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 |
| Urban Planning | | | | | | | |
| -  - | 1st year | 1 semester |  |  |  |  |  |
| Total |  |  | 30 |  |  |  |  |
| Project Laboratory IV |  |  | 12,5 |  |  | This curricular unit aims to develop the capacity to understand  and intervene in complex urban and metropolitan territories.  It includes the characterisation of an extensive urban area  based on a selection of themes for analysis (each covering  different territorial scales) and information from different  sources. The second phase involves the design of a territorial  development strategy, including economic and social aspects,  together with a range of measures designed to have an impact  on the physical component of the study area and which  aim to satisfy the predefined objectives and programme. |  |
| Infrastructures and Urban Networks |  |  | 7,0 |  |  | Designing distribution systems for the water supply and  drainage of waste water and rainwater. Solid waste collection  and treatment systems. Electrification and lighting systems.  Telecommunications networks. Hierarchy of roads. Road  systems. Road design. Traffic and road capacity. Forms  of transport. Intermodality. Transport planning and urban  mobility. Energy efficiency and sustainability in transport.  Interaction between urban design and functions. |  |
| Law in Architecture and Urbanism |  |  | 3,5 |  |  | Fostering awareness amongst architecture and urbanism  students of the main legal aspects relating to the exercise of  their profession, in particular with regard to relations established  with clients, staff and the final users of their projects.  Integrating legislation into the design rationale of architects  (architecture and urbanism) through consultation, analysis  and systematic inclusion of the main legislation which forms  the architectural and urban management licensing framework,  together with the legislation that must be considered  in drawing up regulations for urban management and the  exercise of the profession, both from the perspective of the  rights inherent to architectural design work and with regard  to contracting third parties. Case studies. |  |
| Urban Sociology |  |  | 3,5 |  |  | The sociology of the city and the sociology of forms of  habitation constitute one of the central themes. An interdisciplinary  exploration of themes that may assist in interpreting  and assessing 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. A further aim will be to foster an  understanding, from a sociological perspective, (whenever  possible, linked to architecture) of 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. |  |
| Urban Economics |  |  | 3,5 |  |  | An introduction to urban economics as a tool for understanding  the interdependence between cities and economic  development and for approaching the processes of urban  growth and the main problems confronting cities. Given that  this is not an economics degree course, the aim will be to  provide students with a general understanding of the way in  which economic processes influence the spatial organisation  of society and determine or influence the urban dynamics  and urban problems they will confront. |  |
| -  - | 1st year | 2 semester |  |  |  |  |  |
| Total |  |  | 30 |  |  |  |  |
| Project Laboratory V |  |  | 13,0 |  |  | This curricular unit aims to develop the skills (integrating all  the knowledge acquired so far) required to intervene in an  urban nucleus (preferably located in the territory studied in  Project VI), managing it as a unit. Intervention measures and  policies should be designed which reorganise and promote  urban development in the intervention area, assessing their  economic viability and outlining forms of implementation  within the current legal framework. The exercise will be  completed with the organisation of a design programme  and proposal which includes public space and an average  range of facilities, relating site to form and covering various  scales including building work. |  |
| Landscape Architecture |  |  | 7,0 |  |  | Landscape as an ecological, cultural and economic unit. The  dynamics and stability of landscape, analytical methods.  Rural and urban landscapes. Landscape management and  urban planning. Water in landscapes. Environmental risk  prevention and control. Green urban structure: concept, typologies  and environmental performance. The architecture of  exteriors and open spaces, positive intervention in landscape  design. Climate change and urban environmental risk control. |  |
| Urbanism Theory and Methods |  |  | 3,5 |  |  | Providing a perspective on the various components and elements  required for understanding, defining and applying urban  and territorial planning methodologies, with an emphasis  on urban composition whilst also ensuring an understanding  of strategic planning and participatory urbanism, framed by  the following objectives: a) Mastering physical and strategic  planning methodologies; b) Understanding how to apply  specific methodologies in analysis, diagnosis, definition of  scenarios and choice of alternatives; c) Designing solutions  to resolve planning problems on different scales; d) Knowing  how to assess the results of the proposed solutions. |  |
