

## COURSE OUTLINE

### (1) GENERAL

|   |   |                              |                |
|---|---|------------------------------|----------------|
| <b>SCHOOL</b>   | HUMANITIES  |                              |                |
| <b>ACADEMIC UNIT</b>  | DEPARTMENT OF MEDITERRANEAN STUDIES                               |                              |                |
| <b>LEVEL OF STUDIES</b>   | UNDERGRADUATE   |                              |                |
| <b>COURSE CODE</b>  | H6  | <b>SEMESTER</b>              | 8              |
| <b>COURSE TITLE</b>   | REDEFINING ARCHAEOLOGY: TECHNOLOGICAL APPROACHES                  |                              |                |
| <b>INDEPENDENT TEACHING ACTIVITIES</b><br><i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i> |   | <b>WEEKLY TEACHING HOURS</b> | <b>CREDITS</b> |
|   |   |                              |                |
| <i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>  |   | 3                            | 6              |
| <b>COURSE TYPE</b><br><i>general background, special background, specialised general knowledge, skills development</i>  | Specialised general knowledge                                     |                              |                |
| <b>PREREQUISITE COURSES:</b>  | None  |                              |                |
| <b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>  | English   |                              |                |
| <b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>  | No  |                              |                |
| <b>COURSE WEBSITE (URL)</b>   | <a href="https://eclass.aegean.gr/">https://eclass.aegean.gr/</a> |                              |                |

### (2) LEARNING OUTCOMES

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| <p><b>Learning outcomes</b><br/> <i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> <li>• <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i></li> <li>• <i>Descriptors for Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i></li> <li>• <i>Guidelines for writing Learning Outcomes</i></li> </ul> <p>On successful completion of this module, students should be able to:</p> <ul style="list-style-type: none"> <li>- to distinguish and manage a problem of archaeological content applying the appropriate method and synthesize interdisciplinary approaches to solve it</li> <li>- to compare methods together when solving an archaeological issue e.g. provenance studies in archeology recognition of non readable texts, identify authors and / or artists</li> <li>- to be equipped with information to allow them to plan, select, and implement in collaboration, specialized techniques for their contribution to further progress of the field</li> </ul> |
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that the course is dealt with

- to discuss the methodology used in published scientific articles and the obtained results
- to discuss the results of measurements obtained in the laboratory or the countryside (e.g. Archaeomaterials characterization, analysis and dating of them, identification of buried monuments, archaeoastronomical orientation, recognition of surface relief and subsurface topography and geology, weight and density measurements of various materials, radioactivity measurements etc.)

|   |   |
|---|---|
| <b>General Competences</b>  |   |
| <i>Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?</i> |   |
| <i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i>   | <i>Project planning and management</i>  |
| <i>Adapting to new situations</i>   | <i>Respect for difference and multiculturalism</i>  |
| <i>Decision-making</i>  | <i>Respect for the natural environment</i>  |
| <i>Working independently</i>  | <i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i> |
| <i>Team work</i>  | <i>Criticism and self-criticism</i>   |
| <i>Working in an international environment</i>  | <i>Production of free, creative and inductive thinking</i>                                      |
| <i>Working in an interdisciplinary environment</i>  | <i>.....</i>  |
| <i>Production of new research ideas</i>   | <i>Others...</i>  |
|   | <i>.....</i>  |

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Adapting to new situations
- Decision-making
- Working independently
- Team work
- Working in an international environment
- Working in an interdisciplinary environment

**(3) SYLLABUS**

The course includes familiarizing students at a theoretical and, where possible, practical level, with the instrumentation for the identification of an archaeological site (resistometer, magnetometer), for provenance studies (microscopic analyses, optical polarizing microscope, fluorescence X-rays) and orientation of monuments, the dating of archaeological materials, sampling and processing of samples for analysis, as well as applications of new technologies in archaeology (diagnostic and imaging techniques, GIS, photogrammetry, virtual reality, 3D digitization of cultural heritage, multimedia technologies, methods for reading erased texts, etc.)

**(4) TEACHING and LEARNING METHODS - EVALUATION**

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| <b>DELIVERY</b><br><i>Face-to-face, Distance learning, etc.</i>                                      | Face-to-face   |
| <b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b><br><i>Use of ICT in teaching, laboratory</i> | Use of ICT in teaching and communication with students |

|  |  |                           |
|--|--|---------------------------|
| <i>education, communication with students</i>  |  |                           |
| <p style="text-align: center;"><b>TEACHING METHODS</b></p> <p><i>The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i></p> <p><i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i></p>                                       | <b>Activity</b>  | <b>Semester workload</b>  |
|  | Lectures   | 39 ώρες (1.56 ECTS)       |
|  | Study and analysis of bibliography   | 65 ώρες (2.6 ECTS)        |
|  | Projects and essay writing   | 46 ώρες (1.84 ECTS)       |
|  |  |                           |
|  | <b>Course total</b>  | <b>150 hours (6 ECTS)</b> |
| <p style="text-align: center;"><b>STUDENT PERFORMANCE EVALUATION</b></p> <p><i>Description of the evaluation procedure</i></p> <p><i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i></p> <p><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p> | <p>Language of evaluation: English</p> <p>Method of evaluation:<br/>written work, essay/report<br/>short-answer questions<br/>multiple choice<br/>open-ended questions</p> |                           |

##### (5) ATTACHED BIBLIOGRAPHY

- Adcock, E.P (1998) Principles for the care and handling of Library materials. Inter. Federation of Library Assoc & Institutions (IFLA)
- CIE (2003) Control of damage to museum objects by optical radiation., TC, Vienna, 3-22.
- Bounia, A., Nikonanou, N., Oikonomou, M. (eds) (2008) Technology at the service of cultural heritage, Kaleidoscope Publ., Athens.
- Dickman, K Fotakis C & Asmus J.F (eds) (2005) Lasers in the conservation of artworks. LACONA V Proceedings, Springer Proceedings in Physics, Vol. 100.

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Savvidis, S. (2019) Basic Principles and Applications of Mineralogy, Aleksandros S IKE Publ., Kozani.

Sylaiou, S. (2020) Museum and museum education in the digital era, Barbounakis Publ., Thessaloniki.

Taylor, R.E., & Bar-Yosef, O. (2014). Radiocarbon Dating: An Archaeological Perspective (2nd ed.). Routledge. <https://doi.org/10.4324/9781315421216>

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Zacharias, N. (2021) Dating the past. Tipothito – G. Dardanos publ., Athens.

Zacharias, N. (ed.) (2022) Cultural heritage and new technologies, Papazisi Publ., Thessaloniki.

Zacharias, N. (ed.) (2022) Archaeometry. Αρχαιομετρία. Absolute dating techniques and analysis methods, Papazisi Publ.

**International Journals**

JAS | Journal of Archaeological Science | ScienceDirect.com by Elsevier

Archaeometry - Wiley Online Library

The Encyclopedia of Archaeological Sciences | Major Reference Works

Articles | Archaeological and Anthropological Sciences

Radiocarbon | Cambridge Core

Quaternary | An Open Access Journal from MDPI

Quaternary International | Journal | ScienceDirect.com by Elsevier

Digital Applications in Archaeology and Cultural Heritage | Journal | ScienceDirect.com by Elsevier