# Lassen Community College Course Outline

## CIS-170 Introduction to Power BI             0.0 Units

## I. Catalog Description

This course covers the various methods and best practices that are in line with business and technical requirements for modeling, visualizing, and analyzing data with Power BI. The course will show how to access and process data from a range of data sources including both relational and non-relational sources. Finally, this course will also discuss how to manage and deploy reports and dashboards for sharing and content distribution. This course is approved for Traditional, Hybrid and Online Delivery

### Diversity Statement

Our commitment to diversity requires that we strive to eliminate barriers to equity and that we act deliberately to create a safe and inclusive environment where individual and group differences are valued and leveraged for the growth and understanding as an educational community.

### Additional Course Information

*Transfer Status:*
- Non-transferable

*Total Number of Hours by Instructional Method:*
- 40 Hours Lecture

*Scheduled:*
- Every Spring and Fall

## II. Coding Information

Repeatability: Not Repeatable

Grading Option: Pass/No Pass

Credit Type: Not Degree Applicable/Non-Credit)

TOP Code: 0702.10 – Software Applications

## III. Course Objectives

### A. Course Student Learning Outcomes

Upon completion of this course the student will be able to:
1. Create reports using the Power BI program
2. Evaluate data presented using Power BI

### B. Course Objectives

Upon completion of this course the student will be able to:
1. Describe the foundations in data modeling.
2. Demonstrate how to build with Power BI

3. Describe the capabilities of Microsoft Power BI
4. Understand how to get data in Power BI
5. Demonstrate how to automate data cleaning in Power Query
7. Describe Power BI Desktop Models
8. Understand how to get data with Power BI Desktop
9. Demonstrate how to write DAX formulas for Power Bi desktop models.
11. Design Power BI Reports
12. Perform data modeling in Power BI
13. Understand how to use visuals in Power BI
14. Explain how to enhance Power BI report designs for the user experience.

## IV. Course Content

A. Outline of Topics
1. Introduction to Data
2. Prepare data for analysis with Power BI
3. Model data with Power BI
4. Build Power BI visuals and reports
5. Manage workspaces and datasets in Power BI

## V. Assignments

A. Appropriate Readings
1. Readings from the Microsoft Website

B. Writing Assignments
1. Students will create presentations and data representations using the Power BI platform.

C. Expected Outside Assignments
1. None

D. Specific Assignments that Demonstrate Critical Thinking
1. Create visualizations that explain data using Power BI
2. Explain the difference between various visualization techniques and applications for each.

## VI. Methods of Evaluation

List general evaluation methods (i.e., mixed format exams, participation, written essays, oral and listening exams)

**Traditional Evaluation**
Term paper (topic choice, thesis statement, outline, bibliography, rough draft, final draft), homework, classroom discussion, essay, journals, lab demonstrations and activities, multiple choice quizzes, and participation.
**Hybrid Evaluation**
Quizzes and exams could be administered in person and/ or online. Students will be expected to complete online assignments and activities equivalent to in class assignments and activities for the online portion of the course.  Electronic

communication, both synchronous and asynchronous (chat/forum) will be evaluated for participation and to maintain effective communication between instructor and students.

**Online Evaluation**

A variety of methods will be used, such as: research papers, asynchronous and synchronous (chat/forum) discussions, online quizzes and exams, posting to online website and email communications using the districts approved learning management system.

## VII. Methods of Delivery

Check those delivery methods for which this course has been separately approved by the Curriculum/Academic Standards Committee.

☒ Traditional Classroom Delivery
☐ Correspondence Delivery
☒ Hybrid Delivery
☒ Online Delivery

*Only include the appropriate delivery modalities*

**Traditional Classroom Delivery**

Lecture, discussion, audio/visual aids, demonstration, group exercises, guest speakers, lab, individualized programs and other as needed.

**Hybrid Delivery**

A combination of traditional classroom and online instruction will be utilized. Each semester a minimum of 17 hours, or 1/3 of the instruction hours, will be taught face-to face by the instructor and the remaining hours will be instructed online through the technology platform adopted by the District. Traditional class instruction could consist of exercises/assignments, lectures, visual aids, practice exercises, exams and quizzes. Online delivery could consist of exercises/assignments, lecture posts, discussions, exams and quizzes, adding extra resources and other media sources as appropriate.

**Online Delivery**

A variety of methods will be used, such as: research papers, asynchronous and synchronous (chat/forum) discussions, online quizzes and exams, posting to online website and email communications using the districts approved learning management system.

## VIII. Representative Texts and Supplies

Microsoft Power BI Data Analyst website

## IX. Course Status

1. Current Status: Active
2. Original Approval Date: 2/20/2024
3. Course Originator: Melinda Duerksen

4. Board Approval Date: 3/12/2024
5. Chancellor's Office Approval Date:
6. Revised By:
7. Curriculum/Academic Standards Committee Revision Date: