			Progressive assessment
1	Interviews: Types, design, and		Not Presential
1			
1	consolidation		Duration: 03:00
1	Duration: 00:40		
1	Problem-solving class		Lecture 4 self-evaluation
1			Written test
1	Interviews: Conduction		Progressive assessment
l .			-
4	Duration: 00:30		Not Presential
	Cooperative activities		Duration: 01:00
1			
	PROJECT: Perform the first interview		
	Duration: 01:00		
1		l	
1	Cooperative activities	l	
1	Elicitation: Report information using	l	
	DOORS		
1	Duration: 00:30		
	Laboratory assignments	l	
	Interviews: Concepts underlying user		PROJECT: Create a stakeholders-
	stories, features, use cases and		oriented specification
1	requirememts		Group work
1	Duration: 00:20		
			Progressive assessment
1	Lecture		Not Presential
			Duration: 04:00
1	Interview: How to create new interview		
	scripts	l	
	l '		
	Duration: 00:10	l	
	Lecture		
1			
	Analysis: Overview	l	
	ı ·	I	
1	Duration: 00:10	1	





			1
5	Inverted classroom		
1	Analysis: Derivation of requirements		
	Duration: 00:20		
1	Cooperative activities		
	PROJECT: Perform the second interview		
1	Duration: 01:00		
	Cooperative activities		
1			
1	PROJECT: Identify features/use		
	cases/requirements		
	Duration: 00:30		
1	Cooperative activities		
1	Analysis: Report information using		
1	DOORS		
1	Duration: 00:30		
1			
	Laboratory assignments Analysis: Weak techniques		PROJECT: Add the glossary to DOORS
1	Duration: 00:20		Group work
1	Inverted classroom		Progressive assessment
1	sited diagonodiii		Not Presential
	Analysis: Conceptual modeling		Duration: 01:00
	Duration: 00:10		Daration. 01.00
	Inverted classroom		Lecture 5 self-evaluation
	mverted diassioom		Written test
	Analysis: Concept models, glossary, and		Progressive assessment
	data dictionary		Not Presential
	Duration: 00:30		Duration: 01:00
	Problem-solving class		Daration, 01.00
	1 Toblem-Solving class		
	Analysis: Process models, data		
	dictionary, and cross-checks		
6	Duration: 00:20		
1	Problem-solving class		
	Analysis: State/event models and cross-		
	checks		
1	Duration: 00:20		
1	Problem-solving class		
	Analysis: Report information using		
	DOORS		
1	Duration: 00:20	1	
1	Laboratory assignments		
	Analysis: NLP tools		
	Duration: 01:00		
<u></u>	Laboratory assignments	 	
	Prototyping: Concept, types and		PROJECT: Add prototyping information
	roadmap		to DOORS
	Duration: 00:20		Group work
	Inverted classroom		Progressive assessment
			Not Presential
	Prototyping: Validation using scenarios	l	Duration: 03:00
	Duration: 00:30	l	
	Problem-solving class		Lecture 6 self-evaluation
			Written test
	Prototyping: Fix wrong information		Progressive assessment
			-
	Duration: 00:10		Not Presential
7			Not Presential Duration: 01:00
7	Duration: 00:10		





