

Undergraduate Certificate - Microsoft Access Database Applications

The undergraduate certificate in Microsoft Access® Database Applications provides you with hands-on instruction in developing entity relationship diagrams, data models, databases, table structures, and graphical user interfaces (GUI). You will study the theories behind database development while interacting with databases using ANSI® standard SQL. This online program is intended for undergraduate students who want to expand their knowledge of Microsoft Access database applications without committing to a degree program.

Microsoft Access® is a registered trademark of Microsoft Corporation.

ANSI® is a registered trademark of the American National Standards Institute.

Certificate Objectives

Upon successful completion of this certificate, the student will be able to:

- Differentiate between the hierarchical, network, relational, and object-relational database models; and demonstrate the need for procedural language facilities in the world of American National Standards Institute (ANSI) standard SQL.
- Examine the process for developing entity diagrams, designing databases, developing database applications, managing databases, implementing data integrity, assuring information, and implementing transaction processing.
- Assess the impact and issues related to relational databases, entity diagrams, and PL/SQL on Information Technology Management, enterprise applications, and global e-commerce.
- Analyze the need, objective, and principles of normalization to engineer and design databases.
- Evaluate the concepts and principles of integrity (including referential integrity and transactional integrity) in the context of relational database design.

Certificate Requirements (18 semester hours)

Code	Title	Semester Hours
INFO161	Relational Databases with MS Access: Introduction	3
INFO221	Relational Database Concepts	3

INFO261	Relational Databases with MS Access®: Advanced	3
INFO262	Relational Databases with MS Access®: Project	3
INFO331	Management Information Systems	3
WEBD121	Web Development Fundamentals	3
Total Semester Hours		18