



Study Plan

School: School of Social Sciences
Degree: Bachelor
Course: History and Archaeology (cód. 609)

Specialization History

1st Year - 1st Semester Specialization History

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS12020L	Societies and Prehistoric Cultures	Archeology	6	Semester	156
HIS12021L	Societies and Cultures Pre-Classic	History	6	Semester	156
HIS2437L	Sources and Methodology in History	History	6	Semester	156
HIS2464L	Introduction to Cultural Heritage	Cultural Heritage	6	Semester	156
GEO2438L	Elements of Portuguese Geography	Geography	6	Semester	156

1st Year - 2nd Semester Specialization History

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS12022L	Societies and Cultures Classic	History	6	Semester	156
LLT2440L	Classical Culture	Literature	6	Semester	156
HIS2441L	Medieval History I	History	6	Semester	156
HIS2394L	History of Medieval Portugal	History	6	Semester	156
HIS2444L	History of Al-Andalus	History	6	Semester	156

2nd Year - 3rd Semester Specialization History

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS2442L	Medieval History II	History	6	Semester	156
HIS2402L	Themes of Medieval History of Portugal	History	6	Semester	156
HIS2443L	Early Modern History	History	6	Semester	156
HIS2396L	History of Early Modern Portugal	History	6	Semester	156

*** TRANSLATE ME:Optativas-Quadro 9 ***

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS2461L	Paleography and Diplomatics	History	6	Semester	156
HIS2462L	History of Culture in Portugal	History	6	Semester	156
HIS12023L	History of Évora City	History	6	Semester	156
HIS2463L	History of Contemporary Art	History of the Art	6	Semester	156
HIS2465L	Museology	Cultural Heritage	6	Semester	156
HIS12024L	Introduction to Digital Humanities	History	6	Semester	156
HIS12025L	Applied History	History	6	Semester	156



**2nd Year - 4th Semester
Specialization History**

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS2445L	Early Modern History II	History	6	Semester	156
HIS2400L	Themes of History of Modern Portugal	History	6	Semester	156
HIS2398L	Expansion and Colonial Dynamics	History	6	Semester	156
HIS12407L	General History of Art	History of the Art	6	Semester	156

***** TRANSLATE ME:Optativas-Quadro 16 e de ARQ *****

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS2467L	Archaeological Heritage	Archeology	6	Semester	156
HIS12039L	Classical Epigraphy	Archeology	6	Semester	156
HIS12040L	Materials and Structures Archaeological	Archeology	6	Semester	156
HIS12033L	Arabo-Islamic Archaeology	Archeology	6	Semester	156
HIS12026L	Research and Communication in Archaeology	Archeology	6	Semester	156
HIS12038L	Investigation Seminar in Archaeology	Archeology	6	Semester	156
HIS12037L	Medieval Archaeology	Archeology	6	Semester	156
HIS2466L	Industrial Archaeology	Archeology	6	Semester	156
HIS12036L	Archaeology Field III	Archeology	6	Semester	156
HIS2451L	Archaeology, Theory and Method	Archeology	6	Semester	156
HIS2454L	Illustration in Archaeology	Archeology	6	Semester	156
HIS12034L	Archaeology Field II	Archeology	6	Semester	156
HIS12031L	Archaeology Laboratory	Archeology	3	Semester	78
HIS2469L	Military Archaeology	Archeology	3	Semester	78
HIS12030L	Archaeology Field I	Archeology	6	Semester	156
HIS12029L	Roman Archaeology	Archeology	6	Semester	156
HIS12027L	Artistic expressions Pre and Proto-Historic	Archeology	6	Semester	156
HIS2452L	Archaeology of the Pre and Proto – Historical Societies	Archeology	6	Semester	156

**3rd Year - 5th Semester
Specialization History**

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS2397L	History of Contemporary Portugal	History	6	Semester	156
HIS2446L	Contemporary History I	History	6	Semester	156
HIS2399L	Empires and Decolonization	History	6	Semester	156
HIS2447L	Seminar in History	History	6	Semester	156



**3rd Year - 5th Semester
Specialization History**

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
*** TRANSLATE ME:Optativas-Quadro 9 ***					
Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS2461L	Paleography and Diplomatics	History	6	Semester	156
HIS2462L	History of Culture in Portugal	History	6	Semester	156
HIS12023L	History of Évora City	History	6	Semester	156
HIS2463L	History of Contemporary Art	History of the Art	6	Semester	156
HIS2465L	Museology	Cultural Heritage	6	Semester	156
HIS12024L	Introduction to Digital Humanities	History	6	Semester	156
HIS12025L	Applied History	History	6	Semester	156

**3rd Year - 6th Semester
Specialization History**

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS2448L	Contemporary History II	History	6	Semester	156
HIS2401L	Themes of History of Contemporary Portugal	History	6	Semester	156
HIS2449L	Theory of History	History	6	Semester	156
HIS2450L	History of Portuguese Art	History of the Art	6	Semester	156
*** TRANSLATE ME:Optativas-Quadro 9 ***					
Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS2461L	Paleography and Diplomatics	History	6	Semester	156
HIS2462L	History of Culture in Portugal	History	6	Semester	156
HIS12023L	History of Évora City	History	6	Semester	156
HIS2463L	History of Contemporary Art	History of the Art	6	Semester	156
HIS2465L	Museology	Cultural Heritage	6	Semester	156
HIS12024L	Introduction to Digital Humanities	History	6	Semester	156
HIS12025L	Applied History	History	6	Semester	156

Specialization Arqueology

**1st Year - 1st Semester
Specialization Arqueology**

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS12020L	Societies and Prehistoric Cultures	Archeology	6	Semester	156
HIS12021L	Societies and Cultures Pre-Classic	History	6	Semester	156
HIS2437L	Sources and Methodology in History	History	6	Semester	156
GEO2438L	Elements of Portuguese Geography	Geography	6	Semester	156
HIS12026L	Research and Communication in Archaeology	Archeology	6	Semester	156



**1st Year - 2nd Semester
Specialization Arqueology**

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS2394L	History of Medieval Portugal	History	6	Semester	156
HIS12022L	Societies and Cultures Classic	History	6	Semester	156
HIS12027L	Artistic expressions Pre and Proto-Historic	Archeology	6	Semester	156
HIS2452L	Archaeology of the Pre and Proto – Historical Societies	Archeology	6	Semester	156
HIS12029L	Roman Archaeology	Archeology	6	Semester	156

