

ARIZONA WESTERN COLLEGE SYLLABUS

CIS 231 DATABASE DESIGN AND PROGRAMMING

Credit Hours: 3 Lec 2 Lab 2

PREREQUISITE: CIS 105 or CIS 120

COURSE DESCRIPTION

Students will develop the skills necessary to store and manipulate data using relational database software for business applications. The course focuses on design, manipulation, and maintenance of databases including Microsoft Access and Structured Query Language programming platforms.

1. COURSE GOALS

- 1.1 Define Relational Database Management terminology
- 1.2 Design platform independent databases at the logical and physical levels
- 1.3 Demonstrate Fluency in fundamental Structured Query Language programming
- 1.4 Maintain databases
- 1.5 Import and export data

2. OUTCOMES

Upon satisfactory completion of this course, students will be able to:

- 2.1 Design database models using corresponding relational algebra applications
- 2.2 Create an Entity Relationship diagram from a business model
- 2.3 Build a database based on an Entity Relationship diagram representation
- 2.4 Create and interpret Relational Schema
- 2.5 Create data structures using Structured Query Language programming commands
- 2.6 Manipulate existing data structures using Structured Query Language programming commands
- 2.7 Import/Export data to/from other applications
- 2.8 Establish relationships to combine data from multiple tables through the normalization process
- 2.9 Apply data validation rules

3. METHODS OF INSTRUCTION

- 3.1 Lectures
- 3.2 Lab creations and exercises
- 3.3 Discussions
- 3.4 Individualized instruction
- 3.5 Feedback on labs, assignments, and exams

4. LEARNING ACTIVITIES

- 4.1 Take notes during lectures
- 4.2 Participate in class and group exercises
- 4.3 Complete lab assignments on time
- 4.4 Review incorrect answers to questions on quizzes and exams
- 4.5 Participate in and contribute to class discussions
- 4.6 Complete readings, software application exercises, and other assignments as instructed.
- 4.7 Analyze feedback and apply to future learning situations
- 4.8 Ask questions when concepts are not understood

5. EVALUATION

- 5.1 Exams
- 5.2 Assigned projects and lab assignments
- 5.3 Quizzes
- 5.4 Performance on tasks and course-related skills

6. STUDENT RESPONSIBILITIES

- 6.1 Under AWC Policy, students are expected to attend every session of class in which they are enrolled.
- 6.2 Classroom Assignments: Students are responsible for work missed and for completing all work before the next class meeting. Students are responsible for participating in all oral drills and for taking all exams.
- 6.3 If a student is unable to attend the course or must drop the course for any reason, it will be the responsibility of the student to withdraw from the course. Students who are not attending as of the 45th day of the course may be withdrawn by the instructor. If the student does not withdraw from the course and fails to complete the requirements of the course, the student will receive a failing grade.
- 6.4 Americans with Disabilities Act Accommodations: Arizona Western College provides academic accommodations to students with disabilities through AccessABILITY Resource Services (ARS). ARS provides reasonable and appropriate accommodations to students who have documented disabilities. It is the responsibility of the student to make the ARS Coordinator aware of the need for accommodations in the classroom prior to the beginning of the semester. Students should follow up with their instructors once the semester begins. To make an appointment call the ARS front desk at (928) 344-7674 or ARS Coordinator at (928) 344-7629, in the College Community Center (3C) building, next to Advising.
- 6.5 Academic Integrity: Any student participating in acts of academic dishonesty including, but not limited to, copying the work of other students, using unauthorized “crib notes”, plagiarism, stealing tests, or forging an instructor’s signature—will be subject to the procedures and consequences outlined in AWC’s Student Code of Conduct.
- 6.6 Textbooks and materials: Students are required to bring notebook or looseleaf book, pens, pencils, dictionaries, and purchase textbook required for class.
- 6.7 Arizona Western College students are expected to attend every class session in which they are enrolled. To comply with Federal Financial Aid regulations (34 CFR 668.21), Arizona Western College (AWC) has established an Attendance Verification process for "No Show" reporting during the first 10 days of each semester.
Students who have enrolled but have never attended class may be issued a “No Show” (NS) grade by the professor or instructor and receive a final grade of “NS” on their official academic record. An NS grade may result in a student losing their federal financial aid.
For online classes, *student attendance in an online class is defined as the following* (FSA Handbook, 2012, 5-90):
 - Submitting an academic assignment
 - Taking an exam, an interactive tutorial or computer-assisted instruction
 - Attending a study group that is assigned by the school
 - Participating in an online discussion about academic matters
 - Initiating contact with a faculty member to ask a question about the academic subject studied in the course