

## MATRIX of existing Master course (Faculty of Architecture, University of Lisbon)

Name of compulsory chair	Year	Semester	Number of ECTS	Number of elective chairs	List of available elective chairs	Short description	Relation between the contents and RETHINK's theme
<b>Architecture</b>							
- -	1 <sup>st</sup> year	1 semester					
<b>Total</b>			30				
Project Laboratory IV			12,5			Understanding and exploring the built form of the city within the context of its instrumental framework and architectural territory, by decoding building cycles using urban history and cartography. Understanding the system for urban form, which also involves understanding layout and building practices — including typologies and the significance of models — and the applicable regulatory framework. In terms of planning proposals, this unit covers urban requalification and the organisation and resolution of an urban programme involving different uses and types of occupation. Acquisition of basic principles and instruments for urban design.	
Technological Innovation and New Materials			3,5			Introduction to new materials and new construction technologies. Analysis of life cycle and embodied energy.	
Structures II			3,5			Functions of individual typological elements: traditional systems — tie rods, funicular polygons and curves, catenary, suspension systems, openings and archways, resistance and rigidity, nets and pre-stressed membranes; compressed systems— the principle of inversion, instability due to buckling, hyperstatic and isostatic arches, equilibrium of support reactions, vaults, domes and shells; lattices— hypostaticity, isostaticity and hyperstaticity of lattice components and their functions, arrangement of diagonals, openings, height, rigidity and efficiency, horizontal, vertical and projecting trellises, trellis covers and spatial trellises; simply supported beams, trajectories of force and trellis model, resistance and rigidity, diagrams of bending, torsion and shear forces, reinforcements for concrete beams, pre-stressed supports and	

						cantilevered beams.	
Place Theory			3,5			Providing students with the skills to enable them to construct their own method of conceptualising the phenomenon of architecture, both with regard to aspects associated with design practices and those through which the specific field of architecture is defined. Understanding architecture in all its operational dimensions from the point of view of architecture itself, and all aspects of its expression as an eminently human phenomenon. A phenomenological focus on the relationship between humans and space leading to, on the one hand, methodologies for analysing spatial boundaries that can be individualised and, on the other hand, various categories for the appropriation of territory, ultimately producing an ontological understanding of architecture.	
Urban Sociology			3,5			The sociology of the city and the sociology of forms of habitation. An interdisciplinary exploration of themes that may assist in interpreting zones and objects that are the target of architectural interventions. Fostering an interdisciplinary approach to sociology, anthropology and architecture to enable students to analyse, in some depth and rigour, the complexity of the contemporary city. Understanding, from a sociological perspective, the main theoretical and conceptual proposals for analysing major contemporary urban and territorial issues, namely the city and multiculturalism, diversity, the importance of ITC and globalisation, in addition to certain contentious developments which affect modern societies, such as poverty, exclusion, insecurity and socio-spatial segregation. Sociological approaches to accommodation and social housing in Portugal.	
Geometric and Generative Modelling			3,5			Specifying, systematising and exemplifying the application of geometric paradigms to spatial-formal morphogenesis. Synthesising and organising the metaphysical contributions of operative geometry — from traditional symbolism to fractals. Providing students with analytical-comprehensive theory, organised from a geometrical-conceptual perspective, which enhances and optimises conceptual intervention. Developing the capacity for geometrical-visual reasoning applied to architecture, urbanism and design, contained within a broad concept of fine regulating lines.	

						Extending the following content: geometry and morphogenesis, geometry as operational scale, geometrical paradigms; geometrical structures, definitions, classifications, geometrical surfaces and their transformation; the geometries of digital morphogenetic processes; stereotomy — concepts, specifications for materials and applications.	
- -	1 <sup>st</sup> year	2 semester					
<b>Total</b>			30				
Project Laboratory V			13,0			Understanding and exploring built forms within the instrumental framework of composition and city architecture, breaking morphological structure down into its component parts and considering the relationship between elementary buildings and public space. The understanding of built form focuses on understanding design practice supported by a programme and includes spatiality, tectonics, language and the applicable regulatory framework. In terms of planning proposals, it includes requalification of existing built forms and the organisation and resolution of a programme of facilities integrated into the urban fabric, including public space. The learning objectives consist of developing the operational instruments associated with building design, from overall concept to finer details.	
Conservation, Restoration and Rehabilitation			7,0			Training to provide methodological and critical skills for the conservation of the architectural and urban heritage. An integrated approach to conservation, restoration and rehabilitation projects. Understanding the scientific scope and disciplinary structure of architectural and urban conservation and its relation to the sub-disciplines (restoration, rehabilitation, rehabilitation of urban landscape and territory). Understanding the essential methods for analysis and theorising. Testing techniques and methodologies. Establishing the basis for many aspects of conservation of the architectural heritage (from individual object to historic city).	
History of Architecture in Portugal			3,5			Developing research skills applied to case studies and identifying, understanding and analysing the specific problematics of Portuguese architecture in historical and critical terms. Producing monographic studies. The study of	