**2nd Year - 3rd Semester
Specialization Arqueology**

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS2442L	Medieval History II	History	6	Semester	156
HIS2396L	History of Early Modern Portugal	History	6	Semester	156
HIS12030L	Archaeology Field I	Archeology	6	Semester	156
HIS2469L	Military Archaeology	Archeology	3	Semester	78
HIS12031L	Archaeology Laboratory	Archeology	3	Semester	78
QUI12032L	Basic aspects of science applied to archeology	Chemistry	6	Semester	156

**2nd Year - 4th Semester
Specialization Arqueology**

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS2445L	Early Modern History II	History	6	Semester	156
HIS12033L	Arabo-Islamic Archaeology	Archeology	6	Semester	156
HIS12034L	Archaeology Field II	Archeology	6	Semester	156
HIS2454L	Illustration in Archaeology	Archeology	6	Semester	156
BIO11463L	Biological Anthropology	Biological Sciences	6	Semester	156

**3rd Year - 5th Semester
Specialization Arqueology**

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS2446L	Contemporary History I	History	6	Semester	156
HIS2397L	History of Contemporary Portugal	History	6	Semester	156
HIS2451L	Archaeology, Theory and Method	Archeology	6	Semester	156
GEO12035L	Earth Materials and Archaeology	Geosciences	6	Semester	156



**3rd Year - 5th Semester
Specialization Arqueology**

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
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Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS2461L	Paleography and Diplomatics	History	6	Semester	156
HIS2462L	History of Culture in Portugal	History	6	Semester	156
HIS12023L	History of Évora City	History	6	Semester	156
HIS2465L	Museology	Cultural Heritage	6	Semester	156
HIS12024L	Introduction to Digital Humanities	History	6	Semester	156
HIS12025L	Applied History	History	6	Semester	156
*** TRANSLATE ME:Optativas-HIS ***					
Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS2464L	Introduction to Cultural Heritage	Cultural Heritage	6	Semester	156
HIS2441L	Medieval History I	History	6	Semester	156
HIS2444L	History of Al-Andalus	History	6	Semester	156
HIS2402L	Themes of Medieval History of Portugal	History	6	Semester	156
HIS2443L	Early Modern History	History	6	Semester	156
HIS2400L	Themes of History of Modern Portugal	History	6	Semester	156
HIS2398L	Expansion and Colonial Dynamics	History	6	Semester	156
HIS2399L	Empires and Decolonization	History	6	Semester	156
HIS2447L	Seminar in History	History	6	Semester	156
HIS2448L	Contemporary History II	History	6	Semester	156
HIS2401L	Themes of History of Contemporary Portugal	History	6	Semester	156
HIS2449L	Theory of History	History	6	Semester	156

**3rd Year - 6th Semester
Specialization Arqueology**

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS12037L	Medieval Archaeology	Archeology	6	Semester	156
HIS12036L	Archaeology Field III	Archeology	6	Semester	156
HIS2466L	Industrial Archaeology	Archeology	6	Semester	156
HIS12038L	Investigation Seminar in Archaeology	Archeology	6	Semester	156
*** TRANSLATE ME:Optativas-Quadro 16 ***					
Component code	Name	Scientific Area Field	ECTS	Duration	Hours
HIS2467L	Archaeological Heritage	Archeology	6	Semester	156
HIS12039L	Classical Epigraphy	Archeology	6	Semester	156
HIS12040L	Materials and Structures Archaeological	Archeology	6	Semester	156
ERU12041L	Topography in Archaeology	Rural Engineering	6	Semester	156
GEO11397L	Health and Safety at Work	Geological Engineering	3	Semester	78
QUI12042L	Introduction to Archaeometry	Chemistry	3	Semester	78



Conditions for obtaining the Degree:

*** TRANSLATE ME: História e Arqueologia { \ } newline

História

Para obtenção do grau de licenciado em História e Arqueologia – Percurso em História é necessário obter aprovação a 156 ECTS em unidades curriculares obrigatórias e 24 ECTS em unidades curriculares optativas, distribuídas da seguinte forma:

1º Ano

1º Semestre:

5 UC Obrigatórias num total de 30 ECTS

2º Semestre:

5 UC Obrigatórias num total de 30 ECTS

2º Ano

3º Semestre:

4 UC Obrigatórias num total de 24 ECTS

1 UC Optativa (quadro nº 9) num total de 6 ECTS

4º Semestre:

4 UC Obrigatórias num total de 24 ECTS

1 UC Optativa da Area Científica de Arqueologia (ARQ), a escolher do percurso em Arqueologia ou do quadro de optativas nº 16, num total de 6 ECTS

3º Ano

5º Semestre

4 UC Obrigatórias num total de 24 ECTS

1 UC Optativa (quadro nº 9) num total de 6 ECTS

6º Semestre

4 UC Obrigatórias num total de 24 ECTS

1 UC Optativa (quadro nº 9) num total de 6 ECTS

Arqueologia

Para obtenção do grau de licenciado em História e Arqueologia – Percurso em Arqueologia é necessário obter aprovação a 168 ECTS em unidades curriculares obrigatórias e 12 ECTS em unidades curriculares optativas, distribuídas da seguinte forma:

1º Ano

1º Semestre:

5 UC Obrigatórias num total de 30 ECTS

2º Semestre:

5 UC Obrigatórias num total de 30 ECTS

2º Ano

3º Semestre:

6 UC Obrigatórias num total de 30 ECTS

4º Semestre:

5 UC Obrigatórias num total de 30 ECTS

3º Ano

5º Semestre:

4 UC Obrigatórias num total de 24 ECTS

1 UC Optativa da Area Científica de História (HIS), a escolher do percurso em História ou do quadro de optativas nº 9, num total de 6 ECTS

6º Semestre:

4 UC Obrigatórias num total de 24 ECTS

1 UC Optativa (quadro nº 16) num total de 6 ECTS

Program Contents



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Societies and Prehistoric Cultures (HIS12020L)

