

ECTS Information Package: Degree Programme

Master's degree in

CONSERVATION AND RESTORATION

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A - General Description

Programme Title - Mestrado em Conservação e Restauro

Qualification awarded - Master's degree in Conservation and Restoration

Level of qualification - Second-cycle degree, EQF Level 7; ISCED Level 5

Specific admission requirements

General

According to the Portuguese Law, the following candidates are eligible for entry to the course of study leading to the *Mestre* degree:

- Holders of a *licenciado* degree or legally equivalent corresponding to the first cycle of higher education;
- Holders of a foreign higher degree awarded on completion of a first-cycle programme organised in the framework of the Bologna Process;
- Holders of a foreign higher degree which is deemed by the Technical-Scientific Committee of ESTT-IPT to meet the requirements of a *licenciado* degree.
- Holders of an academic, scientific or professional curriculum which is deemed by the Technical/Scientific Committee of ESTT-IPT as appropriate to access the programme.

Specific

A first-cycle degree in Conservation and Restoration or other related areas with a significant component of conservation and restoration.

Specific arrangements for recognition of prior learning (formal, non-formal and informal)

General

Granting of credits from prior learning is regulated by the Portuguese Law taking into account the level of credits and the field of study where they have been earned and is subject to the recognition of ESTT-IPT Technical/Scientific Committee.

- Training undertaken in the context of other higher education programmes of study from national or foreign HE establishments or organised in the framework of the Bologna Process or other prior learning can be credited towards the present programme of study;
- Credits earned from postgraduate studies can also be credited towards this programme of study;
- Professional experience or other training, different from the abovementioned ones, can also be credited towards this programme of study.

Specific

Not applicable.

Qualification requirements and regulations:

The master's degrees are regulated by Portuguese Law and applicable program regulations established by the School of Technology-IPT.

In order to complete the master's degree it is necessary to accumulate 120 ECTS credits distributed throughout 4 curricular semesters as according to the course curriculum.

Each ECTS credit corresponds to 27 hours of work.

Profile of the program:

The study program is organised around two areas of expertise corresponding to two specialisation profiles:

- movable heritage;
- integrated heritage.

In any of these areas the study program includes:

- 2 semesters including 11 modules (a total of 60 ECTS), of which one has a strong practical component in one conservation and restoration speciality of the students' choice; 3 modules are selected among available options;
- 2 semesters corresponding to 60 ECTS dedicated to undertake professional internship or a dissertation in conservation and restoration.

Key learning outcomes:

- Develop and strengthen knowledge and skills obtained at 1st-cycle level.
- Apply acquired knowledge in new unfamiliar situations and in multidisciplinary contexts.
- Be able to assimilate new knowledge, deal with complex issues, devise solutions or make judgements in situations of restricted or incomplete information, including insights on the implications and ethical and social responsibility of those solutions or judgements.
- Be able to communicate conclusions as well as underlying knowledge and reasoning to specialists or non-specialists in a clear unequivocal manner.
- Develop skills that will enable the students to engage in lifelong learning in an autonomous self-oriented manner.
- Develop competences that will allow them to use creative, critical, autonomous and interdisciplinary skills to design, plan and integrate conservation and restoration products and processes according to international project regulations and relevant state-of-the-art.
- Acquire know-how and skills that will allow them to access the third-cycle, i.e. doctoral studies.

Occupational profiles of graduates with examples:

On completion of two courses of study in Conservation and Restoration totalling a 5-year training (licenciatura+mestrado), students are expected to be prepared to access the conservator-restorer profession according to international standards and recommendations for this activity sector, namely the European Network for Conservation-Restoration Education (ENCoRE), of which IPT is a member, and the European Confederation of Conservator-restorers' Organisations (ECCO).

Graduates from this master's program can be responsible for any conservation / restoration intervention, namely in cultural assets already classified or submitted for classification - which, according to the Portuguese law, requires 5-year training in conservation and restoration (Decree-Law No. 140/2009) and 5 years of professional experience. Apart from conservation and restoration related activities, graduates from this master's degree can also be engaged in the safeguard, enhancement and preservation of cultural assets in a wide range of organisations such as central and local government bodies, museums, charities, foundations, monuments, palaces, churches, convents, archaeological sites, antiquaries, auctioneers, property carriers, property management companies, conservation/restoration project offices and science/technology research laboratories.

Access to further studies:

This program gives access to doctoral studies (third-cycle) in conservation and restoration and other areas.

