

# Assessment Cycle 2019 – 2020

## College of Business and Technology

### School of Business; Computer Information Systems

Prepared by Dr. Curtis Penrod

Date: 6.12.2020

Approved by Dr. Margaret Kilcoyne

Date: 6.14.2020

**Northwestern Mission.** Northwestern State University is a responsive, student-oriented institution that is committed to the creation, dissemination, and acquisition of knowledge through teaching, research, and service. The University maintains as its highest priority excellence in teaching in graduate and undergraduate programs. Northwestern State University prepares its students to become productive members of society and promotes economic development and improvements in the quality of life of the citizens in its region.

**College of Business and Technology Mission.** The College of Business and Technology is dedicated to providing a high quality – market responsive business and technology education, preparing our diverse student population for successful careers and enriched lives in the public, private and nonprofit sectors, and enhancing our students' academic experiences through our research and scholarly activities. (Adopted September 28, 2015, 04/13/2018)

**School of Business Mission.** The mission of the School of Business is to **provide our diverse student population with a business education that prepares them for successful careers and responsible citizenship roles in the world of business.** (Adopted 2017-2018 Mission wording was revised to include, "our diverse population". As such, NSU's School of Business is committed to...

**Providing students with a business education.** This means that we strive to provide students with opportunities to become effective communicators, critical thinkers, develop knowledge across the business disciplines, and global perspective. (Revised 2012 and approved 2013).

**Preparing them for successful careers and citizenship roles.** This means that we provide education experience and opportunities.

**...In the world of Business.** This implies developing a global perspective that involves managing activities that foster the transfer of goods and services in organizations of all types wherever found.

**Computer Information Systems Mission Statement:** The mission of the BS in Computer Information Systems in the School of Business at Northwestern State is to prepare our diverse student population for careers as information systems and technology professionals in the public, private and nonprofit sectors, and/or for advancement into graduate programs. This purpose will be met by providing quality online and face-to-face business and technology instruction and academic support with high academic standards,

## Assessment Cycle 2019 – 2020

superior teaching, quality research, significant service, and effective use of technology for the citizens of our region. (Approved by CIS faculty on 4/5/2017, 4/13/2018).

**Purpose:** To prepare students for careers as business professionals in the public, private and nonprofit sectors, and/or for advancement into graduate programs.

**Methodology:** The assessment process for the School of Business includes:

- (1) The School of Business and Technology alternates the assessment of its SLO yearly. SLO's 1-4, which are shared among the programs, are assessed during one assessment cycle. SLO 5, which is unique to each program, is assessed during another assessment cycle. This approach allows for a complete program assessment every two years. (Note. SLO starts on page 31).
- (2) A variety of assessment tools (quantitative, qualitative, direct, and indirect) are used to collect data for analysis for each of the five Student Learning Outcomes (SLOs).
- (3) Data is collected and returned to the SLO Chairs.
- (4) Summary results are analyzed to determine if students have achieved or "met" the measurable outcomes. When necessary, proposed action steps are created by each SLO chairman in collaboration with the SLO committee members, faculty teaching core courses, and the program coordinator.
- (5) Following discussion and review by appropriate faculty, if needed, proposed recommended action steps and recommended changes are implemented by the faculty responsible for teaching the courses tied to the SLO.
- (6) Individual meetings are held with faculty and staff as required (show cause).
- (7) In consultation with the staff and senior leadership, proposed changes to measurable outcomes, assessment tools for the next assessment period and, where needed, service changes will be recommended.
- (8) These proposed recommended action steps and recommended changes are implemented by the faculty responsible for teaching the courses tied to the SLO.

### Student Learning Outcomes (SLOs):

**SLO 1. Effective Communicators.** Students should be able to:  
Objective 1a: Produce professional quality business documents;  
Objective 1b: Deliver professional quality oral presentations; and,  
Objective 1c: Demonstrate communication skills in team settings.

Course Map: Tied to course syllabus objectives.