						Portuguese architecture, focussing on thematic historical and/or contemporary approaches, namely international position, specific Portuguese features, and erudite versus popular architecture. Architecture in the contemporary city; authors and leading works.	
Rehabilitation and Conservation Technologies			3,5			Rehabilitation and authenticity; architectural conservation and intervention criteria. Low intrusion intervention strategies; anatomy, materials and construction techniques for old buildings. Structural and non-structural pathologies: classification of anomalies; surveying, characterisation and diagnosis; analyses, inspection planning and testing. Concept and design of structural and non-structural rehabilitation work: requirements, methods, intervention strategies, Materials and solutions. Environmental impact of products used in rehabilitation. Specific features of the pre-industrial building culture; early building techniques and materials; surfaces, coverings and colours; early versus contemporary technologies. Rehabilitation of buildings: recovering what is recoverable and designing the improvements needed to meet new and current performance, safety and comfort standards. Construction within existing constructions, justified by ecological, economic and functional "upgrading". Urban and environmental rehabilitation on the scale of the city and the relationship between groups of buildings and the landscape.	
Project Economics			3,5			Introducing optimisation principles to the design rationale, together with the objective elements used to value property in terms of the market segment for which it is intended, from the perspective of the final user or investor. Approaching/ extending the following concepts: economics and design; the added value of spatial interventions, (analysis of added value in real estate developments); property values; cost and performance indicators in real estate investment; information on management for architectural design.	
Specialisation Elective			1,5		<b>Specialist Electives</b> In the eighth and ninth semesters students may choose from a wide range of specialist elective curricular units offered in various disciplinary areas. They may also choose an obligatory		

curricular unit from another course as their elective.

**Architecture**

- Architecture, conceptualisation and design
- Ephemeral and Experimental Architectures
- History and Architecture of Construction
- Architecture in Paper and Sustainable Materials
- Experimental Architecture
- Useful/Useless Architecture
- Light and Colour
- Living Spaces
- Design in Conservation, Restoration and Rehabilitation

**Urbanism**

- Urban Culture
- Forms of Urban and Territorial Intervention
- Urban Design
- Requalification of Coastal Areas
- Urban Requalification
- Metropolitan Territories

**History and Theory**

- Filmed Architecture
- Critical History of Modernity
- Critical History of the Built Heritage
- History of Performing Arts
- Image Theory
- Revitalisation Theory

**Technologies**

- Construction of Stone Arches
- Earthquake Resistant Buildings
- Building, City and Territorial Environmental Management and Assessment
- Technical English
- Principles and Strategies in Bioclimatic Design
- Rationalisation of the Construction Industry

**Drawing and Visual Communication**

- The Desire Machine
- The Anthropology of Seeing
- Cinema and Architecture
- Figure Drawing /Life Drawing
- Drawing and the City
- Architectural

