

## LABETTE COMMUNITY COLLEGE BRIEF SYLLABUS

### **SPECIAL NOTE:**

This brief syllabus is not intended to be a legal contract. A full syllabus will be distributed to students at the first class session.

### **TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE (if any):**

Please check with the LCC bookstore <http://www.labette.edu/bookstore> for the required texts for this class.

**COURSE NUMBER:** COMP 192

**COURSE TITLE:** DATABASE CONCEPTS & APPLICATIONS

**SEMESTER CREDIT HOUR:** 3

**DEPARTMENT:** Computer Science

**DIVISION:** General Education

**PREREQUISITE:** None

### **COURSE DESCRIPTION:**

Students will gain a comprehensive understanding of database architecture and function. Students will learn how to create an operational database including interactive queries, graphical user interfaces and comprehensive report using Microsoft Access 2007. This course is designed to give a thorough knowledge of the working database that may be encountered in a professional setting.

### **COURSE OUTCOMES AND COMPETENCIES:**

**Students who successfully complete this course will be able to:**

1. Students will understand the difference between data and information.

- Recognize data in an unformatted (raw) form and in a formatted form (information)
- Understand how data can be manipulated and formatted to be presented as useful information

2. Students will know the 4 major components of a database and the role each plays in data storage, entry, and retrieval.

- Understand the purpose of a table
- Understand the significance of database structure
- Understand the purpose of a form
- Understand the difference between tabular and columnar layout
- Understand the purpose of a query
- Understand how to design a query and the role of criteria
- Understand the purpose of a report
- Understand how a report transforms raw data into useful information

3. Students will be able to use Access 2007 to build a comprehensive database structure.

- Be familiar with the Access 2007 software: toolbars, context menus, help
- Understand the layout of an Access database and how to navigate the database components
- Learn the difference between Design View and Datasheet, Form, Query View
- Learn about the available Wizards and when to employ them

4. Students will learn how to create relationships between multiple tables and drop down lists for entry fields

- Students will understand the role relationships play in table and query development

5. Students will be able to develop interactive forms, reports, & queries

- Students will be able to design forms to give end users a GUI to the database
- Students will be able to develop queries to allow meaningful searches of data
- Students will develop reports to present data in an organized and aesthetically pleasing format

6. Students will be able to understand the concept of data types and how they apply to the database structure

- Students will know the difference between and how to use the various data types: integer, Boolean, date/time, memo, text, hyperlink, attachment, OLE object, etc

7. Students will understand the role databases play in business

- Understand the scope of databases, how and why they are used

8. Students will understand the role of a database administrator within an organization

- Utilize the various tools built into Access to do maintenance, compact data, etc
- Understand the terms associated with database maintenance

9. Students will get a basic knowledge of SQL

- Students will be able to write simple SQL statements.

10. Students will understand the concept of ODBC connections

- Be familiar with how to setup an ODBC connection to attach third party products to a database in order to view/extract data