Course structure diagram with credits

Movable Heritage

Course Title	Year	Semester	Credits
Applied Conservation and Restoration	1	A	15.5
Advanced Methods of Examination and Analysis	1	S1	5.5
Art and Culture I	1	S1	5.5
Collection Preservation	1	S1	4
Option I (Year1/Sem1)	1	S1	4
op: Portuguese Sculpture (*)	1	S1	4
Option II (Year1/Sem1) (**)	1	S1	4
Art and Culture II	1	S2	5.5
Art Expertise	1	S2	4
Collection Management	1	S2	4
Option III (Year1/Sem2) (**)	1	S2	4
Research Methodology	1	S2	4
Internship/ Dissertation	2	A	60
op: Dissertation	2	A	60
op: Internship/Placement	2	A	60

(**) Free Option.

(*) This course may not be available in certain academic years. Please confirm availability with the Erasmus coordinator.

Integrated Heritage

Course Title	Year	Semester	Credits
Applied Conservation and Restoration	1	A	15.5
Advanced Methods of Examination and Analysis	1	S1	5.5
Architectural Heritage	1	S1	4
Art and Culture I	1	S1	5.5
Option I (Year1/Sem1)	1	S1	4
op: The Artwork and its Context (*)	1	S1	4
Option II (Year1/Sem1) (**)	1	S1	4
Art and Culture II	1	S2	5.5
Change and Changeability	1	S2	4
Immovable Cultural Heritage	1	S2	4
Option III (Year1/Sem2) (**)	1	S2	4

(**) Free Option.

(*) This course may not be available in certain academic years. Please confirm availability with the Erasmus coordinator.

Course structure diagram with credits (cont.)

Integrated Heritage

Course Title	Year	Semester	Credits
Research Methodology	1	S2	4
Internship/ Dissertation	2	A	60
op: Dissertation	2	A	60
op: Internship/Placement	2	A	60

(*) This course may not be available in certain academic years. Please confirm availability with the Erasmus coordinator.

Examination regulations, assessment and grading

General

Assessment of course units complies with the Academic Regulations in force at ESTT-IPT, except for the Dissertation, Project and Internship, to which apply the provisions set out in the regulations for the master's degrees offered by the ESTT-IPT.

- Dissertation, Project and Internship have only two assessment seasons and the students are free to choose only one.
- The assessment calendar for the Dissertation, Project and Internship is proposed by the Programme Coordinating Committee to the Technical/Scientific Committee at the beginning of each academic year.
- The general grade improvement scheme does not apply to the Dissertation, Project and Internship.

The overall grade of the master's programme is the arithmetic weighted average rounded off to the ones of the number of ECTS credits and the grades of the course units that form part of the programme of study.

The 10-20 mark expressed on a 0-20 scale is converted into its equivalent in the European grading scale with the awards Satisfactory, Good, Very Good or Excellent.

Specific

Not applicable.

Graduation requirements:

In order to complete the master's degree it is necessary to accumulate 120 ECTS credits, of which 60 correspond to internship and associated report or a dissertation, both subject to presentation and defence before an examination panel.

Mode of study:

Full- or part-time.