					<p>Photogrammetry</p> <ul style="list-style-type: none"> <li>• Artistic Interventions in Urban Space</li> <li>• Cinematic Narratives of Architectural and Urban Space</li> <li>• Drawing the Background to Architecture</li> <li>• Colour Design for the Rehabilitation of Architectural Surfaces</li> <li>• Plastic Expressive Techniques for Architectural Drawing</li> <li>• Flow Visualisation</li> </ul> <p><b>Computation</b></p> <ul style="list-style-type: none"> <li>• Computer Animation</li> <li>• Integrated Modelling Systems (BIM)</li> <li>• 3D Digitalisation</li> <li>• Tools for Analysis and Simulation</li> <li>• Shape Grammars</li> <li>• Digital Design and Manufacture</li> <li>• Parametric Urban Design</li> <li>• Space Syntax</li> <li>• Geographic Information Systems</li> </ul> <p><b>Social Sciences</b></p> <ul style="list-style-type: none"> <li>• Sustainable Urban Culture and Development</li> <li>• Studies of the City: Living Spaces and Constructed Spaces</li> <li>• Social Design ●</li> </ul>		
Specialisation Elective			1,5		<p><b>Specialist Electives</b></p> <p>In the eighth and ninth semesters students may choose from a wide range of specialist elective curricular units offered in various disciplinary areas. They may also choose an obligatory curricular unit from another course as their elective.</p> <p><b>Architecture</b></p> <ul style="list-style-type: none"> <li>• Architecture, conceptualisation and design</li> <li>• Ephemeral and Experimental Architectures</li> <li>• History and Architecture of Construction</li> <li>• Architecture in Paper and Sustainable Materials</li> <li>• Experimental Architecture</li> <li>• Useful/Useless Architecture</li> <li>• Light and Colour</li> <li>• Living Spaces</li> <li>• Design in Conservation, Restoration and</li> </ul>		

Rehabilitation

**Urbanism**

- Urban Culture
- Forms of Urban and Territorial Intervention
- Urban Design
- Requalification of Coastal Areas
- Urban Requalification
- Metropolitan Territories

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- Plastic Expressive Techniques for Architectural Drawing
- Flow Visualisation

**Computation**

- Computer Animation
- Integrated Modelling

					<p>Systems (BIM)</p> <ul style="list-style-type: none"> <li>• 3D Digitalisation</li> <li>• Tools for Analysis and Simulation</li> <li>• Shape Grammars</li> <li>• Digital Design and Manufacture</li> <li>• Parametric Urban Design</li> <li>• Space Syntax</li> <li>• Geographic Information Systems</li> </ul> <p><b>Social Sciences</b></p> <ul style="list-style-type: none"> <li>• Sustainable Urban Culture and Development</li> <li>• Studies of the City: Living Spaces and Constructed Spaces</li> <li>• Social Design ●</li> </ul>		
-	2 <sup>nd</sup> year	1 semester					
<b>Total</b>			30				
Project Laboratory VI			13,0			Assessing the urban dimensions of architecture using reference models and concepts that focus on the quality of the environmental and social surroundings. Understanding and planning a proposal for intervention in a problematic urban context, implying an approach to various different urban fabrics and topographical and infrastructural constraints. Mastering the tools and means of communication and argumentation for proposals, including structural, formal, morphological, spatial, programming and constructional aspects. Identifying and proving the level of sustainability associated with the logic and form of the proposal during its life cycle.	
Buildings IV / Project Support			3,5			This curricular unit aims to provide support for the Project Laboratory IV unit, by focusing directly on the work that it develops.	
Structural and Constructional Systems			3,5			Understanding the links and interaction between structural and constructional systems. A more extensive exploration of the following: pre-stress; building structures; innovative construction systems; materials and special components; industrialisation and prefabrication; convertibility of building components; assessment of conditions of use in the systems, materials and solutions studied; conceptual morphological methodologies applied to the architectural synthesis.	

Energy and Environmental Efficiency			3,5			Consolidating knowledge of active and passive solar architecture. Introducing the following concepts: heat pumps; aerothermics and geothermics; domotics; photovoltaic systems; wind power systems; cogeneration; "intelligent buildings".	
Specialisation Elective			1,5		<p><b>Specialist Electives</b>          In the eighth and ninth semesters students may choose from a wide range of specialist elective curricular units offered in various disciplinary areas. They may also choose an obligatory curricular unit from another course as their elective.</p> <p><b>Architecture</b></p> <ul style="list-style-type: none"> <li>•• Architecture, conceptualisation and design</li> <li>•• Ephemeral and Experimental Architectures</li> <li>•• History and Architecture of Construction</li> <li>•• Architecture in Paper and Sustainable Materials</li> <li>•• Experimental Architecture</li> <li>•• Useful/Useless Architecture</li> <li>•• Light and Colour</li> <li>•• Living Spaces</li> <li>•• Design in Conservation, Restoration and Rehabilitation</li> </ul> <p><b>Urbanism</b></p> <ul style="list-style-type: none"> <li>•• Urban Culture</li> <li>•• Forms of Urban and Territorial Intervention</li> <li>•• Urban Design</li> <li>•• Requalification of Coastal Areas</li> <li>•• Urban Requalification</li> <li>•• Metropolitan Territories</li> </ul> <p><b>History and Theory</b></p> <ul style="list-style-type: none"> <li>•• Filmed Architecture</li> <li>•• Critical History of Modernity</li> <li>•• Critical History of the Built Heritage</li> <li>•• History of Performing Arts</li> <li>•• Image Theory</li> <li>•• Revitalisation Theory</li> </ul> <p>© PROF. JOSÉ PINTO DUARTE</p> <p><b>16 INTEGRATED MASTER'S IN ARCHITECTURE • FA+UD SPECIALISATION IN</b></p>		

