

# Inver Hills Community College

## BUS 2400: Business Analytics Applications

### A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: 4

Lab Hours/Week: 0

OJT Hours/Week: \*.\*

Prerequisites:

This course requires the following prerequisite

BUS 1100 - Introduction to Business Applications and Computing

Corequisites: None

MnTC Goals: None

Learn the technical and creative skills used by Business Analytics professionals. Develop the technical skills needed through hands-on experience and industry-leading, self-service business intelligence applications such as Alteryx and Tableau and understand and perform technical processes such as ETL (extract, transform, load). Students will complete a data visualization project.

**B. COURSE EFFECTIVE DATES:** 01/03/2020 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Relations database elements: columns, rows, and primary keys. 5%
2. Field types: string, numeric, date, data time, spatial, boolean. 5%
3. ETL processes (Extract, Transform, Load). 5%
4. Alteryx: Blend data from multiple data sources to create "master data sets." 25%
5. Tableau worksheets created from Alteryx master datasets. 30%
6. Tableau dashboards created from Tableau worksheets 25%
7. Best practice dashboard design principles. 5%

### D. LEARNING OUTCOMES (General)

1. Create Alteryx Designer workflows utilizing the following Alteryx tools: Browse, Input Data, Output Data, Text Input, Data Cleansing, Filter, Formula, Sample, Select, Sort, Join, Union, Text to Columns, and Summarize.
2. Utilizing workflow data output from Alteryx, continue data preparation in Tableau to include dimensions, measures, hierarchies, and groups.
3. Develop Tableau Worksheets which visualize data, including creating the following charts: Scatter Plot, Combined Axis, Dual Axis, Stacked Bar. Also, Crosstab, and Highlight Tables.
2. 4. Perform Tableau Quick Table calculations to analyze data.
5. Leverage Tableau built-in functions for trend analysis, including sales forecasts and reference lines.
6. Create calculated fields in Tableau to perform profitability and outlier analysis.
7. Create dashboards with Tableau which including filters and actions.
8. Study best-practice dashboard design principles including interactivity for desktop and mobile devices.

### E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

**F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted