



Study Plan

School: Institute for Research and Advanced Training

Degree: Master

Course: Management and Enhancement of Historic and Cultural Heritage (TPTI- Erasmus Mundus) (cód. 490)

Specialization Techniques, Heritage, Territories of Industry: History, Valorization and Didactics

1st Year - 1st Semester

Specialization Techniques, Heritage, Territories of Industry: History, Valorization and Didactics

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS11017M	Technical systems, history, epistemology	*** TRANSLATE ME: História das Técnicas ***	4	Semester	104
HIS11018M	Methodology and Project Development	*** TRANSLATE ME: História das Técnicas ***	3	Semester	78
HIS11019M	IT project with hist and herit.contents	History	3	Semester	78
HIS11020M	History of Technical Thought	*** TRANSLATE ME: História das Técnicas ***	5	Semester	130
HIS11021M	Energy and materials in the medieval and modern	*** TRANSLATE ME: História das Técnicas ***	5	Semester	130
LLT11022M	Language - French	Languages and Literature	2.5	Semester	65
LLT11023M	Language - English	Languages and Literature	2.5	Semester	65

Group of Options

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS11024M	Transports and Mobility	History	5	Semester	130
HIS11025M	Civil engineers and the circulation of technical and scientific knowledge in the Europe of the 19th century	History	5	Semester	130
HIS11026M	History of scientific knowledge	History	5	Semester	130
HIS11027M	Heritages material and spiritual : the Middle Ages to the present	History	5	Semester	130
HIS11028M	Technical and scientific culture in Europe	History	5	Semester	130

1st Year - 2nd Semester

Specialization Techniques, Heritage, Territories of Industry: History, Valorization and Didactics

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS11029M	*** TRANSLATE ME: Museografia do Património, Conservação e Comunicação Industriais: Definições, Objetos, Métodos de Investigação e Inventários ***	*** TRANSLATE ME: Património Industrial ***	4	Semester	104
HIS11030M	Business archives and the industrial heri	*** TRANSLATE ME: Património Industrial ***	3	Semester	78



1st Year - 2nd Semester

Specialization Techniques, Heritage, Territories of Industry: History, Valorization and Didactics

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS11083M	Methodology and project development	*** TRANSLATE ME: História das Técnicas ***	3	Semester	78
HIS11031M	From archeology to industrial heritages	*** TRANSLATE ME: Património Industrial ***	5	Semester	140
HIS11032M	Industrial heritage and local development	*** TRANSLATE ME: Património Industrial ***	5	Semester	130
LLT11033M	Languages - English/French	Languages and Literature	2.5	Semester	65
LLT11034M	Italian Language	Languages and Literature	2.5	Semester	65

Group of Options

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS11035M	Industrial and oral heritage : anthropological approaches	History	5	Semester	130
HIS11036M	Town and industry	History	5	Semester	130
HIS11037M	Industrial Heritage and design	*** TRANSLATE ME: Património Industrial ***	5	Semester	130
HIS11038M	Management and Industrial Heritage	*** TRANSLATE ME: Património Industrial ***	5	Semester	130

2nd Year - 3rd Semester

Specialization Techniques, Heritage, Territories of Industry: History, Valorization and Didactics

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS11039M	Museums and the Construction of Memory	History	4	Semester	104
HIS11040M	Methodology and project development	History	3	Semester	78
HIS11041M	*** TRANSLATE ME: Imagens Fontes do Património Técnico ***	History	3	Semester	78
HIS11042M	*** TRANSLATE ME: Ecossistemas, Paisagem e Gestão do Património ***	Cultural Heritage	5	Semester	130
HIS11043M	*** TRANSLATE ME: As Paisagens da Inovação Técnica: Análise e Impacto na Sociedade ***	Cultural Heritage	5	Semester	130
LLT11044M	Languages - English/French	Languages and Literature	2.5	Semester	65
LLT11045M	Portuguese Language	Languages and Literature	2.5	Semester	65



2nd Year - 3rd Semester

Specialization Techniques, Heritage, Territories of Industry: History, Valorization and Didactics

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
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Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS11006M	Aesthetics and Techniques of Handicrafts and Industrial Objects	History	5	Semester	130
HIS11046M	Mines and Miners in the Contemporary Period	History	5	Semester	130
HIS11047M	Medieval Arabic and Islamic Techniques	History	5	Semester	130
HIS11048M	*** TRANSLATE ME: História e Património da Engenharia ***	History	5	Semester	130
HIS11049M	*** TRANSLATE ME: Ciência e Património Cultural ***	Cultural Heritage	5	Semester	130

2nd Year - 4th Semester

Specialization Techniques, Heritage, Territories of Industry: History, Valorization and Didactics

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
	Dissertation				

Conditions for obtaining the Degree:

*** TRANSLATE ME:

Para aprovação na componente curricular deste Mestrado, é necessário a aprovação (através de avaliação ou creditação), das seguintes unidades curriculares:

