Assurance of Student Learning 2019-2020	
Gordon Ford College of Business	Information Systems
Business Data Analytics 504#	

Use this page to list learning outcomes, measurements, and summarize results for your program. Detailed information must be completed in the subsequent pages.			
Student Learning Outcome 1: Model and computationally analyze business-oriented data			
Instrument 1	**In-class examinations and projects**		
Instrument 2	**Analysis of Capstone Projects / Poster presentations**		
Instrument 3			
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 1.		**Met**	**Not Met**
Student Learning Outcome 2: Critically identify appropriate data structures to solve business problems			
Instrument 1	**In-class examinations and projects**		
Instrument 2	**Analysis of Capstone Projects / Poster presentations**		
Instrument 3			
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 2.		**Met**	**Not Met**
Student Learning Outcome 3: Understand how to present and communicate graphical information related to various data analytic models			
Instrument 1	**In-class examinations and projects**		
Instrument 2	**Analysis of Capstone Projects / Poster presentations**		
Instrument 3			
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 3.		**Met**	**Not Met**
Program Summary (Briefly summarize the action and follow up items from your detailed responses on subsequent pages.)			
Based on student performance on graded homework assignments and exams in BDAN 310, Drs Butterfield and Crews refined class assignments and expand class coverage of problematic topics.			

Updates for BDAN 330 resulted from reviewing potential employers' assessments of our graduates and in combination with exit interviews with students, SQL [Structured Query Language] was deemed as a potential gap in skills needed to succeed. Therefore, SQL was introduced, first as basic commands in Access (part 1), then using a free software tool ,MySQL.

Student Learning Outcome 1				
Student Learning Outcome	**Model and computationally analyze business-oriented data**			
Measurement Instrument 1	**NOTE: Each student learning outcome should have at least one direct measure of student learning. Indirect measures are not required.** Direct measures of student learning. Students were given a final and written projects that required them to synthesize their work in the program's core courses.			
Criteria for Student Success	Describe what outcomes or achievements should be reached for a student to have "succeeded" using the instrument above. Please attach rubric. Students at the end of the program should be able to create an analytical model to solve a current business problem.			
Program Success Target for this Measurement		90% of the students will be proficient in their ability to analyze data	**Percent of Program Achieving Target**	95%
Methods	Students were given projects to analyze in the following courses: CIS 243 Principles of Management Information Systems BDAN 310 - Business Data Analytics BDAN 330 - Structured Data Analysis BDAN 410 - Decision Support Systems Analysis and Design BDAN 420 - Data Mining BDAN 430 - Data Visualization and Digital Dashboards A detailed grading rubric was used for a final presentation in BDAN 420. A detailed grading rubric for the final project was used for BDAN 430. Due to the pandemic, students were assessed via online presentations. Those summary presentations for BDAN 430 are attached. Youtube links are found in the summary presentations.			
Measurement Instrument 2	**Analysis of Capstone Projects / Poster presentations**			
Criteria for Student Success	**Students will develop practical presentations to demonstrate the selection of adequate solutions to specific business problems.**			

Program Success Target for this Measurement	90% of the students will be proficient in their ability to present their data analytic findings.	**Percent of Program Achieving Target**	**95%**
Methods	Students presented the analysis of their projects in the following courses: BDAN 420 - Data Mining BDAN 430 - Data Visualization and Digital Dashboards A detailed grading rubric was used for a final presentation in BDAN 420. A detailed grading rubric for the final project was used for BDAN 430. Due to the pandemic, students were assessed via online presentations. Those summary presentations for BDAN 430 are attached. Youtube links are found in the summary presentations.		
Measurement Instrument 3			
Criteria for Student Success			
Program Success Target for this Measurement		**Percent of Program Achieving Target**	
Methods			

Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 1.	**Met**	**Not Met**

Actions (Describe the decision-making process and actions planned for program improvement. The actions should include a timeline.)

Based on feedback from the final projects and exams in each of the core classes, the following changes occurred.

Based on student performance on graded homework assignments and exams in BDAN 310, Drs Butterfield and Crews refined class assignments and expand class coverage of problematic topics.

Updates for BDAN 330 resulted from reviewing potential employers' assessments of our graduates and in combination with exit interviews with students, SQL [Structured Query Language] was deemed as a potential gap in skills needed to succeed. Therefore, SQL was introduced, first as basic commands in Access (part 1), then using a free software tool ,MySQL.

Follow-Up (Provide your timeline for follow-up. If follow-up has occurred, describe how the actions above have resulted in program improvement.)

The department evaluates all the major and service courses each year for student and market relevance. Examples of changes brought about by these discussions are listed in the "Actions" section.

