



**COWLEY COLLEGE
& Area Vocational Technical School**

COURSE PROCEDURE FOR

**MICROSOFT ACCESS
CAP1752 3 credit hours**

Student Level:

This course is open to students on the college level in either the freshman or the sophomore year and to area high school vocational students.

Catalog Description:

CAP1752 – MICROSOFT ACCESS (3 hrs)

This course provides students with an understanding and use of database software in a realistic business environment. Topics include: creating and building a database and defining table relationships; maintaining and querying a database; creating forms, reports, and advanced queries; using form tools; sharing, integrating, and analyzing data; using action queries and advanced table relationships; automating tasks with macros; using and writing Visual Basic for Applications code; and managing and securing a database. This course may be used to prepare for a MOS Access certification exam.

Prerequisites:

None

Controlling Purpose:

This course provides students with an understanding and use of database software in a realistic business environment. Topics include: creating and building a database and defining table relationships; maintaining and querying a database; creating forms, reports, and advanced queries; using form tools; sharing, integrating, and analyzing data; using action queries and advanced table relationships; automating tasks with macros; using and writing Visual Basic for Applications code; and managing and securing a database. This course may be used to prepare for a MOS Access certification exam.

Learner Outcomes:

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

1. Create a database, including a table, simple query, simple form, and simple report.
2. Design and modify a table structure and set and modify field properties.
3. Import data from an Excel worksheet and from a text file.
4. Define table relationships and referential integrity.
5. Maintain and query a database and create custom forms and reports.
6. Create advanced queries and enhance table design with lookup fields, input masks, and validation rules.

7. Share, integrate, and analyze data.
8. Automate tasks with macros and use and write Visual Basic for Applications (VBA) code.
9. Manage and secure a database.

Units Outcomes and Criterion Based Evaluation Key for Core Content:

The following defines the minimum core content not including the final examination period. Instructors may add other content as time allows.

Evaluation Key:

- A = All major and minor goals have been achieved and the achievement level is considerably above the minimum required for doing more advanced work in the same field.
- B = All major goals have been achieved, but the student has failed to achieve some of the less important goals. However, the student has progressed to the point where the goals of work at the next level can be easily achieved.
- C = All major goals have been achieved, but many of the minor goals have not been achieved. In this grade range, the minimum level of proficiency represents a person who has achieved the major goals to the minimum amount of preparation necessary for taking more advanced work in the same field, but without any major handicap of inadequacy in his background.
- D = A few of the major goals have been achieved, but the student’s achievement is so limited that he is not well prepared to work at a more advanced level in the same field.
- F = Failing, will be computed in GPA and hours attempted.
- N = No instruction or training in this area.

UNIT 1: Access Basics						
Outcome: The student will properly use the basic Microsoft Access features.						
A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Create a database, including designing a table and creating simple queries, simple forms, and simple reports.
						Create a table in design view, set field properties, and modify structure.
						Import data from an Excel worksheet and from a text file, and modify the imported table.
						Define table relationships and referential integrity.

UNIT 2: Maintaining and Querying a Database

Outcome: The student will update a database and create and run various queries.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Modify records, hide and unhide fields, find data in a table, and delete records.
						Update data using a query and create a multitable query.
						Sort and filter data.
						Use comparison operators in a query to match a range of values.
						Define multiple selection criteria using both the And and the Or logical operators.
						Change the appearance of a datasheet.
						Create a calculated field, work with aggregate functions, and use record group calculations.

UNIT 3: Creating Forms and Reports

Outcome: The student will use forms and reports to display data.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Create a form using the Form Wizard.
						Modify a form's design in Layout View.
						Find and maintain table data using a form.
						Create a form with a main form and a subform.
						Create a report using the Report Wizard.
						Modify a report's design in Layout View.
						Use conditional formatting in a report.

UNIT 4: Creating Advanced Queries and Enhancing Table Design

Outcome: The student will design various advanced queries and will enhance table design using various methods.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Use the following query types: pattern match, list-of-values match, Not logical operator.
						Assign a conditional value to a calculated field.
						Create a parameter query and a more flexible parameter query.
						Utilize the advanced Query Wizards to create the following query types: crosstab, find duplicates, find unmatched, and top values.
						Enhance table design by creating a lookup field, using the input mask wizard, and defining data validation rules.
						Identify object dependencies.
						Review a Long Text field's properties.
						Designate a trusted folder.

