#### **BOT 73.14B Course Outline as of Fall 2009**

### **CATALOG INFORMATION**

Dept and Nbr: BOT 73.14B Title: MS ACCESS, EXPERT

Full Title: Microsoft Access, Expert

Last Reviewed: 8/28/2017

Units		Course Hours per Week	•	Nbr of Weeks	<b>Course Hours Total</b>	
Maximum	1.50	Lecture Scheduled	1.00	17.5	Lecture Scheduled	17.50
Minimum	1.50	Lab Scheduled	1.50	4	Lab Scheduled	26.25
		Contact DHR	0		Contact DHR	0
		Contact Total	2.50		Contact Total	43.75
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 35.00 Total Student Learning Hours: 78.75

Title 5 Category: AA Degree Applicable

Grading: Grade or P/NP

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly: BOT 86.61

#### **Catalog Description:**

An advanced database course for the student who wants to become proficient in database management software. Students will perform advanced administrative tasks using Microsoft Access for business and personal data-handling tasks; emphasis on relational and multiple database design, advanced storage, retrieval, queries, reporting, Structured Query Language (SQL), and Visual Basic for Access.

### **Prerequisites/Corequisites:**

Course Completion or Current Enrollment in CS 63.1A (or CS 63.11A or BOT 73.14A)

#### **Recommended Preparation:**

#### **Limits on Enrollment:**

#### **Schedule of Classes Information:**

Description: An advanced database course for the student who wants to become proficient in database management software. Students will perform advanced administrative tasks using Microsoft Access for business and personal data-handling tasks; emphasis on relational and multiple database design, advanced storage, retrieval, queries, reporting, Structured Query

Language (SQL), and Visual Basic for Access. (Grade or P/NP)

Prerequisites/Corequisites: Course Completion or Current Enrollment in CS 63.1A (or CS

63.11A or BOT 73.14A)

Recommended:

Limits on Enrollment: Transfer Credit: CSU;

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

AS Degree: Area Effective: Inactive: CSU GE: Transfer Area Effective: Inactive:

**IGETC:** Transfer Area Effective: Inactive:

**CSU Transfer:** Transferable Effective: Fall 2000 Inactive: Fall 2022

**UC Transfer:** Effective: Inactive:

CID:

### **Certificate/Major Applicable:**

Both Certificate and Major Applicable

### **COURSE CONTENT**

## **Outcomes and Objectives:**

Upon completion of the course, students will be able to:

- 1. Apply database terminology and concepts.
- 2. Describe and use RDA (Resource Description and Access) design, terminology, and implementation.
- 3. Use navigation features and structures to expedite the design/use of database objects.
- 4. Enter, edit, validate, sort, find, and filter data in tables as well as link, import, and export tables.
- 5. Query and select records, update tables, add new records; create multi-table, crosstab, and action queries.
- 6. Use operators and expressions to manipulate data.
- 7. Create basic forms, custom multi-table forms, advanced reports, labels.
- 8. Work with SQL (Structured Query Language).
- 9. Work with Access VBA (Visual Basic for Access) to enter and test code and user-defined functions.
- 10. Manipulate DAO (Data Access Object) classes and use ODBC (Open Database Connectivity) Direct.
- 11. Convert Access macros to VBA code to respond to events.
- 12. Implement combo and list boxes with VBA code to create interactive forms.

# **Topics and Scope:**

- 1. Creating Reports and Forms
  - a. Report creation
  - b. Multi-Table reports

- c. Form creation
- 2. Multi-Table Forms
  - a. Adding special fields
  - b. Updating new fields
  - c. Multi-table form techniques
  - d. Date, memo, and yes/no fields in queries
  - e. Datasheets in forms
  - f. Creating a multi-table form based on the "many" table
- 3. Using Macros, Switchboards, Pivot Tables and Pivot Charts, and Structured Query Language (SQL)
  - a. Creating and using macros
  - b. Creating and using a switchboard
  - c. Creating new tables
  - d. Pivot Tables and Pivot Charts
- 4. Using SQL [Structured Query Language]
  - a. SQL queries
  - b. Sorting and grouping
  - c. Joining tables
- 5. Advanced Report Techniques
  - a. Creating reports in design view
  - b. Mailing Labels
- 6. Advanced Form Techniques
  - a. Creating a form with combo boxes, command buttons, and option groups
  - b. Creating a multi-page form
- 7. Administering a Database System
  - a. Converting databases
  - b. Microsoft Access Tools
  - c. Navigation pane
  - d. Table and database properties
  - e. Special field properties
  - f. Creating and using indexes
  - g. Automatic error checking
  - h. Smart tags
  - i. Database options
  - j. Encrypting a database
  - k. Digital certificates
  - 1. The Trust Center
  - m. Locking a database
  - n. Splitting database

### **Assignment:**

- 1. Completion of exercises and drills using software functions and formatting.
- 2. Submission of assignments to an online drop box.
- 3. Design a final project based on a chosen business problem, synthesizing and applying at least 15 features used in class.
- 4. Multiple choice quizzes or tests, taken online.
- 5. Attendance and participation in classroom and/or online environment.
- 6. Read 15 to 20 pages per week in a semester length course.

#### Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments and skill demonstrations are more appropriate for this course.

Writing 0 - 0%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Application problems, Final project

Problem solving 20 - 50%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Software functions, Final project

Skill Demonstrations 40 - 60%

**Exams:** All forms of formal testing, other than skill performance exams.

Multiple choice, True/false, Production exams

Exams 5 - 20%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

Attendance and participation in classroom and online environment

Other Category 0 - 10%

# **Representative Textbooks and Materials:**

Microsoft Office Access 2007: Comprehensive Concepts and Techniques (1st). Shelly, Cashman, & Pratt. Thomson Course Technology: 2007