



BAKER COLLEGE
STUDENT LEARNING OUTCOMES

DS6010 - Introduction to Data Science
3 Semester Credit Hours

Student Learning Outcomes and Enabling Objectives

1. Develop a plan for a data science project
 - a. Identify the problem
 - b. Classify the type of data science project
 - c. Use project management techniques to work through a project
2. Ensure relevant data is present and in the correct format
 - a. Identify types of data required for the project
 - b. Demonstrate cleaning and transforming data for analysis
3. Create a visualization to represent the results of an analysis
 - a. Analyze data to obtain trends, patterns, or insights
 - b. Apply statistical modeling techniques
 - c. Apply modeling and regression techniques
4. Create a predictive model
 - a. Review types of predictive models
 - b. Select appropriate predictive models based on insights from data analysis
5. Evaluate the accuracy of predictive models
 - a. Select testing data
 - b. Execute the test
 - c. Assess the results of the test to determine accuracy of the predictive model
6. Recommend a deployment plan
 - a. Review deployment targets
 - b. Select deployment target
 - c. Defend the deployment target
 - d. Investigate alternative technologies

Big Ideas and Essential Questions

Big Ideas

- Problem solving and planning

- Data collection and preparation
- Data analysis
- Model building
- Model evaluation
- Model deployment

Essential Questions

1. How do you identify the problem and plan for a solution?
2. How do you acquire and prepare data?
3. How do you analyze data for decision making?
4. How do you build data science models?
5. How do you evaluate data science models?
6. How do you deploy data science models?

These SLOs are approved for experiential credit.

Effective: Fall 2024