BUAD 2200 Business Reports and Communication (Foundational Course)

## Assessment Cycle 2019 – 2020

MGT 4300	Strategic Management and Policies (Capstone Course)
CIS 4600	Advanced Systems Development (Capstone Course)
UNIV 1000	The University Experience (Support Course)
MKTG 3230	Principles of Marketing (Foundational Course)

### Measure 1a.1 (Direct – Exam; BUAD 2200 Objective Measures)

**Details/Description:** In BUAD 2200, a pre-test that includes an objective exam and a written email letter was developed to provide a comprehensive overview of the business communication requirements and contained such topics as: (1) Laying communication foundations, (2) Using the writing process, (3) Corresponding at work, (4) Reporting workplace data, and (5) Developing speaking and technology skills. This same test is given as a post-test at the end of the semester. The results of the post-test are provided.

**Acceptable Target:** At least 75% of the students must earn 70% or better on the posttest.

**Ideal Target:** At least 85% of the students must earn 70% or better on the posttest.

**Implementation Plan (timeline):** This measurement is completed each semester in BUAD 2200.

**Key/Responsible Personnel:** Key/Responsible Personnel: School of Business faculty teaching BUAD 2200 are responsible for this measurement.

**Finding:** The target was not met.

**Analysis:** The table below shows the results for the 2017-2018 through 2018-2019 academic year for Measure 1a.1. The target was met in AY 2017 but was not met in AY 2019. The trend was a slight decrease in performance.

**Table 1: AY 2017-2018 through AY 2018-2019 Results**

Measure 1a.1				
Academic Year	n (# of students)	Acceptable Target	Ideal Target	Actual Results
2017-2018	206	75%	85%	75%
2018-2019	179	75%	85%	69%

Percentages indicate the percent of students scoring 70% or better on the measure.

**AY 2017-2018:** 206 students were given the BUAD 2200 objective measure (post-test). Of these students, 75% scored 70% or better on the post-test. The acceptable target was met, but ideal target was not met.

**AY 2018-2019:** 179 students were given the BUAD 2200 objective measure (post-test). Of these students, 69% scored 70% or better on the post-test. This indicated a decline

## Assessment Cycle 2019 – 2020

of 6%. The acceptable target was not met.

Based on the analysis of the AY 2017-2018 assessment results, the rigor of the four online sections was strengthened to better ensure parity with the face-to-face sections. When comparing the results of 2017-2018 and 2018-2019 we expected a decline in average test scores due to this strengthening. It should be noted for the AY 18-19, a new faculty member was added during the Spring 2019 semester. The professor reviewed the course and determined that there was a need to realign and strengthen the assessment procedures. This may also have contributed to the decline in the AY 2018-2019 results.

**Decision, action, or recommendation:** Based on analysis of the AY 2018-2019 results, corrective action will be taken in AY 2019-2020. The faculty will be providing an additional comprehensive overview of the business communication requirements in both the face-to-face and online courses in AY 2019-2020. To continue the strengthening of the course topics and assessment, the new faculty member will collaborate with the Course Steward. Also, ALL students will be directed to the Bossier Parish Community College-Open Campus [Free online non-credit courses] in order to aid instruction in the grammar mechanics area.

Since personnel changes have occurred for spring 2019 and the implementation of a mentoring system by the course steward, we anticipate more reliable online data for the AY 2019-2020. Faculty members teaching BUAD 2200 will continue to utilize a variety of pedagogical methods to assist students. Best practices include professors continuing to embed model examples of various business report documents into the course and voice-narrated videos. These videos provide step by step project/assignment directions for use by students. Faculty will re-evaluate the distance learning process, course design, and delivery system and make necessary technical corrections and implement student retention measures with each campus prior to implementing another distance learning section.

### **Measure 1a.2 (Direct – Student Artifact; MGT 4300/CIS 4600 Written Document)**

**Details/Description:** In MGT 4300/CIS 4600, students are required to create a business letter addressing a business problem and deliver the letter as an attachment.

**Acceptable Target:** At least 75% of the students must earn 70% or better on the final business document.

**Ideal Target:** At least 85% of the students must earn 70% or better on the final business document.

**Implementation Plan (timeline):** This measure should be completed each semester as part of the School of Business Common Body Knowledge Exam (SoBUSKE).

