**COURSE LAYOUT**

1. **GENERAL**

|  |  |
| --- | --- |
| **SCHOOL** | Applied Economics and Social Sciences |
| **DEPARTMENT** | AGRICULTURAL ECONOMY AND RURAL DEVELOPMENT |
| **STUDY LEVEL** | *Undergraduate* |
| **COURSE CODE** | **3435** | **SEMESTER** | 1st  |
| **COURSE TITLE** | INFORMATICS (OBLIGATORY) |
| **INDEPENDENT TEACHING ACTIVITIES** | **WEEKLY TEACHING HOURS** | **ECTS** |
| **Theory:** Lectures | **3** |  |
| **Laboratory:** Use of Software Tools | **3** |  |
| **Total:** | **6** | **5** |
|  |  |  |
| **COURSE TYPE** | Scientific Area |
| **PREREQUISITES** |  |
| **LANGUAGE** | Greek |
| **IS THE COURSE OFFERED forERASMUS STUDENTS?** | Yes (in Greek) |
| **COURSE WEB PAGE** | https://mediasrv.aua.gr/eclass/courses/277/ |

1. **LEARNING OUTCOMES**

|  |
| --- |
| **Learning Outcomes** |
|  |
| Upon successful completion of the course the student will* be able to distinguish the capabilities of the components of a computer and will be able to choose the synthesis of a computer system that satisfies his/her needs
* understand what an Operating System is (and does) and how the way that the operating system works interferes with the operational qualification of the computer.

 θέματα που σχετίζονται με την εύρυθμη λειτουργία του υπολογιστή* exploit the basic concepts of Computer Science with broader extensions to society, employment, scientific progress and philosophy ,
* be able to exploit dedicated software packages for the processing and analysis of data,
* be able to use the computer at a collaborative learning level with fellows, in the context of team work.
* understand what a database is, design simple databases and implement them by using specialized for this purpose software
* be able to create (in the form of data flow diagrams) algorithms for solving computational problems
 |
| **General Competenses** |
| * Search, analysis and synthesis of data and information by use of the necessary information and communication technologies.
* Adaptation to new situations.
* Decision making.
* Individual work.
* Team work.
 |

1. **COURSE CONTENT**

|  |
| --- |
| **Theory**1. Data representation, storage and manipulation of data in a computer system, applications of Informatics.
2. Computer Hardware: Central Processing Unit, Main Memory, Peripheral Devices.
3. Algorithms – Programming Languages
4. Computer Software: Operating systems, Application Software.
5. Database Systems.
6. Artificial Intelligence
7. Communication-Computer Networks: Internet Technology, Internet Services.
8. Computer Security.
9. Recent developments and technological achievements.

**Laboratory**1. Operating System - Windows Environment
2. Internet
3. Spreadsheets
4. Software of Database Management System
 |

1. **TEACHING and LEARNING METHODS - Evaluation**

|  |  |
| --- | --- |
| **TEACHING METHOD** | In classroom and in laboratory (face-to-face). If needed, synchronous distance teaching can be applied in both theory and laboratory. Also, educational material for asynchronous distance teaching has been uploaded in the course Web page.  |
| **USE OF INFORMATICS and COMMUNICATION TECHNOLOGIES** | Exploitation of Information and Communication Technologies in teaching, in laboratory training and in the communication with students.Use of dedicated software.Use of integrated e-learning system.Communication with students via open eclass platform and e-mail. |
| **TEACHING ORGANISATION** |

|  |  |
| --- | --- |
| *Activity* | *Work Load (hours)* |
| Lectures | 39 hours |
| Laboratory work | 39 hours |
| Individual study | 72 hours |
| ***Total contact hours and training*** | ***150 hours*** |

 |
| **STUDENTS EVALUATION** | **Ι. Theory** Final Exam, written or oral,of increasing difficulty, which may include Multiple choice test, Questions of brief answer, Questions to develop a topic, Judgment questions and Exercise solving.**Marking Scale:** 0-10.**Minimum Passing Mark:** 5. **ΙΙ.** **Laboratory**Final Exam, hands on computer, of the software tools taught.Assuming feasibility, progress exams will take place during the semester and the mark of the above will contribute to the determination of the final Laboratory mark. **Marking Scale:** 0-10.**Minimum Passing Mark:** 5. **The final Course mark is the average of the marks on Theory and Lab.** |

1. **BIBILIOGRAPHY**

|  |
| --- |
| *-****Proposed Literature :***1. INTRODUCTION TO INFORMATICS – THEORY AND PRACTICE, ALLAN EVANS, KENDALL MARTIN, MATY ANNE POASTY, KRITIKI PUB, 2nd Edition. 2018, ATHENS, ATHENS.
2. THE THEORY OF COMPUTERS - AN INTEGRATED PRESENTATION, J. GLENN BROOKSHEARR, KLIDARITHMOS PUB, 10η Edition, 2009, ATHENS.
3. INTRODUCTION TO INFORMATICS, ΒΕΝ ΒΕΕΚΜΑΝ, GEORGE ΒΕΕΚΜΑΝ, H. GIOURDAS AND CO. PUB., 10th Edition, 2015, ATHENS.
4. ΕΙΣΑΓΩΓΗ ΣΤΗΝ ΠΛΗΡΟΦΟΡΙΚΗ, ΜΠΟΖΑΝΗΣ ΠΑΝΑΓΙΩΤΗΣ. ΕΚΔΟΣΕΙΣ Α. ΤΖΙΟΛΑ & ΥΙΟΙ Α.Ε , 1η ΕΚΔΟΣΗ, 2016, ΑΘΗΝΑ

***-Related scientific journals:***1. Computers and Electronics in Agriculture.
2. Information Sciences.
 |