**BIS 3103 Database Management Systems (4 CU)**

**Course Description:** This course is to provide students with a strong foundation in systematic approaches to design and implementing of database applications. Preliminarily, operations like requirements gathering and database planning will be covered. The course will also introduce students to developing of application programs that talk to the database. These applications may be online or offline.

**Aims:** The aims of the course are to:

• Provide a background for the evolution of database (management) systems

• Provide the students with the steps one has to go through when developing good database applications

• Give hand on experience and knowledge in developing database (driven) applications

**Teaching and learning pattern:** Teaching will be by lectures, take home reading assignments/class presentations and laboratory practicals

**Indicative content:**

• Background to databases

• Evolution of database systems

• Database organization and architecture

• Database models

• Over view of database application development

• The database development life cycle

• Database design

• Conceptual design

• Logical design

• Physical Design

• Querying databases

• SQL/PL SQL

• Scripting

**Assessment methods**: Assessment will be in terms of tests and take home assignments (40%) and a final examination (60%)

**Reference Books:**

(i) Thomas Connolly and Carolyn Begg: Database Solutions Second Edition, ISBN 0 321 17350 3.