COURSE OUTLINE

MOBILE APPLICATION DEVELOPMENT FOR CULTURAL ENVIRONMENTS

1. GENERAL

SCHOOL	CLASSICS AND HUMANITIES
DEPARTMENT/UPS	HUMANITIES / DIGITAL APPLICATIONS IN ARTS AND CULTURE
LEVEL OF STUDIES	UNDERGRADUATE – LEVEL 6
COURSE CODE	XXXXX **SEMESTER** 8TH
COURSE TITLE	MOBILE APPLICATION DEVELOPMENT FOR CULTURAL ENVIRONMENTS

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:
- Design and develop mobile applications specifically tailored for cultural environments,
- Use modern programming languages and development platforms for mobile devices,
- Apply UI/UX techniques to enhance user experience in mobile applications,
- Integrate multimedia and AR/VR technologies into interactive applications,
- Utilize mobile device sensors effectively,
- Manage cultural content and develop applications that promote accessibility and interaction with the audience,
- Evaluate contemporary trends and technologies in mobile application development and their integration into cultural environments, recognizing their impact on user experience.

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,
- Adaptation to new situations
- Autonomous work
- Teamwork

- Working in an interdisciplinary environment
- Production of new research ideas
- Project design and management
- Critical thinking and self-reflection
- Equity and Inclusion
- Demonstration of social, professional and moral responsibility and sensitivity to gender issues
- Promoting free, creative and inductive reasoning

3. COURSE CONTENT

1. **Introduction to Interactive Audiovisual Applications**
- Overview of the course, objectives, and learning outcomes.
- Designing and developing applications for cultural environments.
- **Workshop:** Introduction to mobile application development environments.

2. **Basic Principles of Application Development**
- Programming languages and tools for mobile application development.
- **Workshop:** Creation of simple mobile applications.

3. **User Interface (UI) Design and User Experience (UX)**
- UI/UX design principles and tools.
- **Workshop:** Designing UI/UX prototypes for mobile applications.

4. **Hybrid Application Development**
- Theoretical introduction to hybrid application development platforms.
- **Workshop:** Creating hybrid applications using relevant tools.

5. **Multimedia and Their Integration into Applications**
- Integration of images, videos, and audio in mobile applications.
- **Workshop:** Applying multimedia to existing applications.

6. **Introduction to Augmented Reality (AR)**
- Theoretical introduction to AR principles and development tools.
- **Workshop:** Creating simple AR applications for mobile devices.

7. **Cultural Content Management**
- Content Management Systems (CMS) and databases.
- **Workshop:** Integrating CMS and databases into mobile applications.

8. **Human-Centered Design Principles**
- Theory and practice of human-centered design.
- **Workshop:** Analysis and improvement of existing user interfaces based on human-centered design principles.

9. **Trends in Mobile Application Development**
- Modern trends and technologies in mobile app development.
- **Workshop:** Analysis and evaluation of contemporary cultural content applications.

10. **Creating Interactive Applications**
- Strategies for creating interactive and accessible applications.
- **Workshop:** Designing and developing interactive features in mobile applications.

11. **Prototyping and Testing**
- Prototyping and testing processes.
- **Workshop:** Prototype creation and usability testing.

12. **Integration of Augmented Reality (AR) in Cultural Environments**
- AR applications in cultural environments.
- **Workshop:** Development of a full AR application for a cultural setting.

13. **Final Presentation and Feedback**
- Final project presentation and feedback.
- **Workshop:** Presentation of completed applications, discussion, and evaluation.

4. LEARNING & TEACHING METHODS - EVALUATION

TEACHING METHOD *Face to face, Distance learning, etc.*	- Lectures - Active learning (hands-on learning) - Experiential learning - Collaborative learning

USE OF INFORMATION & COMMUNICATIONS TECHNOLOGY (ICT) *Use of ICT in Teaching, in Laboratory Education, in Communication with students*	Use of ICT in teaching and communication with students • PPT presentations • Use of digital tools and platforms • Teaching material, announcements and communication through the eClass platform • Student study of supplementary material related to course content • Communication with students via email

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.*	**Activity**	**Workload/semester**
	Lectures	26
	Laboratory Exercise	13
	Final Project	30
	Weekly Projects / Tests	38
	Bibliographic research & analysis	40
	Written examination	3
	Total	150

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*	Formative Weekly Projects: 40% Assignment (mandatory): 30% Final Exam: 30%

5. SUGGESTED BIBLIOGRAPHY

1. Eisenman, B.Learning React Native: Building Native Mobile Apps with JavaScript .O'Reilly Media; 1. Edition

2. Hocking, J. (2018).Unity in Action: Multiplatform Game Development in C#. Manning Publications, New York.

3. Phillips, B., Stewart, C. , Hardy, B. , Marsicano M. (2015). Android Programming: The Big Nerd Ranch Guide. Atlanta, GA.

4. Rogers, Y., Sharp, H., &Preece, J. (2011).Interaction Design: Beyond Human-Computer Interaction. Wiley, Chichester.

5. Shneiderman B., Plaisant C., Cohen M., Jacobs St., Elmqvist N. (2023). ΣχεδίασηΔιεπαφήςΧρήστη. ΕκδόσειςΤζιόλα, Θεσσαλονίκη.

ANNEX OF THE COURSE OUTLINE

Alternative ways of examining a course in emergency situations

Teacher (full name):	xxxxxx
Contact details:	xxxxxx
Supervisors: (1)	YES
Evaluation methods: (2)	Weekly Projects: 40% Assignment (mandatory): 30% Final Exam: 30%
Implementation Instructions: (3)	Written assessments and the final exam will be conducted via eClass on a date and time that will be announced in advance. Students will be informed of the exam duration and content well ahead of the scheduled exam. The assignment must be submitted through eClass by a specified deadline.

(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 ensuredand 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.