1º semestre

7 ucs obrigatória num total de 25 ects

2º semestre

7 ucs obrigatória num total de 25 ects

3º semestre

7 ucs obrigatória num total de 25 ects

Escolher entre os 3 semestres 15 ects de optativas entre os quadros de optativas ou optativas livres

4º semestre

Dissertação com 30 ects ***

Program Contents

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Technical systems, history, epistemology (HIS11017M)

1. Technical fundaments of European economy
 - 1.1. The mine
 - 1.2. The metal
 - 1.3. The hydropower
2. The concepts of technical systems and technical complexes
 - 2.1. Theoretical analysis
 - 2.2. Analysis of individual cases: fire arts, waterways and wheels, machines



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Methodology and Project Development (HIS11018M)

1. Study visits.
2. Tutored project: themes to be developed by the various groups are defined every year according with the major lines of investigation of the Consortium TPTI.

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IT project with hist and herit.contents (HIS11019M)

Works with various computer programs (PERT GANTT et websites, among other)

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History of Technical Thought (HIS11020M)

- Technical systems historiography ;
- Techniques: an obstacle for economical development ;
- Techniques and public power ;
- Techniques and enterprise

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Energy and materials in the medieval and modern (HIS11021M)

- Analysis of concrete ways of preindustrial objects?'construction;
- Energetic paleo-techniques infrastructures' construction ;
- The impact of these infrastructures in a long term context;
- The actual movement of restoration.

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Language - French (LLT11022M)

- Express present, past and future actions,
- Affirmative, negative and interrogative sentences,
- The adverbs,
- Express an order/desire,
- The direct and indirect pronouns.
- From the simple to the complex sentence (the simple relative pronouns)

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Transports and Mobility (HIS11024M)

The mobility of the persons and the goods is one of the most characteristic lines of our urban civilizations and comment-manufacturers: containers, air passengers provide with their gold fidelity cards, suburban masses replacing to the everyday life since of distant suburbs, etc. All became the substance of the globalization so made visible. The most daily current event makes the ceaseless echo of the new scales on one hand, the new modes and the stakes on the other hand, connected to the movements. This seminar series has for ambition to register in a history sometimes of "long term", these constituent elements of our modernity, to make them readable and understandable to the present: to visit them also by going out frequently in Paris!

The history of transport exists for a long time in France as abroad. Tuned to other human sciences, this history knew since a few years a profound renewal, in its objects and its concepts, inspired by Anglo-Saxon studies.

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Civil engineers and the circulation of technical and scientific knowledge in the Europe of the 19th century (HIS11025M)

- Presentations of research papers by professors responsible for the seminar and by guest speakers about the course's topics: the specialization and mobility of engineers within the European space: communications, confrontations and hybridization of technical and scientific knowledge.



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History of scientific knowledge (HIS11026M)

The sciences and the military revolution (XV-XVII centuries)

Astronomy and navigation (XVI-XVIII centuries)

The Arithmetic commercial XIV to XVI century

The completion of the map of France (XVII-XVIII centuries)

Hygienists (XVIII-XIX centuries)

The limits the application of a useful science: the case of the chemical analysis

The telegraph and electrical science

The age of atom: the atomic bomb.

The invention of computer

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Heritages material and spiritual : the Middle Ages to the present (HIS11027M)

Não se aplica

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Technical and scientific culture in Europe (HIS11028M)

- Study the technique, the science and the industry in Paris;

- To know the materials: from production to use.

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Business archives and the industrial heri (HIS11030M)

1. Definition of « enterprise » (business firm) and « entrepreneur » in different judicial systems » ;

2. Analysis of the activities of a business firm;

3. Type of documents produced by business firms;

4. Problems related to the conservation of the patrimony of business archives;

5. How to apply archival methodology to the description of the patrimony of business firm?s archives;

6. Politics, strategies, methods and tools used to communicate and acknowledge the value of the patrimony of business archives

7. Archival management.

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Methodology and project development (HIS11083M)

1. Study visits.

2. Tutored project: themes to be developed by the various groups are defined every year according with the major lines of investigation of the Consortium TPTI.

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From archeology to industrial heritages (HIS11031M)

1. Awareness of Industrial Heritage

1.1 The history of the concept

1.2 Definitions

1.3 Cultural values of Industrial Heritage

1.4 From Ancient to new, from conservation to rehabilitation

2. From Industrial Archaeology to Industrial Heritage

3. Cultural issues regarding Industrial Heritage



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Industrial heritage and local development (HIS11032M)

1. Industrial Heritage and local development
2. Examples of Industrial Heritage re-appropriation
3. Re-appropriation of industrial buildings, structures, sites and areas
 - 3.1 Cultural, artistic and economic recreation of industrial buildings, structures, sites and areas
 - 3.2 From re-appropriation to recreation
 - 3.3 Structuring and managing the project
 - 3.4 Analyzing the elements and contents of the site

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Industrial and oral heritage : anthropological approaches (HIS11035M)

There are four overlapping components to this course: Theory, Methods, Interpretation, and Evaluation. The final product will encompass all these areas and comprise much of what we do throughout the course. Oral history is a practice that spans multiple academic and vocational disciplines: cultural anthropology, sociology, history, subaltern studies (women and gender studies, ethnic studies and queer studies) epidemiology, psychology, journalism and human rights, to name a few. We will also learn the basic methods associated with setting up and conducting oral history interviews. Students will learn to develop questions, learn the techniques of interviewing, transcribe interviews and present an analysis of the interview.