þ	PROJECT: Conduct the evaluation of the		l	l
	project's low-fidelity prototype			
	Duration: 01:30			
- 1	Cooperative activities	1		
P	Prototyping: Report information using	1		
	DOORS			
	Duration: 00:30			
	Laboratory assignments			
	Aidterm exam			Midterm exam
	Duration: 01:00			Written test
	Additional activities			Progressive assessment
- 1	Additional activities			Presential
Ļ	Elicitation: Competing product analysis			Duration: 01:00
	Duration: 00:10			Duration: 01.00
	Problem-solving class			PROJECT: Create the software
- [l	requirements specification
Ļ	Elicitation: Document analysis			Group work
	Duration: 00:50			Progressive assessment
	Problem-solving class			Not Presential
- [Trobiotif-solving class			Duration: 03:00
Ļ	Elicitation: Observation			Daration, 05.00
	Duration: Observation			Lecture 7 self-evaluation
ı ı	Cooperative activities			Written test
	Cooperative activities			Progressive assessment
l_	Elicitation: Surveys			Not Presential
	Duration: 00:30			Duration: 01:00
	Problem-solving class			Duration: 01.00
- 1	Troblem-solving class			
L	Brainstorming			
	Duration: 00:10			
	Cooperative activities			
- 1	Cooperative activities			
l _F	Elicitation: Focus groups			
	Duration: 00:10			
	Lecture			
\rightarrow	Elicitation: Technique selection			PROJECT: Complete the requirement
	Duration: 00:30			specification
				l'
- 1	Cooperative activities			Group work
l _e	Highton Baguiromente workshape			Progressive assessment Not Presential
	Elicitation: Requirements workshops Duration: 00:30			Duration: 03:00
a I	Lecture			Daration: 05.00
- 1	2001010			Lecture 8 self-evaluation
	PROJECT: Perform a requirements			Written test
	vorkshop			Progressive assessment
	Duration: 02:00			Not Presential
	Cooperative activities			Duration: 01:00
	·			
	PROJECT: Perform a requirements			PROJECT: Perform a requirements
	eview			review
	Duration: 02:00			Group work
1 4	Cooperative activities			Progressive assessment
- 1				Presential
		i de la companya de		Duration: 00:00
10 P	PROJECT: User manual development	l.		Burdilon: 00:00
10 P	Duration: 01:00			
10 P				
10 P	Duration: 01:00			PROJECT: User manual developmen Group work
10 P	Duration: 01:00			PROJECT: User manual developmen Group work Progressive assessment
10 P	Duration: 01:00			PROJECT: User manual developmen Group work





	Requirements management		Report the change management process
	Duration: 00:30		Group work
	Inverted classroom		Progressive assessment
			Presential
	Negotiation		Duration: 00:00
			Duration: 00.00
	Duration: 00:30		
	Lecture		Report the requirements prioritization
			exercise
	Perform a change management process		Group work
11	Duration: 01:00		Progressive assessment
	Problem-solving class		Presential
	ı ,		Duration: 00:00
	Perform a requirements prioritization		
	exercise		Lecture 9 self-evaluation
	Duration: 01:00		Written test
	Problem-solving class		Progressive assessment
			Not Presential
			Duration: 01:00
	Triage and release planning		Report the early estimation
	Duration: 00:30		Group work
	Lecture		· ·
	Lociule		Progressive assessment
	L		Presential
	Early estimation theory and exercises		Duration: 00:00
12	Duration: 02:30		
	Problem-solving class		Lecture 10 self-evaluation
			Written test
			Progressive assessment
			Not Presential
			Duration: 01:00
	Destaura a manufation according		
	Perform a negotiation exercise		Report the triage process
	Duration: 01:00		Group work
	· ·		Group work Progressive assessment
	Duration: 01:00		Group work
	Duration: 01:00		Group work Progressive assessment
13	Duration: 01:00 Cooperative activities		Group work Progressive assessment Presential
13	Duration: 01:00 Cooperative activities Perform a triage process		Group work Progressive assessment Presential
13	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation
13	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test
13	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment
13	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential
13	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00
13	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential
13	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00
13	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam
13	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test
13	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment Pregressive assessment
13	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment
13	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment Presential Duration: 01:00
	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment Presential Duration: 01:00 Development of a simple application
	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment Presential Duration: 01:00 Development of a simple application using MDA
	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment Presential Duration: 01:00 Development of a simple application using MDA Individual work
	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment Presential Duration: 01:00 Development of a simple application using MDA Individual work Progressive assessment
	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment Presential Duration: 01:00 Development of a simple application using MDA Individual work
	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment Presential Duration: 01:00 Development of a simple application using MDA Individual work Progressive assessment
	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00 Additional activities		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment Presential Duration: 01:00 Development of a simple application using MDA Individual work Progressive assessment Not Presential Duration: 02:00
	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00 Additional activities		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment Presential Duration: 01:00 Development of a simple application using MDA Individual work Progressive assessment Not Presential Duration: 02:00 Develop a simple set of rules to check a
	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00 Additional activities Seminar: Model checking Duration: 03:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment Presential Duration: 01:00 Development of a simple application using MDA Individual work Progressive assessment Not Presential Duration: 02:00 Develop a simple set of rules to check a specification
	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00 Additional activities		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment Presential Duration: 01:00 Development of a simple application using MDA Individual work Progressive assessment Not Presential Duration: 02:00 Develop a simple set of rules to check a specification Individual work
14	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00 Additional activities Seminar: Model checking Duration: 03:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment Presential Duration: 01:00 Development of a simple application using MDA Individual work Progressive assessment Not Presential Duration: 02:00 Develop a simple set of rules to check a specification Individual work Progressive assessment
14	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00 Additional activities Seminar: Model checking Duration: 03:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment Presential Duration: 01:00 Development of a simple application using MDA Individual work Progressive assessment Not Presential Duration: 02:00 Develop a simple set of rules to check a specification Individual work Progressive assessment Not Presential
14	Duration: 01:00 Cooperative activities Perform a triage process Duration: 02:00 Cooperative activities End-term exam Duration: 01:00 Additional activities Seminar: Model checking Duration: 03:00		Group work Progressive assessment Presential Duration: 00:00 Lecture 11 self-evaluation Written test Progressive assessment Not Presential Duration: 01:00 End-term exam Written test Progressive assessment Presential Duration: 01:00 Development of a simple application using MDA Individual work Progressive assessment Not Presential Duration: 02:00 Develop a simple set of rules to check a specification Individual work Progressive assessment