**Key/Responsible Personnel:** The School of Business faculty teaching MGT 4300 / CIS 4600 are responsible for completing this measurement.

## Assessment Cycle 2019 – 2020

**Finding:** The acceptable target was not met.

**Analysis:** The table below demonstrates the results of the findings for AY 2017-2018 for Measure 1a.2. The target was met in AY 2017-2018 but was not met in AY 2018-2019. There was a sizable decline in student performance.

**Table 2: AY 2017-2018 through AY 2018-2019 Results**

Measure 1a.2				
Academic Year	n (# of students)	Acceptable Target	Ideal Target	Actual Results
2017-2018	24	75%	85%	100%
2018-2019	20	75%	85%	45%
Percentages indicate the percent of students scoring 70% or better on the measure.				

**AY 2017-2018:** As planned, the School of Business Knowledge Exam (SoBUSKE) was not administered in AY 2017-2018. The faculty teaching MGT 4300 used this time to experiment with new instruction methods to better enhance student learning. In order to address the results deficiency of AY 2016-2017, in AY 2017-2018, a peer learning intervention experimental pilot study was conducted. As a pilot, twenty-four students in MGT 4300 participated in a written business document exercise, 100% of the students (n=24) scored 70% or better on the MGT 4300 Written Document. The ideal target was exceeded. While the method of teaching the assignment was new in the pilot, the assignment was identical to the assessment assignment given in the School of Business Common Body Knowledge Exam (SoBUSKE) in AY 2016-2017. The methodology of evaluation for the student artifacts was also identical. However, as previously stated, the AY 2017-2018 experimental pilot study results are *not* directly comparable to the SoBUSKE results as the pilot class included a chance for revision and peer intervention, while the student submissions for the revised SoBUSKE in AY 2018-2019 did not. Therefore, these findings should only be used as initial evidence that student learning is improving. Again, when the new SoBUSKE exam is instituted, more directly comparable evidence of student learning after exposure to the pedagogical changes will be available.

**AY 2018-2019:** Unlike 2017-2018, this measurement was taken as part of the School of Business Common Body Knowledge Exam (SoBUSKE). The new comprehensive exam provides a more directly comparable evidence of student learning. In 2017-2018, students were given a chance to revise their assignment and had peer review of their work. In 2018-2019, students were given one chance at the assignment as part of the SoBUSKE. Student performance dropped dramatically, and the acceptable target was NOT met.

Based on the analysis of the results, it is likely that changes to the peer intervention assignment affected the results negatively. The pilot was highly successful, but the follow up year was not.

## Assessment Cycle 2019 – 2020

**Decision, action or recommendation:** Based on the analysis of the 2018-2019 results, students benefit from increased attention and refreshers of previously learned material. It was decided that instructors provide a tutorial on letter writing either as part of the class or as ancillary material available to students. A BUAD 2200 faculty member will assist in developing the review. The MGT 4300 faculty members also plans to implement a written document peer learning exercise that only addressed writing knowledge and skills and not the student's ability to attach a document to an e-mail. By adjusting the curriculum to include this exercise, it will be of value to students in enhancing their written communication skills.

In 2019-2020, the Program will further implement these developments in MGT 4300 and other classes. The peer learning exercise has been especially beneficial as it allows students to recognize different quality levels of writing in other students in such a way that it helps them to improve their own writing. Faculty will examine data and teaching methods from the AY 2017-2018 pilot study and the AY 2018-2019 results and determine what caused the decrease in results.

### Measure 1a.3 (Direct – Student Artifact; UNIV1000 Written Document)

**Details/Description:** In UNIV1000 (The University Experience), students are required to create a business letter addressing a business problem and deliver the letter as an email attachment.

**Acceptable Target:** At least 75% of the student must earn 70% or better on the final business document.

**Ideal Target:** At least 85% of the students must earn 70% or better on the final business document.

**Implementation Plan (timeline):** This written document part of the SoBUSKE and will be given each semester beginning in 2018-2019.