Program director or equivalente

Director: António João de Carvalho da Cruz

Erasmus coordinator: Fernando dos Santos Antunes

ECTS coordinator: António João de Carvalho da Cruz

B - Description of individual course units

Course unit title	Applied Conservation and Restoration
Course unit code	338011
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Annual
Number of ECTS credits allocated	15.5
Name of Lecturer(s)	Carla Maria P. Calado Rodrigues do Rego Ricardo Pereira Triães Fernando dos Santos Antunes Fernando Manuel Conceição Costa Leonor da Costa Pereira Loureiro
Learning outcomes of the course unit	On completion of this unit students should have developed a good degree of autonomy in conservation and restoration and be able to diagnose, examine, identify and record movable and immovable assets. Make proposals for intervention and prepare conservation and restoration reports.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme components	Not applicable.
Course contents	1. Speciality definition: Graphic Documents, Petrous Materials, Ceramic materials, Sculpture, Easel painting and Furniture. 2. Laboratory operation 3. Definition and development of a methodology for action 4. Conservation and restoration actions in movable and immovable cultural assets. 5. Report preparation.
Recommended or required Reading	- AAVV, (2001). <i>As rochas dos monumentos portugueses – tipologias e patologias</i> . (Vol. 1). Lisboa: IPPAR - Ferreira, I.(2009). <i>Azulejos tradicionais de fachada em Ovar: Contributos para uma metodologia de conservação e restauro</i> . Ovar: Câmara Municipal de Ovar - Brandi, C.(1988). <i>Teoría de la Restauración</i> . Madrid: Alianza Editorial - Serrão, V. e Figueira, L. e Almada, C. (2000). <i>História e restauro da pintura do retábulo-mor do Mosteiro dos Jerónimos</i> . Lisboa: IPPAR
Planned learning activities and teaching methods	Lectures and seminars with invited experts and field trips. Laboratory classes focused on the production of conservation and restoration projects.
Assessment Methods and criteria	Theoretical-practical assessment includes a written essay (20%). Laboratory assessment includes class project work and final report (80%). Minimum pass grade is 10/20 calculated as weighted average.
Language of Instruction	Portuguese Mentoring in Spanish
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Advanced Methods of Examination and Analysis
Course unit code	338015
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	5.5
Name of Lecturer(s)	António João de Carvalho da Cruz
Learning outcomes of the course unit	Be familiar with the main scientific approaches to the problems arising from the study of cultural heritage and develop skills that will allow students to select the most appropriate analytical strategy to solve a material problem and interpret the results.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basics of chemistry, materials and general examination and analysis methods.
Recommended optional programme components	Not applicable.
Course contents	1.Technical Literature 2.Content identification 3.Identification of techniques and technologies 4.Dating methods 5. Origin identification 6. Author identification 7. Determination of the function of artifacts 8.Diagnosis and characterization of the state of preservation 9.Identification of change mechanisms 10.Material behaviour testing
Recommended or required Reading	<ul style="list-style-type: none"> - Stuart, B.(2007). <i>Analytical Techniques in Materials Conservation</i>. Chichester: John Wiley & Sons - Artioli, G.(2010). <i>Scientific Methods and Cultural Heritage. An Introduction to the Application of Materials Science to Archaeometry and Conservation Science</i>. Oxford: Oxford University Press - Bowman, S.(1991). <i>Science and the Past</i>. Toronto: University of Toronto Press - Craddock, P.(2009). <i>Scientific Investigation of Copies, Fakes and Forgeries</i>. Oxford: Butterworth-Heinemann
Planned learning activities and teaching methods	Lectures and practical classes involving the discussion of papers selected from international literature.
Assessment Methods and criteria	Mini-tests related to papers discussed in class (50 %) and written mid-term test or exam (50 %).
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Art and Culture I
Course unit code	3380121
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	5.5
Name of Lecturer(s)	Maria Teresa Ribeiro Pereira Desterro
