



Data Management Microcredential Syllabus¹



Digital Navigator:
Virtual Office Hours:
E-mail:

Microcredential Description

Microcredentials are a new way of learning at Austin Community College (ACC) and we're excited about the possibilities. This Data Management microcredential is one of the 16-microcredentials offered as part of the college's Quality Enhancement Plan (QEP) entitled: **Digital Fluency and Innovation**. The QEP is a key element of our college re-accreditation process. This microcredential teaches you about data management tools such as Microsoft Access to help you collect, store, and sort data.

Prerequisite

None

Textbook

No textbook is required. All learning resources are OER (Open Educational Resources) shared under each competency learning activities section in this microcredential.

Technology

- You must have access to a computer with an Internet connection. ACC has [support for students who need reliable computer technology](#) and high-speed internet to complete microcredential work.
- **Microsoft Office 365:** available for free download at the following link: [ACC MS Office 365](#)
- **Microsoft Access:** requires a **Windows PC** and the ability to download software on it. [MS Access download instructions](#)
- [Add your digital badge to your LinkedIn profile](#)

¹ This syllabus is intended to give the student guidance on what may be covered during the microcredential and will be followed as closely as possible. Students will be notified of any changes via email and Blackboard Ultra announcements.

Instructional Methodology

This microcredential is 100% online and scheduled to be completed in five weeks. All microcredential resources, including quizzes, assignments, announcements, grades, surveys, and instructional materials, will be available through the Blackboard Ultra Learning Management System. To support you throughout your learning journey, you will have a Digital Navigator who will serve as your facilitator. The Digital Navigator serves as the primary point of contact and support for all matters related to this Data Management microcredential.

For students new to distance education, please review the ACC Distance Education General Information available at <https://online.austincc.edu/faq/>

Copyright Notice

The materials in this microcredential are only for the use of students enrolled in this microcredential for purposes associated with this microcredential and may not be retained or further disseminated.

The content in this microcredential within the Blackboard Ultra Learning Management System is derived from the Digital Fluency and Innovation team, open educational resources (OER), and/or public instructional resources. This content is distributed under the fair use provisions of the U.S. Copyright Law or the TEACH Act, and further copying and redistributing this material violates copyright law.

Withdrawal Policy

Students must earn the Start Here Module Completion award within the first 7 days of the microcredential session. Not achieving this award will lead to the student's removal from the microcredential.

To earn the Start Here Module Completion award, students must complete all of the steps of the Start Here module and achieve a score of 80% or higher on the orientation quiz. Award status can be verified by clicking on the award icon in the course menu or by accessing the award panel in the sidebar of the course homepage.

Students may withdraw from the microcredential session at any point by completing the form at the following link: [Student Withdrawal Form](#).

Microcredential Objectives / Learning Outcomes

By the end of this microcredential, the student will be able to:

1. Design and organize database structures, including tables and relationships, to systematically store and manage data while ensuring integrity and consistency.

2. Apply filtering, sorting, and query-building techniques, including the use of logical operators, to retrieve and analyze specific data effectively.
3. Utilize database tools to import, export, and optimize data, incorporating features like input masks, lookup fields, and compact/repair functions to enhance performance and usability.
4. Develop reports by formatting, arranging, and customizing fields, controls, and design elements to present data clearly and professionally.
5. Demonstrate the implementation of advanced database features, such as maintaining relationships, enforcing data integrity, and integrating data with external applications, to enhance functionality and efficiency.
6. **Problem Solving:** Design, evaluate, and implement a strategy to achieve a desired goal utilizing digital media.

Assignments and Quizzes

Project assignment solutions must be submitted through the Blackboard Ultra Learning Management System. The Digital Navigator will not accept submissions sent via email.

Quizzes are electronically administered via Blackboard Ultra. Paper versions are *not* supplied.

Assignment and quiz links can be found under each competency module.

All project assignments are typically graded within 48 hours after submission. Grades are recorded in Blackboard Ultra and may be accessed via the “Gradebook” tab (top navigation bar in the microcredential).

There are NO makeup exams or extra credit assignments given in this microcredential.

Levels of Competency Attainment

The Data Management microcredential has three competency levels and a capstone project.

To earn a competency level badge, you must earn a score of at least 80% on all competency assignments and a score of at least 80% on all competency quizzes. These competency level badges will be granted exclusively within the learning management system and are non-transferable.

To be awarded the Data Management microcredential badge, you must earn competency level badges 1 through 3, AND score 80% or higher on the capstone project. This microcredential badge is awarded through ACC’s badging system, Suitable, and can be showcased on platforms like LinkedIn and shared with potential employers.

Upon earning the Data Management microcredential badge, students will receive a notification within two weeks after the official end date of the session, along with guidelines on accessing and displaying the badge on LinkedIn.

