



UNIVERSITY OF THE PELOPONNESE

**FACULTY OF HUMANITIES AND CULTURE STUDIES,
DEPARTMENT OF HISTORY, ARCHAEOLOGY
AND CULTURAL RESOURCES MANAGEMENT**

PROGRAMME SPECIFICATION

for the Master in Science in

Cultural Heritage Materials and Technologies



Tripoli – Kalamata 2015

Programme Specification for CultTech MSc

GENERAL DESCRIPTION

The Master in Science in Cultural Heritage Materials and Technologies (CultTech MSc) was organised during the 2014-2015 academic year by the Department of History, Archaeology and Cultural Resources Management, Faculty of Humanities and Culture Studies, University of the Peloponnese.

AIMS AND OUTCOMES

The educational aims of the CultTech MSc are to provide postgraduate students with specialized, up-to-date and competitive scientific knowledge in the field of new technologies in Cultural Heritage. Students will acquire the necessary knowledge and develop the research skills required for further academic work.

FINAL AWARD

Students who successfully complete the programme will be awarded with a Master in Science (MSc). The CultTech MSc carries 90 ECTS credits.

DURATION OF STUDIES

The complete duration of the programme is 12 months. The programme is divided in three terms (Semester A: October - January, Semester B: February - May, Semester C: June - September). An extension of one semester can be provided when necessary for the completion of the MSc thesis.

OFFICIAL LANGUAGE

The official language of the CultTech MSc is the English language, including taught courses, laboratory practical sessions and the thesis.

REQUESTED EDUCATIONAL BACKGROUND

Undergraduate students with a degree from both Greek and foreign universities in one of the following scientific fields can apply for the CultTech MSc:

- Archaeology and History.
- Material Science, Physics and Chemistry.
- Conservation Science.

PROCEDURES FOR ADMISSION

A maximum number of 30 students per year can be admitted in the CultTech MSc.

Candidates need to submit the following documents to the CultTech Administration:

1. An application, which is submitted online to the CultTech Administration, and includes the candidate's CV and the communication details for two referees.
2. A second class honours degree (or equivalent) in a relevant subject in the form of a certified copy.
3. Certificate of competence in English at a B2 level (IELTS band score of 6 or above).
4. A copy of ID or passport.
5. A recent photograph.

For the final selection of the candidates, an oral interview is required with each candidate.

CRITERIA FOR ADMISSION

For the selection of the candidates the following criteria are used:

- Evidence of interest and ability provided via the candidate's CV (such as a second degree and work or research experience) carries 50% of the total marks.
- Evidence of interest and ability provided during the oral interview carries 30% of the total marks.
- The overall grade of the candidate's degree carries 20% of the total marks.

FEES

The total cost of fees for all students will amount to 4,000 €, which will be paid in two installments. The first instalment must be paid upon acceptance to the programme and the second instalment at the beginning of Semester B.

SCHOLARSHIPS

Scholarships covering half the amount of the total fees will be awarded to the top-scoring students, based on their overall academic record of Semester A. If two students receive equally high marks, both will be awarded with half the sum of the scholarship.

PROGRAMME STRUCTURE

1. Each academic year begins on October.
2. Students must attend a total of 8 taught courses (during Semester A and B).
3. Each taught semester (A and B) comprises of 13 weeks.
4. There are three exam periods in every academic year, each with a duration of one week. Exam periods of Semesters A and B take place during February and June respectively. An additional exam period takes place during September, giving students who have failed a course the opportunity to take the exam again (only one re-examination is allowed for each course).
5. Students need to have successfully completed $\frac{3}{4}$ of the total number of taught courses before they can start the thesis project. The topic of the thesis is chosen by the student and approved by a two-member committee (the thesis supervisor and another lecturer of the CultTech MSc). The conduction of the thesis research must take place during Semester C and can be extended until early December of the same year.

ATTENDANCE – ASSESSMENT – MARKING SCALE

1. Attendance of taught courses and laboratory practical sessions is obligatory.
2. Each taught course is assessed by a written exam and by any essay or laboratory report requested during the term. Students have the opportunity to repeat the examination of each course once, if they fail to pass during the regular exam period.
3. Assessment and marking of the thesis is conducted by the two dissertation supervisors, according to the guidelines provided in the Appendix. Students whose thesis receives a mark of 5 or above, will be awarded a pass.

4. The overall grade is given in a scale of 1 to 10. For the successful completion of the MSc programme, students are required to receive a mark of 5 or above on all courses and on the thesis.
5. For the calculation of the overall grade the mean value of the grades of each individual course carries 60% of the total marks and the grade of the thesis carries 40% of the total marks.

