

SOFTWARE ENGINEERING FOR DATABASE SYSTEMS (SE-O-11)

AIMS:

The module provides theoretical basics for understanding of modern DBMS and their integration into information systems. It stimulates a systematic approach for practical implementation of database (DB) based applications by team work and by using of experience repository.

LEARNING OUTCOMES:

Upon successful completion of this module, the student will be able to:

- critically evaluate the different DBMS and their features;
- appreciate the need and different possibilities for DB integration;
- complete implementation of selected case study from the Experience Repository.

SYLLABUS CONTENT:

- DB Taxonomy: DBMS models and architectures; DB aspects (relational, procedural, object-oriented, descriptive (XML), deductive); persistent objects; DB integrity.
- DB integration: language-oriented (embedded SQL - Structured Query Language); driver-oriented (ODBC - Open Database Connectivity, JDBC - Java Database Connectivity) (architectures, driver types, application scenarios); component-based; SOA (Simple Object Access) integration; agent-based.

PREREQUISITES: None

RECOMMENDED ASSESMENT: Coursework