Learning outcomes of the course unit	Understand and characterize Western Art as part of the cultural development in the Western society focusing on the evolution of the aesthetic concept across the centuries. Students should be able to collect and process scientific data from historical and artistic areas.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme components	Not applicable.
Course contents	I - Introduction to History and Art Theory I -The Classic Antiquity: mitology and art II - The Middle Ages:a word dominated by symbols. III - The Modern Age.The Renaissance as a new theory of Western art. IV - Portuguese mindset and culture in the beginning of the Modern Age V - The development of the art in the 19th-century Portuguese empire.
Recommended or required Reading	<ul style="list-style-type: none"> - Panofsky, E.(1989). <i>O Significado nas Artes Visuais</i>. Lisboa: Presença - Pereira (coord.), P.(1995). <i>História da Arte Portuguesa</i>. (Vol. I e II). Lisboa: Círculo de Leitores - Argan, G.(1988). <i>História e Crítica de Arte</i>. Lisboa: Estampa - Hauser, H.(1989). <i>História Social da Arte e da Cultura</i>. (Vol. I,II,III). Lisboa: Vega/Estante
Planned learning activities and teaching methods	Lectures and practical classes focused on the analysis of works of art and texts to understand its cultural and artistic dimensions. Tutorials.
Assessment Methods and criteria	One research project work on an under-explored topic, presentation and oral defense. Oral assessment of course content.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Collection Preservation
Course unit code	338016
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	4
Name of Lecturer(s)	Fernando dos Santos Antunes
Learning outcomes of the course unit	Be familiar with the socio-cultural, technological and scientific context of cultural property. Apply concepts, standards and methodologies on the preservation of collections Develop integrated risk management skills Create integrated preservation plans based on monitoring and control.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Preservation of Collections - Concepts; Types of Collections and museum structures; Current context and strategies. Integrated Risk Management - Risk Assessment; Integrated Preservation Plan based on monitoring and control of risk factors, the activity of museum organizations, particularly handling, storage, circulation, transport and exhibition.
Recommended or required Reading	<ul style="list-style-type: none"> - ASLHEY-SMITH, J.(1999). <i>Risk Assessment for Object Conservation</i>. (Vol. 1). London: Butterworth-Heinemann - THOMSON, G.(1986). <i>The Museum Environment</i>. (Vol. 1). London: Butterworth-Heinemann - SCHAFFER, T.(2001). <i>Effects of Light on Materials in Collections: Data on photoflash and related sources</i>. (Vol. 1). New York: The Getty Conservation Institute - WALLER, R.(2003). <i>Cultural Property Risk Analysis Model</i>. (Vol. 1). Goteborg: Universitatis Gothoburgensis
Planned learning activities and teaching methods	Expository lessons; Theoretical and practical lessons including debates and critical analysis supported by audiovisual resources. Tutorials including pedagogical, technical and scientific support.
Assessment Methods and criteria	Integrated Assessment and Weighting Theoretical/written essays: - Research work (60%) - Public Presentation of the Research Work (20%) -Multimedia File containing the presentation (20%).
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Portuguese Sculpture (*)
Course unit code	3380128
Type of course unit	Optional
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	4
Name of Lecturer(s)	Teresa Filomena Travassos Cortez da Cunha Matos
Learning outcomes of the course unit	Students should be able to identify the Portuguese Sculpture from the 12th and 16th centuries, describe its key characteristics and be familiar with the major works of art and its authors.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme components	Not applicable.
Course contents	1. Middle-Age Sculpture: funerary and other 2. The Manueline sculpture. 3. The Renaissance sculpture
Recommended or required Reading	- Dias, P.(1995). <i>A escultura maneirista portuguesa. Subsídios para uma síntese</i> . Coimbra: Minerva - Dias, P.(1987). <i>História da Arte em Portugal. O Manuelino</i> . Coimbra: Publicações Alfa - Dos Santos, R.(1950). <i>A Escultura em Portugal</i> . (Vol. I e II). Lisboa: .
Planned learning activities and teaching methods	Lectures and practical classes supported by audiovisual resources.
Assessment Methods and criteria	Final exam.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

