COURSE OUTLINE

(1) General

School:	Social Sciences		
Academic Unit:	Geography		
Level of studies	Undergraduate		
Course Code:	GEO 100	Semester:	A
Course Title:	Introduction to Informatics		
Independent Teaching Activities		Weekly Teaching Hours	Credits
Lecture		2	
Laboratory practice		2	
		Course total	5
Course Type:	Required		
Prerequisite Courses:	None		
Language of Instruction and Examinations	Greek		
Is the course offered to Erasmus students:	No		
Course Website (Url):	https://geography.aegean.gr/pps/index_en.php?content=0&lesson=100		

(2) Learning Outcomes

Learning Outcomes

Upon completion of the course, the learner is expected to:

- List the methods for digital representation of data
- Perform numerical and logical operations in the binary numbering system
- Describe the structure and operation of the computer and computer networks
- Use office automation applications (e-mail, word processor, spreadsheets, presentations)
- Design algorithms using logical charts
- Write code into a computer programming language
- Use online cartography applications
- Recognize the contribution of computer science to Geography Science

General Competences

1. Search for, analysis and synthesis of data and information, with the use of the necessary technology
2. Working independently
3. Project planning and management

4. Production of free, creative and inductive thinking

(3) Syllabus

Teaching modules:

- Computer science - Digital representation of data - Binary numbering system - Numerical and logical operations
- Computer Architecture - Hardware - Software
- Computer Communication Networks - Internet
- Graphics representation - Spatial data representation
- Introduction to Algorithms - Logic Charts - Introduction to Programming
- Computer applications in Geography

Laboratory exercises:

- Operating systems - File manager - Email
- Text processing I
- Spreadsheets
- Presentations - Text processing II
- Algorithms - Logical charts
- Programming I
- Programming II
- Web Cartography

(4) Teaching and Learning Methods - Evaluation

Delivery:	Face-to-face.
Use of Information and Communication Technology:	MS Windows operating system - Office automation applications - Web mail - Google Earth - R programming language / R studio

Teaching Methods:

Activity	Semester workload
Laboratory practice	26
Lecture	26
Non-supervised study	78
Performance evaluation/Exams	6
Course total	136

Student Performance Evaluation	Laboratory interim exams (3) - Final laboratory examination - Written examination

(5) Attached Bibliography

- Introduction to Computers, Peter Norton, A. Tziola & Sons Publishing SA (in Greek)
- Introduction to Information Technology, Papadakis N. - Panagiotakis S. - Psarakis M., Disigma Publications (in Greek)
- Principles of Computers and Programming , G. Giaglis, Athens University of Economics and Business (in Greek).
- Introduction to Computer Science, B. A. Forouzan, Kleidarithmos Publications (in Greek)
- Lecture Notes by the instructor (in Greek)