1. THE PREHISTORY AND THE ARCHAEOLOGY
2. THE HUNTERS – COLLECTORS IN PALAEOLITHIC
 - Man's place in the zoological series
 - The evolution during the Inferior Paleolithic
 - The evolution during the Middle Paleolithic
 - The evolution during the Upper Paleolithic
3. FROM THE HUNTERS – COLLECTORS TO THE FIRST PRODUCERS
 - The post-glacial environment and the new society
 - The Habitats and the economy
 - The shell mounds
 - The stone industry and the use of the bone.
4. THE FIRST AGRO-PASTORAL SOCIETIES (the Neolithic)
 - The concepts of Neolithic
 - Climate and the socio-economic changes
 - The domestication of the land and animals
 - The new utensils
 - The occupation of space - the habitats and territories
5. THE FIRST SOCIETIES WITH METALLURGY
 - The objects of prestige and "vessel" Bell
 - The "Secondary Products Revolution".
 - Spaces of habitat and areas of exploration
 - The various "Bronze Age"
 - The artifacts world of metallurgical societies
6. The first Mediterranean commercial shops and

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Societies and Cultures Pre-Classic (HIS12021L)

1. Cultural dichotomies, discovery methods and interpretive perspectives
2. General framework of the Pre-Classic Societies.
3. Syncretism. The revolution Urban and ways of territorial unification in late prehistoric periods
4. The emergence of cultural forms and materials and the process of civilization in Mesopotamia and Egypt around the fourth millennium BC.
5. The structuring of complexity. The hierarchical, political and social systems in Mesopotamia and ancient Egypt and the establishment of empires.
6. expressive formulations of narratives and ideologies monumentality directions.
7. Economics, routes and Navigations. The role of the Syrian Levantine areas after the twelfth century BC, the extent of Mediterranean contacts.



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Sources and Methodology in History (HIS2437L)

History as Social and Human Sciences.

1. The history of history: chronological and civilization courses. Tracks scientific, historiographic schools, "Father what good is history?" (1929)
2. Times of Western History. Readings and discussions
3. Use(s) of history in the various sciences

History and practice of research: sources and methods

1. The diversity of contexts in the workshop of history and methods of writing history - into the writing of historians; the pleasure of making history - and the discovery of context sources, a renewed adventure; texts sources and methodology
2. History with "multiple sources": the history of science and technology, cultural history, history of editing the book and print, material history, heritage, art history, museology
3. Uses of sources: the practice of the historian: Évora, World Heritage. Readings of sources, readings of landscape - rural history, urban history
4. Preparation and submission of the paper.

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Introduction to Cultural Heritage (HIS2464L)

1. Origin and evolution of the concept of cultural heritage, with application to the Portuguese case.
2. The historical development of conservation and restoration: from antiquity to the century. XVIII
3. The birth of monumental restoration
 - 3.1. The stylistic restoration of Viollet-le-Duc and the teachings of John Ruskin
 - 3.2. Camillo Boito, Gustavo Giovannoni and the scientific restoration
4. A contemporary reflection: the critical restoration, the theses of Cesare Brandi, and the preservation of monuments and historical sites
5. The concepts of maintenance, preventive conservation, curative conservation, restoration, rehabilitation, renovation
6. International Charters and Conventions. Portuguese legislation.
 - 6.1 The conservation and restoration in Portugal.
7. National and international supervision, management and conservation of cultural heritage.

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Elements of Portuguese Geography (GEO2438L)

Geographic space: spaces and scales.

The importance of cartography in Geography

Time and space.

Man and the transformations of the space

The portuguese territory and its position

Physical characteristics of the territory.

Physical conditionings and historical evolution of the supports of economic activities.

The population

The settlement.

The cities.

Portuguese geographic regions.



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Societies and Cultures Classic (HIS12022L)

Key concepts: Classicism, Myth, Identity

The available sources and geographical framework

I - Greece

- Minoan Greece
- The Mycenaean Greece
- The Dark Ages: The world of Homer and the founding myths
- The Archaic Period
- The Classical Age: from the oikos to the polis

The emergence of city-states and the renewal of identities

The formation of political programs

The Hellenic Wars and the crisis of the polis

The end of classicism. The Hellenism

II. Rome

Italy before Rome

The city of Rome: from the villages to the Urbs

The Roman Republic

The patrician and plebeian Res Publica: origins of a new political system

Political institutions: the evolution of the written law

The Roman Republic until the Punic Wars

The foreign policy during the Punic Wars: Carthage and Iberia

The conquest of the East

The Imperium

The splendor of the Empire: between Augustus and the Severi

The crisis of the third century and the military anarchy

Causes of decay of Rome

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Classical Culture (LLT2440L)

I. Greece

1. Mythology and religion

1.1. The myth in Greek thought.

1.2. The gods.

1.3. The myths of creation and evolution: the myth of the five ages, Deucalion and Pyrrha, Pandora, Prometheus.

1.4. The cycles of heroes: Hercules, Jason and Theseus.

2. The 'Homeric poems'.

2.1. The conception of man and gods; social norms. The Homeric ethos.

2.2. The worldview of the Iliad and Odyssey.

3. Greek Theatre

3.1. Origins of tragedy and comedy.

3.2. Concepts and principles of tragedy in Aristotle's analysis.

3.3. The cycles of tragedy in the production of Aeschylus, Sophocles and Euripides (justice, war, power and the human condition)

II. Rome.

1. Values, attitudes and problems: Empire vs. individual

1.1. The Aeneid of Virgil: national values and their relationship with the imperial project of Augustus.

1.2. The Satyricon of Petronius: the novel as a reflection of society.

1.3. The Trojan Women of Seneca: the problem of the influence of Stoicism.



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Medieval History I (HIS2441L)

3 main points

- Methodological introduction
- Roots and way of a system collapse (3rd to 8th centuries)
- Rebuilding and managing the world again (9th and 10th centuries)

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History of Medieval Portugal (HIS2394L)

I The Iberian Peninsula from 8th to 10th century: land and landlords

1 The Muslim Invasion. From the Emirate to the caliphate. The coexistence of religions.

2 The Leonese kingdom of Asturias. The territorial advance of 9th and 10th centuries

II From the county to the regnum

3 The nobility and the construction of the Portuguese county.

4 The government of the county: from D. Henry to D. Teresa and the demand for political autonomy

5 From S. Mamede to the Manifestis Probatum

III The construction of the regnum: The power of royalty (1128-1325)

6 Reconquest and territory

7 The limits of royalty: 1211-1245

8 The reign of Alphonse III and the organization of King Denis

IV The construction of the regnum: institutions and agents (1128-1325)

9 To rule the kingdom: the basis of the administration

10 The writing of memory: the royal chancery and its agents

V The 14th century

11 The causes of the crisis

12 The political instability and the crisis of 1383-85

VI The Avis dynasty

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History of Al-Andalus (HIS2444L)

I - Al-Andalus - political stages: dependent province of Damascus; Umayyad Emirate; The Caliphate; the Taifa's Kingdoms; Almoravids and Almohads; the Kingdom of Granada;

II - Society;

III - Economy;

IV - Spaces and quotidian;

V - Religious and intellectual Life;

VI - Arts;

VII - Gharb al-Andalus.

