Business Data Analytics Minor

Students will gain knowledge and skills relating to the analysis of data using technology tools.m

Goal Description:

Students who complete the Business Data Analytics minor will gain knowledge and skills relating to the analysis of data using technology tools.

Providing Department: Business Data Analytics Minor

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

Advanced use of tools and / or interpretation of results

Learning Objective Description:

Business Data Analytics students will demonstrate their understanding of their results through further manipulation or use of the product (ex: database) or interpretation of the analysis (statistics).

RELATED ITEM LEVEL 2

Assessment from courses within the skills selection of courses within the minor

Indicator Description:

Students choose 3 from a list of 5 courses that involve advanced use / manipulation / interpretation of various techniques for data analysis: ACCT 4325, BANA 4373, FINC 3330, MGIS 3330, and MGIS 4330. Data will be collected from 1 or more of these courses each cycle to determine student competency in the advanced use of technical tools. The data will reflect the assessment of specific course-level learning objectives from the course(s) that align to the goal of the Business Data Analytics minor.

Criterion Description:

70% of students will earn scores of at least 70% on the relevant assessed assignments.

Findings Description:

ACCT 4325:

LO1: Students will identify what needs to be measured and determine an appropriate, relevant, and reliable measure for the intended use. This is assessed via weekly lab assignments. 75% of students earned scores of at least 70%.

LO2: Students will use technology assisted tools effectively to perform assigned tasks. This is assessed via the use of technology (Excel, PowerPivot, PowerQuery, PowerBI, Access, Visio, Tableau, MS SQL Server, and R) in weekly lab assignments. 79.2% of students earned scores of at least 70%.

MGIS 3330:

Students will demonstrate an understanding of the design and implementation of database applications and how database software works and its inclusion in design solutions.

Sub-objective 1: database creation: 81.8% of online students and 76% of F2F students scored at least 70%

Sub-objective 2: creating simple forms, advanced queries, and automating processes with SQL: 25.9% of online students and 45.8% of F2F students scored at least 70%.

Sub-objective 3: normalizing or optimizing the database: 66.7% of online students and 88% of F2F students scored at least 70%.

MGIS 4330:

LO1: Students will understand and apply essential relational database design and implementation concepts. 75% of students scored at least 70%.

LO2: Students will understand and apply essential SQL skills. 62.5% of students scored at least 70%.

LO3: Students will understand and apply advanced SQL skills. 50% of students scored at least 70%.

RELATED ITEM LEVEL 3

Action items related to the skills section of the minor

Action Description:

ACCT 4325 LO1: Based on assessment results for this learning objective from last semester, in my lectures, I emphasized the need to identify the appropriate measures and analysis to answer the accounting question under investigation. The weekly labs were adjusted to allow students to pick the measures they saw fit for the case study. Although the current assessment results are lower than last semester, I still believe the adjustments made during this semester added more value to student learning.
I intend to continue using the same approach by making modifications to the weekly labs, I will include a more structured lab where I will show an example where the appropriate measures and analysis are predetermined and follow it with the rest of the labs where students must identify measures and proper analysis.

ACCT LO2: Based on assessment results for this learning objective from last semester, I rearranged the lectures to include multiple examples of how to use different tools and then assigned the weekly labs for students to apply their knowledge from the class. The assessment results were low this semester because we covered so many tools. I plan to limit the number of tools and systems and spend more time learning how to apply them in different settings.

RELATED ITEM LEVEL 1

Competency in the use of technology tools

Learning Objective Description:

Business Data Analytics students will demonstrate competency in the use of technology tools.

RELATED ITEM LEVEL 2

Assessment from courses within the Techniques selection of courses within the minor

Indicator Description:

Students choose 3 from a list of 4 courses that involve instruction in various techniques for data analysis: BANA 4365, ECON 4362, MGIS 4315, and MKTG 4350. Data will be collected from 1 or more of these courses each cycle to determine student competency in the aquisition of technical tools. The data will reflect the assessment of specific course-level learning objectives from the course that align to the goal of the Business Data Analytics minor.

Criterion Description:

70% of students should earn scores of at least 70% in the relevant course-level learning objectives.

Findings Description:

From BANA 4365: homework assignments and the final exam

LO1: Students will apply data analysis methods using statistical software. This was assessed via homework assignments throughout the semester. 37.1% of students earned scores of at least 70%.

LO2: Students will interpret and communicate the results of the data analysis. This was assessed via embedded questions on the final exam. 71.4% of students earned scores of at least 70%.

RELATED ITEM LEVEL 3

Action items related to the techniques section of the minor

Action Description:

From BANA 4365: Due to the poor performance on the use of statistical software analysis via the homework assignments, the instructor will alter the assignments to make the statistical software portion separate so that students cannot rely on the other non-software portions of the assignments to earn an acceptable grade while neglecting the software portion. It is hypothesized that it is lack of student initiative on the software portion that is leading to the lack of progress on this objective.

New Update to Previous Cycle's Plan for Continuous Improvement Item

Previous Cycle's Plan For Continuous Improvement (Do Not Modify):

There was no previous plan as this is the first year of this minor.

Update of Progress to the Previous Cycle's PCI:

Assessment results were compiled from 1 course from the technique section and 3 courses in the skills section of the minor. There was at least one course in techniques and one in skills that provided action items.

New Plan for Continuous Improvement Item

Closing Summary:

There were no previous results to compare to as this was the first year of this minor's existance. We will continue to gather data using the current process, but potentially including more courses and eventually isolating the performance of just the students enrolled in the minor (there are too few students to make that possible at this time.)