West Virginia University at Parkersburg Uniform Course Syllabus (UCS)

GBUS 206 Advanced Access

Credit Hours: 3

Scheduled hours per week
Lecture: # 3
Lab: #
Other: e-course

Catalog Course Description: Using Microsoft Access, students are taught advanced Access data management to create fields, tables, queries, calculations, charts, forms and reports, data imports, exporting, and relationship databases, with an emphasis on critical thinking, problem solving, and decision making for marketing, finance, accounting, economics, and management.

Prerequisites: CS 101

Corequisites: None

Course Learning Outcomes:

Students should be able to:

Apply advanced database concepts and technologies for the design, implementation, and management of information resources using Access

Apply ethical values and behavior for problem solving and decision making.

Analyze and make informed decisions on business queries and database reports using Access .

Understand global business environment.

Topics to be studied:

Access (Core)

Managing and Creating Tables
Open and close objects in a database
Insert, delete, and move rows and columns in a table
Hide, unhide, freeze, and unfreeze columns
Adjust table column width
Design and create a table | Preview and print a table
Rename column headings
Insert a column name, caption, and description
Insert Quick Start fields
Assign a default value and field size

Creating Relationships between Tables
Define a primary key in a table
Create a one-to-many relationship
Specify referential integrity
Print, edit, and delete relationships
Create a one-to-one relationship
View and edit a subdatasheet

Performing Queries
Design query to extract specific data from tables
Use the Simple Query Wizard to create queries
Modify queries
Design queries with *Or* and *And* criteria
Create a calculated field
Use aggregate functions in queries
Create crosstab, duplicate, and unmatched queries

Creating and Modifying Tables in Design View
Create a table in Design view | Assign a default value
Use the Input Mask Wizard and the Lookup Wizard
Validate field entries
Insert a Total row
Sort records and print specific records in a table
Complete a spelling check | Use the Help feature
Find specific records in a table | Replace with other data
Apply text formatting

Creating Forms
Create a form using the Form button | form with related table
Change views in a form | Print and navigate in a form
Add records to and delete records from a form
Create a form with a
Customize a form with options at the Form Layout Tools tab
Create a form using the Form Wizards

Creating Reports and Mailing Labels
Create a report using the Report button
Display a report in Print Preview
Create a report with a query | Report Wizard
Format and customize a report
Group and sort records in a report
Create mailing labels using the Label Wizard

Modifying, Filtering, and Viewing Data
Filter data by selection and by form
Remove a filter

Importing and Exporting Data
Export Access data to Excel
Export Access data to Word

View object dependencies
Compact and repair a database
Encrypt a database with a password
View and customize document properties
Customize the Recent tab Backstage view
Save a database in an earlier version of Access | PDF format
Merge Access data with a Word document
Import data to a new table
Link data to a new table
Use the Office Clipboard

Access Comprehensive

Designing the Structure of Tables

Select the appropriate field data type based on analysis of source data
Disallow blank field values
Allow or disallow zero-length strings in a field
Create a custom format for text, number, and date fields
Create a custom input mask
Define rich text formatting for a memo field
Store history of changes to a memo field
Define and use an attachment field with multiple attachments

Building Relationships and Lookup Fields

Create and edit relationships between tables including one-to-many, one-to-one, and many-to-many relationships
Define a table with a multiple-field primary key
Create and modify a lookup field to populate records with data from another table
Create a field that allows multiple values in records
Create single-field and multiple-field indexes
Define what is meant by normalization
Determine if a table is in first, second, and third normal form

Advanced Query Techniques

Save a filter as a query
Create and run a parameter query to prompt for criteria
Add and remove tables to and from a query
Create an inner join, left join, and right join to modify query results
Create a self-join to match two fields in the same table
Create a query that includes a subquery
Assign an alias to a table and a field name
Select records using a multiple-value field in a query
Create a new table using a make-table query
Remove records from a table using a delete query
Add records to the end of an existing table using an append query
Modify records using an update query

Create and Using Custom Forms

Create a custom form in Design view using form sections
Add fields individually and as a group
Move, size, and format control objects
Change the tab order of fields
Create tabbed pages in a form and insert a subform
Add and format a calculation to a custom form
Group and ungroup multiple controls
Adjust the alignment and spacing of controls
Add graphics to a form
Anchor a control to a position in the form
Create a datasheet form
Modify form properties to restrict actions allowed in records
Create a blank form | Add list boxes to a form
Sort records in a form | locate a record using wildcard characters

