

Certificate: Business Analysis

Certificate Description:

An advanced certificate in business analysis, primarily targeted for students who pursue the applied management bachelor's degree. This certificate is developed and granted by BYU-Idaho.

Course Code	Course Name	14 Credits
CS 101	Introduction to Programming	2 Credits
CIT 111	Introduction to Databases	3 Credits
MATH 221	Business Statistics	3 Credits
FIN 301	Financial Management	3 Credits
SCM 361	Production and Operations Management	3 Credits

Course Descriptions:

CS 101 (2 credits) – Introduction to Programming

This course introduces computer programming and is intended for people with no programming experience. This course is recommended for non-majors in order to get an overview of programming principles and techniques. This course covers the basics of programming in Python, including elementary data types (numeric types, strings, lists, dictionaries, and files), control flow, functions, objects, methods, fields, and mutability.

CIT 111 (3 credits) – Introduction to Databases

This course covers the basic elements of database management systems. It introduces students to the concepts of logical and physical relationships in a data model and the concepts of inner and outer joins. Students will use a computer-aided software-engineering (CASE) tool to design, create, and query a database.

MATH 221 (3 credits) – Business Statistics

In this course business students will study graphical representation of data, measure of center and spread, elementary probability, sampling distributions, correlation and regression, statistical inference involving means, proportions, and contingency tables.

FIN 301 (3 credits) – Financial Management

This introductory course in financial management provides a basic foundation for other courses in finance and business management. Topics covered in this course include financial statement analysis, financial forecasting, leverage, working capital management, capital structure, capital budgeting, short and long-term financial management, sources of financing, time value of money, and cost of capital.

SCM 361 (3 credits) – Production and Operations Management

This course in production and operations management has three primary purposes: help students (1) improve their spreadsheet-modeling skills, (2) improve file-organization skills, and (3) learn principles of production and operations management and how to effectively manage transformational processes that achieve delivery, cost, and quality objectives. This course will pursue these purposes using a variety of teaching techniques, including readings, homework problems, qualitative and quantitative assessments, and in-class activities and simulations.

Outcomes:

- Manipulate data using Python.
- Install a database management system (DBMS) and design SQL queries to insert, update and retrieve data.
- Use statistical procedures and tests to understand and interpret data.
- Analyze and provide recommendations for financial statements, forecasting, leverage, working capital management, structure, budgeting, sources of financing, time value of money, and cost of capital to improve business decisions and profitability.
- Use modeling tools to improve operational performance.

Potential Employment:

- Analyst positions within the area of focus of your gateway certificate