**Key/Responsible Personnel:** School of Business Faculty Teaching UNIV1000 School of Business FIG.

**Findings:** The target was not met.

**Analysis:** The table below demonstrates the results of the findings for AY 2018-2019 for Measure 1a.3.

**Table 3: AY 2018-2019 Results**

Measure 1a.3				
Academic Year	n (# of students)	Acceptable Target	Ideal Target	Actual Results
2018-2019	51	75%	85%	0%
Percentages indicate the percent of students scoring 70% or better on the measure.				

## Assessment Cycle 2019 – 2020

**AY 2017-2018:** As planned, the School of Business Knowledge Exam (SoBUSKE) measure was not administered in AY 2017-2018 and therefore this data was not collected or measured in Fall 2017. Again, please see the “A note on the School of Business Knowledge Exam” section under SLO2 for further information.

**AY 2018-2019:** As planned a pilot version of the new SoBUSKE was created and introduced to UNIV 1000 students in the business Freshman Interest Group (FIG). This class introduces students to college life and is required of all students. However, one section of the class is reserved for students majoring in business. Thus, this section provides a baseline for students’ beginning knowledge and ability. The class does not necessarily cover the creation of business documents and the results indicate their lack of initial experience. Of the 51 students in the class, only 12 made an attempt at the assignment.

The next assessment cycle that administers the SoBUSKE will gather baseline data for this measure.

**Decision, action, or recommendation:** Based on the analysis of the AY 2018-2019 assessments results, the faculty agreed that this assessment provides an important benchmark of student skills as incoming students. They also determined that providing a tutorial on letter writing and attaching documents via e-mail is an important skill to introduce to new students. Students will also be directed to the Bossier Parish Community College-Open Campus [Free online non-credit courses] in order to aid instruction in the grammar mechanics area.

### **Measure 1a.4 (Direct – Student Artifact; BUAD 2200 Written Document)**

**Details/Description:** In BUAD 2200 students are required to create a business letter addressing a business problem and deliver the letter as an email attachment.

**Acceptable Target:** At least 75% of the students must earn 70% or better on the final business document.

**Ideal Target:** At least 85% of the students must earn 70% or better on the final business document.

**Implementation Plan (timeline):** This assignment is given in BUAD 2200 each semester.

**Key/Responsible Personnel:** The School of Business faculty teaching BUAD 2200 are responsible for this measure.

**Findings:** The acceptable target was met.

**Analysis:** The acceptable target was met in AY 17-18 and AY 18-19. The table

## Assessment Cycle 2019 – 2020

demonstrates the results of the findings for 2017-2018 and 2018-2019 academic years for Measure 1a.4.

**Table 4: AY 2017-2018 through AY 2018-2019 Results**

Measure 1a.4				
Academic Year	n (# of students)	Acceptable Target	Ideal Target	Actual Results
2017-2018	206	75%	85%	80%
2018-2019	174	75%	85%	78%

Percentages indicate the percent of students scoring 75% or better on the measure.

**AY 2017-2018:** In the academic year 2017-2018, 206 students were given the BUAD 2200 written document measure to complete during BUAD 2200- Business Reports and Communications. It was found that 80% of the students (n=206), scored 70% or better on the written objective (Letter). The acceptable target was met. The ideal target was not met.

Based on the results of the AY 2017-2018 results, a faculty development “Lunch and Learn” session was held to recognize the need for more writing assignments in the classroom. Rubrics and which courses are ideal for writing assignments were discussed. The faculty development session seems to have had little effect on the AY 2018-2019 results. Furthermore, it had been determined in 2017-2018 that business letters and other small writing assignments be given in other classes. While the actual assignment, grading rubric, and delivery method varies among classes, a writing assignment has been added to several classes including Fin 4200, BUAD 3270, and MGT 3220.