In particular we are going to focus on the use of oral sources in the fields of business history, labor history and industrial archaeology. Specific attention will be paid to the preservation of the memory of the production processes of both handcrafted and industrial goods.

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Town and industry (HIS11036M)

The class is divided into two parts: the first and main one is concerning the building context, whereas the second and shorter part will be related to the urban context.

First introducing main building materials in their practical application, lectures are intended to draw out a panorama of what has been realized both in a local and in an international context. Such a kind of comparison will permit to outline critical frameworks in terms of chronology, diffusion of models, reciprocal relationship between building and industry, architecture and civil engineering. In second part of the class programme, stress will be put upon the problem of mass production in its reflection not only on building process, but also on architecture and applied arts. A particular attention will be given importance to relations between the "Company towns" and cities.

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Industrial Heritage and design (HIS11037M)

1. Value of industrial heritage linked to the architectural and urban design
2. Value of industrial heritage linked to cultural, economic, entrepreneurial projects
3. Repertoire of "good practices" to develop projects

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Management and Industrial Heritage (HIS11038M)

Part 1:

1. Cultural policies and institutions: governance and management of cultural heritage;
2. Cultural heritage as driver of development in cities: cultural clusters and cultural tourism.

Part 2:

1. Value and valuation of heritage: A socio-economic perspective
2. Heritage in urban and regional development



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Museums and the Construction of Memory (HIS11039M)

Module Art History

- Looking at artistic objects
- Understanding museum collections

Module Cultural Landscape

1. Land Museums and Ecomuseums
 - 1.1. Searching for interventions criteria
 - 1.2. Heritage, landscapes and landscapes museums practices
 - 1.3. The concept of cultural landscape and its operational uses
 - 1.4. Intervention in landscape heritage: tools and strategies
2. Heritage as a land resource. Case studies

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Methodology and project development (HIS11040M)

1. Study visits.
2. Tutored project: themes to be developed by the various groups are defined every year according with the major lines of investigation of the Consortium TPTI.

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***** TRANSLATE ME: Imagens Fontes do Património Técnico *****

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Portuguese Language (LLT11045M)

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Aesthetics and Techniques of Handicrafts and Industrial Objects (HIS11006M)

- 1 - From materials to objects: Different materials and different objects shapes; The materials of contemporary society and objects new forms.
- 2 - The evolution of objects: handicraft and industrial production.
- 3 - From design to design: The design and technical expertise; Design and aesthetics of objects; The origins of the design and its evolution: The domestic space rationalization; The objects of everyday life-utility and aesthetics.
- 5 - The evolution of art concepts and its influence on industrial objects: The movements' Arts and Crafts" and Art Nouveau; The line geometry and the "industrial form ": Futurism, Constructivism, De Stijl and the Bauhaus spirit.
- 6 - The artistic representations of industry: painting, architecture and ceramics.
- 7 - The function of the iconoclastic industrial objects: Dada and Pop Art
- 8 - The equity value of materials and crafts and industries: The museums; The industry objects in art museums; The Exhibitions.



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Mines and Miners in the Contemporary Period (HIS11046M)

1. The social historiography on industry and mining communities. Sources and methodologies. 2. The technological and the business history of mining. The social history and the history of mining populations. Mining museums and representations of the past. 3. The evolution of the mining institutional framework in different European national contexts, business organization and the international trade of ores and metals. 4. Mining rushes, capitalism and colonialism (19th to 20th centuries). 5. The technological evolution of mining engineering from the steam to electricity. 6. Paternalism and communalization in the "free market" societies. 7. The mining companies in colonial contexts. Adaptation and change of the African lineage and peasant societies. 8. Mining communities: recruitment, careers, migrations. 9. The conflict and their organization: from revolt to trade unions and social integration. 10. Mining industry and environmental protests, 19th to 20th centuries.

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Medieval Arabic and Islamic Techniques (HIS11047M)

Introduction - The historical context. Islam in the Middle Ages: a general perspective

1. The culture in Islam

1.1. The Muslim history and the West, "a forgotten inheritance"?

1.2. Islam and the assimilation of knowledge: from translation to production

2. Islam and techniques

2.1. The water

2.1.1. The water on religion and Islamic law

2.1.2. The water and cities

2.1.3. Water and agriculture

2.1.4. The sea, ships and navigational instruments

2.2. The fire

2.2.1. Alchemy and chemical technology-Jabir b. Hayan (Geber) between myth and History

2.2.2. Glass and ceramics

2.2.3 Metallurgy and military techniques

2.3. The earth

2.3.1. The construction techniques

3. The protagonists

3.1. Craftsmen and cities: social status, organization and quality control (hisba)

3.2. A rediscovered inventor: Al-Jazari (1136-1206)