		Global examination
		Written test
16		Global examination
		Presential
		Duration: 04:00
17		

Depending on the programme study plan, total values will be calculated according to the ECTS credit unit as 26/27 hours of student face-to-face contact and independent study time.





6. Activities and assessment criteria

6.1. Assessment activities

6.1.1. Assessment

Week	Description	Modality	Туре	Duration	Weight	Minimum grade	Evaluated skills
1	Identify software requirements for an existing software system	Individual work	No Presential	01:00	2%	3 / 10	CE-DM04
1	Lecture 1 self-evaluation	Written test	No Presential	01:00	1%	5/10	CE-DM04
2	Creation of a requirements specification using DOORS	Individual work	No Presential	02:00	3%	3 / 10	CE-DM04
2	PROJECT: Software project proposal (the proposal will get improved thorough the course)	Group work	No Presential	10:00	10%	3/10	CB07 CB09 CE-DM04
2	Lecture 2 self-evaluation	Written test	No Presential	01:00	1%	5/10	CE-DM04
3	Perform a requirements testability exercise	Individual work	No Presential	01:00	2%	3 / 10	CE-DM04
3	Lecture 3 self-evaluation	Written test	No Presential	01:00	1%	5/10	CE-DM04
4	PROJECT: Create a business- oriented specification	Group work	No Presential	03:00	6%	3/10	CB07 CB09 CE-DM04
4	Lecture 4 self-evaluation	Written test	No Presential	01:00	1%	5/10	CE-DM04
5	PROJECT: Create a stakeholders- oriented specification	Group work	No Presential	04:00	8%	3/10	CB07 CB09 CE-DM04
6	PROJECT: Add the glossary to DOORS	Group work	No Presential	01:00	2%	3 / 10	CB07 CE-DM04
6	Lecture 5 self-evaluation	Written test	No Presential	01:00	1%	5/10	CE-DM04
7	PROJECT: Add prototyping information to DOORS	Group work	No Presential	03:00	3%	3 / 10	CB07 CE-DM04
7	Lecture 6 self-evaluation	Written test	No Presential	01:00	1%	5/10	CE-DM04
8	Midterm exam	Written test	Face-to-face	01:00	10%	3/10	CE-DM04
8	PROJECT: Create the software requirements specification	Group work	No Presential	03:00	6%	5/10	CB07 CB09 CE-DM04
8	Lecture 7 self-evaluation	Written test	No Presential	01:00	1%	5/10	CE-DM04





