COURSE OUTLINE

DIGITAL APPLICATIONS IN BIOLOGICAL ANTHROPOLOGY

1. GENERAL

SCHOOL	CLASSICS AND HUMANITIES		
DEPARTMENT/UPS	HUMANITIES / PHILOLOGY, HISTORY AND ANTHROPOLOGY		
LEVEL OF STUDIES	UNDERGRADUATE – LEVEL 6		
COURSE CODE	**XXXXX**	**SEMESTER**	5TH
COURSE TITLE	DIGITAL APPLICATIONS IN BIOLOGICAL ANTHROPOLOGY		

TEACHING ACTIVITIES *If the ECTS Credits are distributed in distinct parts of the course e.g. lectures, labs etc. If the ECTS Credits are awarded to the whole course, then please indicate the teaching hours per week and the corresponding ECTS Credits.*	**TEACHING HOURS PER WEEK**	**ECTS CREDITS**
	3	5
Please, add lines if necessary. Teaching methods and organization of the course are described in section 4.		

COURSE TYPE *Background, General Knowledge, Scientific Area, Skill Development*	SCIENTIFIC AREA
PREREQUISITES:	NO
TEACHING & EXAMINATION LANGUAGE:	GREEK
COURSE OFFERED TO ERASMUS STUDENTS:	YES
COURSE URL:	https://eclass.duth.gr/courses/XXXXXX/

2. LEARNING OUTCOMES

Learning Outcomes

Please describe the learning outcomes of the course: Knowledge, skills and abilities acquired after the successful completion of the course.

Upon successful completion of the course, participants will be able to:

- Understand the wide range of methods and theoretical principles of digital anthropology
- Learn about the role of specific digital tools and technologies in anthropological research and practice
- Gain a basic understanding of certain tools and applications of digital technologies in anthropological research
- Understand the opportunities, possibilities and limitations of digital approaches for the future of anthropology

General Skills

Name the desirable general skills upon successful completion of the module

Search, analysis and synthesis of data and information,
ICT Use
Adaptation to new situations
Decision making
Autonomous work
Teamwork
Working in an international environment
Working in an interdisciplinary environment
Production of new research ideas
Project design and management
Equity and Inclusion
Respect for the natural environment
Sustainability
Demonstration of social, professional and moral responsibility and sensitivity to gender issues
Critical thinking
Promoting free, creative and inductive reasoning

- Search, analysis and synthesis of data and information, using the necessary technologies
- Independent work
- Group work
- Working in an interdisciplinary environment
- Generation of new research ideas
- Respect for diversity and multiculturalism
- Producing free, creative and deductive thinking

3. COURSE CONTENT

1	Introduction	• Familiarization with the students and presentation of the course objectives, expected learning outcomes, and requirements • Fundamental concepts • The history of digital applications in anthropology
2	Human remains in the archaeological archive	• Burials and burial practices • Basic principles of taphonomy • Excavation methodology • Field data collection
3	3D anthropological data collection	• Overview of the main techniques • Computed tomography (CT) • Micro-CT (microCT) • Magnetic resonance imaging (MRI) • 3D scanning • Photogrammetry • Microscribe
4	3D modelling, visualisation and virtual reconstruction	• Virtual reconstruction of cranial remains • Determination and correction of deformation • Paleoanthropological applications
5	3D geometric morphometrics	• Fundamentals of geometric morphometrics(3DGM) • 3D data collection, landmarks • Study of comparative and functional morphology in osteological material
6	Spatial analysis using Geographic Information Systems (GIS)	• Introduction to GIS • GIS applications in anthropology • Mapping of conjoint bones using GIS • Micro-mapping of cremation bones in an urn using GIS • GIS application to investigate correlations between social location and burial location
7	Data management: databases, repositories	• Anthropological databases • Repositories of 3D files • Storage and long-term preservation of 3D data • Ethical issues
8	3D modelling of anthropological material I	• Practical exercise in 3D scanning of anthropological material
9	3D modelling of anthropological material II	• Practical exercise in 3D scanning of anthropological material
10	Digital facial approximation	• Anatomy of the human face • Techniques, anatomical and sociological issues for 3D digital facial reconstruction • 3D digital facial reconstruction • Museum applications
11	Perspectives of digital applications in biological anthropology	• Digital documentation and archiving of anthropological remains • Researcher accessibility and data sharing • Publications and scientific impact
12	Essay Presentations	• Presentation of essays • Discussion of results based on modern methods and theories • Development of presentation and communication skills
13	Recap	• Recap and resolving questions • Student feedback