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Medieval History II (HIS2442L)

Two main items

- The stabilisation of an expanding Europe (11th and 13th centuries)
- The changes consolidation (14th and 15th centuries)



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Themes of Medieval History of Portugal (HIS2402L)

1. Demographics and society
2. Powers and discourses of power
3. Economy: production and circulation
4. Culture: intellectual, artistic and material culture
5. Everyday life and sociability

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Early Modern History (HIS2443L)

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History of Early Modern Portugal (HIS2396L)

1. Structural trend lines:
 - 1.1. Formation of the empire and evolution of geographical and historical complexes from the late fourteenth century.
 - 1.2. Demography and the small rate of urbanization.
2. Conjunctural dynamics (from the late fifteenth century to the Napoleonic wars):
 - 2.1. The House of Avis: from the "Manueline" apogee to Alcazarquivir;
 - 2.2. The economic crises of the second half of the sixteenth century;
 - 2.3. 1580 as conjuncture;
 - 2.4. Portugal under the House of Austria (1580-1640);
 - 2.5. The Restoration;
 - 2.6. The political crises of the second half of the seventeenth century and its political and social effects.
 - 2.7. The economic crisis of the 1660-1680s;
 - 2.8. Portugal under D. João V;
 - 2.9. The Age of Pombal;
 - 2.10. The "viradeira";
 - 2.11. The situation in Portugal in the European context of the threshold of the nineteenth century and the French invasions.
3. The major structural changes of the Early Modern Portugal: a synthesis.

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Paleography and Diplomatics (HIS2461L)

1. Palaeography and Diplomatic: the concepts
2. The writing and its evolution
3. Agents and production centers
4. Documents: the diplomatic level; types and formulas; the validation process
5. Paleographic transcription: rules and problems

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History of Culture in Portugal (HIS2462L)

Introduction to concepts: Culture in History and Anthropology. The meeting of two areas to recognize the construction of cultural identity in time and space (Portuguese Culture). Time of Culture in Portugal - the occupation of the peninsular space: Memory, History and Monuments. Medieval Culture in Portugal - traces of the cultural and artistic production. The foundation of University; the Chronicles of the Kingdom. Exploration, Expansion of European Culture with the Council of Trent. The Baroque culture in the context of Europe and outside Europe. The culture of the "Lights": the epicenter of 1755 - Europe "breathes for Lisbon- "Lights" and Revolution in Portugal. The time of Liberalism, Romanticism and Positivism: the marks of the nineteenth century Portuguese culture. Portugal twentieth century, cultural institutions, cultural ideologies, memory usage and celebrations. Option themes to develop in the Culture of Portugal in the nineteenth and twentieth centuries.



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History of Évora City (HIS12023L)

HISTORIOGRAPHICAL RELEVANCE OF A CASE STUDY

I MEDIEVAL ÉVORA

1. Évora of the reconquest: inheritance, continuity and changes
2. Christian Évora (12-15 c.)
 - 2.1. Occupation and control of the space: institutions and powers
 - 2.2. Urban morphology
3. Évora: a city in the center of the kingdom.

II ÉVORA IN MODERN PERIOD

1. Évora and the south
 - 1.1. Demographic, social and economic issues
 - 1.2. The city and the presence of the Court
 - 1.3. Powers and institutions; the Inquisition
2. Évora and the kingdom
3. The looks from the others: from de Munzer descriptions to the foreign reports of the 18th c.

III CONTEMPORARY ÉVORA

- 1 - Population dynamics and urban morphology
 - 1.1. Population growth and settlement in the south
 - 1.2. Évora in the Portuguese urban network hierarchy
 - 1.3. Urban morphology and city expansion:
- 2 - Spaces and powers in the city
 - 2.1 - The secular city and the religious city: changes and continuities
 - 2.2. - Local government and the State
- 3 - Daily and weekly urban experiences

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History of Contemporary Art (HIS2463L)

Neoclassicism and Romanticism.

From Realism to Post-Impressionism. Photography. Barbizon School, Manet and the Impressionists. The Expressionism.

Architecture and urbanism in the industrial context. The Iron Architecture. The model of Paris. The Chicago School.

Art Noveau and Art Deco.

The Avant-Gardes. Fauvism, Die Brücke, Der Blaue Reiter and Abstractionism. Cubism, Futurism, Constructivism, Metaphysic Painting, Dada Movement, Surrealism. De Stijl and Bahaus.

The new international architectonic languages. Frank Lloyd Wright, Le Corbusier., Mies Van Der Rohe e Alvaro Aalto.

Between Informality and Action. Action Painting. Happening. Performance.

The Return to figuration. Neo-Realism. Pop Art. Hipper-Realism. New-Figuration.

Knew Abstraction. Abstract Expressionism. Post-picture Abstractionism. Op Art. Kinetic Art. Minimalism.

Conceptual Art –the Installation. Body Art. Land Art. Arte Póvera.

Technology and Mega-structures: new urban and architectonic utopias.

Post-Modernism? A debate.



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Museology (HIS2465L)

- I. Conceptual historical and methodological introduction: collecting, history of museology, museum concepts.
- II. National and international museum organizations.
- III. Museum types: the mission and vocation of the museum, nature of the collections.
- IV. Museum functions: study, incorporation, documentation, conservation, safety, exposure and education.
- V. Museum Architecture.
- V. Programming Museum.