9	PROJECT: Complete the requirements specification	Group work	No Presential	03:00	3%	3/10	CB07 CB09 CE-DM04
9	Lecture 8 self-evaluation	Written test	No Presential	01:00	1%	5/10	CE-DM04
10	PROJECT: Perform a requirements review	Group work	Face-to-face	00:00	6%	3/10	CB07 CB09 CE-DM04
10	PROJECT: User manual development	Group work	Face-to-face	00:00	3%	3/10	CB07 CB09 CE-DM04
11	Report the change management process	Group work	Face-to-face	00:00	2%	3/10	CE-DM04
11	Report the requirements prioritization exercise	Group work	Face-to-face	00:00	2%	3/10	CE-DM04
11	Lecture 9 self-evaluation	Written test	No Presential	01:00	1%	5/10	CE-DM04
12	Report the early estimation	Group work	Face-to-face	00:00	3%	3/10	CE-DM04
12	Lecture 10 self-evaluation	Written test	No Presential	01:00	1%	5/10	CE-DM04
13	Report the triage process	Group work	Face-to-face	00:00	2%	3/10	CE-DM04
13	Lecture 11 self-evaluation	Written test	No Presential	01:00	1%	5/10	CE-DM04
14	End-term exam	Written test	Face-to-face	01:00	10%	3 / 10	CE-DM04
14	Development of a simple application using MDA	Individual work	No Presential	02:00	3%	0/10	CE-DM04
15	Develop a simple set of rules to check a specification	Individual work	No Presential	02:00	3%	0/10	CE-DM04

6.1.2. Global examination

Wee	k Description	Modality	Туре	Duration	Weight	Minimum grade	Evaluated skills
16	Global examination	Written test	Face-to-face	04:00	100%	5/10	CB07 CB09 CE-DM04

6.1.3. Referred (re-sit) examination

Description	Modality	Туре	Duration	Weight	Minimum grade	Evaluated skills
Final exam (extraordinary session)	Written test	Face-to-face	04:00	100%	5 / 10	CB07 CB09 CE-DM04





6.2. Assessment criteria

Progressive evaluation

- The assessment of assignments will depend on (1) the quality of the submissions, e.g., presentation, cleanliness, etc., and (2) the correctness of the results.
- The final grade will be calculated using a weighted average, as described before.
- The laboratory cooperative activities labeled "**PROJECT:**" are compulsory. Skipping these activities without due reason implies failing the project.
- The course project-related activities are labeled "PROJECT:". The students cannot retake the course
 project in the global evaluation. The project requires the cooperation of groups of students and has a prespecified calendar, including face-to-face sessions. These activities cannot be scheduled at different times
 because fellow students are not guaranteed to have other time slots available besides those assigned to
 the Requirements Engineering course.

Global evaluation (January)

- All assignments can be re-submitted and regraded. When the instructors provide the feedback, they will specify a deadline for the resubmission.
- The students can resit the midterm exams in January (on the date/time specified by the administration).

Global evaluation (July)

• Students will take a single exam. This exam includes all topics (theoretical and practical) covered in the course. Preparatory materials will be available at Moodle.





7. Teaching resources

7.1. Teaching resources for the subject

Name	Туре	Notes		
Course material	Web resource	All required materials will be available on		
Course material	vveb resource	Moodle		
		Wiegers, Karl, and Beatty, Joy. Software		
		Requirements. United States, Pearson		
Textbook	Bibliography	Education, 2013. https://learning.oreilly.com/li		
		brary/view/software-		
		requirements-3rd/9780735679658/		