El Paso Community College
Syllabus
Part II
Official Course Description

SUBJECT AREA   **Information Technology Systems**

COURSE RUBRIC AND NUMBER   **ITSE 2309**

COURSE TITLE   **Database Programming**

COURSE CREDIT HOURS   **3**   **3**   **:**   **1**
                                                      Credits   **Lec**   **Lab**

I.   Catalog Description

Develops applications using database programming techniques emphasizing database structures, modeling, and database access. "This is a Microsoft Office Specialist Certification course that prepares you to take a test to qualify you as a core user." **Prerequisite: ITSC 1301. (3:1).**

II.   Course Objectives

Upon satisfactory completion of this course, the student will be able to:

A.   Introduction to Windows and Database Systems

    1.   Use essential Windows skills and perform effective file management in Windows.

    2.   Understand introductory database concepts:

        a.   Describe database management features and correctly use database terminology
        b.   Identify components of windows.
        c.   Open and close databases.
        d. Develop code and practice programming code style conventions

    3.   Create and utilize database tables:

        a.   Design and create database tables to include data types and properties.
        b.   Add, change and delete table records.
        c.   Design, execute, test, review, and share solution
        d.   Demonstrate multi-tasking skills

    4.   Create queries to extract table information:

        a.   Define relationships between tables.
        b.   Create queries to extract data.
        c.   Use calculated controls and multiple criteria queries

B.   Intermediate Database Concepts

    1.   Create forms to view records:

        a.   Create, save, and open forms in specific database
        b.   Find, sort, view, and maintain data using forms.
        c.   Use form filters to select and sort records.
        d.   Create advanced forms (form with a sub form) with calculated controls

2. Create reports:

    a. Create, save, and open reports in specific database.
    b. Modify report controls and properties.
    c. Modify sections of a report and understand impact on display.
    d. Integrate specific database with other programs

3. Create advanced Queries:

    a. Create lookup fields.
    b. Create queries using pattern matching and list-of-values
    c. Create parameter queries

C. Advanced Database Techniques:

1. Use Query wizards for crosstab, find duplicates, and find unmatched queries.
2. Create action queries – make-table, append, delete and update queries.
3. Create a graphical user interface (switchboards) for users using the switchboard manager.
4. Create macros for use in forms and switchboards.
5. Utilize debugging tools to troubleshoot and identify program logic errors.

III. THECB Learning Outcomes (WECM)

1. Develop database applications using a structured query language.
2. Create queries and reports from database tables.
3. Implement data integrity.
4. Optimize query performance.
5. Create and maintain indexes.
6. Create appropriate documentation.

IV. Evaluation

A. Pre-assessment

Students must have taken and completed ITSC 1301 (CISC 3101) "Introduction to Computers and Applications" prior to taking this course.

B. Post-assessment

This course will contain lab assignments and exams. The instructor will determine the mix of lab assignments and exams to arrive at a grade as described in the Instructor Requirements document.

C. Remediation

The instructor may provide the students with means of improving a grade. The instructor will determine the timing, form, and method of remediation.

V. Disability Statement (Americans with Disabilities Act [ADA])

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024).

VI. **6 Drop Rule**

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.