**AY 2018-2019:** A sample of 174 students from BUAD 2200 was used to measure this part of the objective. Students wrote a letter as a part of the final exam. It was found that 78% of the students (n-174), scored 70% or better on the written letter. The acceptable target was met. The ideal target was not met. This indicated that the students were able to demonstrate an appropriate use of business reporting understanding, knowledge and skill by providing an acceptable form of written communication, that is, the formal business letter. Although the acceptable target was met, there was a slight decrease (from 80% to 78%) from the previous year.

**Decision, action, or recommendation:** Based on an analysis of the 2018-2019 results, several improvements will be made for 2019-2020. Measures 1a.2, 1a.3, and 1a.4 are the same assignment given at different points in the curriculum. As incoming students, there was a 0% success rate. This increases to 78% when the material is a focus of the class but drops to 45% in the capstone class that does not specifically cover the material. This indicates that retention of information is a major concern. The faculty agree that making mini reviews available to students and repeated exposure to assignments involving core skills is necessary for improved retention.

## Assessment Cycle 2019 – 2020

Additionally, another School of Business Faculty Lunch and Learn Program will be initiated in AY 2019-2020. This activity will provide all faculty an opportunity to participate in recognizing and discussing the need for additional business writing assignments in the classroom. A copy of the rubric used to evaluate the assignment in BUAD 2200 would be made available to score the written document for faculty wishing to assist in the continuous improvement of the student written communication skills within their classroom environment. A review of the instruction given in BUAD 2200 is also being made available to faculty members in other classes. To further aid instruction in the writing process for the BUAD 2200 (Business Reports and Communication) students, instructors will provide opportunities for students to have one-on-one feedback on preliminary written assignments prior to the final written document assignment. Lunch and Learns covering various topics have become and will continue to be a valuable professional development program and discussion forum for our faculty.

### Measure 1b (Direct – Student Artifact; BUAD 2200 Oral Presentation)

**Details/Description:** In BUAD 2200 (Business Reports and Communication), students are required to develop and deliver a 5 minute presentation about conducting business in a foreign country. This presentation is graded with a rubric shared with all students and the professors. Scores of all the raters are compared to provided a final grade.

**Acceptable Target:** : On the final class presentation, a minimum of 90% of students will score at least acceptable (70%).

**Ideal Target:** On the final class presentation, a minimum of 95% of students will score at least acceptable (70)%.

**Implementation Plan (timeline):** This measurement is completed each semester in BUAD2200.

**Key/Responsible Personnel:** School of Business Faculty teaching BUAD 2200 are responsible for this measurement.

**Findings:** The ideal target was met.

**Analysis:** The table below presents the 2017-2018 and 2018-2019 academic year results for Measure 1b.

**Table 4: AY 2017-2018 through AY 2018-2019 Results**

Measure 1b				
Academic Year	n (# of students)	Acceptable Target	Ideal Target	Actual Results
2017-2018	206	90%	95%	91%
2018-2019	177	90%	95%	95%

Percentages indicate the percent of students scoring 70% or better on the measure.

## Assessment Cycle 2019 – 2020

**AY 2017-2018:** In AY 2017-2018, the acceptable target was met. 91% of the students (n=206), scored 70% or better on the final presentation. Steps were taken to address the issues and there has been two consecutive years of improvement in scores. Additionally, the faculty had agreed to intentionally set and maintain a high minimum target of 90% in order to push students toward a higher standard of acceptable oral presentation skills. In business, the ability to present facts and intelligently follow a formal presentation protocol are essential.

**AY 2018-2019:** In AY 2018-2019, the ideal target was met as scores improved from an 91% to a 95%. This represents continued improvement in scores and achievement of the ideal target for the first time. Based on the AY 2017-2018 assessment results, an effort was made during the year to standardize interrater scoring. As a core course for sophomore business students, there are multiple faculty member teaching the class including adjuncts when needed. A senior faculty member became course steward and helped to keep all the faculty teaching and grading methods consistent.

**Decision, action, or recommendation:** Based on an analysis of the 2018-2019 results the following will be implemented to maintain continuous improvement in the curriculum and assessment process in AY 2019-2020 and expand best practices into other areas. Through continued use of the Steward Mentoring program, the faculty expects to see continuation of the results shown during AY 2018-2019. Best practices include professors continuing to embed model examples of various business presentation documents into the course and voice-narrated videos. These videos provide step by step project/assignment directions for use by students. Other courses with multiple instructors have also implemented the course steward framework (such as ACCT 2000 and BUAD 1800).

