CIS173 COURSE OUTLINE

Course Number          Course Title               Credits
CIS173               PC Applications: Database            3

Hours: Lecture/Lab                Pre-requisite
2/2                             IST101 or equivalent experience

Catalog description:
Students acquire a working knowledge of Access, a relational database, with emphasis on creating tables, queries, reports, and forms.

Required texts/other materials:
See MCCC Bookstore

Revision date:       Course coordinator:
Fall 2016              Kristen H. Callahan
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callahak@mccc.edu

Course Competencies/Goals:
At the completion of the course, the student will be able to:
1. Understand what databases are used for and specifically how to use the most important and common features of Microsoft Access.
2. Use Microsoft Access to solve business problems.
   a. create a table
   b. create queries
   c. create forms for entering data
   d. create reports

Course-specific General Education Knowledge Goals and Core Skills.

General Education Knowledge Goals
Goal 4. Technology. Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

MCCC Core Skills
Goal B. Critical Thinking and Problem-solving. Students will use critical thinking and problem solving skills in analyzing information.
Goal E. Computer Literacy. Students will use computers to access, analyze or present information, solve problems, and communicate with others.
Units of study in detail:

Unit I  Database Introduction

Learning Objectives
The student will be able to…
- Define a database
- Define Microsoft Access and provide a quick tour of the Access interface
- Understand different views and their purposes
- Define key terms: data types, database, table, field, field properties

Unit II  Tables and Relationships

Learning Objectives
The student will be able to…
- Define a primary key
- Use primary keys to maintain database information
- Relate tables to enhance functionality of databases
- Understand one-to-many relationships
- Define key terms: one-to-many relationships, primary key, foreign key, common field

Unit III  Queries

Learning Objectives
The student will be able to…
- Define a query and the query wizard
- Create a query and specify criteria
- Filter and sort records
- Create calculations in queries
- Understand AND and OR conditions
- How and when to use a cross tab query, a parameter query, action queries and other advanced query applications
- Define key terms: query, criteria, calculated field, AND condition, OR condition

Unit IV  Forms

Learning Objectives
The student will be able to…
- Define the Form object
- Create and modify forms
- Use forms for data entry
- Use and explain the form wizard
- How and when to use sub forms
- Define key terms: form, controls, control source, sub form

Unit V  Reports

Learning Objectives
The student will be able to…
- Define and print reports
- Use the report wizard
- Utilize conditional formatting
- Customize reports
- Understand the design and sections of reports
- Use a query with a report
- Print mailing labels
• Define key terms: report, conditional formatting, control source, grouping and sorting, report sections

Unit VI
Integrating Access

Learning Objectives
The student will be able to...
• Understand how and when to import queries
• Understand how and when to export queries
• Understand how and when to link tables
• Understand how to integrate MS Access with other applications

Unit VII Advanced Access Topics

Learning Objectives
The student will be able to...
• Understand how and when to use macros
• Understand how to create and use command buttons
• Understand when to use VBA
• Understand how to protect a database with a password
• Understand how and why to create an ACCDE file

Evaluation of student learning:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams</td>
<td>50%</td>
</tr>
<tr>
<td>Weekly projects</td>
<td>40%</td>
</tr>
<tr>
<td>Homework and participation</td>
<td>10%</td>
</tr>
</tbody>
</table>

Academic Integrity Statement:

Mercer County Community College is committed to Academic Integrity -- the honest, fair and continuing pursuit of knowledge, free from fraud or deception. Students are expected to be responsible for their own work. Academic Integrity is violated whenever a student:
A. Uses or obtains unauthorized assistance in any academic work.
B. Gives fraudulent assistance to another student.
C. Knowingly represents the work of others as his/her own, or represents previously completed academic work as current.
D. Fabricates data in support of an academic assignment.
E. Inappropriately or unethically uses technological means to gain academic advantage. Violators of Academic Integrity will be penalized and in all cases, the instructor shall notify the Chair of the Academic Integrity Committee of the violation. Additional penalties may be imposed.

Refer to policy posted online for full statement: [http://www.mccc.edu/admissions_policies_integrity.shtml](http://www.mccc.edu/admissions_policies_integrity.shtml)

Reasonable Accommodations for Students with Documented Disabilities:
Mercer County Community College is committed to supporting all students in their academic and co-curricular endeavors. Each semester, a significant number of students document disabilities, which may require learning, sight, hearing, manual, speech, or mobility accommodations to ensure access to academic and co-curricular activities. The college provides services and reasonable accommodations to all students who need and have a legal entitlement to such accommodations.

For more information regarding accommodations, you may visit the Office of Academic Support Services in LB218 or contact them at 609.570.3422.

**NOTE**: Any exception to the above-stated policies can be made at the discretion of the instructor on an individual basis.