(*) This course may not be available in certain academic years. Please confirm availability with the Erasmus coordinator.

B - Description of individual course units

Course unit title	Art and Culture II
Course unit code	3380126
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	5.5
Name of Lecturer(s)	Maria Teresa Ribeiro Pereira Desterro
Learning outcomes of the course unit	Students should understand the evolution of culture and aesthetics in Portugal, grasp the context in which artistic phenomena emerged and be able to gather, treat and critically analyse scientific information under a historical and artistic perspective.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme components	Not applicable.
Course contents	1. Cultural mindset in modern Portugal. 2. The new artistic context and changes of taste. Classicism and Anti-Classicism. From Renaissance to Mannerism. 3. The cultural paradigms of the Old Regime society. 4. From Proto-Baroque to the splendor of Joanine Baroque. 5. The rococo.
Recommended or required Reading	<ul style="list-style-type: none"> - Barreira, J. <i>Arte Portuguesa</i>. (Vol. I,II,III,IV). Lisboa: Excelsior - Fernandes (dir), J.(1989). <i>Dicionário de Arte Barroca em Portugal</i>. Lisboa: Presença - Silva Sebastião, D.(1969). <i>A Política Cultural da Época de D. João III</i>. Coimbra: Universidade de Coimbra - Kubler; Soria, G.(1959). <i>Art and Architecture in Spain and Portugal and their American Dominions (1500-1800)</i>. (Vol. I). Londres: Penguin Books
Planned learning activities and teaching methods	Theoretical and practical lessons supported by text analysis and interpretation. Tutorials.
Assessment Methods and criteria	Preparation, presentation and defence of an original research project work. Oral assessment of taught topics.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Art Expertise
Course unit code	338019
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	4
Name of Lecturer(s)	Miguel de Barros Serra Cabral de Moncada
Learning outcomes of the course unit	An introduction to issues related with art expertise.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme components	Not applicable.
Course contentes	Introduction. Technical expertise in art. The auxiliary sciences and its experts. Heuristics. Bibliography.
Recommended or required Reading	- Moncada, M.(2006). <i>Peritagem e Identificação de Obras de Arte</i> . Porto: Civilização - Moncada, M.(2008). <i>Faiança Portuguesa - séc. XVI a séc. XVIII</i> . Lisboa: Scribe
Planned learning activities and teaching methods	Lectures supported by case study analysis.
Assessment Methods and criteria	Two mid-term written tests or final examination.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Collection Management
Course unit code	338012
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	4
Name of Lecturer(s)	Carla Maria P. Calado Rodrigues do Rego
Learning outcomes of the course unit	Students should understand the implications of managing cultural property, especially the logistic aspects of collection management such as accession and documentation (condition report, forms, etc.)
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme components	Not applicable.
Course contents	1. Collections (museums, churches, private individuals, etc) 2. Museum management 3. Museum policies (collections – policies related with acquisition and lending, conservation, documentation, education, exhibition, research, human resources, communication, security, ...)
Recommended or required Reading	- FERNÁNDEZ, L.(2001). <i>Museologia y Museografía</i> . Barcelona: Ediciones del Serbal - LORD, G. e LORD, B. (1998). <i>Manual de Gestión de Museos</i> . Barcelona: EditorialAriel, SA - HERNÁNDEZ HERNÁNDEZ, F.(2006). <i>Manual de Museología</i> . Madrid: Editorial Síntesis - HERNÁNDEZ, J.(2008). <i>Manual de Museos</i> . Madrid: Editorial Síntesis
Planned learning activities and teaching methods	Theoretical and practical lessons; tutorials.
Assessment Methods and criteria	Final grade: class performance (10%) oral presentation (30%) written essay(60%)
Language of Instruction	Portuguese Mentoring in Spanish
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Research Methodology
Course unit code	3380127
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	4
Name of Lecturer(s)	António João de Carvalho da Cruz
Learning outcomes of the course unit	The students should be familiar with the different research stages and different types of technical and scientific literature; be able to make bibliographic research using digital resources; be able to organise papers, reports and dissertations and be familiar with the terminology.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basics of Internet and Microsoft Word.
Recommended optional programme components	Not applicable.
Course contents	1.The research process: stages and development 2.Bibliographic research 3.Scientific and technical writing 4.Preparation of documents in digital format, especially training reports and dissertations.
Recommended or required Reading	<ul style="list-style-type: none"> - Azevedo, M.(2011). <i>Teses, Relatórios e Trabalhos Escolares. Sugestões para a Estruturação da Escrita</i>. Lisboa: Universidade Católica Editora - Poupá, C. e Pereira, A. (2008). <i>Como Escrever uma Tese, Monografia ou Livro Científico Usando o Word</i>. Lisboa: Sílabo - Turabian, K.(2007). <i>A Manual for Writers of Research Papers, Theses, and Dissertations</i>. Chicago: The University of Chicago Press - Bennett, K.(2008). <i>English Academic Discourse: Its Hegemonic Status and Implications for Translation</i>. Lisboa: Faculdade de Letras da Universidade de Lisboa
Planned learning activities and teaching methods	Lectures and practical lessons including practical exercises and case studies.
Assessment Methods and criteria	Write a review paper on a topic of the students' choice or, alternatively, written open-book test in regular examination periods.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Dissertation
Course unit code	3380365
Type of course unit	Optional
Level of Course unit	Second Cycle
Year of Study	Second Year
Semester/Trimester when the course unit is delivered	Annual
Number of ECTS credits allocated	60
Name of Lecturer(s)	António João de Carvalho da Cruz
Learning outcomes of the course unit	Students should be able to use the knowledge and skills acquired in the course of the programme to carry out an original research project work and to communicate the results.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Have a pass in all programme modules.
Recommended optional programme componentes	Not applicable.
Course contentes	Not applicable
Recommended or required Reading	
Planned learning activities and teaching methods	Tutorials.
Assessment Methods and criteria	Written dissertation and related public discussion.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Internship/Placement
Course unit code	3380364
Type of course unit	Optional
Level of Course unit	Second Cycle
Year of Study	Second Year
Semester/Trimester when the course unit is delivered	Annual
Number of ECTS credits allocated	60
Name of Lecturer(s)	António João de Carvalho da Cruz
Learning outcomes of the course unit	Students should be able to use the knowledge and skills acquired in the course of the programme to carry out an original research project work and to communicate the results.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Have a pass in all modules of the programme.
Recommended optional programme components	Not applicable.
Course contentes	Not applicable
Recommended or required Reading	
Planned learning activities and teaching methods	Tutorials.
Assessment Methods and criteria	Written internship report and related public discussion.
Language of Instruction	Portuguese
Work placement(s)	Internship carried out at IPT or at a host company or institution.