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Introduction to Digital Humanities (HIS12024L)

1. What are Digital Humanities? Key concepts and resources.
2. Analyses of DH Projects, platforms and tools.
3. HTML and content modeling
4. Classification schemes
5. Metadata and metadata standards
6. Data collection and quantitative analysis.
7. Data mining and text analysis
8. Network analysis
9. Spatial analysis. Geographic Information Systems
10. Virtual spaces and 3D modeling

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Applied History (HIS12025L)

This Unit offers the student an internship. It offers the student the opportunity to try their hand or to contact with the institutions that are conducting historical research (projects, research centers, labs).

This student can also be hosted by: archives, libraries, museums or others institutions that can manage or spread historical or cultural heritage knowledge (mass media companies, business companies, municipalities or local associations).

The student with the supervisor need to establish goals and to plan, to accomplish the event(s), to evaluate it and to produce a critical report.

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Early Modern History II (HIS2445L)

1. The Europe between the end of the 14th century and the end of the 18th century: population dynamics and socioeconomic characterization. Regional inequalities.
2. The Ancien Regime social structures. Social hierarchy characterization. Processes of social mobility. Ethnic minorities and marginal groups.
3. The European expansion and the first economic impacts. The new geographical and trade framework. Commercial capitalism and world economy.
4. The emergence of the consumer society. The Netherland case and its impact on the European economy. The decline of the Mediterranean and the English rise.
5. agrarian systems, ecological structures and limits productivity
6. Urbanization and economic development. Manufacturing, proto-industrialization and technological progress: the industrialization path.



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Themes of History of Modern Portugal (HIS2400L)

- 1 Humanism and Renaissance: the specificity of Portugal
- 2 The impact of the Counter-Reformation in Portugal. The Inquisition. Censorship.
- 3 The ecclesiastical power: the post-Tridentine context and the religious experiences.
- 4 Production structures and tax burdens: social appropriation of land and the legal system of land ownership, the domestic market and the colonies.
- 5 The construction of the central political-institutional, legal and political culture, the structure of the modern state. Local authorities and peripheral administration of the Crown. The military and diplomatic issues.
- 6 The social space of the Ancien Régime: inequality, privilege and hierarchy as structuring brands of the society; forms of social control and representation.
- 7 Material culture and everyday life spaces. The Reading and the writing; social and political contexts of cultural production.
- 8 Forms of violence and control. Mental models and cultural paradigms at the end of Ancien Régime in Portugal.

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Expansion and Colonial Dynamics (HIS2398L)

1. Historical Antecedents of European Expansion.
2. Evolution of old concepts such as "colony", "colonialism" and "imperialism".
3. Origin and evolution of the main Colonial Empires and their colonial policies:
Portugal (Africa, Brazil, Asia/Southeast Asia/Oceania)
Spain (Spanish-America/Río de Oro/Equatorial Guinea/Philippines)
France (Canada/French Caribbean/French Guyana/French Africa/French Asia/French Oceania)
Holland (New Amsterdam/Dutch Brazil (1624-1654)/Dutch Caribbean/Dutch Guyana/Dutch Asia)
England (Canada and the North-American Colonies/British Caribbean/British Guyana/British Africa/British Asia/British Oceania)
4. Present chronologically the different territorial expansion models and the subsequent formation of the European Colonial Empires in different parts of the world.
5. Analyze the different dynamics behind Western/European colonization; sociological profile of the colonizers, exile; emigration;erc

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General History of Art (HIS12407L)

1. Imagery development in Prehistoric and Ancient Art. Perception and visual interpretation. Figurative and narrative representation in the complex societies of Antiquity.
2. From the ancient Classicism and sequence of Hellenistic and Roman legacies to the origins of formal rearrangements in Late Antiquity art and Early Medieval Arts.
3. The becoming of Medieval Art. Romanesque programmes and the Gothic.
4. Renaissance. From Northern studio Art to the progressive use of drawing in Modern Italy.
5. Renaissance and Mannerism. Coherence and synthesis of artistic trends in Italy and Europe. Maniera and normative rules.
6. Baroque Art. Excess and reality vs. imaginative and scenic intentionality in European courts. The cities as art expression.
7. Arts between utopia and Romanticism. From Academicism to the new representations of Nature and Reason.
8. Art and visual culture in 19th.-20th. Centuries. Style revival and the new Art Schools.

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Archaeological Heritage (HIS2467L)

0. introduction
1. Interest and curiosity for the formation of Archaeology Archaeology as a science
2. Legislation and documentation of the Archaeological Heritage
3. Field of archaeological work to recovery, utilization and dissemination of the Archaeological Heritage
4. The archaeological heritage as a cultural, economic



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Classical Epigraphy (HIS12039L)

I. Introduction

- 1.1. Purpose and methodologies.
- 1.2. The studies of Epigraphy in Portugal.

II - Introduction to the study of epigraphy

- 2.1. The epigraphic inscription.
- 2.2.1. Definition and forms.
- 2.2.2. The identification method.

III - The epigraphic monuments (and its relation with economic, social, cultural and religious aspects)

- 3.1. The funerary inscriptions.
- 3.2. The votive inscriptions.
- 3.3. The honorary inscriptions.
- 3.4. The monumental inscriptions.
- 3.5. The tesserae hospitales.
- 3.6. The landmarks and milestones.
- 3.7. Instrumentum.

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Materials and Structures Archaeological (HIS12040L)

Man and Nature

1. Do subject to artifact (tool and instrument)
2. The environmental factors and technology
3. The selection of raw material
 - Lithic materials
 1. Raw materials
 2. Técnicas transformation
 3. Tipologias
 - Ceramic
 1. Matérias materials
 2. Técnicas transformation
 3. Tipologias
 - Other materials
 1. Matérias materials
 2. Técnicas transformation
 3. Tipologias



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Arabo-Islamic Archaeology (HIS12033L)

Context and methodology

The Archaeology of Islamized territories and the Medieval Archaeology

The Medieval Archaeology: current trends and methods

Introduction to mental, political and material of the medieval Islamic world Archaeology of al-Andalus and North Africa

Settlement and their constraints

Arabization and berberização

Archeology of urban spaces:

- Urban defenses: complexity and evolution
- Construction techniques and materials
- Walls of typology of al-Andalus
- Neighborhoods
- Buildings and streets
- Baths
- Funduq / s
- Buildings of Islamic worship, Christian and Jewish
- Mosques
- Churches
- Synagogues
- Spaces and practices of burial
- Material culture:
 - Glasses
 - Bone
 - Industrial arts

Archaeology of rural areas:

- Travel and communications
- Defense and control of territory
- Construction techniques and materials
- Economy and habitats
- Construction techniques and materials
- Material culture (ceramics, metals, bone, ...)

