

SYLLABUS

SUBJECT: DATABASES II

TEACHER: DARIUSZ BOBER, PhD, Eng., PIOTR GROCHOWALSKI, MSc, Eng.

COURSE DESCRIPTION:

The aim of the course is to familiarise the students with Procedural Language Database PL / SQL: defining the data, control instructions, support cursors, exception handling. Functions and procedures stored in the database. Sequences. Active databases - data processing by triggers. Theoretical basis of graphical user interface design, items properties. Discussion of the application functionality. Discussion of two-and three-tier application architecture, with examples of implementation using up to date programming languages (e.g. C #, Java, PHP). Data mining with relational database from selected office applications. XML in databases: generation, storage, search.

LEARNING OUTCOMES:

The ability to create a dedicated business functions in a procedural language and its use in SQL queries. The ability to automate the processing of data based on triggers. The ability to create a real system which allows to operate on the basis of data in client - server architecture (practical implementation).

GRADING POLICY:

Practical test of procedural data processing using PL/SQL blocks, 3-5 tasks to solve. Creating graphical user interface with basic application functionality.

TIMETABLE:

15 hours of lectures, 30 hours of laboratories. The primary language is Polish, but during the classes there is also a possibility to communicate with the teacher in English. The students of Erasmus Programme can pass the subject in an individual form of classes. They can prepare an original project, which will solve a sensitive issue in the selected areas. The progress on the project should be consulted regularly during the consultation hours, which can be found on the teacher's home page: <http://www.univ.rzeszow.pl/ki/dbober1.html>

TEXTBOOK AND REQUIRED MATERIALS:

1. Lawrence C. Linnemeyer, Bradley D. Brown – „Oracle HTML DB Handbook.” - Oracle Press 2007.
2. Chris Ostrowski - Oracle Application Server Portal Handbook, Oracle Press 2007.
3. Rick Greenwald, Robert Stackowiak, Jonathan Stern – “Oracle Essentials: Oracle Database 11g” - O'Reilly 2008.

PREREQUISITES:

Databases I, Programming Basics.