

| | | |
|--|--|-------------------|
| Subject name | Database Systems | |
| Subject code | E.1.DB.SC.ECRIE.A | |
| Department | Institute of Agricultural Engineering and Computer Science | |
| Faculty | Faculty of Production and Power Engineering | |
| Subject supervisor/Lecturer | Krzysztof Molenda, PhD., Maciej Sporysz, PhD., | |
| General information | Teaching period | 1 semester |
| | ECTS credit | 8 |
| | Lectures total | 30 |
| | Lab/project | 30/30 |
| Objective and general description | <p>Course content embraces the basic principles of designing, implementing and maintaining database systems. Design and implementation of simple data base application is also provided. Student learns this material in a context-free way (without referencing any particular DBMS system). In course content we foresee however accomplishment of a project (individual or in the small group) that uses chosen DBMS. Our labs enable choosing Postgres, MS SqlServer 2008 or Oracle.</p> | |
| Lectures | <ol style="list-style-type: none"> 1. History, information system with or without BD 2. Review of most popular commercial DBMS 3. Relational paradigm 4. Normalization 5. Designing BD with E/R diagrams 6. Basic rules of SQL 7. Transactions 8. Vies, stored procedures, triggers 9. Administrative tasks | |
| Lab/Project | <p>Students work in laboratory as an:</p> <ul style="list-style-type: none"> • ordinary user of DBMS (client) • admin • designer <p>Each student designs his/her own DB project with client application</p> | |
| References | <ol style="list-style-type: none"> 1. Gavin Powell <i>Beginning Database Design</i>, Willey Publishing, Inc. 2006 2. Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer Widom, <i>Database Systems: The Complete Book</i>, Prentice Hall, 2009 3. Internet materials | |