University POLITEHNICA of Bucharest

Faculty of Industrial Engineering & Robotics

Study programme: Industrial Engineering

Form of study: Bachelor

## COURSE SPECIFICATION

| Course title | Computer Programming | Semester | 3 |
|---|---|---|---|
| Course code | UPB.06.F.03.O.005l | ECTS | 6 |

| Course structure | Lecture | Seminar | Laboratory | Project | Total hours |
|---|---|---|---|---|---|
| No. of hours/ week | 2 | | 2 | 2 | 6 |
| No. of hours/ semester | 28 | | 28 | 28 | 84 |

| Lecturer | Lecture | Seminar | Laboratory | Project |
|---|---|---|---|---|
| Name, academic degree | Lecturer Radu Constantin Parpală | | Lecturer Lidia Florentina Parpală | |
| Contact (E-mail, location) | radu.parpala@gmail.com CK 008 | | lidia.parpala@gmail.com CK 008 | |

**Course description:** The main aim of the course is the student assimilation of the following concepts: database fundamentals, E-R model, database modeling, design and administration techniques, collaborative use of databases, data manipulation techniques. This course is also designed to develop SQL programming proficiency. At the end of the course students should be able to write SQL code to perform simple tasks as querying, updating, deleting records as well as more advanced task as writing procedures and triggers

**Seminar description (max: 200 words)**

**Laboratory description:** The main topics of the laboratory are: Client –server database architecture, the functional design of a database,SQL query language, database system integration in practical applications. The project aim is that the students create a functional database model for a real application

**Project description (max. 200 words)**

Students will model and develop their own database on a subject that they choose. The project can be an individual or team (2 students) activity. The main objective of this activity is to allow students to better consolidate the competencies achieved during lecture and laboratory sessions.

| Assessment methods | Percentage of the final grade | Minimal requirements for award of credits* |
|---|---|---|
| Written exam | 20 | |

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|---|---|---|
| **Report/ Project** | **25** | **18** |
| **Lecture Quiz** | **35** | |
| **Laboratory** | **20** | **10** |
| **Total** | **100** | **50** |

| **References** |
|---|
| **1.** Understanding DB2 Raul F. Chong, Clara Liu, Sylvia F. Qi., Dwaine R Snow. ISBN9780131859166<br>**2.** DB2 10.1 Fundamentals, Certification Study Guide Roger E. Sanders, ISBN 9781583473498<br>**3.** Database Design and SQL for DB2, James Cooper, ISBN 9781583473573 |

| **Prerequisites** | **Co-requisites (courses to be taken in parallel as a condition for enrolment)** |
|---|---|
| **Computer Programming 1, Computer Programming 2** | |

| **Additional relevant information:** |
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**Date: 07.07.2022**