| Urban Administration |  |  | 3,5 |  |  | Providing the analytical support tools for defining policies  and projects for public works which have an impact on territories  on a regional and local level. Transmitting knowledge  which links the task of territorial interpretation, analysis and  diagnosis to the role of urban administration and management  for the purpose of formulating and implementing  plans and projects. |  |
| Specialisation Elective |  |  | 1,5 |  | Specialist Electives  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  © PROF. JOSЙ PINTO DUARTE  16 INTEGRATED MASTER'S IN ARCHITECTURE • FA+*UD* SPECIALISATION IN 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  •• The Desire Machine  •• The Anthropology of Seeing  •• Cinema and Architecture  •• Figure Drawing /Life Drawing  •• Drawing and the City  •• Architectural Photogrammetry  •• Artistic Interventions in Urban Space  •• Cinematic Narratives of Architectural and Urban Space  •• Drawing the Background to Architecture  •• 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 |  | Specialist Electives  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  © PROF. JOSЙ PINTO DUARTE  16 INTEGRATED MASTER'S IN ARCHITECTURE • FA+*UD* SPECIALISATION IN 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  •• The Desire Machine  •• The Anthropology of Seeing  •• Cinema and Architecture  •• Figure Drawing /Life Drawing  •• Drawing and the City  •• Architectural Photogrammetry  •• Artistic Interventions in Urban Space  •• Cinematic Narratives of Architectural and Urban Space  •• Drawing the Background to Architecture  •• 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 ● |  |  |
| -  - | 2nd year | 1 semester |  |  |  |  |  |
| Total |  |  | 30 |  |  |  |  |
| Project Laboratory VI |  |  | 13,0 |  |  | This curricular unit aims to approach a complex contemporary  urban problem through a major composition exercise  which includes all the aspects inherent to its complexity.  The results will emerge from a research process focusing  on a theme which involves establishing an intervention  philosophy and deepening and demonstrating all previous  learning, i.e. synthesising physical/spatial solutions which  provide evidence of concepts from which a relationship  is established between theme and site, organising and  producing space and buildings, checking economic viability  and outlining the method of implementation. |  |
| Urban Rehabilitation |  |  | 7,0 |  |  | Rehabilitation within the current urban context, a quantitative  and qualitative perspective. Analysis and characterisation  of rundown urban areas, physical aspects (infrastructures,  buildings and public spaces), social and economic  aspects. Intervention projects in rundown areas, typification  and classification of nation and international examples.  Introduction to the legal framework for urban rehabilitation  in Portugal, highlighting potential, strengths and weaknesses.  Critical appreciation of the reality of urban rehabilitation in  the past five decades, emphasising the evolution of concepts  and practices. Theory may be accompanied by a small  practical exercise based on the analysis of a rundown area  and a proposal for an integrated (physical, socioeconomic  and educational) rehabilitation programme. |  |
| Road and Transport Systems |  |  | 3,5 |  |  | Introduction to issues involving road systems and traffic:  road systems and territorial structuring. Integrated traffic  management: hierarchy and organisation of the road  network. Main and secondary roads — streets — roundabouts  — uneven axes: analysis of capacity and levels of  service. Management of parking spaces: parking policies  and management. Pedestrian routes: the importance of  pedestrian traffic. |  |
| Specialisation Elective |  |  | 1,5 |  |  | 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. Theoreticalpractical  support for conceptual development and the  various aspects of writing the Master's project proposal.  Master's final project; scientific dissertation. |  |
| Specialisation Elective |  |  | 1,5 |  | Specialist Electives  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  © PROF. JOSЙ PINTO DUARTE  16 INTEGRATED MASTER'S IN ARCHITECTURE • FA+*UD* SPECIALISATION IN 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  •• The Desire Machine  •• The Anthropology of Seeing  •• Cinema and Architecture  •• Figure Drawing /Life Drawing  •• Drawing and the City  •• Architectural Photogrammetry  •• Artistic Interventions in Urban Space  •• Cinematic Narratives of Architectural and Urban Space  •• Drawing the Background to Architecture  •• 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 ● |  |  |
| Research Seminars |  |  | 3.5 |  | 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. |  |  |
| -  - | 2nd year | 2 semester |  |  |  |  |  |
| Total |  |  | 30 |  |  |  |  |
| Master's Final Project or Dissertation\* |  |  | 22,0 |  |  | Acquiring a deeper level of knowledge and skills in the  specific disciplinary area of architecture with specialisation 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. |  |