UNIT 5: Using Form Tools and Creating Custom Forms

Outcome: The student will design forms and use Form Tools to create forms.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Change a lookup field to a short text field.
						Print database relationships and use the documenter.
						Create forms using the following Form Tools: datasheet tool, multiple items tool, split form tool.
						Modify a split form in Layout View and anchor controls in a form.
						Plan and design a custom form, and create a custom form in Design View.
						Select, move, align, resize, and delete controls.
						Add a combo box to a form.
						Use form headers, footers, and titles.
						Work with a subform's calculated controls in the main form.
						Change the tab order in a form.
						Improve a form's appearance by adding lines or rectangles and by modifying the visual effects of the controls.

UNIT 6: Creating Custom Reports

Outcome: The student will create custom reports using a variety of methods.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Customize existing reports using both Layout View and Design View.
						Design and create a custom report.
						Work with controls in Design View and hide duplicate values in a report.
						Add the date, page numbers, and titles to a report.
						Create and modify mailing labels.

UNIT 7: Sharing, Integrating, and Analyzing Data

Outcome: The student will import, export, link, and analyze data in a database.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Export a query to an HTML document.
						Import a CSV file as a table and import a table from another Access database.
						Import data from an XML file and export an Access table as an XML file.
						Save and run export specifications.
						Create a tabbed form using a tab control.
						Understand the difference between importing, embedding, and linking external objects.
						Embed a chart in a form and use templates and application parts.
						Export a report to a PDF file.
						Link data from an Excel worksheet.

UNIT 8: Using Action Queries and Advanced Table Relationships

Outcome: The student will explore various action queries and types of relationships between database tables.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Create and run the following types of action queries: make-table query, append query, delete query, and update query.
						Define many-to-many and one-to-one relationships between tables.
						Join tables and join a table using a self-join.
						View and create indexes for tables.

UNIT 9: Automating Tasks with Macros

Outcome: The student will utilize macros to automate tasks.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Run and add actions to macros and single step a macro.
						Create a submacro.
						Add a command button to a form and attach a macro to a command button.
						Create an unbound form.
						Add a list box to a form and use an SQL statement to fill a list box with object names.
						Create multiple macros for a form.
						Create a navigation form.

UNIT 10: Using and Writing Visual Basic for Applications Code.

Outcome: The student will write Visual Basic for Applications (VBA) code.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Understand user-defined functions, Sub procedures, and modules.
						Review and modify an existing Sub procedure in an event procedure.
						Create a function in a standard module.
						Test a procedure in the Immediate window.
						Create event procedures.
						Compile and test functions, Sub procedures, and event procedures.
						Create a field validation procedure.

UNIT 11: Managing and Securing a Database

Outcome: The student will manage and secure a database using a variety of techniques.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Filter data in a table and a form, save a filter as a query, and apply the saved query as a filter.
						Create a subquery and a multivalued field.
						Create an Attachment field and use an AutoNumber field.
						Save a database as a previous version.
						Analyze a database's performance.
						Link a database to a table in another database and use the Linked Table Manager.
						Split a database.
						Encrypt a database with a password.
						Set database properties and startup options.

Projects Required:

Students will complete the required assignments.

Textbook:

Contact Bookstore for current textbook.

Materials/Equipment Required:

Computers, printers, and software

Attendance Policy:

Students should adhere to the attendance policy outlined by the instructor in the course syllabus.

Grading Policy:

The grading policy will be outlined by the instructor in the course syllabus.

Maximum class size:

Based on classroom occupancy

Course Timeframe:

The U.S. Department of Education, Higher Learning Commission and the Kansas Board of Regents define credit hour and have specific regulations that the college must follow when developing, teaching and assessing the educational aspects of the college. A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally-established equivalency that reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work for approximately fifteen weeks for one semester hour of credit or an equivalent amount of work over a different amount of time. The number of semester hours of credit allowed for each distance education or blended hybrid courses shall be assigned by the college based on the amount of time needed to achieve the same course outcomes in a purely face-to-face format.

Refer to the following policies:

[402.00 Academic Code of Conduct](#)

[263.00 Student Appeal of Course Grades](#)

[403.00 Student Code of Conduct](#)

Disability Services Program:

Cowley College, in recognition of state and federal laws, will accommodate a student with a documented disability. If a student has a disability, which may impact work in this class which requires accommodations, contact the Disability Services Coordinator.