ΔΗΜΟΚΡΙΤΕΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΡΑΚΗΣ

COURSE OUTLINE

(1) GENERAL

SCHOOL	*SCHOOL OF SCIENCE*		
ACADEMIC UNIT	*Department of Informatics*		
LEVEL OF STUDIES	*UNDERGRADUATE*		
COURSE CODE	**812SKEC**	**SEMESTER**	**8**
COURSE TITLE	*DISCRETE MATHEMATICS*		

INDEPENDENT TEACHING ACTIVITIES *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*	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures	*2*	*5*
Exercises	*1*	
Lab Exercises	*1*	
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	*specialised general knowledge*
PREREQUISITE COURSES:	-
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	*Greek*
IS THE COURSE OFFERED TO ERASMUS STUDENTS	*No*
COURSE WEBSITE (URL)	

LEARNING OUTCOMES

Learning outcomes

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.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

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

- *Understand the operation of web servers and server-side programming technologies.*
- *Develop dynamic web applications using PHP.*
- *Design and manage MySQL relational databases.*
- *Integrate databases into web applications.*
- *Handle security, user management, and access control in web applications.*
- *Implement good practices for developing and testing web applications.*

General Competences

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?

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
Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and sensitivity to gender issues
Criticism and self-criticism
Production of free, creative and inductive thinking
……

Production of new research ideas	*Others…* *…….*

- Search, analysis and synthesis of data and information, using the necessary technologies
- Adaptation to new situations
- Decision-making
- Autonomous work
- Teamwork
- Project planning and management
- Exercise of criticism and self-criticism
- Promotion of free, creative and inductive thinking

SYLLABUS

- Architecture and operation of the World Wide Web.
- Web servers and HTTP.
- Basic features of PHP: variables, data types, control structures, functions.
- Object-oriented programming in PHP.
- Connecting PHP to MySQL.
- Creating and managing MySQL databases.
- Designing and implementing dynamic websites.
- Session Management, Authentication and Authorization.
- Introduction to web application security issues.
- Tools for developing and debugging web applications.
- Introduction to MVC architectures.

(2) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	*Face-to-face (in class)*
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	*Supporting learning process through the online platform e-class*
TEACHING METHODS *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.* *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*	

Activity	***Semester workload***
Lectures	*26x2 = 52 hours*
Practical exercises that focus on analyzing problems to be coded and providing guiding design practices for solving the aforementioned problems.	*13x2 = 26 hours*
Independent Study	*24 hours*
Individual work	*24 hours*
Course total	***150 hours***

STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *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,*	*The assessment includes:* *- Final written examination (problem solving, code development, theoretical questions).* *- Individual and/or group application development tasks.* *- Laboratory exercises.* *- The assessment criteria are accessible to students in the study guide posted on the department's website.*

public presentation, laboratory work, clinical examination of patient, art interpretation, other *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	

(3) ATTACHED BIBLIOGRAPHY

Nixon R., Μάθε PHP, MySQL και JavaScript - Οδηγός Βήμα Προς Βήμα για τη Δημιουργία Δυναμικών Ιστότοπων, Κωδικός Βιβλίου στον Εύδοξο: 133028118, BROKEN HILL PUBLISHERS LTD
Thomson Laura, Welling Luke, Ανάπτυξη Web Εφαρμογών με PHP και MySQL, 5η εκδ., Κωδικός Βιβλίου στον Εύδοξο: 68387584, Χ. ΓΚΙΟΥΡΔΑ & ΣΙΑ ΕΕ