Student Learning Outcome 2				
Student Learning Outcome	**Critically identify appropriate data models to solve business problems**			
Measurement Instrument 1	**NOTE: Each student learning outcome should have at least one direct measure of student learning. Indirect measures are not required.** **In-class examinations and projects** Direct measures of student learning. Students were given a final and written projects that required them to synthesize their work in the program's core courses.			
Criteria for Student Success	Students will convert data modeling results into insights that are useful in making decisions.			
Program Success Target for this Measurement	90%	**Percent of Program Achieving Target**	95%	
Methods	Students were given projects to analyze in the following courses: CIS 243 Principles of Management Information Systems BDAN 310 - Business Data Analytics BDAN 330 - Structured Data Analysis BDAN 410 - Decision Support Systems Analysis and Design BDAN 420 - Data Mining BDAN 430 - Data Visualization and Digital Dashboards A detailed grading rubric was used for a final presentation in BDAN 420. A detailed grading rubric for the final project was used for BDAN 430. Due to the pandemic, students were assessed via online presentations. Those summary presentations for BDAN 430 are attached. Youtube links are found in the summary presentations.			
Measurement Instrument 2	**Analysis of Capstone Projects / Poster presentations**			
Criteria for Student Success	**Students will be able to explain their data modeling results and give insights about the interpretation of the data.**			
Program Success Target for this Measurement	**90%**	**Percent of Program Achieving Target**	**95%**	
Methods	Students presented the analysis of their projects in the following courses: BDAN 420 - Data Mining BDAN 430 - Data Visualization and Digital Dashboards A detailed grading rubric was used for a final presentation in BDAN 420. A detailed grading rubric for the final project was used for BDAN 430.			

	Due to the pandemic, students were assessed via online presentations. Those summary presentations for BDAN 430 are attached. Youtube links are found in the summary presentations.			
Measurement Instrument 3				
Criteria for Student Success				
Program Success Target for this Measurement		**Percent of Program Achieving Target**		
Methods				
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 2.			**Met**	**Not Met**

Actions (Describe the decision-making process and actions planned for program improvement. The actions should include a timeline.)

Based on feedback from the final projects and exams in each of the core classes the following changes occurred.

Based on student performance on graded homework assignments and exams in BDAN 310, Drs Butterfield and Crews refined class assignments and expand class coverage of problematic topics.

Updates for BDAN 330 resulted from reviewing potential employers' assessments of our graduates and in combination with exit interviews with students, SQL [Structured Query Language] was deemed as a potential gap in skills needed to succeed. Therefore, SQL was introduced, first as basic commands in Access (part 1), then using a free software tool ,MySQL.

Follow-Up (Provide your timeline for follow-up. If follow-up has occurred, describe how the actions above have resulted in program improvement.)

The department evaluates all the major and service courses each year for student and market relevance. Examples of changes brought about by these discussions are listed in the "Actions" section.

Student Learning Outcome 3	
Student Learning Outcome	**Understand how to present and communicate graphical information related to various data analytic models**
Measurement Instrument 1	**NOTE: Each student learning outcome should have at least one direct measure of student learning. Indirect measures are not required.** Direct measures of student learning. Students were given a final and written projects that required them to synthesize their work in the program's core courses. The faculty also participated in evaluating the student poster presentations. Discussions and a grading rubric for student presentations were used to provide feedback to the students and the instructor for future improvements.

Criteria for Student Success	Students will be able to present and explain their results using various analytical tools.			
Program Success Target for this Measurement	90%		**Percent of Program Achieving Target**	95%
Methods	Students were required to present their research findings in a poster presentation in BDAN 420, Data Mining, and develop data visualization results in BDAN 430, Data Visualization and Digital Dashboards A detailed grading rubric was used for a final presentation in BDAN 420. A detailed grading rubric for the final project was used for BDAN 430. Due to the pandemic, students were assessed via online presentations. Those summary presentations for BDAN 430 are attached. Youtube links are found in the summary presentations.			
Measurement Instrument 2	**Analysis of Capstone Projects / Poster presentations**			
Criteria for Student Success	Students will be able to present and explain their model results in a research forum.			
Program Success Target for this Measurement	**90%**		**Percent of Program Achieving Target**	**95%**
Methods	Students were required to present their research findings in a poster presentation in BDAN 420, Data Mining and develop data visualization results in BDAN 430, Data Visualization and Digital Dashboards A detailed grading rubric was used for a final presentation in BDAN 420. A detailed grading rubric for the final project was used for BDAN 430. Due to the pandemic, students were assessed via online presentations. Those summary presentations for BDAN 430 are attached. Youtube links are found in the summary presentations.			
Measurement Instrument 3				
Criteria for Student Success				
Program Success Target for this Measurement			**Percent of Program Achieving Target**	
Methods				
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 3.			**Met**	**Not Met**
Actions (Describe the decision-making process and actions planned for program improvement. The actions should include a timeline.)				

Follow-Up (Provide your timeline for follow-up. If follow-up has occurred, describe how the actions above have resulted in program improvement.)
Follow-up will occur when the next poster presentation happens for the BDAN 420 course, Fall 2021.