COURSES

Each semester includes four taught courses.

Semester A

1. **(A1) Landscape Archaeology and Cultural Heritage Management – 7 ECTS**
Introduction to Landscape Archaeology, Natural and Cultural Landscape Formation Processes, Procedures and Methods, Interpreting Cultural Landscape, Excavating Space and Place, Anthropology and Management of Cultural Goods, Senses Revisited: Touch, Tactility, Haptics, Physical Catastrophe and the Archaeology of the Present, Sustainable Heritage Management, Interpreting Heritage
2. **(A2) Archaeometry I - Approaches for Archaeology and Cultural Heritage – 8 ECTS**
Studies on Archaeological and Geo-Archaeological Materials (Pottery, Glasses, Stones, Mortars, Metals, Organics): Production, Technology, Use and Provenance. Absolute Dating in Archaeology and Cultural Heritage, Statistical Evaluation of Analytical Data / Chemometrics.
3. **(A3) Archaeometry II - Non-Destructive and Innovative Methodologies for Cultural Heritage – 8 ECTS**
X-Ray Fluorescence Analysis, Portable and Handheld XRF Analyzers, Micro-XRF Analysis of Ancient Metal Alloys, In-situ XRF Analysis of Ancient Pigments and Wall Paintings, Synchrotron Radiation Techniques, Analytical Applications and Advanced Topics to Ion Beam Technology, Spectroscopic and Laser Analytical Techniques in Cultural Heritage Materials Analysis, UV-Vis-IR, Imaging and Spectroscopy Techniques.
4. **(A4) Laboratory Practices: Use of Laboratory and Portable Instrumentation. -7 ECTS**
Stereo Microscope, FOM, Petrography Microscopy, RAMAN, SEM, XRF.

Semester B

1. **(B1) Environmental and Remote Studies for Cultural Heritage – 8 ECTS**

Geoarchaeology and Geochronology, Isotopic Studies, basics of environmental Chemistry and Physics, societal and cultural dimension of climate variability, impacts of air pollution on cultural heritage, introduction to environmental measurements and techniques, climate change, vulnerability of cultural heritage to climate change impacts, climate and weather.

2. **(B2) Information Communication Technologies for Cultural Heritage – 8 ECTS**

Overview, Cyber Archaeology/Archaeometry, Enhancement of Visitor Experience, Visitor Requirements, Digital Presence, Multimedia Applications, Digitalization and Management, E-Research, Synergies, Cultural Heritage in the City, Building on Existing Technologies

3. **(B3) Field Prospection and Computing Technologies for Cultural Heritage – 7 ECTS**

Field Prospection Techniques, Procedures and Applications, GIS, UAV for Cultural Heritage, Monitoring Cultural Heritage from Space, Data, Information Visualization for the Environment, Reconstructing Archaeological Objects and Sites, Structural Modelling of Archaeological Materials.

4. **(B4). Computing Practices: GIS, Statistical Analysis and Computing Aided Applications -7 ECTS**

GIS, Statistical Evaluation of Analytical Data, Designing Multimedia Applications, E-Research and Management, Visualisation and Modelling Practices.

Semester C

Thesis – 30 ECTS

SUSPENSION OF STATUS

Suspension of status of up to six months may be granted in cases where work is interrupted by some unforeseeable, but temporary, difficulty, such as illness, or sudden change in financial circumstances. During this period, students are not required to pay the instalment(s) of the fees. The total required sum needs to be paid when students return for the completion of the programme.

If a student's status lapses, the fees paid by that time will not be returned.

APPENDIX

General Instructions Regarding the Preparation and Presentation of the Thesis

A. GENERAL INSTRUCTIONS FOR THE CONDUCTION OF THE THESIS RESEARCH

1. Scope of the Thesis Research

The thesis research is required to be a scientific project related to the scientific fields of the CultTech MSc, demonstrating originality by producing new data, by applying critical thinking on the analysis of scientific issues, or by a combination of the above. During the research, the student is offered the opportunity to both enhance and demonstrate his research skills.

2. Aims of the Thesis Research

The likely aims of a thesis research are the following:

- review and critical analysis of already acquired data and information
- description and interpretation of a scientific issue
- application of theoretical and practical methodologies, techniques and tools
- formation of new theoretical and practical methodologies, techniques and tools

B. INSTRUCTIONS FOR WRITING THE THESIS

1. Language

The thesis needs to be written in English.

2. Word Limits

There is no specific limitation in the length of the thesis, though a limit of 100 pages is advised. Alternatively, it is suggested that the length of the thesis is between 15.000 and 20.000 words, including references, tables, diagrams and appendices.