### **Measure 1c (Direct – Student Artifact; MKTG 3230 Team Presentation)**

**Details/Description:** In MKTG 3230, students are divided into small groups (3 to 4 students) and are required to develop a marketing plan for a new product. In addition to developing a written report, the groups are required to orally present their reports. The presentations were evaluated as Exemplary, Good, Satisfactory, or Unacceptable.

**Acceptable Target:** : At least 75% of the groups will earn an Exemplary or Good score on at least three of the four areas of the grading rubric.

**Ideal Target:** At least 85% of the groups will earn an Exemplary or Good score on at least three of the four areas of the grading rubric.

**Implementation Plan (timeline):** This measurement is completed each semester in MKTG 3230.

**Key/Responsible Personnel:** School of Business Faculty teaching MKTG 3230 are responsible for this measurement.

## Assessment Cycle 2019 – 2020

**Findings:** The Acceptable target was met

**Analysis:** The table below presents the 2017-2018 and 2018-2019 academic year results for Measure 1c.

**Table 5: AY 2017-2018 through AY 2018-2019 Results**

Measure 1c				
Academic Year	n (# of students)	Acceptable Target	Ideal Target	Actual Results
2017-2018	18	75%	85%	83%
2018-2019	13	75%	85%	85%
Percentages indicate the percent of students scoring 70% or better on the measure.				

**AY 2017-2018:** The acceptable target was met as 15 of the 18 groups achieved a score of Good or Exemplary.

**AY 2018-2019:** The results in the spring 2019 were that 11/13 (84.6%) groups scored good or exemplary on 3 of the 4 rubrics. In other words, the students surpassed the acceptable target of 75%, but just missed the ideal target of 85%.

Based on the results of the AY 2017-2018 assessment results, the faculty reviewed the rubrics and determined they were valid. Additionally, to reach the target, the MKTG 3230 faculty reviewed best practices for professional business presentations with the students in the weeks before they presented. This review appears to have been helpful in helping students reach the ideal target and the review will be continued in the future.

**Action - Decision or Recommendation:** Based on an analysis of the 2018-2019 results, the additional review on best practices appears to be beneficial to students. Additionally, the increased usage of peer learning exercises in MKTG 3230 and other classes will benefit team presentation skills. Having students critiquing each others work helps them to identify their own strengths and weaknesses. This not only helps them discover areas to improve, but also helps them in team projects as individual students can specialize according to their strengths. It also helps in team formation as students learn to seek out complementary teammate skills.

**SLO 2. Integration of Knowledge across Business Disciplines.** Students should be able to: Demonstrate understanding of key concepts and theories in various functional areas of business.

Course Map: Tied to course syllabus objectives.

BUAD 2120 Basic Business Statistics (Foundational Course)

## Assessment Cycle 2019 – 2020

CIS 4600	Advanced Systems Development (Capstone Course)
FIN 2150	Personal Finance (Foundational Course)
MGT 4300	Strategic Management and Policies (Capstone Course)
MKTG 3230	Principles of Marketing (Foundational Course)
UNIV 1000	The University Experience (Supporting Course)

### **A note on the School of Business Knowledge Exam (SoBUSKE):**

Data for SLO2 measures 1a.2, 1a.3, 2.1, 2.2, 2.3, and 4.3 are usually gathered through the NSU School of Business Knowledge Exam (SoBUSKE). This exam was administered for over ten years. However, as part of our plan at the end of AY 2016-2017, the exam was only partially administered in AY 2017-2018. During the 2017-2018 academic year, an updated SoBUSKE was developed implemented in Spring 2019. More detail about the need for an updated SoBUSKE can be found in AOL 2 of the 2017-2018 School of Business SACSCOC assessment report for each degree program. A partial trail run of the exam was also administered in Fall 2018. The results from the first official implementation of the test, in spring 2019, are discussed on a subject-by-subject basis below.

