**SYLLABUS “COMPUTER PROGRAMMING II”**

1. **General**

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| **College** | College of Applied Economic and Social Sciences | | | | |
| **Department** | Regional and Economic Development | | | | |
| **Level of Studies** | Undergraduate | | | | |
| **Couse Code** | **6504** | **Semester** | | 5th | |
| **Course Title** | Informatics II | | | | |
| **Faculty Name** |  | | | | |
| **Office Hours** |  | | | | |
| **email** |  | | | | |
| **INDEPENDENT TEACHING ACTIVITIES**  **where credit is awarded for discrete parts of the course e.g. lectures, laboratory exercises, etc. If credit is awarded for the whole course, indicate the weekly teaching hours and the total number of credits** | | | **WEEKLY CONTACT HOURS** | | **ECTS** |
| Lectures | | | 3 | | 3 |
| Laboratory exercises | | | 2 | | 2 |
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| **COURSE TYPE**  **Background, General Knowledge, Scientific Area, Skills Development** | Skills Development | | | | |
| **Prerequisites** | - | | | | |
| **Language of instruction and examinations** | Greek | | | | |
| **Course Offered to Erasmus Students** | No | | | | |
| **Course Webpage** | https://oeclass.aua.gr/eclass/ | | | | |

1. **COURSE LEARNING OUTCOMES**

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| **Learning Outcomes** | |
| * *The learning outcomes of the course describe the specific knowledge, skills and competences of an appropriate level that students will acquire after successful completion of the course.* | |
| *Knowledge*  *- Understand business intelligence terms and concepts*  *- Understand the uses of business information systems*  *- Describe the processes of databases in decision making*  *- Manage large volumes of data*  *Skills:*  *- Become familiar with the use of business information systems*  *- To distinguish knowledge mining techniques*  *- To learn to understand the use of information technology techniques, to understand the use of knowledge from the knowledge base*  *- Identify data mining techniques*  *Competences:*  *- Actively participate in the decision-making process of an enterprise*  *- Participate actively in the decision-making process of a company's decision-making team* | |
| ***General skills*** | |
| *Taking into account the general competences that the graduate should have acquired (as listed in the Diploma Supplement and listed below), which one(s) does the course aim at?* | |
| *Search, analysis and synthesis of data and information, including the use of the necessary technologies*  *Adaptation to new situations*  *Decision-making*  *Autonomous work*  *Group work*  *Working in an international environment*  *Working in an interdisciplinary environment*  *Generating new research ideas* | *Project planning and management*  *Respect for diversity and multiculturalism*  *Respect for the natural environment*  *Demonstrating social, professional and ethical responsibility and gender sensitivity*  *Exercise of criticism and self-criticism*  *Promotion of free, creative and deductive thinking* |
| *Search, analysis and synthesis of data and information, including the use of the necessary technologies*  *Adaptation to new situations*  *Group work*  *Decision-making*  *Exercise of criticism and self-criticism*  *Promotion of free, creative and deductive thinking*  *Generating new research ideas* | |
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1. **COURSE CONTENT**

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| * Use of databases in business. Data storage. Warehouses and individual data collections. * Data mining. Data mining techniques (Categorisation, Estimation, Association rules) * Use of databases for business decision making. Business Information Systems (Transaction Processing Systems, Management Information Systems, Decision Support Systems), Knowledge Systems). * Enterprise resource planning systems. Business intelligence systems. Power BI |

1. **TEACHING AND LEARNING METHODS - ASSESSMENT**

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| **METHOD OF DELIVERY**  **Face-to-face, Distance learning, etc.** | Lectures and meetings with students |
| **USE OF TECHNOLOGY, INFORMATION AND COMMUNICATION** *Use of ICT in teaching, laboratory training, communication with students* | Computer and interactive whiteboard will be used in the teaching. Communication with students will be on a personal level, also using e-mail and direct telecommunication (e.g. skype) |
| **ORGANISATION OF TEACHING**  *The way and methods of teaching are described in detail.*  *Lectures, Seminars, Laboratory Exercise, Field Exercise, Study & Analysis of Literature, Tutorials, Practical (Placement), Clinical Exercise, Artistic Workshop, Interactive teaching, Educational visits, Study visits, Project work, Writing of work / assignments, Artistic creation, etc.*  *The student's study hours for each learning activity as well as the hours of unguided study are indicated so that the total workload at semester level corresponds to the ECTS standards.* | |  |  | | --- | --- | | ***Activity*** | ***Workload*** | | Lectures | 65 hours | | Study of course material (material taught) | 33 hours | | Exercises and practice of in economic applications | 27 hours | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | | Course Total | 125 hours | |
| **STUDENT ASSESSMENT**  *Description of the evaluation process*  *Language of Assessment, Assessment Methods, Formative or Inferential, Multiple Choice Test, Short Answer Questions, Test Development Questions, Problem Solving, Written Work, Report, Oral Examination, Oral Examination, Public Presentation, Laboratory Work, Clinical Examination of a Patient, Artistic Interpretation, Other*  *Explicitly identified assessment criteria are stated and if and where they are accessible to students.* | Written Final Exams and tentative midterm examinations during the course |

1. **BIBLIOGRAPHY**

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| **Main Textbooks (all in Greek):**   * Σταλίδης, Γ. Καρδάρας, Δ. (2016). *Διαχείριση δεδομένων και επιχειρηματική ευφυία*. Εκδόσεις Ελληνικά Ακαδημαϊκά Ηλεκτρονικά Συγγράμματα και Βοηθήματα – Αποθετήριο «Κάλλιπος», ISBN: 978-960-603-398-8 [Κωδικός: 320080] * Bramer, M. (2022). *Εξόρυξη δεδομένων.* Εκδόσεις ΦΟΥΝΤΑΣ [Κωδικός: 112697616] * Laudon, K. Laudon, J. (2021). *Πληροφοριακά συστήματα διοίκησης*. Εκδόσεις Κλειδάριθμος, ISBN: 978-960-461-623-7 [Κωδικός: 102070464] * Zaki, M., Wagner, M. (2017). *Εξόρυξη και ανάλυση δεδομένων. Βασικές έννοιες και αλγόριθμοι*. Εκδόσεις ΚΛΕΙΔΑΡΙΘΜΟΣ [Κωδικός: 68386089] * Κύρκος, Ε. (2016). *Επιχειρηματική ευφυία και εξόρυξη δεδομένων*. Εκδόσεις Ελληνικά Ακαδημαϊκά Ηλεκτρονικά Συγγράμματα και Βοηθήματα – Αποθετήριο «Κάλλιπος», ISBN: 978-960-603-109-0 [Κωδικός: 320088] * Ματσατσίνης, Ν. (2020). *Επιχειρηματική ευφυία. Αναλυτική μεγάλων δεδομένων για λήψη αποφάσεων*. Εκδόσεις ΝΕΩΝ ΤΕΧΝΟΛΟΓΙΩΝ ΙΚΕ [Κωδικός: 94702117] * Φωλίνας, Δ., Μάνθου, Β., Βλαχοπούλου, Μ. (2006) Ολοκληρωμένα πληροφοριακά συστήματα διαχείρισης επιχειρηματικών πόρων. Εκδόσεις ΑΝΙΚΟΥΛΑ Ο.Ε. [Κωδικός: 4855] * Οικονόμου, Π., Παπαδόπουλος, Π. (2022). *Εισαγωγή στον Προγραμματισμό*. Εκδόσεις ΕΑΗΣΒ. [Κωδικός: 114025193] |