

Information for and structure of the Quality recognition report

I - GENERAL INFORMATION	
Name of the school	Instituto Superior Técnico (IST)/Universidade de Lisboa
Name of the programme	Master Degree (MSc) in Urban Studies and Territorial Management (<i>Mestrado em Urbanismo e Ordenamento do Território</i> - MUOT)
Address	Avenida Rovisco Pais 1, 1049-001 Lisboa Portugal
Website	https://fenix.tecnico.ulisboa.pt/cursos/muot
Official representative of the school	Arlindo Oliveira (President of IST) / José Antunes Ferreira (Portugal representative in AESOP)
Contact person	Beatriz Condessa (MUOT Coordinator 2014/2015)

II - OBJECTIVES OF THE PROGRAMME	
Level of university education/degree	Higher Education (University) - MSc - Level 5 A
Duration of the study in the programme	4 semesters/ 2 years
Profile of graduates	The main career opportunities/avenues for MUOT graduates are: - Design and consultancy firms; - Architectural firms; - Environment and urban or regional development agencies; - Real estate and tourism investment companies; - Local councils; - Central and regional government; - Public authorities; - Associations of local councils; - Local development agencies; - Spatial planning authorities.
Scientific objectives/knowledge offered	The main purpose of the MUOT is to provide an eminently practical education in the areas pertaining to urban and territorial dynamics. It also seeks to expand the students' skills in the fields of urbanism and urban development - among others, the study and contextualisation of interventions in the city and humanised spaces, the practice of the construction and renovation of the city and the management of land use and urban processes. Analysis and characterisation of these subjects and consolidation and innovation in formulating solutions to problems facing in the transformation of cities and territory are further objectives of this course. The integration capacities of knowledge, mediation, negotiation and leadership that are furthered in this Master's course are a value added for work that is to be carried out in multi-disciplinary teams.
Professional objectives/skills offered	MUOT graduates are qualified to: - Be members of and coordinate interdisciplinary planning and land use management teams; - Analyse and assess problems and produce concise diagnostics for complex territorial systems that the spatial planning process aims to address and prevent; - Formulate solutions in the field of land use and the respective planning and management process; - Assess the costs and benefits of solutions and projects, evaluate and manage the conflicts they may give rise to and support the decision-making process; - Draw up territorial plans and the monitoring studies for said plans; - Contribute to drawing up administrative regulations and laws that provide the legal and technical framework for urban and spatial planning; - Conceive and operate geographic information systems.
Requirements for entering the programme (previous education profile)	Licentiate degree (pre-Bologna) or 1st cycle degree (post-Bologna) in diverse scientific fields directly related to Urbanism, Planning and Land Use Management - namely, in Engineering Sciences, Architecture, Geography, Landscape Architecture, Sociology and Economics.