**URBANISM 17**

**Technologies**

- Construction of Stone Arches
- Earthquake Resistant Buildings
- Building, City and Territorial Environmental Management and Assessment
- Technical English
- Principles and Strategies in Bioclimatic Design
- Rationalisation of the Construction Industry

**Drawing and Visual Communication**

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- Colour Design for the Rehabilitation of Architectural Surfaces
- Plastic Expressive Techniques for Architectural Drawing
- Flow Visualisation

**Computation**

- Computer Animation
- Integrated Modelling Systems (BIM)
- 3D Digitalisation
- Tools for Analysis and Simulation
- Shape Grammars
- Digital Design and Manufacture
- Parametric Urban Design
- Space Syntax
- Geographic Information Systems

**Social Sciences**

- Sustainable Urban Culture and Development
- Studies of the City: Living Spaces and Constructed Spaces
- Social Design ●

Specialisation Elective			1,5		<p><b>Specialist Electives</b>          In the eighth and ninth semesters students may choose from a wide range of specialist elective curricular units offered in various disciplinary areas. They may also choose an obligatory curricular unit from another course as their elective.</p> <p><b>Architecture</b></p> <ul style="list-style-type: none"> <li>• Architecture, conceptualisation and design</li> <li>• Ephemeral and Experimental Architectures</li> <li>• History and Architecture of Construction</li> <li>• Architecture in Paper and Sustainable Materials</li> <li>• Experimental Architecture</li> <li>• Useful/Useless Architecture</li> <li>• Light and Colour</li> <li>• Living Spaces</li> <li>• Design in Conservation, Restoration and Rehabilitation</li> </ul> <p><b>Urbanism</b></p> <ul style="list-style-type: none"> <li>• Urban Culture</li> <li>• Forms of Urban and Territorial Intervention</li> <li>• Urban Design</li> <li>• Requalification of Coastal Areas</li> <li>• Urban Requalification</li> <li>• Metropolitan Territories</li> </ul> <p><b>History and Theory</b></p> <ul style="list-style-type: none"> <li>• Filmed Architecture</li> <li>• Critical History of Modernity</li> <li>• Critical History of the Built Heritage</li> <li>• History of Performing Arts</li> <li>• Image Theory</li> <li>• Revitalisation Theory</li> </ul> <p>© PROF. JOSÉ PINTO DUARTE</p> <p><b>16 INTEGRATED MASTER'S IN ARCHITECTURE • FA+UD</b></p> <p><b>SPECIALISATION IN URBANISM 17</b></p> <p><b>Technologies</b></p> <ul style="list-style-type: none"> <li>• Construction of Stone Arches</li> <li>• Earthquake Resistant Buildings</li> <li>• Building, City and Territorial Environmental Management and</li> </ul>	
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					<ul style="list-style-type: none"> <li>Assessment</li> <li>•• Technical English</li> <li>•• Principles and Strategies in Bioclimatic Design</li> <li>•• Rationalisation of the Construction Industry</li> <li><b>Drawing and Visual Communication</b></li> <li>•• The Desire Machine</li> <li>•• The Anthropology of Seeing</li> <li>•• Cinema and Architecture</li> <li>•• Figure Drawing /Life Drawing</li> <li>•• Drawing and the City</li> <li>•• Architectural Photogrammetry</li> <li>•• Artistic Interventions in Urban Space</li> <li>•• Cinematic Narratives of Architectural and Urban Space</li> <li>•• Drawing the Background to Architecture</li> <li>•• Colour Design for the Rehabilitation of Architectural Surfaces</li> <li>•• Plastic Expressive Techniques for Architectural Drawing</li> <li>•• Flow Visualisation</li> <li><b>Computation</b></li> <li>•• Computer Animation</li> <li>•• Integrated Modelling Systems (BIM)</li> <li>•• 3D Digitalisation</li> <li>•• Tools for Analysis and Simulation</li> <li>•• Shape Grammars</li> <li>•• Digital Design and Manufacture</li> <li>•• Parametric Urban Design</li> <li>•• Space Syntax</li> <li>•• Geographic Information Systems</li> <li><b>Social Sciences</b></li> <li>•• Sustainable Urban Culture and Development</li> <li>•• Studies of the City: Living Spaces and Constructed Spaces</li> <li>•• Social Design ●</li> </ul>		
Research Seminars			3,5			Learning to outline a research project for the Master's degree in Architecture, identify and determine a theme, define the general and specific research objectives, produce a literature review for the proposed theme and objectives, and develop skills in scientific writing applied to architecture. Theoretical-practical support for conceptual	

