MISSOURI WESTERN STATE UNIVERSITY
COLLEGE OF LIBERAL ARTS AND SCIENCES

DEPARTMENT OF COMPUTER SCIENCE, MATHEMATICS AND PHYSICS

COURSE NUMBER: ACT301

COURSE NAME: APPLIED DATABASE SYSTEMS

COURSE DESCRIPTION:

Emphasis is placed upon the core concepts of database application development using pre-defined Microsoft Access database schemas. Students should be eligible for database specialization certifications after successful completion of the course.

Prerequisites: A grade of C or higher in CSC201 or CSC184.

Textbook
 "Access 2010 Comprehensive" by Grauer, Mast, Poatsy. Pearson/Prentice Hall, 2011, ISBN 0-13-509825-4.

Course Objectives:

Students will use Microsoft Access to understand the following concepts:

1. Purpose of relational database.

2. How tables are used to store data in a pre-defined database.

3. Relationships between tables utilizing primary and foreign keys.

4. Relational diagrams and how to build one.

5. Building advanced queries.

6. Derived fields using calculations, expressions and functions.

7. Aggregate functions and grouping.

8. Creation of various types of forms and how they connect to tables.

9. Creation of various types of report and how they are derived from queries and/or tables.

10. Data validation techniques in tables, forms and data macros.

11. Action queries.

12. Importing and exporting data.

13.

14. Basics of normalization.

15. Introduction to SQL.

16. Introduction to database administration concepts.