Standard presentation (optional)	MUOT is an innovative postgraduate course based on an inter and trans-disciplinary approach with engineering, urbanism, basic social science disciplines and landscaping. The course aims providing a solid specialisation based on the fundamental principles and methods of urban and territorial development. Most of the course units in this Master's course (which include a number of optional units that allow for individualised trajectories) are courses that are already in operation or are part of other mandatory or optional courses administered at the Department of Civil Engineering, Architecture and Georesources. The aim of the MUOT is to provide students from different countries and from very diverse education backgrounds - e.g. Basic Engineering Sciences, Architecture, Geography, Landscape Architecture, Sociology and Economics - to obtain a Master's degree-level education. MUOT was created by Decision n.º 12315/2009, of 22th May, subsequently amended by Decision n.º 18138/2010, of 6th December, and by Decision n.º 14378/2012, 6th November.
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III - CONTEXT and CONTENTS	
Position in the academic environment: country, university, department	MUOT is integrated in the Department of Civil Engineering, Architecture and Georesources of Instituto Superior Técnico (IST), University of Lisbon. The IST provides a solid training, as well as the habit life-long learning, creating specialists who become agents of change and innovation in society. The MUOT contributes to meeting the IST objectives and fulfilling its mission. It provides education of a high quality and favours close links between the university and the business and administrative sectors, thus promoting the transfer of technology and application of research results in the innovation of the private and public sectors.
Accreditation obtained (if applicable)	The creation of MUOT was approved by the Portuguese Ministry of Education and Science, in 2009. In 2012/2013 was assessed by an international committee from the "Agência de Avaliação e Acreditação do Ensino Superior" (Agency for Assessment and Accreditation of Higher Education - A3ES).
Team	List, qualifications and European and International engagement of the staff members
Full Professors	Fernando Nunes da Silva ; PhD Civil Engineering; Council member of International Federation for Housing and Planning (IFHP), Vice-President of the Executive Committee of Information Management Policies Assessment for City Transport Systems (IMPACTS), Member of the General Assembly of International Urban Development Association (INTA); Member of Editorial Board of Cadernos Metrópole (Brazil).
	Luís Picado Santos ; PhD Civil Engineering; Chair of the Transportation Focus Area of the MIT Portugal Program, Member of TCD.1 "Asset Management" of World Road Association-PIARC (2008-2012), in charge or jointly in charge of organising several international scientific events (e.g.: Chair of the European Pavement and Asset Management Conference series Steering Committee (2012-2017)).
	José Saldanha Matos ; PhD Civil Engineering.
Associate Professors	Ana Tostões ; PhD Territorial Engineering; member of International Council on Monuments and Sites (ICOMOS) for the modern heritage.
	António Trigo Teixeira ; PhD Hydrodynamics of Coastal Areas; Guest lecturer of the course "Regime e Protezione dei Litorali" in Departamento Ingegneria Idraulica, Marittima, Ambientale e Geotecnica (IMAGE - Padova University), 2010.
	João de Quinhones Levy ; PhD Civil Engineering; Member of Water Pollution Control Federation (WPCF).
	José Antunes Ferreira ; PhD Civil Engineering; Member of AESOP's Council of Representatives (CoRep), Member of the International Academic Association of Planning, Law and Property Rights (PLPR).
	Maria do Rosário Macário ; PhD Transportation; Member of the Scientific and Steering Boards of the Association of European Transport (AET), of the World Conference on Transport Research Society, Member of International Association "ELITE - European Logistics, Infrastructure and Transport Expertise Network" and of the "Sociedade Panamericana de Investigação em Transportes" (PANAMSTR), Member of Editorial Board of Journal of Rail and Rapid Transit.

	Maria do Rosário Partidário; PhD Strategic Environmental Assessment; Guest Professor in the International Master in Sustainable Development and Corporate Responsibility of Escuela de Negocios de Madrid, Focal point of International Association for Impact Assessment (IAIA) at the United Nations Economic Commission for Europe (UNECE) Espoo Convention, SEA Protocol and Working Group on EIA; Chair of the Editorial Board of Impact Assessment and Project Appraisal. Rui de Carvalho Oliveira; PhD Systems Engineering; Member of Editorial Advisory Board of Journal of Modelling in Management
Assistant Professors	Alexandre Bacelar Gonçalves; PhD Territorial Engineering. António Ricardo da Costa; PhD Urban Studies. Beatriz Condessa; PhD Geography; Member of the International Academic Association of Planning, Law and Property Rights (PLPR). Cristina Marta Gomes; PhD Systems Engineering. Filipe Vilaça e Moura; PhD Transportation; Member of the Competitiveness and Technology Cluster of Energy, Member of Special Interest Group G4 Cultural and social issues in transport of World Conference on Transport Research Society (WCTRS), Member of CIT-A-PE partner of the European Innovation Partnership on Active and Healthy Ageing (EIP-AHA), Action Group D4 on Age-Friendly Environments. Isabel Loupa Ramos; PhD Environmental Engineering; Member of the elected Executive Committee of the European Association of Landscape Ecology - IALE-Europe. Joana Castro e Almeida; PhD Territorial Engineering; Member of the International Academic Association of Planning, Law and Property Rights (PLPR). João Abreu e Silva; PhD Territorial Engineering; Member of International Association for Travel Behaviour Research (IATBR), Member of Special Interest Group G4 Cultural and social issues in transport of World Conference on Transport Research Society (WCTRS), Member of AP045 (Intermodal Transfer Facilities Committee) and of ADB10 (Travel Behaviour and Values Committee) of the Transportation Research Board, Member of World Society for Transport and Land Use Research (WSTLUR), Member of Editorial Board of Transportation Letters: the International Journal of Transportation Research. Jorge Baptista e Silva; PhD Civil Engineering. Jorge Manuel Gonçalves; PhD Geography and Regional Planning; Member of Iberoamerican University Network of Municipal Technicals (RUIITEM), associated to International Federation for Housing and Planning - IFHP. Patrícia Dinis Ferreira; PhD Civil Engineering.
Assistant	Ana Morais de Sá; MSc Urban Studies and Territorial Management; Member of the International Academic Association of Planning, Law and Property Rights (PLPR).
Programme structure	1. Curriculum (M - Mandatory; O - Optional) 1st year/Semester 1 (to select one of the optional courses): Urban and Regional Planning (M) - 6 ECTS Landscape Ecology (M) - 4,5 ECTS History of the City (M) - 4,5 ECTS Geographical Information Systems I (M) - 4,5 ECTS Law of Urban and Regional Planning (M) - 3 ECTS Development and Innovation (M) - 1,5 ECTS Transport Infrastructures (O) - 6 ECTS Urban and Regional Economics (O) - 6 ECTS Physical Geography (O) - 6 ECTS 1st year/Semester 2 (select two of the optional courses):