B - Description of individual course units

Course unit title	Applied Conservation and Restoration
Course unit code	338021
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Annual
Number of ECTS credits allocated	15.5
Name of Lecturer(s)	Carla Maria P. Calado Rodrigues do Rego Ricardo Pereira Triães
Learning outcomes of the course unit	On completion of this unit students should have developed a good degree of autonomy in conservation and restoration and be able to diagnose, examine, identify and record movable and immovable assets. Make proposals for intervention and prepare conservation and restoration reports.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	1. Speciality definition: Graphic Documents, Petrous Materials, Ceramic materials, Sculpture, Easel painting and Furniture. 2. Laboratory operation 3. Definition and development of a methodology for action 4. Conservation and restoration interventions in movable and immovable cultural assets. 5. Report preparation.
Recommended or required Reading	- AAVV, (2001). <i>As rochas dos monumentos portugueses – tipologias e patologias</i> . (Vol. 1). Lisboa: IPPAR - Ferreira, I.(2009). <i>Azulejos tradicionais de fachada em Ovar: Contributos para uma metodologia de conservação e restauro</i> . Ovar: Câmara Municipal de Ovar - Brandi, C.(1988). <i>Teoría de la Restauración</i> . Madrid: Alianza Editorial - Serrão, V. e Figueira, L. e Almada, C. (2000). <i>História e restauro da pintura do retábulo-mor do Mosteiro dos Jerónimos</i> . Lisboa: IPPAR
Planned learning activities and teaching methods	Lectures and seminars with invited experts and field trips. Laboratory lessons focused on the development of conservation and restoration projects.
Assessment Methods and criteria	Theoretical-practical assessment includes a written assignment (20%). Laboratory assessment includes class project work and final report (80%). Minimum pass grade is 10/20 calculated as weighted average.
Language of Instruction	Portuguese Mentoring in Spanish
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Advanced Methods of Examination and Analysis
Course unit code	338025
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	5.5
Name of Lecturer(s)	António João de Carvalho da Cruz
Learning outcomes of the course unit	Be familiar with the major laboratory methods used to study cultural heritage. Develop skills enabling to select the most appropriate analytical strategy to solve a material problem and be able to interpret the results.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basics of chemistry, materials and general examination and analysis methods.
Recommended optional programme components	Not applicable.
Course contents	1.Technical Literature 2.Content identification 3.Identification of techniques and technologies 4.Dating methods 5. Origin identification 6. Author identification 7. Determination of the function of artifacts 8.Diagnosis and characterization of the state of preservation 9.Identification of change mechanisms 10.Material behaviour testing
Recommended or required Reading	<ul style="list-style-type: none"> - Stuart, B.(2007). <i>Analytical Techniques in Materials Conservation</i>. Chichester: John Wiley & Sons - Artioli, G.(2010). <i>Scientific Methods and Cultural Heritage. An Introduction to the Application of Materials Science to Archaeometry and Conservation Science</i>. Oxford: Oxford University Press - Bowman, S.(1991). <i>Science and the Past</i>. Toronto: University of Toronto Press - Craddock, P.(2009). <i>Scientific Investigation of Copies, Fakes and Forgeries</i>. Oxford: Butterworth-Heinemann
Planned learning activities and teaching methods	Lectures and practical lessons including discussion of papers selected from international literature.
Assessment Methods and criteria	Mini-tests in class (50 %) and written test or exam (50 %).
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Architectural Heritage
Course unit code	338022
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	4
Name of Lecturer(s)	Fernando Sanchez Salvador
Learning outcomes of the course unit	Students should be able to systematise the key concepts concerning the operation, interpretation and intervention on architectural heritage, be able to research on historical buildings, monuments, artifacts and artworks, their memory and cultural context. Legal and institutional framework.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Basics of art history, conservation and restoration as well as building.
Recommended optional programme components	Not applicable.
Course contents	Basics of constructed heritage. Movable and immovable, material and immaterial assets. Conceptual evolution of constructed heritage. Terminology used in the analysis, study and intervention on pre-existences. Criteria and methodologies for the conservation of immovable heritage. Typologies and models of intervention on architectural heritage. Survey, diagnosis and intervention project.