| Total for Master course: | 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 |
| Urban Planning | | | | | | | |
| -  - | 1st year | 1 semester |  |  |  |  |  |
| Total |  |  | 30 |  |  |  |  |
| Research Methodologies\* |  |  | 10,0 | 10,0 |  | The main aim of this curricular unit is to develop  research skills and familiarise students with  the process of creating knowledge through the  interaction between theory and its operationalisation.  Students will therefore learn to master  methodological techniques and principles with  ease for gathering and processing information and  producing scientific reports, thus enabling them to  select the most appropriate and reliable research  process for their individual project. |  |
| Curricular units from research area |  |  | 20,0 |  |  | Curricular units from the research area aim to  transmit specialist thematic knowledge from the  field of Urbanism, developed in association with  ongoing research projects and offering a diversified  e approach to major contemporary themes.  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:  • Urban Culture  • Forms of Urban Intervention  • Metropolitan Areas: Development and Crisis  URBAN CULTURE  This curricular unit focuses on the city as a cultural  product and aims to extend and update knowledge  and provide methodologies and working  tools appropriate for research and the production  of knowledge in the field of urbanism. It approaches  the city as a cultural artefact, linking the phenomenon  of civilization to the creation of cities.  FORM S OF URBAN INTERVENTION  This curricular unit aims to reflect on the forms  of urban and territorial intervention, identifying  constants and specific features in different  periods of time and space and reviewing the main  events in the formation and transformation of the  western city, supported by case studies.  METR OPOLITAN AREAS:  DEVELOPMENT AND CRISIS  This curricular unit aims to reflect on the main  issues which nowadays confront metropolitan  areas, based on their definition, characterisation  and sector diagnosis together with the consequences  for their spatial organisation, establishing  prospective approaches. |  |
| -  - | 1st year | 2 semester |  |  |  |  |  |
| Total |  |  | 30 |  |  |  |  |
| Thesis Project Seminar |  |  | 10,0 |  |  | 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.  Admission to the 2nd year of the course will  depend on approval of the Thesis Project. |  |
| Curricular units from research area |  |  | 10,0 |  |  | Curricular units from the research area aim to  transmit specialist thematic knowledge from the  field of Urbanism, developed in association with  ongoing research projects and offering a diversified  e approach to major contemporary themes.  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:  • Urban Culture  • Forms of Urban Intervention  • Metropolitan Areas: Development and Crisis  URBAN CULTURE  This curricular unit focuses on the city as a cultural  product and aims to extend and update knowledge  and provide methodologies and working  tools appropriate for research and the production  of knowledge in the field of urbanism. It approaches  the city as a cultural artefact, linking the phenomenon  of civilization to the creation of cities.  FORM S OF URBAN INTERVENTION  This curricular unit aims to reflect on the forms  of urban and territorial intervention, identifying  constants and specific features in different  periods of time and space and reviewing the main  events in the formation and transformation of the  western city, supported by case studies.  METR OPOLITAN AREAS:  DEVELOPMENT AND CRISIS  This curricular unit aims to reflect on the main  issues which nowadays confront metropolitan  areas, based on their definition, characterisation  and sector diagnosis together with the consequences  for their spatial organisation, establishing  prospective approaches. |  |
| Elective Curricular Units |  |  | 10,0 |  | 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.  Elective curricular units also differ each year,  ensuring that the topics and curriculum content  are flexible and up-to-date, and may include:  • Shape Grammars  • A Critical History of Modernity  • Urban Policies  • Parametric Design and Urbanism  • Spatial Syntax  • Urban Sustainability  • Contemporary Urbanism  *NB: The programme for each curricular unit*  *is available from the FA portal* |  |  |
| -  - | 2nd year | 1 semester |  |  |  |  |  |
| Total |  |  | 30 |  |  | 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. |  |
| 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. |  |
| -  - | 2nd year | 2 semester |  |  |  |  |  |
| Total |  |  | 30 |  |  |  |  |
| 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. |  |
|  | 3rd year | 1 semester |  |  |  |  |  |
| Total |  |  | 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. |  |
| Total |  |  |  |  |  |  |  |
| 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 *viva voce* 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. |  |
| Total: | 3 years |  | 180 |  |  |  |  |