	Urban Planning (M) - 6 ECTS
	Geographic Information Systems II (M) - 6 ECTS
	Land Use and Landscape Planning (M) - 4,5 ECTS
	Strategic Planning and Urban Governance (M) - 4,5 ECTS
	Sanitary Engineering (O) - 6 ECTS
	Urban Design (O) - 4,5 ECTS
	Transport Infrastructure Inside Urban Areas (O) - 4,5 ECTS
	Urban Sociology (O) - 4,5 ECTS
	Solid Waste Management (O) - 4,5 ECTS
	Urban Mobility Management (O) - 4,5 ECTS
	Coastal Management (O) - 4,5 ECTS
	Projects and Contracts (O) - 4,5 ECTS
	2nd year/Semester 1 (select one of the optional courses):
	Urban Management (M) - 6 ECTS
	Plans Evaluation and Public Decision (M) - 4,5 ECTS
	Property Development, Valuation and Management (M) - 3 ECTS
	Dissertation Project in Urbanism and Territorial Management (M) - 12 ECTS
	Strategic Environmental Assessment (O) - 6 ECTS
	Systems Modelling and Evaluation (O) - 6 ECTS
	Regional Development and European Policies (O) - 4,5 ECTS
	Road Traffic Engineering (O) - 4,5 ECTS
	Regions and Networks (O) - 4,5 ECTS
	Free Option 1 (any course of Instituto Superior Técnico) (O) -
	2nd year/Semester 2:
	Dissertation in Urbanism and Territorial Management - 30 ECTS
	2. Number of credits: see above
	3. ECTS: Total 120
Methods of teaching	Depends on the courses, but generally include both theoretical and practical classes. Theoretical classes are usually based on slide presentations and related bibliography for each subject (specific publications, book chapters or/and related articles) and have the following structure: overview, description of the subject, examples and systematisation of the main related problems and challenges; presentation and discussion of the most relevant theoretical concepts and methodologies; final discussion with students supported by the reading references provided or resolution of practical cases illustrating each topic. In the practical classes, special emphasis is placed on the presentation and discussion of case studies and best practices, from both Portuguese and international experience. In some courses a particular focus is on the development of a practical teamwork project that requires students to apply the concepts and methodologies they have studied in a real context; in other courses, the students resolve practical cases on the basis of the training that they have been given in the theoretical classes. A study visit to the practical assignment's intervention area is usually organised.
Title(s) awarded (single, double, multiple degree)	Single title.
Students in the programme	1.Number: 20/per year
	2. Percentage of international students: 20%

3. Examples of countries of origin: Angola, Armenia, Brazil, France, Georgia, Mozambique, The Netherlands, Spain, Turkey.

IV - EUROPEAN AND INTERNATIONAL DIMENSION IN TEACHING

In the courses

1. International comparative planning
An overview of the new problematics all over the world, related with spatial planning, are presented and discussed (**Urban and Regional Planning**).
Different models for real estate evaluation in different European countries are studied (**Property Development, Valuation and Management**).
The new European directives in public procurement are analysed (**Projects and Contracts**).
The cohesion and structural funds are discussed (**Regional Development and European Policies**).
The international experience in urban planning and management process is presented and discussed whenever appropriate, in comparison to the Portuguese Framework (**Urban Management**).
International comparative analysis regarding Plan Evaluation and Monitoring function, expressed in the legal planning frameworks of different EU countries, are undergoing as practical group works (**Plans Evaluation and Public Decision**).