Microcredential Policies

Students are expected to regularly monitor their ACC email and this microcredential in Blackboard Ultra to stay up to date with the schedule.

Regular and timely completion of work is expected of all students.

Communication

Students should ONLY use their ACC email account (email ending in austincc.edu) or Blackboard Ultra email system when communicating with the Digital Navigator.

All microcredential material, announcements, any updates or changes, and grades will be posted on this microcredential on Blackboard Ultra. Students are expected to check Blackboard Ultra and their ACC email accounts regularly (at least twice a week) for this microcredential. Student emails from non-ACC accounts will not be acknowledged.

The Digital Navigator understands that some material may be challenging to grasp and will gladly provide additional examples or one-on-one assistance upon request. Contact your Digital Navigator if you have a question about the content, are feeling overwhelmed, or need an additional attempt on a practice quiz.

Microcredential progress

Students are expected to keep up with the schedule of the microcredential and demonstrate progress as they engage with the material and resources related to each of the competencies. Each new concept builds on previous concepts, and regular progress through the material is crucial to success on quizzes and project assignments.

If an assignment takes longer than expected to complete and you struggle, reach out to the Digital Navigator for guidance. You are not alone. Time is valuable and critical. Use it wisely.

It will be challenging to catch up if you fall behind. If you feel you are falling behind, reach out to the Digital Navigator PROMPTLY to find ways to get you back on track.

COLLEGE POLICIES AND STUDENT RESOURCES

ACC student resources

- [College Policies and Student Support Services](#)
- [Student Accessibility Services & Assistive Technology \(SAS\)](#)

Blackboard Ultra Resources

- [Blackboard Tutorials – Students – YouTube](#)
- [Quick Start for Blackboard Learn – Ultra](#)
- [Viewing grades in Blackboard Ultra](#)
- [Changing Personal Settings in Blackboard Ultra](#)

MICROCREDENTIAL COMPETENCY MODULES – LEARNING OBJECTIVES

Competency 1 – Basic Database Skills

1. Identify key terminology related to data management and table relationships within a database.
2. Organize objects in the navigation pane by categorizing and arranging them according to specified criteria.
3. Utilize design views to illustrate their functionality and switch effectively between views.
4. Input new records into tables, and apply filtering and sorting techniques to manage data.
5. Demonstrate the implementation of table relationships within a database and explain strategies for database backup and maintenance.
6. Describe and apply quick start application parts, and execute compact and repair functions to optimize database performance.

Competency 2 – Intermediate Database Skills

1. Construct tables to organize and store data systematically.
2. Explain the process of moving and deleting fields in both datasheet and design views.
3. Apply input masks and set default value properties to ensure consistency in data entry.
4. Create lookup fields from another table and from a predefined list to support data entry.
5. Establish relationships between tables and enforce deletions and updates to maintain data integrity.
6. Define and develop queries to retrieve specific data from tables.
7. Apply and combine logical operators in queries to refine data retrieval.

8. Identify duplicate data, and filter records using auto filter and filter by selection techniques.

Competency 3 – Advanced Database Skills

1. Differentiate between import and export options, and utilize other applications to import and export data.
2. Design and add fields to a report, including single records, multiple items, and split forms.
3. Describe and apply techniques to format, resize, move, and arrange controls within a report.
4. Demonstrate how to incorporate design elements, page numbers, and grouped records into reports.
5. Demonstrate how to preview, manage, and export reports for distribution or analysis.

Capstone

DATA MANAGEMENT MICROCREDENTIAL – SUGGESTED SCHEDULE

Week	Topic	Learning Materials	Assignment
Week 1 – 2	Basic Database Skills	Learning activities listed under the following Competency 1 sub-modules: 1.1. Describing Basic Database Objects 1.2. Creating Records in a Database 1.3. Database Maintenance	Under the “Start Here” module complete steps 1-5. Practice Quiz 1.1 Practice Quiz 1.2 Practice Quiz 1.3 Assignment 1.1 Assignment 1.2 Assignment 1.3
Week 2 – 3	Intermediate Database Skills	Learning activities listed under the following Competency 2 sub-modules: 2.1. Creating well-designed Tables 2.2. Constructing Relationships between Tables 2.3. Using Queries and Filters	Practice Quiz 2.1 Practice Quiz 2.2 Practice Quiz 2.3 Assignment 2.1 Assignment 2.2 Assignment 2.3
Week 3 – 4	Advanced Database Skills	Learning activities listed under the following Competency 3 sub-modules: 3.1. Importing and Exporting Data 3.2. Creating Reports and Forms 3.3. Adding and Modifying Controls	Practice Quiz 3.1 Practice Quiz 3.2 Practice Quiz 3.3 Assignment 3.1 Assignment 3.2 Assignment 3.3
Week 4 – 5	Capstone	Demonstrate mastery of content by completing the capstone project	Capstone Assignment