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COURSE OUTLINE

Course Number **CIS 173**	Course Title **PC Applications: Database**	Credits **3**
Hours: Lecture/Lab/Other **2/2/0**	Pre-requisite **COS 101, COS 102, IST 101, or equivalent proficiency**	Implementation Semester & Year **SPRING 2022**

Catalog description:

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

General Education Category: Not GenEd

Course coordinator:
Terry Voldase, Associate Professor of Computer Information Systems, 609-570-3481, voldaset@mccc.edu

Required texts & Other materials:
- GO! With Microsoft Access 2019 Comprehensive, 1/e + MyLab IT w/ Pearson eText ISBN: 9780135768983
- Microsoft Office 2019 – free software provided by MCCC
- PC and Mac computers with software downloads permissions

Course Student Learning Outcomes (SLO):
Upon successful completion of this 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®. (**Supports ILGs 2, 4, 11; PLOs 1, 2, 3**)

2. Use Microsoft Access® to solve business problems. (**Supports ILGs 2, 4, 11; PLOs 1, 2, 3**)
   - create a table
   - create queries
   - create forms for entering data
   - create reports

Course-specific Institutional Learning Goals (ILG):

Institutional Learning Goal 2. Mathematics. Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.
Institutional Learning Goal 4. Technology. Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.
Institutional Learning Goal 11. Critical Thinking: Students will use critical thinking skills understand, analyze, or apply information or solve problems.

Program Learning Outcomes for Business Studies (A.A.S.) – Business Systems Concentration

1. Understand basic accounting statements and their role in managing a business;
2. Acquire computer literacy and exposure to hardware, software, networking, databases, and ethical issues;
3. Apply financial concepts and tools to achieve personal goals.

Units of study in detail – Unit Student Learning Outcomes:

Unit I   [Unit I Database Introduction] [Supports Course SLO #1, 2]

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   [Unit II Tables and Relationships] [Supports Course SLOs #1, 2]
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   [Unit III Queries] [Supports Course SLOs #1, 2]
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   **[Unit IV Forms] [Supports Course SLOs #1, 2]**
   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] [Supports Course SLOs #1, 2]**
   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   **[Unit VI Integrating Access] [Supports Course SLOs #1, 2]**

   Learning Objectives
   The student will be able to:
- Demonstrate how and when to import queries
- Demonstrate how and when to export queries
- Demonstrate how and when to link tables
- Demonstrate how to integrate MS Access with other applications

Unit VII   **[Unit VII Advanced Access Topics] [Supports Course SLOs #1, 2]**
   Learning Objectives
   The student will be able to:
- Demonstrate how and when to use macros
- Demonstrate how to create and use command buttons
- Demonstrate when to use VBA
- Demonstrate how to protect a database with a password
- Demonstrate how and why to create an ACCDE file

Evaluation of student learning:

Grade Criteria:

Overall Evaluation	Assessment
50%	Exams
40%	Weekly Projects
10%	Homework and Participation

Grading:

Letter Grade	Nominal %
A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	70-76
D	60-69
F	00-59