

LIBERTY UNIVERSITY

ONLINE ACADEMY

Database Certificate - Course Descriptions

CSIS 100 (CSB 3100) – Intro to Information Sciences & Systems

This course examines the design, selection, implementation, and management of enterprise Business solutions. The focus is on identifying critical business processes and envisioning how technology can be developed to provide solutions which generate competitive advantage. Students learn how applying frameworks and strategies around the Business Process and Organization Strategy provide a competitive advantage. Topics include MIS and IT fundamentals, Information Systems Management and Using Enterprise Business Applications for competitive advantage. The course also includes a component for Technical Writing for Information Systems. (Formerly BMIS 200)

College Credits: 3

LUOA High School Equivalency: Fine Art/Career/Technology Elective

Sub-term: B/D

Course Prerequisites: MATH 110 or Math Assessment

CSIS 208 (CSB 3208) – Application Programming

Development of computer and programming skills, problem-solving methods, and selected applications. This course provides a broad-based introduction to programming in Visual Basic. Students will learn how to build a program from the design phase all the way through to delivery.

College Credits: 3

LUOA High School Equivalency: Fine Art/Career/Technology Elective

Sub-term: B/D

Course Prerequisites: CSIS 100 and MATH 121 or higher

CSIS 212 (CSB 3213) – Object-Oriented Programming

A study of the general-purpose, secure, object-oriented, portable programs. This course prepares students to program stand-alone applications. It will cover features such as programming concepts, data types, operators, flow control statements, objects, classes, methods, arrays, and strings. The concept of object-oriented programming is emphasized. The course has an additional \$35 fee for course materials

College Credits: 3

LUOA High School Equivalency: Fine Art/Career/Technology Elective

Sub-term: B/D

Course Prerequisites: CSIS 208

CSIS 325 (CSB 3325) – Database Management Systems

The study of relational database architecture, design, access, administration and implementation in the context of various organizational environments. The course includes issues of data normalization, standard queries, and the use of popular relational and object technologies for building business-oriented applications. Assigned projects will provide hands-on experience with industry-leading SQL and RDBMS tools and ER CASE tools currently popular in business and government settings. (Formerly BMIS 325)

College Credits: 3

LUOA High School Equivalency: Fine Art/Career/Technology Elective

Sub-term: B/D

Course Prerequisites: CSIS 208 & BUSI 230

CSIS 327 (CSB 3327) – Introduction to Oracle

This course introduces the fundamentals of database design using an Oracle platform. Database administration will be introduced as well as the basic concepts of data manipulation in an Oracle environment. (Formerly BMIS 326)

College Credits: 3

LUOA High School Equivalency: Fine Art/Career/Technology Elective

Sub-term: B

Course Prerequisites: CSIS 325

CSIS 328 (CSB 3328) – Advanced Oracle

This course introduces the advanced topics of database administration in Oracle. Multi-dimensional databases for Business Intelligence applications will be examined as well. (Formerly BMIS 327)

College Credits: 3

LUOA High School Equivalency: Fine Art/Career/Technology Elective

Sub-term: D

Course Prerequisites: CSIS 327

Additional course needed for prerequisite

BUSI 230 (CSB 3230) – Introduction to Probability and Statistics

Introduction to descriptive statistics and probability, probability distributions, estimation, tests of hypotheses, chi-square tests, regression analysis, and correlation with applications in business and science. (Cross-listed with MATH 201)

College Credits: 3

LUOA High School Equivalency: Higher Math

Sub-term: B/C/D

Course Prerequisites: MATH 110, Math Assessment, or SAT/ACT