### **Measure: 2.1. (Direct – Exam; Partial School of Business Knowledge Exam)**

**Details/Description:** Portions of the School of Business Knowledge Exam are given in the following classes: BUAD 2120 (Basic Business Statistics), FIN 2150 (Personal Finance), and MKTG 3230 (Principles of Marketing). These classes provide intermediate measurements for specific components of the School of Business Knowledge Exam.

**Acceptable Target:** At least 75% of students will score higher than the ETS average in the particular knowledge area.

**Ideal Target:** At least 85% of students will score higher than the ETS average in the particular knowledge area.

**Implementation Plan (timeline):** These partial School of Business Knowledge Exams are given each semester the class is offered.

**Key/Responsible Personnel:** School of Business faculty teaching these courses are responsible for the measurement.

**Findings:** The target was not met in any subject area.

**Analysis:** The national Education Testing Systems (ETS) Major Field Test (MFT) was taken in the spring of 2015 to be used as a national baseline norm over the course of the next 5 years examining the students' comprehensive knowledge of materials over 9 school of business areas of discipline. The exam was administered again in Spring 2019. Additionally, each year students are given the SoBUSKE, our internal exam, focusing on the specific discipline areas. We compare these results against corresponding discipline

## Assessment Cycle 2019 – 2020

areas of the nationally normed ETS MFT in business.

In Spring 2019, the ETS exam was administered and the results in each subject area are shown in the table below along with the corresponding results from the newly implemented 2018-2019 version of the SoBUSKE. SoBUSKE results from prior years will not be discussed as they are not directly comparable. This will serve as the baseline assessment year for the new SoBUSKE.

The results of the 2019 Spring ETS exam, the results of the Spring 2019 SoBUSKE, and the assessment results are summarized in the table below. No subject area met the target.

**Table 6: AOL 2 Summary Table**

Subject	2019 ETS Mean Percent Correct (n=13)	Spring 2019 SoBUSKE Percent Correct	Acceptable Target Met?
Quantitative Business Analysis	28%	46% n=99	No 66% scored better than the ETS' 28%
Finance	44%	39% n=42	No 57% scored better than the ETS' 44%
Marketing	45%	82% n=47	No 70% scored better than the ETS' 45%

In addition to the data above, the following chart gives even more data. The SoBUSKE results from Fall 2018 are shown below but were not considered for assessment purposes as the Fall 2018 was a pilot run of the exam and not all sections were given and not all courses administered the exam. However, the results have been included in the chart to record the data for the sake of completeness and to demonstrate trendlines in some subject areas. The 2015 ETS exam results are also included.

**Table 7: Additional Data – ETS Business Exam Results and SoBUSKE results**

ETS Subject Area	2015 ETS Mean Percent Correct (n=25)	2019 ETS Mean Percent Correct (n=13)	*Fall 2018 SoBUSKE Percent Correct (Partial)	Spring 2019 SoBUSKE Percent Correct	Associated Course(s)
Quantitative Business Analysis	30%	28%	43%	46% n=99	BUAD 2120
Finance	31%	44%	40%	39%	FIN 2150

## Assessment Cycle 2019 – 2020

			n=110	n=42	
Marketing	51%	45%	71% n=28	82% n=47	MKTG 3230
*As this was a pilot for the new SoBUSKE, not all data was submitted.					

From 2015 to 2019, the ETS exam results in Finance improved greatly from 31% to 44%. Meanwhile, the results in Marketing (51% to 45%) and Quantitative Business Analysis (30% to 28%) decreased. The Spring 2019 semester was the inaugural implementation of the revised SoBUSKE, and while comparisons to prior years could be made, the results those comparisons would be unreliable for a variety of reasons, discussed below.

In AY 2018-2019, several problems make creating reliable ETS and SoBUSKE comparisons difficult. However, those difficulties are isolated to AY 2018-2019. First, the ETS exam changes from year-to-year, and while it is a standardized test, the exam given in 2015 consisted of different questions than the exam given in 2019. This could cause some variance in the results. While comparing ETS exam results to past ETS exam results is not part of the official assessment plan (AOL 2), the faculty do examine this data to give us a general idea of trendlines and how are students are doing on an independent created national business exam. However, in Spring 2019, only 13 students took the ETS exam.