2. European Spatial Planning
EU policies are explored as Nature 2000, Strategy on Green infrastructure, CAP, European Landscape Convention Soil strategy (**Landscape Ecology and Environmental Planning**).
European regional planning system is analysed (**Regional Development and European Policies**).
Some European municipal and local planning systems are discussed in comparison to the Portuguese system (**Urban Management**).
ESPON programme (European Observation Network for Territorial Development) is approached with particular attention given to scientific platform dealing with territorial indicators, monitoring and tools related to territorial analyses, typologies, modelling and updates of statistics (**Plans Evaluation and Public Decision**).
The approach to Urbanization process is made at different scales - World, EU, Iberic and National level. The major problems and challenges that should be faced in urban spaces, including the main perspectives and planning theories, the public urban policies and the role of urban planning and management to solve those urban problems or reduce its impacts, are introduced within an international scope. Subjects are introduced on an international scale, but considering the application of the theory and practice of European planning perspective with the need for differentiated responses to different realities and very different levels of development, such as in Africa, Asia or Latin-American community (**Urban Planning**).

3. Other
In the group project students can opt for an international comparison regarding the chosen project theme (the Construction Sector or Quality of Life are two examples studied in the past). Many groups have thus compared European countries (or regions or cities), or other geographically dispersed entities such as ports or airports (**Systems Modelling and Evaluation**).

In the practical activities (max. 50 words each)

1. Placement periods abroad (localities, length, percentage of students)
The master programme coordination is making efforts to offer this kind of practical activities.

2. Workshops abroad (localities, length, number of students)
The master programme coordination is making efforts to offer this kind of practical activities.

3. Study tours (localities, length, percentage of students)
Teachers responsible for the courses are free, have autonomy and are invited by the programme coordination to undertake study tours related with the subjects studied. In general all the respective students are invited to those tours, using the BUS made available by our University. In general, absences are not registered but tours can be part of student evaluation. These kind of tours, made compatible with the students timetable, usually happen in the metropolitan area of Lisbon (less than 50 km) and less frequent cases can reach 200 km.

	4. Other
In other activities (max. 50 words each)	
In the final thesis and/or project	1. Comparative or European topics for the thesis - National application of the EU green infra-structure strategy; - Use of the European Landscape Convention in Management of Heritage; - EUROSTAT LUCAS network to assess landscape; - Two Thesis on the urban requalification in Italy, using European funds; - International practice in real estate mass appraisal systems; - Analysis of the international practice of Land Readjustment; - Comparative analysis related with Participation practices in Planning between Portugal and Brazil (in course); - Territorial dynamics and urban evolution of the city of Luanda and comparative analysis of planning system between Angola and Portugal (in course); - Management of cycling mobility: preference factors in starting cities; - Neo-rurality and the case of Portugal. 2. Projects in foreign countries 3. Possibility to submit in different languages Yes. In English. 4. Other
Involvement of foreign teachers	1. Visiting professors 2. Guest lecturers: - Andrew Lovett (University of East Anglia); - Tim O'Riordan (Emeritus Professor - University of East Anglia); - Lone Kristensen (University of Copenhagen); - Felix Kienast (Department of Environmental System Science at ETHZ); - Lucia Bogus (Pontifícia Universidade Católica de S. Paulo - Brazil); - Alejandra Orozco Meza (Universidad de Costa Rica); - Angélica Alvim (Universidade Presbiteriana Mackenzie - Brazil); - Rachelle Alterman Technion - Israel Institute of Technology); - Philippe Bovy (École Polytechnique Fédérale de Lausanne). 3. Other forms of involvement (reviewers, evaluators, jury members ...)
Language(s) of tuition	Multilingual/Portuguese and English
V - INSTITUTIONAL EUROPEAN AND INTERNATIONAL DIMENSION	
International institutional collaborations (Instituto Superior Técnico - IST)	1. Active cooperation agreements: Student exchange - 86 Scholar exchange - 66 R&D - 82 2. Erasmus : Number of Erasmus agreements - 459 Incoming students (in 2014) - 373 Outgoing students (in 2014) - 249 3. Joint courses agreements- 17 4. Joint/Double diplomas - 17 5. Mobility of students (capacity)) - N/A Incoming mobility students (in 2014) - 511 Outgoing mobility students (in 2014) - 305 6. Mobility of staff (capacity) - N/A 7. Summer schools 8. Intensive programmes 9. Distance learning 10. Other The IST is a full member of CLUSTER, a network that includes a number

