



Western Technical College

10102221 Data Analytics

Course Outcome Summary

Course Information

Description	Students will explore and utilize advanced analytical tools used in business. Emphasis will be placed on interpreting data to make decisions that meet the business need.
Career Cluster	Business Management and Administration
Instructional Level	Associate Degree Courses
Total Credits	3
Total Hours	54

Pre/Corequisites

Prerequisite 10102215 Data Utilization for Business

Textbooks

No textbook required.

Success Abilities

1. Refine Professionalism: Improve Critical Thinking

Program Outcomes

1. Perform elicitation, validation, and analysis of requirements to meet a business need
2. Build relationships with stakeholders
3. Demonstrate leadership throughout business analysis efforts
4. Demonstrate professional communication in a business environment

Course Competencies

1. Apply methods to retrieve data.

Assessment Strategies

1.1. Product

Criteria

You will know you are successful when

- 1.1. you demonstrate how subsets of data can be retrieved.
- 1.2. you import data files for analysis.

Learning Objectives

- 1.a. Identify the purpose of retrieving subsets of data.
- 1.b. Experiment with techniques used to select subsets of data.

2. Demonstrate methods to summarize data.

Assessment Strategies

2.1. Product

Criteria

You will know you are successful when

- 2.1. you compare software that can be utilized to summarize large sets of data.
- 2.2. you summarize an extensive table of data in a meaningful manner.
- 2.3. you analyze summarized data to make business decisions.

Learning Objectives

- 2.a. Research software environments used to summarize data.
- 2.b. Explain the features of statistical computing software.

3. Prepare data dashboards.

Assessment Strategies

3.1. Project

Criteria

You will know you are successful when

- 3.1. you compare data visualization tools.
- 3.2. you construct a data dashboard.
- 3.3. you interpret a data dashboard.

Learning Objectives

- 3.a. Define data dashboard.
- 3.b. Explore characteristics of data dashboards.
- 3.c. Identify types of data dashboards.

4. Analyze historical data.

Assessment Strategies

4.1. Project

Criteria

You will know you are successful when

- 4.1. you assess the relevance of historical data.
- 4.2. you use time series data to forecast trends.

Learning Objectives

- 4.a. Identify methods for collecting historical information.
- 4.b. Discuss time series analysis.

5. Predict data trends.

Assessment Strategies

5.1. Project

Criteria

You will know you are successful when

- 5.1. you calculate data trends.
- 5.2. you analyze the impact of future trends.

Learning Objectives

- 5.a. Explore methods used to forecast data.
- 5.b. Examine how forecasts are utilized to make business decisions.
- 5.c. Identify risk involved in predicting data trends.

6. Interpret statistical data.

Assessment Strategies

6.1. Project

Criteria

- 6.1. you use statistical equations.
- 6.2. you interpret statistical results.

Learning Objectives

- 6.a. Explain the purpose of statistical functions.
- 6.b. Identify tools used to calculate statistical significance.
- 6.c. Analyze the meaning of statistical results.

7. Use business metrics.

Assessment Strategies

7.1. Project

Criteria

You will know you are successful when

- 7.1. you compare business metrics.
- 7.2. you relate the business value of the decision.

Learning Objectives

- 7.a. Identify business metrics.
- 7.b. Relate metric results to effective decision-making.

8. Evaluate optimal solutions.

Assessment Strategies

8.1. Project

Criteria

You will know you are successful when

- 8.1. you identify the optimal solution.
- 8.2. you interpret the optimal solution.

Learning Objectives

- 8.a. Classify optimal solutions.
- 8.b. Explore tools used to identify optimal solutions.
- 8.c. Identify how to determine the optimal solution.

9. Use data to make business decisions.

Assessment Strategies

9.1. Project

Criteria

You will know you are successful when

- 9.1. you recommend a solution that meets the business need.
- 9.2. you support the reasons behind your decision.

Learning Objectives

- 9.a. Summarize data relevance.
- 9.b. Differentiate between methods utilized to make business decisions.
- 9.c. Connect the decision to the intended audience.