Recommended or required Reading	<ul style="list-style-type: none"> - AGUIAR, J.(2003). <i>COR E CIDADE HISTÓRICA. ESTUDOS CROMÁTICOS E CONSERVAÇÃO DO PATRIMÓNIO</i>. Porto: Edições FAUP - A.A. V.V, A.(1977). <i>MASTER DE RESTAURACION Y RAHABILITACION DEL PATRIMONIO</i>. (Vol. VOLS 1-2-3). Madrid: Editorial Munilla-Lèria - A.A.V.V, A.(1999). <i>CAMINHOS DO PATRIMÓNIO 1929-1999</i>. Lisboa: DGEMN e Livros Horizonte - APPLETON, J.(2003). <i>REABILITAÇÃO DE EDIFÍCIOS ANTIGOS PATOLOGIAS E TECNOLOGIAS DE INTERVENÇÃO</i>. Amadora: Edições Orion
Planned learning activities and teaching methods	Lectures and theoretical-practical classes focused on the presentation of student assignments. Tutorials focused on solving practical cases and exercises.
Assessment Methods and criteria	CONTINUOUS ASSESSMENT: based on analysis, research and synthesis demonstrating the student's methodological, cultural and scientific skills. Practical coursework:30% + research project work (70%). Public discussion and presentation.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Art and Culture I
Course unit code	3380221
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	5.5
Name of Lecturer(s)	Maria Teresa Ribeiro Pereira Desterro
Learning outcomes of the course unit	Students should understand the evolution of culture and aesthetics in Portugal, grasp the context in which artistic phenomena emerged and be able to gather, treat and communicate scientific information from a historical and artistic point of view.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	I - The Upper Middle Ages: 1. The political and cultural context 2. Mindset and culture 3. Contextualisation of the new art forms. II - The Lower Middle Ages: 1. The evolution of culture and mentality in the Iberian Peninsula. The monastic reforms 2. The Romanesque 3. The first gothic forms III - The Renaissance 1. Imperial mindset and culture in Portugal. The art forms.
Recommended or required Reading	<ul style="list-style-type: none"> - Dos Santos, R.(1966). <i>Oito Séculos de Arte Portuguesa</i>. (Vol. I). Lisboa: Empresa Nacional de Publicidade - Pereira (coord.), P.(1995). <i>História da Arte Portuguesa</i>. (Vol. I e II). Lisboa: Círculo de Leitores - Eco, U.(1987). <i>Arte e Beleza na Estética Medieval</i>. (Vol. 1º). Lisboa: Presença - Hauser, H.(1989). <i>História Social da Arte e da Cultura</i>. (Vol. I,II,III). Lisboa: Vega/Estante
Planned learning activities and teaching methods	Lectures and practical classes focused on text and artwork analysis and its cultural and artistic contextualisation. Tutorials.
Assessment Methods and criteria	One research project work on an under-explored topic, presentation and oral defense. Oral assessment of course content.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	The Artwork and its Context (*)
Course unit code	3380228
Type of course unit	Optional
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	First Semester
Number of ECTS credits allocated	4
Name of Lecturer(s)	Fernando Sanchez Salvador
Learning outcomes of the course unit	On completion of this unit students should have gained critical skills regarding the design, production and understanding of a work of art in two key dimensions: intelectual and physical. Constraining factors for the creative production of a work of art in its cultural context.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme componentes	Not applicable.
Course contentes	Art critics and art crisis. Study of the consequences of artwork production in its different domains: architecture, plastic arts, performative arts, decorative arts and exhibition. Spatial, historical and display contexts. Public exhibition of works of art. Museums, the evolution of thought, cases, physical maintenance of museums. Museographies.
Recommended or required Reading	<ul style="list-style-type: none"> - ARGAN, .(1988). <i>ARTE E CRÍTICA DE ARTE</i>. Lisboa: Editorial Estampa, Imprensa Universitária nº66 - MATTOSO, .(2011). <i>HISTÓRIA DA VIDA PRIVADA EM PORTUGAL</i>. (Vol. 01-abr). Lisboa: Círculo de Leitores e Temas de Debates - PAIS DA SILVA,, J.(1975). <i>PRETÉRITO PRESENTE</i>. Lisboa: Congresso Internacional para a Investigação e de Defesa do Património Org. SEC, e Associação para a Defesa e Valorização do Património Cultural da Região de Alcobaça - AAVV, A.(2001). <i>PATRIMÓNIO ESTUDOS</i>. (Vol. Nºs 1-10 (2001-2007)). Lisboa: Publicação doMC-IPPAR- Instituto Português do Património Arquitectónico
Planned learning activities and teaching methods	Exploratory Lectures and practical sessions focused on the discussion and presentation of practical assignments to peers.
Assessment Methods and criteria	Continuous assessment: practical assignment (30%) and discussion of final research project work (70%). Critical analysis of case studies.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