	of leading European universities that promote high quality in education and research. The universities in the CLUSTER group have signed a convention on mutual recognition of degrees, allowing students from any one of the group's schools to continue their studies in any other school. Through diverse mobility programmes, the IST offers its students the opportunity to study for one or two semesters abroad. This can be done in Europe under the ERASMUS Programme, Brazil, and other Latin American countries through the SMILE Programme. The TIME Programme, enables students to acquire dual degrees. The MUOT has an agreement established with Mimar Sinan University of Fine Arts (Turkey). IST students can attend short-duration courses abroad through the ATHENS Programme and also use the IAESTE and VULCANUS programmes to do professional internships in companies and research centres.
VI - EUROPEAN AND INTERNATIONAL DIMENSION IN RESEARCH	
Research programmes/projects with European scope	Teachers of MUOT were / are involved in: FRAGARIA "Measuring societal awareness of the rural agrarian landscape: indicators and scale", JRC/Altera (contract no. 38309), 2011. URBEM "Urban River Basin Enhancement Methods", Contract nr. EVK4-CT-2002-00082, 2002-2005. SESAR program within EU Single sky, 2012-2013. "Arte Público y Diseño Urbano para Todos - Hacia el Museo Virtual del Arte Público y el Diseño Urbano" (coordination by Universidad de Saragoza), HUM2006-12803-C02-01, CERPOLIS 2007/2009.
Research programmes/ projects with European funding	Teachers of MUOT were / are involved in European projects: URBEM (2002/2005), PACTS (2011/2012), SKILLRAIL (2009/2011), EDUCAIR (2011/2013), HERMES (2010/2012), RAILENERGY (2007/2011) and COST action TU1001 - Public Private Partnerships in Transport: Trends and Theory, European Commission (2012/2014).
Other	Projects with Funding provided by Portuguese Foundation for Science and Technology RIPROCITY - Rivers in Cities: potential for urban sustainability; SPOTIA - Sustainable Spatial Policy Orientations and Territorial Impact Assessment - Contribution to Portuguese context; LANDYN - Land Use and cover change in Continental Portugal: characterization, driving forces and futures scenarios; PERCOM - Equity and efficiency in urban development process: a land readjustment execution model; PERIURBAN - Peri-urban areas facing sustainability challenges: scenario development in the Metropolitan Area of Lisbon; MODURAIL - Modelling Dynamic Uncertainty of Railway Track Life-Cycle Costs. Research contracts with Portuguese public entities R&D contracts in the Environment field, Health and education facilities planning, Water supply, waste and sewerage systems, Local development, Transportation and Road pavement management, Urban planning and Land Use Plans, Public Procurement. Research contracts with private or public international entities "Análise Comparativa de Modos de TCSP, em Arequipa, Perú", Construtora Queiroz Galvão, S.A. (Peru), and "Detailed urban plans and mobility and transportation studies" for Cazenga-Luanda (Angola) by F. Nunes da Silva (2014). "RoadMaps for Development of Transport, Energy and Urban services in Kazakhstan and Uzbekistan" by R. Macário, contract with Asian Development Bank (2011-2012). "BRT-ALC Bus Rapid Transit-Across Latitudes and Cultures" by R. Macário, contract with VREF Volvo Research and Education Foundation (2010/2015).
VII OPTIONAL INFORMATION HIGHLIGHTING DISTINCTNESS OF THE PROGRAMME	
Training: Provides high level training in planning and urban management; Strong links to practice with focus on instruments / tools / methods in planning; Provides integrative capacity of knowledge in planning and urban design; Provides individual work and team work while experimentation oriented to planning team work; Provides capabilities for (self) learning throughout life; Comprehensive curricular framework allowing adaptation to arising problematics;	

Strong connection to the Research Units.

Quality Warranty:

Adequate procedures for monitoring quality;

Quality assessment prepared regularly by external entities, including the monitoring of *alumni*;

Quality Curriculum System of Units (QUC) with audits undertaken by the Pedagogical Committee to malfunction situations;

Involvement of student delegates in the QUC process and participation of the responsible by courses and teaching body in defining strategies for improvement;

Information system for an integrated information management (FENIX);

Regulation for the Evaluation of Teachers of IST (RADIST) includes a component of teacher performance.

Timetable:

Facilitates the attendance of lectures by students workers;

Good ability to work and organization / time management by working students.

Life at IST:

Study space available for students open 24 hours;

Easy and frequent communication with students through the information system (FENIX);

Possibility of developing a significant number of extracurricular activities (sports and cultural);

Active participation of students in the pedagogical evaluation of teachers and courses.

A student support office / psychological support;

Good administrative organization in IST, with clear procedures and effectively disseminated;

Student organizations AEIST / NET (specific of MUOT students) are important to improve the attachment with school and develop relationships with real world.