BAKER COLLEGE
STUDENT LEARNING OUTCOMES

BUS4050 Advanced Business Analytics

3 Semester Hours

Student Learning Outcomes & Enabling Objectives

1. Demonstrate the necessary base knowledge and skills needed for effective application of advanced business analytics

   a. Explain the role of big data in enterprise wide business performance management and how business analytics and business intelligence create and direct organizational strategy.

   b. Analyze each element of the business analytics ecosystem: infrastructure, tools, and output.

   c. Contrast the different types of data, sources of data, types of data analysis (parametric and non-parametric), types of sampling, and different types of research.

   d. Distinguish the differences between data analysis, modeling, and visualization tools to select the right one for the business situation.

   e. Differentiate between business analytics applications such as forecasting, predictive analytics, risk modeling using multivariate models such as Monte Carlo Simulation, and monitor/control

2. Develop an advanced business analytics project that uses data within the context of key business decisions.

   a. Build a research matrix to move from a specific business problem or opportunity through each step in the research cycle to the sources of data.

   b. Prepare research questions and testable hypotheses to, address specific business problems and/or opportunities.

   c. Prepare relevant data that are based on the research matrix.

3. Produce advanced data analytics projects that include both the data analytics and the supporting data visualization.

   a. Design a user configurable descriptive analytics dashboard to summarize and simplify complex data models.

b. Compose a Monte Carlo simulation to identify organizational risk.

c. Develop a predictive analytics model that uses data to describe likely organizational outcomes.

d. Create a prescriptive analytics model that uses data to recommend the best decisions and courses of action.

e. Evaluate the prescriptive analytics data model for potential ethical concerns.

These SLOs are not approved for experiential credit.

Effective: Fall 2020