Epigraphy and Numismatic of al-Andalus

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Research and Communication in Archaeology (HIS12026L)

Creation of scientific disclosure

Scientific language and other languages

The scientific image and its communication

From a scientific text to text information

The archaeologist and the media

From the field to the museum or exhibition : languages

Organization of scientific text

The information on the net

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Investigation Seminar in Archaeology (HIS12038L)

Definition of research topics

Presentation of relevant literature

Research specialty websites



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Medieval Archaeology (HIS12037L)

- What changes slowly: transformation patterns in the rural and urban world
- What remains, persistence and atavism after the end of the Empire
- The emergence of Christianity: changes in material culture, architecture and funerary world
- The Medieval Archaeology: concepts, trends and methods

European context, Mediterranean and Iberian

Mental conditions, political, technological and material materiality of these periods

Archaeology, History and Heritage

- Archaeology of the Middle Ages
- Epigraphy and Numismatics
- Archaeology of the Middle Ages

Population centers, topography and functions

Architecture and urban archeology military grounds, castles and watchtowers

Archaeology civil architecture: the palace, the house and the street

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Industrial Archaeology (HIS2466L)

- Industrial Archeology and industrial heritage: interconnected concepts
- The appearance of Industrial Archeology and its development as scientific discipline
- Problems, sources and methods of Industrial Archeology
- Interdisciplinary aspects in Industrial Archeology
- Fieldwork and its relation with other sources and methods of Industrial Archeology
- Inventories of Industrial Heritage: objectives; several types of inventory; inventory files; surveying methods;
- The preservation, appreciation and new usages for Industrial Heritage: preservation in situ and link with the community; landmarking of Industrial Heritage; Industrial Heritage in museums; conversion and diverse new usages for Industrial Heritage.

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Archaeology Field III (HIS12036L)

1. Excavation

1.1 methods of excavation

1.2 Excavation practice

2. Recovery of archaeological remains

3. The recuperation of archaeological



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Archaeology, Theory and Method (HIS2451L)

Key concepts: Archaeological Theory; Identity; Methodology

1. Conceptual Evolution
2. Archaeology before archaeology
 - 2.1. The world creation as seen in the pre-classical civilizations
 - 2.2. Between History and Ethnography
 - 2.3. The biblical narrative
3. The modern archaeology: antiquarism, romanticism, the connection to the earth sciences
 - 3.1. Between history, anthropology and ethnography
 - 3.2. The development in the field techniques
4. Historical-culturalist Archaeology
 - 4.1. Identity, culture, ethnicity
 - 4.2. Difusionism
 - 4.3. Marxist archaeology
5. "New Archaeology"
 - 5.1. The ecological approach
 - 5.2. The processualist approach
 - 5.3. The experimentalist contribution
6. Post-processualist archaeology
 - 6.1. Post-processualism and the "anarchic approach"
 - 6.2. Structuralism
 - 6.3. Neo-marxist archaeology
 - 6.4. Cognitive and symbolic archaeology
 - 6.5. New approaches
7. Field methods for archaeological excavations

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Illustration in Archaeology (HIS2454L)

The development of illustration techniques in Archaeology: archaeological materials and structures.

The design now:

- Archaeological structures
- Archaeological materials.
- A cartographic representation.

Methods and techniques of cartography, GIS.

Software design to support archaeological

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Archaeology Field II (HIS12034L)

1. Excavation
 - 1.1 methods of excavation
 - 1.2 Excavation practice
2. Recovery of archaeological remains
3. The recuperation of archaeological



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Archaeology Laboratory (HIS12031L)

Introduction

- 1.1. Identification of types of archaeological artefacts
- 1.2. The main techniques for the treatment of archaeological artefacts
- 1.3. The recovery and protection of archaeological artefacts
2. The understanding and interpretation of archaeological artefacts
 - 2.1 registration
 - 2.2 Inventory
 - 2.3 photography
3. The drafting, communication and dissemination of archaeological artefacts

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Military Archaeology (HIS2469L)

The evolution of military archeology from Prehistory to the Trench Warfare

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Archaeology Field I (HIS12030L)

1. Excavation
 - 1.1 methods of excavation
 - 1.2 Excavation practice
2. Recovery of archaeological remains
3. The recuperation of archaeological

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Roman Archaeology (HIS12029L)

- 1 - Ways of reading time: the sources available.
- 2 - "The indigenous background" : Hispania at the dawn of conquest
- 3 - The evidences for the military campaigns
 - the military quarters
 - - the new materials and products
- 4 - The new Imperial landscape
 - The urbs, center for urban life - equipments to the cultural, social and political activities
 - the field as a complement for the city (economic and commercial networks)
 - the economical activities and the natural resources
 - roman roads and ways to circulate
- 5 - The material evidence as a way to know the social order
- 6 - The funerary universe as a glance of the daily life
- 7 - The end of the empire
 - what changes: patterns for evolution in the urban and rural world
 - what remains: continuity in the end of the empire
 - Christianity rising: changes in the material world, in architecture and in the funerary practice.



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Artistic expressions Pre and Proto-Historic (HIS12027L)

A

1. Methodological approach to aesthetical analysis: Art as graphic and communicative skill and the basis of visual construction; perception, representation and linear recreation.
2. Theoretical framework to artistic research: from cultural and sociological original contexts to the study of spiritual and emotional expression; models, typologies and study-cases in prehistorical times.