						development and the various aspects of writing the Master's project proposal. Master's final project; scientific dissertation.	
- -	2 <sup>nd</sup> year	2 semester					
<b>Total</b>			<b>30</b>				
Master's Final Project or Dissertation*			22,0			Acquiring a deeper level of knowledge and skills in the specific disciplinary area of architecture with specialization in Urbanism, and the ability to undertake research and exercise the accompanying professional expertise. Mastery of a set of skills in this disciplinary area that establish a basis for reflection, development and imagination in original applications. The capacity to understand and resolve problems in new and unfamiliar situations in broader, multidisciplinary contexts related to the student's area of study. Developing the capacity to integrate knowledge, deal with complex issues, develop solutions, including reflections on the ethical and social implications and responsibilities resulting from these solutions, and the ability to communicate conclusions clearly and unambiguously. Acquiring skills that will allow for solid, lifelong learning.	
Support Seminars for MFP / Dissertation			8,0			Providing a working methodology for organising ideas and constructing a scientific text, systematising information, justifying options and the value of the different (theoretical or practical) phases in the development of the project. Justifying and providing a theoretical framework for the development of a theme that emerges from project research or autonomous theory.	
<b>Total for Master course:</b>	2 years	4 semesters	120				

## MATRIX of existing PhD (Doctorate) course (Faculty of Architecture, University of Lisbon)

Name of compulsory chairs	Year	Semester	Number of ECTS	Number of elective chairs	List of available elective chairs	Short description	Relation between the contents and RETHINK's theme
<b>Architecture</b>							
-	1 <sup>st</sup> year	1 semester					
<b>Total</b>			30				
Research Methodologies*			10,0	10,0		<p>The main aim of this curricular unit is to develop research skills and familiarize students with the process of creating knowledge through the interaction between theory and its operationalization.</p> <p>Students will therefore learn to master methodological techniques and principles for gathering and processing information, producing scientific reports, thus enabling them to select the most appropriate and reliable research process for their individual project.</p>	

Elective Curricular Units			20,0		<p>Elective curricular units are freely chosen by students from amongst those offered by the Urbanism, Architecture, and Design departments, other schools in the university or other institutions with which the FA has an agreement.</p> <p>Elective curricular units also differ each year, ensuring that the topics and curriculum content are flexible and up-to-date, and may include:</p> <ul style="list-style-type: none"> <li>• Shape Grammars</li> <li>• Building Information Modeling (BIM)</li> <li>• Digital Design and Manufacturing</li> <li>• Design Development for Colour and Re-habilitation of Architectural Surfaces</li> <li>• 3D Digitalisation</li> <li>• Aesthetics of Structural Forms</li> <li>• Essential Mathematics for Computation</li> <li>• Analysis and Simulation Tools</li> <li>• Forms of Urban Intervention</li> <li>• Programming for Architecture</li> <li>• Parametric Urban Design</li> <li>• Light and Colour</li> <li>• Design development for urban rehabilitation and architectural complexes</li> </ul> <p>NB: The programme for each curricular unit is available from the FA portal</p>	<p>Curricular units from the research area aim to transmit specialist thematic knowledge from the field of Architecture, developed in association with ongoing research projects and offering a diversified approach to major contemporary themes.</p> <p>The curricular units offered from the research area differ each year, ensuring that the topics and curriculum content are flexible and up-to-date, and may include:</p> <ul style="list-style-type: none"> <li>• A Critical History of Modernity</li> <li>• Forms of Urban Intervention Living Spaces, Comparative Architecture and Urbanism: Portugal and Brazil</li> <li>• Ontology and Phenomenology of Architecture and the City</li> <li>• Urban Cultures and Architecture</li> <li>• Architecture, conceptualisation and design — towards an epistemology of architectural creation</li> <li>• Architecture of Dwelling</li> <li>• Architectural Restoration Theory</li> <li>• Portuguese Architecture and Urbanism in Africa</li> </ul>	
-	1 <sup>st</sup> year	2 semester					