Creating and Using Custom Reports

Create a custom report in Design view using all five report sections
Move, size, format, and align control objects
Insert a subreport into a report
Add page numbering and date and time controls
Add graphics to a report
Group records, including adding functions and totals
Modify section or group properties to control print options
Create and modify charts in a report
Create a blank report
Add hyperlinks and list boxes to a report
Change the shape of a tab control
Change the tab order of fields

Using Access Tools and Managing Objects

Create a new database using a template
Add a group of objects to a database using an Application parts template
Create a new form using an Application Parts Blank Form
Create a form to be used as a template in a database
Create a table by copying the structure of another table
Evaluate a table using the Table Analyzer Wizard
Evaluate a database using the Performance Analyzer
Split a database
Print documentation about a database using the Database Documenter
Rename and delete objects

Automating, Customizing, and Securing Access

Create, run, edit, and delete a macro
Assign a macro to a command button on a form
View macro code created in a form's Property Sheet for a command button
Convert macros to Visual Basic
Create and edit a Navigation form
Change database startup options
Show and hide the Navigation pane
Customize the Navigation pane by hiding objects
Define error checking options
Customize the ribbon
Create an ACCDE database file | View trust center settings

Integrating Access Data

Import data from another Access database
Link to a table in another Access database
Determine when to import versus link from external sources
Reset or refresh links using Linked Table Manager
Import data from a text files
Save import specifications
Export data in an Access table or query as a text files
Save and run export specifications
Save an object as an XPS file
Summarize data by using a PivotTable
Summarize data by using a PivotChart

Students should be able to:

Understand the various advanced components of Access of varying complexity.

Analyze business data and project outcomes to make informed decisions.

Understand advanced Access tables, forms, filters, and queries used by business decision makers.

Apply ethical values and behavior for problem solving and decision making.

Understand global business environment.

Relationship of Course to Program or Discipline Learning Outcomes:

Associate of Applied Science in Business Technology (BTEC) Program Outcomes:	
At the conclusion of the AAS in Business Technology program, students will:	
Communicate effectively and professionally both orally and in writing within the context of the business world in an administrative role.	X
Demonstrate competence in the use of electronic tools: hardware and software-to research, manage, and present information.	X
Utilize word processing software such as MS Word to design professional quality documents (reports, memos, etc.), including the ability to import and appropriately integrate tables and graphics.	
Utilize spreadsheet software such as MS Excel to manipulate and analyze data, including basic operations on cells and cell ranges, formulas and functions, filters, sorts, and develop graphs and charts.	X
Utilize presentation software such as MS PowerPoint to present information in an appropriate and sophisticated manner, including design templates, color and animation schemes, custom animation, and importation of charts, tables, and graphics.	
Demonstrate the ability to work ethically, effectively, and respectfully with people of diverse backgrounds and with people who have different roles, social affiliations, and personalities.	
Be prepared for admission to the Bachelor of Applied Science in Business Administration with a Business Information Technology (BIT) concentration at WVU at Parkersburg.	

Relationship of Course to General Education Learning Outcomes:	
Composition and Rhetoric Students illustrate a fundamental understanding of the best practices of communicating in English and meet the writing standards of their college or program-based communication requirements.	X
Science & Technology Students successfully apply systematic methods of analysis to the natural and physical world, understand scientific knowledge as empirical, and refer to data as a basis for conclusions.	X
Mathematics & Quantitative Skills Students effectively use quantitative techniques and the practical application of numerical, symbolic, or spatial concepts.	X
Society, Diversity, & Connections Students demonstrate understanding of and a logical ability to successfully analyze human behavior, societal and political organization, or communication.	
Human Inquiry & the Past Students interpret historical events or philosophical perspectives by identifying patterns, applying analytical reasoning, employing methods of critical inquiry, or expanding problem-solving skills.	

The Arts & Creativity Students successfully articulate and apply methods and principles of critical and creative inquiry to the production or analysis of works of art.	
10/20/2107	

Special projects or requirements of the course:

Hands-on Access Applications
Online Assessment Access Theory Tests

Additional information:

BTEC courses require a C or better for Certificates, Associate's Degree, and BASBA Major Concentration.

Prepared by:

Carol C. Thomas, Professor

Date: October 20, 2017