(*) This course may not be available in certain academic years. Please confirm availability with the Erasmus coordinator.

B - Description of individual course units

Course unit title	Art and Culture II
Course unit code	3380226
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	5.5
Name of Lecturer(s)	Maria Teresa Ribeiro Pereira Desterro
Learning outcomes of the course unit	The students should understand the evolution of culture and aesthetics in Portugal, grasp the context in which artistic phenomena emerged and be able to gather, treat and critically analyse scientific information under a historical and artistic perspective.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme components	Not applicable.
Course contents	1. Cultural mindset in modern Portugal. 2. The new artistic context and changes of taste. Classicism and Anti-Classicism. From Renaissance to Mannerism. 3. The cultural paradigms of the Old Regime society. 4. From Proto-Baroque to the splendor of Joanine Baroque. 5. The rococo.
Recommended or required Reading	<ul style="list-style-type: none"> - Barreira, J. <i>Arte Portuguesa</i>. (Vol. I,II,III,IV). Lisboa: Excelsior - Fernandes (dir), J.(1989). <i>Dicionário de Arte Barroca em Portugal</i>. Lisboa: Presença - Silva Sebastião, D.(1969). <i>A Política Cultural da Época de D. João III</i>. Coimbra: Universidade de Coimbra - Kubler; Soria, G.(1959). <i>Art and Architecture in Spain and Portugal and their American Dominions (1500-1800)</i>. (Vol. I). Londres: Penguin Books
Planned learning activities and teaching methods	Theoretical and practical classes supported by text analysis and interpretation. Tutorials.
Assessment Methods and criteria	Preparation, presentation and defense of an original research project work. Oral assessment of taught topics.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Change and Changeability
Course unit code	338029
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	4
Name of Lecturer(s)	Dina Maria Ribeiro Mateus
Learning outcomes of the course unit	This course aims to sensitise students to the intrinsic and extrinsic factors associated with change and changeability of the major materials used as a support to movable and built heritage. Contribute to the development of strategies to prevent material deterioration.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Knowledge of chemistry, materials, microbiology and biochemistry.
Recommended optional programme components	Biochemistry and Microbiology.
Course contents	Alteration of inorganic, organic and synthetic materials used in cultural property – physical/chemical and biological actions: alteration and weathering mechanisms; living organisms involved in biodeterioration; microbial growth and control methods; Application of classic and molecular biology techniques in the identification of harmful biological agents.
Recommended or required Reading	<ul style="list-style-type: none"> - Aires-Barros, L.(2001). <i>As rochas dos monumentos portugueses. Tipologias e patologias</i>. (Vol. No.3). Lisboa: Cadernos IPPAR - Gaylarde, C. e Seal, . e Allsopp, D. (2003). <i>Introduction to Biodeterioration</i>. London: Cambridge University Press - Smith, W. F. , C.(1988). <i>Princípios de Ciência e Engenharia dos Materiais</i>. Portugal: Mc-Graw-Hill de Portugal. - Mateus, D.(0). <i>Sebentas de Alteração e Alterabilidade</i>.Acedido em1 de novembro de 2014 em www.e-learning.ipt.pt
Planned learning activities and teaching methods	The lectures provide the main theoretical concepts. he laboratory classes complement the lectures and consist in conducting a field research project. Students also complete a bibliographic research assignment
Assessment Methods and criteria	Grading of the students is based on the writing of a scientific article on the research project (50%), the presentation and discussion of a scientific article from the literature (25%) and a final written test (25%).
Language of Instruction	Portuguese Mentoring in English
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Immovable Cultural Heritage
Course unit code	338026
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	4
Name of Lecturer(s)	Fernando dos Santos Antunes Fernando Manuel Conceição Costa Ricardo Pereira Triães
Learning outcomes of the course unit	Students should be able to recognise the major manifestations of immovable cultural heritage, the materials and techniques used, the main causes of decay and inadequate interventions, be able to implement in-situ measures for preventive conservation, make diagnosis and implement methodologies.
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Not applicable.
Recommended optional programme components	Not applicable.
Course contents	1. Immovable stone heritage. 2. Immovable stonemasonry heritage. 3. Urban sculpture heritage. 4. Immovable ceramic heritage 5. Immovable wood heritage 6. Mural tiling 7. Mural painting
Recommended or required Reading	- AAVV, .(2003). <i>El Estudio y la Conservación de la Cerámica Decorada en Arquitectura</i> . Roma: ICCROM - AAVV, .(1991). <i>Gilded Wood - Conservation and History</i> . Connecticut: Sound View Press - AAVV, .(2002). <i>Igreja da Madre de Deus – História, Conservação e Restauro</i> . Lisboa: IPM - AAVV, .(2001). <i>Igreja de S. Cruz de Coimbra, História, Conservação e Restauro da Fachada e Arco Triunfal</i> . Lisboa: IPPAR
Planned learning activities and teaching methods	Lectures supported by audiovisual resources and case study analysis with the collaboration of invited experts.
Assessment Methods and criteria	Preparation and presentation of a written project work including at least two different artistic manifestations in terms of support materials, finishing and production techniques.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

B - Description of individual course units

Course unit title	Research Methodology
Course unit code	3380227
Type of course unit	Compulsory
Level of Course unit	Second Cycle
Year of Study	First Year
Semester/Trimester when the course unit is delivered	Second Semester
Number of ECTS credits allocated	4
Name of Lecturer(s)	António João de Carvalho da Cruz
Learning outcomes of the course unit	The students should be familiar with the different research stages and different types of technical and scientific literature; be able to make bibliographic research using digital resources; be able to organise papers, reports and dissertations; know the terminology and computer resources. ...
Mode of delivery	Face-to-face
Prerequisites and co-requisites	Be able to use Internet and Microsoft Word.
Recommended optional programme components	Not applicable.
Course contents	1.The research process: stages and development 2.Bibliographic research 3.Scientific and technical writing 4.Preparation of documents in digital format, especially apprenticeship reports and dissertations.
Recommended or required Reading	<ul style="list-style-type: none"> - Azevedo, M.(2011). <i>Teses, Relatórios e Trabalhos Escolares. Sugestões para a Estruturação da Escrita</i>. Lisboa: Universidade Católica Editora - Poupá, C. e Pereira, A. (2008). <i>Como Escrever uma Tese, Monografia ou Livro Científico Usando o Word</i>. Lisboa: Sílabo - Turabian, K.(2007). <i>A Manual for Writers of Research Papers, Theses, and Dissertations</i>. Chicago: The University of Chicago Press - Bennett, K.(2008). <i>English Academic Discourse: Its Hegemonic Status and Implications for Translation</i>. Lisboa: Faculdade de Letras da Universidade de Lisboa
Planned learning activities and teaching methods	Lectures and practical classes in which exercises are performed by students and some common problems are discussed.
Assessment Methods and criteria	Write review paper on a theme of alumn choice or, alternatively, written open-book test in regular examination periods.
Language of Instruction	Portuguese
Work placement(s)	Not applicable.