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<b>Total</b>			<b>30</b>			
Thesis Project Seminar			10,0			<p>The aim of this curricular unit is to establish and deepen the framework for scientific research within the fields of knowledge theory and philosophy of science, establishing connections with the concrete work of each student and developing the tasks required to produce the Thesis Project, which will be assessed by a panel of examiners.</p> <p>Admission to the 2nd year of the course will depend on approval of the Thesis Project.</p>
Elective Curricular Units			20,0		<p>Elective curricular units are freely chosen by students from amongst those offered by the Urbanism, Architecture, and Design departments, other schools in the university or other institutions with which the FA has an agreement.</p> <p>Elective curricular units also differ each year, ensuring that the topics and curriculum content are flexible and up-to-date, and may include:</p> <ul style="list-style-type: none"> <li>• Shape Grammars</li> <li>• Building Information Modeling (BIM)</li> <li>• Digital Design and Manufacturing</li> <li>• Design Development for Colour and Re-habilitation of Architectural Surfaces</li> <li>• 3D Digitalisation</li> <li>• Aesthetics of Structural Forms</li> <li>• Essential Mathematics for Computation</li> <li>• Analysis and Simulation Tools</li> </ul>	<p>Curricular units from the research area aim to transmit specialist thematic knowledge from the field of Architecture, developed in association with ongoing research projects and offering a diversified approach to major contemporary themes.</p> <p>The curricular units offered from the research area differ each year, ensuring that the topics and curriculum content are flexible and up-to-date, and may include:</p> <ul style="list-style-type: none"> <li>• A Critical History of Modernity</li> <li>• Forms of Urban Intervention Living Spaces, Comparative Architecture and Urbanism: Portugal and Brazil</li> <li>• Ontology and Phenomenology of Architecture and the City</li> <li>• Urban Cultures and Architecture</li> <li>• Architecture, conceptualisation and design — towards an epistemology of architectural creation</li> <li>• Architecture of Dwelling</li> <li>• Architectural Restoration Theory</li> <li>• Portuguese Architecture and Urbanism in Africa</li> </ul>

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- -	2 <sup>nd</sup> year	1 semester					
<b>Total</b>			<b>30</b>				
PhD Laboratory I			30,0			These curricular units are designed to develop research work, following approval of the Thesis Project. Their main objective is the acquisition of written skills for abstracts, articles and chapters and oral skills for presenting academic work, academic discussion and argument, and for structuring and developing integral sections of the thesis to be presented and discussed in seminars, together with the Progress Report.	
- -	2 <sup>nd</sup> year	2 semester					
<b>Total</b>			<b>30</b>				
PhD Laboratory II						These curricular units are designed to develop research work, following approval of the Thesis Project. Their main objective is the acquisition of written skills for abstracts, articles and chapters and oral skills for presenting academic work, academic discussion and argument, and for structuring and developing integral sections of the thesis to be presented and discussed in seminars, together with the Progress Report.	
	3 <sup>rd</sup> year	1 semester					

<b>Total</b>			60				
PhD Laboratory III			30,0			These curricular units are designed to develop research work, following approval of the Thesis Project. Their main objective is the acquisition of written skills for abstracts, articles and chapters and oral skills for presenting academic work, academic discussion and argument, and for structuring and developing integral sections of the thesis to be presented and discussed in seminars, together with the Progress Report.	
<b>Total</b>							
Dissertation			30,0			This curricular unit, which takes the form of tutorials, is designed to provide supervision for students in the final stages of writing dissertations, ending with their submission and defence in a public <i>viva voce</i> examination. It involves a close working relationship between the student and their supervisor(s) in order to ensure the advance in knowledge stipulated in the Thesis Project, which will be assessed by the panel of examiners in accordance with legal requirements and the regulations of the FA.	
<b>Total:</b>	3 years		180				