Business Analytics
2021 Course Descriptions

Upon completion, students will earn a Certificate of Completion. All courses listed are required in order to earn a certificate*.* Please note that **all courses and information subject to change.**

Quarter 1

Available Winter and Summer quarters ONLY

All students will take the following courses:

- Overview of Business Intelligence and Data Analysis
- Introduction to SQL Programming
- Advanced Excel for Analysis and Business Intelligence
- Dashboards and Data Visualization for Data Analysis
- Business Intelligence Project

OVERVIEW OF BUSINESS INTELLIGENCE AND DATA ANALYSIS   3 UNITS

As the amount of data companies collect continues to grow at a rapid rate, the ability to effectively transform that data into actionable information has become paramount for business growth and success. Business intelligence (BI) and data analytics enables businesses to make better decisions, improve processes, discover efficiencies, support customers, and reduce costs. In this course, students will learn the complete analytics cycle, from determining requirements to extracting and disseminating information. It will cover the process, technologies, applications, tools, and skills required to analyze data so that informed and timely decisions can be made.

INTRODUCTION TO SQL PROGRAMMING   3 UNITS

Learn how to use the Structured Query Language (SQL) to create, manipulate, and create reports from database tables. Important concepts associated with relational databases will be covered. You will run SQL commands to create database tables and define data element types. Single and multiple table queries will be created with simple and compound conditions using SQL operators such as: BETWEEN, LIKE, IN, EXIST, ALL, and ANY. Basic and complex reports will be created based on data in a table or view. Database Administration features of SQL will be discussed.

ADVANCED EXCEL FOR ANALYSIS AND BUSINESS INTELLIGENCE   3 UNITS

Excel can be intimidating, complex and confusing with so many features and tools to use. After covering the basics to lay the foundation, this course will move to advanced features of Excel that can be applied in healthcare data analysis, statistics, and visualization, while building pragmatic solutions to common business problems. This course will follow a problem-solution format to explore data analysis options and cover best-practices for delivering solutions in Excel, covering topics including dynamic dashboard, pivot table and pivot reporting, table and formatting, advanced formatting, advanced charting, advanced formula, data tables, simulations and solver, functions, in cell drop down menu, data validation, error checking and data monitoring, sparklines, IF statement, VLOOKUP, and Macro operations.

DASHBOARDS AND DATA VISUALIZATION FOR DATA ANALYSIS   3 UNITS

With the growing amount of data available to businesses, decision-makers must translate strategy into accountability,

measure progress against goals, and leverage data for business decision making. Dashboards are used to present and analyzing enterprise performance data, both strategic and operational, and to perform business analysis easily and quickly. This course will teach dashboards and data visualization technologies, using an approach that will include theory as well as a significant hands-on component. Students will learn how to design and build dashboards, as well as create content of different types that can be incorporated into dashboards.

BUSINESS INTELLIGENCE PROJECT   **2 UNITS**

The instructor will guide students through a project involving real-world data. This new course is currently in development. Once we have the course description, we will make it available.