Each page of the text must be numbered using continuous numbering. Numbering should start at the first page of the main text and include appendices and bibliography. Sections included before the main text (i.e. introduction, acknowledgements, table of contents, table of figures, abstract) should be numbered using small latin letters. The cover page is not numbered.

3. Presentation

Thesis must be written in a computer and printed on only one side of the paper, size DIN A4, using margins of 4 cm. It is advised to use 12 point Times New Roman (or Arial) font. Line

spacing of 1.5 is required at the main text and single spacing at the footnotes. The use of smaller size letters but similar font is suggested for the footnotes. Different font can be used for titles of chapters and sub-chapters, as long as the text remains legible. It is generally better to aim at a plain and simple format.

The student must deliver the thesis printed and binded.

4. Cover Page

The cover page must include the following information on this order:

- The logo of the University of the Peloponnese
- The title of the programme (Cultural Heritage Materials & Technologies)
- The title of the thesis (The title cannot include chemical formulas or arithmetic symbols)
- Full name of the student
- Full names of the two thesis supervisors
- Delivery date of the thesis

5. Plagiarism

The student conducting the thesis is fully responsible for the correct use and acknowledgement of any source used during the conduction of the thesis project. Plagiarism may take the form of unacknowledged quotation or substantial paraphrase. Sources of material include all printed and electronically available publications in English or other languages, or unpublished materials, including theses, written by others.

6. Main Sections of the Thesis

The following main sections must be included in the thesis, in the given order:

- I. Acknowledgements. A short reference to the process of the thesis research and an acknowledgement to all people or institutions that enabled or assisted the conduction of the research.
- II. Dedication (when available).
- I. Table of contents.
- II. Table of tables, diagrams, maps, etc.
- III. Abstract (1 page). A short description of the content, the methodology and the results of the thesis research.
- IV. Introduction. A thorough presentation of: (a) The subject, the aims and the purpose of the undertaken research. (b) The methodology applied during the research, including all

methods used for the acquisition, analysis and interpretation of data. (c) An overview of the thesis, including a short description of the contents of each chapter.

- V. Main text. It is divided in numbered chapters and subchapters using the decimal numeral system (e.g. 3, 3.1, 3.1.1). These chapters include the main analytical part of the research undertaken. References must be given in the text using the Harvard system, while the complete details of each source must be given in the Bibliography. Additional information or comments can be written using numbered footnotes or numbered endnotes.
- VI. Discussion. A synthesis and discussion of the main findings of the research. Practical difficulties that occurred during the conduction the project are highlighted and suggestions for future research are provided.
- VII. Bibliography. Further information is provided on Paragraph 7.
- VIII. Appendices (when available). Additional analytical data that was not included in the main text is presented (e.g. questionnaires, tables, diagrams, maps etc.). Presentation of the Appendices must follow the style of the same text. Numbering continues in the Appendices directly from the main text.

7. Bibliography

Bibliography must contain all the references used during the conduction of the thesis. References are written in alphabetical order. More specifically, for each reference the following information needs to be provided:

- names of the writer(s)
- publishing date (in parenthesis)
- title
- other details of the published work

Examples are provided on the following list:

Liritzis, I., Singhvi, A., Feathers, J., Wagner, G., Kadereit, A., Zacharias, N. and Li, S-H., (2013), Luminescence Dating in Archaeology, Anthropology and Geoarchaeology. An Overview. Springer Briefs in Earth System Sciences, Springer (*book*)

Beltsios, K.G., Oikonomou, Ar., Zacharias, N. and Triantafyllidis, P. (2012) Characterisation and provenance of archaeological glass artifacts from Mainland and Aegean Greece in: Liritzis I., Stevenson C. (eds). The dating and provenance of volcanic and ancient manufactured glasses-a global overview, University of New Mexico Press, Albuquerque, 166-184 (*chapter in a book*)

Liritzis, I., Mavrikis, D., Zacharias, N., Sakalis, A., Tsirliganis, N. and Polymeris, G. (2011) Potassium determinations using sem, faas and xrf: Some experimental notes. *Mediterranean Archaeology and Archaeometry* 11 (2): 169-179 (*paper in a scientific journal*)

Zacharias, N., Michael, C.T., Bassiakos, Y. and Kilikoglou, V. (2008) TL study on steatite formations: properties and perspectives. *Proceedings of the 4th HSA Symposium, British Archaeological Reports*, (eds Y. Facorellis, N. Zacharias, K. Polikreti) (*paper published on the proceedings of a conference*)