4. LEARNING & TEACHING METHODS - EVALUATION

<table>
<tr><td>TEACHING METHOD
Face to face, Distance learning, etc.</td><td>• Lectures
• Active learning (hands-on learning) - Experiential learning
• Collaborative learning</td></tr>
<tr><td>USE OF INFORMATION & COMMUNICATIONS TECHNOLOGY (ICT)
Use of ICT in Teaching, in Laboratory Education, in Communication with students</td><td>Use of ICT in teaching and communication with students
• PPT presentations
• Teaching material, announcements and communication through the eClass platform
• Student study of supplementary material related to course content
• Communication with students via email</td></tr>
<tr><td>TEACHING ORGANIZATION
The ways and methods of teaching are described in detail.
Lectures, Seminars, Laboratory Exercise, Field Exercise, Bibliographic research & analysis, Tutoring, Internship (Placement), Clinical Exercise, Art Workshop, Interactive learning, Study visits, Study / creation, project, creation, project. Etc.

The supervised and unsupervised workload per activity is indicated here, so that total workload per semester complies to ECTS standards.</td><td><table><tr><th>Activity</th><th>Workload/semester</th></tr><tr><td>Lectures</td><td>39</td></tr><tr><td>Essay</td><td>65</td></tr><tr><td>Study and analysis of bibliography</td><td>42</td></tr><tr><td>Written examination</td><td>4</td></tr><tr><td>Total</td><td>150</td></tr></table></td></tr>
<tr><td>STUDENT EVALUATION
Description of the evaluation process

Assessment Language, Assessment Methods, Formative or Concluding, Multiple Choice Test, Short Answer Questions, Essay Development Questions, Problem Solving, Written Assignment, Essay / Report, Oral Exam, Presentation in audience, Laboratory Report, Clinical examination of a patient, Artistic interpretation, Other/Others

Please indicate all relevant information about the course assessment and how students are informed</td><td>Formative

Laboratory work: 10%
Essay (compulsory): 20%
Essay Presentation: 10%
Final written examination: 60%</td></tr>
</table>

5. SUGGESTED BIBLIOGRAPHY

English:

1. Weber, G.W., Bookstein, F.L.(2011) Virtual Anthropology
2. Tim Thompson, David Errickson. (2017) Human Remains Another Dimension. The Application of Imaging to the Study of Human Remains
3. James Hemsley, Vito Cappellini, Gerd Stanke.(2016) Digital Applications for Cultural and Heritage Institutions

ANNEX OF THE COURSE OUTLINE

Alternative ways of examining a course in emergency situations

Teacher (full name):	ESPA
Contact details:	
Supervisors: (1)	YES
Evaluation methods: (2)	Laboratory work: 10% Essay (compulsory): 20% Essay Presentation: 10% Final written examination: 60%
Implementation Instructions: (3)	Laboratory work: 10%: Laboratory work includes a report and practical training according to the laboratory protocols. It focuses on the students' practical skills, such as the ability to follow laboratory procedures, and the clarity and completeness of the report they submit. Essay (compulsory): 20%: Prepares students for scientific and thesis writing. It includes a literature review and original data analysis. Assessment focuses on students' ability to review relevant literature, analyse data and judge the quality, relevance and originality of their work. The choice of the topic of the essay will be made in collaboration with the lecturer during the second lecture, in order to ensure sufficient time for the preparation of the project and the presentation. The final paper will be submitted via the eClass platform to the lecturer. Essay Presentation: 10%: Students are asked to prepare a presentation in a ppt file format and present their esay in public. The assessment focuses on the students' ability to clearly present their work, answer questions and manage discussion. Final written examination: 60%: The final written examination assesses the understanding of the basic theories, concepts and principles of the course. The examination will be taken in person at a date and time to be announced in advance, together with the duration and content of the examination.

(1) Please write YES or NO

(2) Note down the evaluation methods used by the teacher, e.g.

- *written assignment* or/and exercises
- written or oral examination with distance learning methods, provided that the integrity and reliability of the examination are ensured.

(3) In the **Implementation Instructions** section, the teacher notes down clear instructions to the students:

a) in case of **written assignment and / or exercises:** the deadline (e.g. the last week of the semester), the means of submission, the grading system, the grade percentage of the assignment in the final grade and any other necessary information.
b) in case of **oral examination with distance learning methods:** the instructions for conducting the examination (e.g. in groups of X people), the way of administration of the questions to be answered, the distance learning platforms to be used, the technical means for the implementation of the examination (microphone, camera, word processor, internet connection, communication platform), the hyperlinks for the examination, the duration of the exam, the grading system, the percentage of the oral exam in the final grade, the ways in which the inviolability and reliability of the exam are ensured and any other necessary information.
c) in case of **written examination with distance learning methods**: the way of administration of the questions to be answered, the way of submitting the answers, the duration of the exam, the grading system, the percentage of the written exam of the exam in the final grade, the ways in which the integrity and reliability of the exam are ensured and any other necessary information.
There should be an attached list with the Student Registration Numbers only of students eligible to participate in the examination.