B

1. Study methodologies in Pre- and Protohistorical Art: discoveries, researches and concepts; geographical areas, chronology, archaeo-places and collections;
2. Paleolithic Art and the hunter-gatherer societies: mobile art and Rock art. Techniques, typologies and materials.
3. The Art of Neolithic and Calcholitic Ages and the productive societies: Macro-schematic, Schematic, Linear and Geometrical Art; the Levantine Art and its discussion; Art and Megalithism.
4. Proto-historical Art and the development of metallurgic societies: materials and meaning in the ceramics; symbolism in funerary findings

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Archaeology of the Pre and Proto – Historical Societies (HIS2452L)

1. Introduction

1.1. Concepts and terminology specific to the discipline

2. The cultural contexts

2.1 Economy, society and religious societies of glaciers

2.2 Economy, society and religion of the companies producing

2.3 Economy, society and religion of metallurgical companies

3. The contexts artefacts

3.1 Subject matter of the artefact (tool and instrument)

3.2. Environmental factors and technology

3.3. The selection of raw materials

3.3.1. Raw materials

3.3.2. Processing techniques and implementation

3.3.3. types artefacts

3.3.4. descriptive morphology

3.3.4.1 Materials lithic

3.3.4.2 Ceramics

3.3.4.3 Metallic Materials

3.3.4.4 Other materials

4. Structures, sites and habitats

4.1 The natural habitat under fortified

4.1.1. Strategies of space occupation

4.1.2. construction techniques

4.1.3. architectural typologies

5. Conclusion



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History of Contemporary Portugal (HIS2397L)

An overview of the Contemporary History of Portugal through the perspective of the political processes and dynamics, since the crisis of the Ancien Régime (1807) until the joining of the EEC in 1986.

This syllabus emphasizes four topics: the periodization; the political transitions, the political institutions and the political citizenship. The main titles of those topics are:

1. THE PORTUGUESE HISTORIOGRAPHY ON CONTEMPORARY PORTUGAL.
2. TIMES OF REVOLUTIONS AND CHANGE: THE CONSTRUCTION AND CONSOLIDATION OF THE LIBERAL PORTUGAL (1808-1890).
3. THE CRISIS OF THE CONSTITUTIONAL MONARCHY AND THE 1ST REPUBLICAN EXPERIENCE (1890-1926)
4. THE ESTADO NOVO: THE AUTHORITARIAN AND ANTI-LIBERAL CYCLE (1926-1974)

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Contemporary History I (HIS2446L)

1 - The genesis of the contemporary world: French Revolution: cultural, economic and social. The political significance of the Revolution: the centralization of political, human rights and constitutionalism, the American Revolution and Democracy in America: The scope and meaning of the Industrial Revolution: Revolution and agricultural industrialization; Diversity in industrialization.

2 - Liberalism and Nationalism in Europe (1815-1848): the Restoration, the revolutions in Europe and New World.

3 - Europe 1848 to 1918: the era of progress and equity, economic development and industrialization, the movement of nationalities: Italian and German unification, imperialism and colonization, labor and trade union movement.

4. The contemporary political and social thought: economic liberalism and the classical economists, liberalism and democracy, the Socialists.

5. History of the scientific institutions: progress and scientific development, the scientific voyages.

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Empires and Decolonization (HIS2399L)

1. Introduction to the history of imperialism, colonialism and decolonization. Chronology, theories and concepts.

2. The general question of decline and fall of empires. Gibbon the "classical" Roman Empire theory.

3. American independences and the phenomena of imperialism (c. 1770 - c. 1830).

4. "New" imperialism (c. 1830-1914): its origins and nature.

5. Imperialism and colonialism in post World War One: crisis, decline and revival.

6. Imperialism and colonialism: from Second World War to the ultimate decolonization wave (1939-c.1980). Theory and history.

7. Neo-colonialism and post-imperialism: politics, economy, culture, religion and ideology.

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Seminar in History (HIS2447L)

1. Historical research. Traditions and research practices. History and Social Sciences. Research methods in History and in Social Sciences

2. Planning research: defining the research topic and thinking about ways to focus research. Data collecting in primary sources, state of the art, organizing information; How to use archives, libraries and web resources. Reflections on how to write an essay; How to cite and quote. Ethical issues and historical research.

3. Tutorial classes



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Contemporary History II (HIS2448L)

1. History of International Relations: 1.1 From the Vienna Congress to Franco-Prussian War. 1.2. From Bismarck system to the Great War. 1.3. From the Great War to Peace (1914-1923). 1.4. The origins of the 2nd World War 1.5. The 2nd World War. 1.6. The origins of the Cold War. 1.7. East-West relations: from Korean war to the implosion of USSR. 1.8. The rise of the Afro-Asian World. 1.9. The post-Cold War: from the unipolar world to post-unipolarity. 2. Economic History: 2.1. Global economy in the age of the 2nd globalization (1870-1918). 2.2. World economy between wars. 2.3. Developed economies after the 2nd World War: 60 intriguing years. 2.4. Rise and consolidation of new protagonists (c. 1960-2010). 2.5. Big economic and trade blocs and tensions between protectionism and free trade. 3. Culture and Society: 3.1. Europe and North America: social and cultural issues (1945-2010). 3.2. Bolshevik revolution and fascist revolutions: history and historiography.

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Themes of History of Contemporary Portugal (HIS2401L)

The main themes on History of Portugal (19th and 20th centuries) are:

1. Population, Family and Migration (1800-1990)
2. Society and Social Change in Portugal (1800-1970)
3. The Portuguese Economy in the 19th and 20th centuries: Transition, Dynamics and Debates.
4. Portugal and the 3rd Empire: Construction and Fall (1836-1975).
5. Portugal and the European Construction.

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Theory of History (HIS2449L)

I: Historiography and Historical Thought (HHT)

1. HHT in the West: from the Classical, Christian and Jewish Traditions to Modern Historiography. The expansion of European models and their consequences

2. HHT in the Islamic World; in Asia(s); in sub-Saharan Africa

5. Current trends and "regional" diversity

II: Historiography and Professionalization

1. Historians and Ethics

2. The Role of Public History

III: Form and Rhetoric in the Writing of History

1. History of Civilizations

2. National and International History

3. Comparative, Cross, Entangled and Transfer History

4. Transnational History

5. Global History

6. European History as History of Europe

7. History of the Atlantic

IV: The Historiographical field and new paradigms for the XXI Century: examples

1. History and empirical logical unities

2. Social History

3. Historical Biography and Prosopography

4. History of Gender

5. The Global Labor History

6. History of Colonization, Colonialism and Decolonization



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History of Portuguese Art (HIS2450L)

The Art before Portugal. Rock art and megalithic. The Bronze and Iron Ages. Romanization and Classicism. Paleo-Cristian and Visigothic Arts. Islamic Art.

The Romanesque, the Gothic and the Emmanuelin. A Portuguese School of Painting?

Renaissance. The 16th century painting: the "Luso-Flemish" and the Portuguese painting. Architecture: classicism and classic contaminations. Sculpture: Nicolau de Chanterenne e João de Ruão.

Mannerism and Plain Architecture. The façade altarpiece. Francisco de Holanda. The Portrait painting. The Trento Influence.

The Baroque. The 16th century architecture. The North Baroque. The Mafra cycle sculpture. The Tenebrism. A. Gonçalves e V. Lusitano. The gilt and the tiles.

Neoclassicism and Romanticism.

Naturalism.

Modernism. Architecture: modernity and modernism. Continuities or ruptures?

Abstractionism, Neorealism and Surrealism.

New figurations and conceptualizations.

Architecture and Visual Arts in the end of the 20th century.

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Basic aspects of science applied to archeology (QUI12032L)

1. Basic concepts of physics and chemistry

1.1 Structure of matter: Atom, isotopes and molecules; chemical nomenclature and formulas

1.2 Materials composition: major and minor and trace elements

1.3 Inorganic and organic materials- differences in chemical composition and stability to burial

2. Archaeological materials

2.1 Lithics, rocks and stones – chemical and mineralogical composition.

Identification of most used materials.

2.2 Clay and fired materials- structural clay materials and ceramics.

2.2.1 Chemical and mineralogical composition.

2.2.2 Physical and chemical alterations occurring during firing.

2.3 Sands and the production of glass

2.4 Pigments. Identification and characterization

2.5 Ores and Metals

2.5.1 Minerals, ore deposits and smelting

2.5.2 Metals and alloys degradation

2.6 Organic materials- nature and chemical composition

2.6.1 Ivory and bone

2.6.2 Amber and resins

2.6.3 Organic residues recovered from ceramics.

3. Dating archaeological materials.



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Biological Anthropology (BIO11463L)

1. Human osteology.

1.1. Bone morphology and identification of anatomical structures of the skeleton.

1.2. Sex diagnosis in adult skeletons.

1.3. Choosing useful parameters to assess age at death estimation.

Criteria for age at death estimation in non-adults skeletons. Dental and skeletal indicators in the process of development, growth and maturation.

2. Paleodemography, age and sexual distributions, life expectancy, mortality and birth rates and population size.

3. Growth: endochondral and intramembranous ossifications. Growth disruption.

4. Paleopathology: assessment of health profiles through bone and tooth injuries. Degenerative diseases, traumatic, infectious, oral, metabolic, congenital and neoplastic. Differential diagnosis. Epidemiology.

5. Muscle skeletal markers and reconstitution of physical activity.



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Earth Materials and Archaeology (GEO12035L)

A. introductory issues

1. Introduction to Geology

2. Earth systems

Hydrosphere

Geosphere

3. Introduction to superficial geologic processes

Weathering and erosion

Deposition

Digenesis

Sedimentary environments

B. Properties of Minerals

Mineral Chemistry

Mineral Structure

Mineral Identification Methods

Mineral identification by macroscopic methods

Petrographic Analyses

Physical Methods of Identification

Element Analyses

Color of Minerals

C- Classification and identification of Rocks

1. Introduction

2. Rock Classification and Properties

3. Igneous Rocks

Magma and volcanism

Color, Mineralogy and texture

Extrusive Igneous Rocks

Intrusive Igneous Rocks

4. Sedimentary Rocks

Weathering, erosion, transport and deposition (or precipitation)

Carbonate Sedimentary Rocks

Terrigenous Sedimentary Rocks

Surface Deposits and soils

5. Metamorphic Rocks

Metamorphism

Mineralogy and texture

6. Ores

Metals and Related Minerals and Ores

The more important mineral deposits in Portugal

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Topography in Archaeology (ERU12041L)

The program of the course is structured in the following stages: i) basic reviews ; ii) analysis of topographic maps; iii) land survey; iv) and introduction to LandCad software.

The main programmatic lines are:

A-Reviews (scales, angular units and it's conversions; elementary trigonometry);

B-Introduction to the concepts of geoid, ellipsoid, geographic coordinates, map projection systems, geodetic datum, geodetic network; rectangular plane coordinates (distance and direction calculations, coordinates transportation, orientation), introduction to notions of altimetry and planimetry for the interpretation and use of topographic maps, terrain cross sections and longitudinal cross sections, calculation of cut and fill volumes;

C-surveying: with optical level (geometric), with a theodolite (trigonometric) and topographic GPS (DGPS).

D-Introduction to Surveying software (Autodesk LandDesktop).



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Health and Safety at Work (GEO11397L)

Module 1 - Industrial Hygiene

I - Chemical hazards (solids, liquids, gases and vapors);

II - Physical hazards (noise, heat / ventilation, vibration);

Module 2 - Industrial Safety

I - Electrical hazards;

II- Fire;

III ? Ergonomy / loads and movement;

IV- Protection machinery;

V- Protection tools and utensils at work;

VI- Prevention in cargo handling operations;

VII- Individual protection of industrial accidents. Protection equipments.

Module 3 - Risk analysis and safety and health plans.

Module 4 - Technical audits of safety.

Module 5 - Legislation.

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Introduction to Archaeometry (QUI12042L)

Principles of Archaeometric Analysis:

Destructive, microdestructive and non destructive analysis. Sampling and sample preparation. Analytical accuracy, precision, resolution and sensitivity. Provenance of raw materials, dating, identification of production techniques and centers, identification of commercial routes in the Antiquity; Identification of fakes and forgeries. Data treatment.

Chemical. Molecular and Mineralogical analysis of Archaeomaterials. Basic Principles of light, electrons, protons, X-rays,

interaction with matter. Optical and Scanning Electron Microscopy combined with microanalysis; X-ray Diffraction ; X-ray

Fluorescence Spectroscopy; Fourier Transform Infrared Spectroscopy ; micro-Raman Spectroscopy; Liquid and Gas

Chromatography Mass Spectrometry. Thermogravimetric Analysis; DNA isolation, amplification and sequencing.

Techniques used for Dating archaeomaterials: Thermoluminescence; dendrochronology; Isotopic Techniques: ¹⁴C, Aminoacid racemization.