This sample size (13) is approximately half the size of the sample taking the 2015 ETS exam (n=25). This small sample size may not contain enough students to properly represent all students in the school of business. For example, 99 students took the Quantitative Analysis section of the SoBUSKE in the spring alone. Using the results from 13 students may not present a large enough representative sample to make an ideal comparison to the SoBUSKE, which in a normal academic year, often has 100 to 200 students in each subject area. To complicate matters further, for the last year the SoBUSKE was under revision, and the full, newly revised exam was only given in Spring 2019. Therefore, the sample size from the SoBUSKE is also smaller than in a typical academic year. However, while the SoBUSKE samples for each subject area are smaller than normal, they are enough. Only the ETS exam, with 13 responses may be a cause for concern.

While the general findings have been discussed above, each subject will be discussed below as well, with results from the old SoBUSKE included for posterity, even if they are not directly comparable. While some instructors reported Spring 2018 results for the old SoBUSKE, those results are incomplete as the old exam was being phased out. Instead, the full AY 2016-2017 results will be included, which is the last year of complete, full academic year data for the old SoBUSKE.

**Finding: BUAD 2120 Basic Business Statistics:** The target was not met.

**Analysis (BUAD only):** While not directly comparable for reasons discussed above, results from the past ETS exam (2015) and full academic year administration of the SoBUSKE (2016-2017) are compared to the new, current baseline testing sessions in 2019. This table refers to Measure 2.1a, which discusses business statistics.

## Assessment Cycle 2019 – 2020

**Table 8: Measure 2.1a: Basic Business Statistics**

Discipline	NSU ETS 2015	Old SoBUSKE AY 2016-2017		NSU ETS 2019	Revised SoBUSKE Spring 2019
<b>Statistics</b>	30%	49%		28%	46%
Percentages indicate the student mean percentage on the discipline area test. Data was collected in courses where the partial SoBUSKE was normally embedded as part of the course materials.					

Note: The scores in the chart above are the unprocessed student mean scores. These are presented for easy interpretation of student trends.

**AY 2016-2017:** 123 students were given the portion or partial of the old SoBUSKE that relates only to the area of statistics. Following compilation of these scores, it was determined the SoBUSKE mean score in statistics was 49%. The NSU ETS MFT mean score was 30%. Comparing the results between the SoBUSKE and the NSU student ETS MFT mean scores, it was determined that 86% of the students scored above 30% on the SoBUSKE. The target was met.

**Spring 2019:** 99 students were given the partial of the revised SoBUSKE that relates only to the area of statistics. Following compilation of these results, it was determined the SoBUSKE mean score in statistics was 46%. The NSU ETS MFT mean score was 28%. Comparing the results between the Spring 2019 SoBUSKE and the NSU student ETS MFT mean scores, it was determined that 66% of the students scored above 28% on the revised SoBUSKE. The target was not met. Instead of 66%, the acceptable target was 75%.

**Action – Decision (BUAD only):** The Spring 2019 statistics results cannot be directly compared with the AY 2016-2017 results, but the trend is a slight decrease in performance. This decrease could be caused by several factors. Among those already discussed, the new, revised SoBUSKE, the new ETS exam results, and the different sample sizes, particularly the small ETS exam sample size, are all of particular concern. It should be noted that the decrease in performance is very minimal, and considering the sample sizes involved, performance is nearly stable.

A new member joined the statistics faculty in Spring 2018 and an introduction to assessment, coordination of teaching efforts and the exchange of knowledge is underway. In AY 2018-2019 statistics faculty implemented a “Providing Evidence Process (PEP)” creating teaching methods for core information tested in the new SoBUSKE and fortifying in the curriculum and classroom to assure beneficial changes were made in the classroom to support key concept learning and improved student learning outcomes. However, until a second set of SoBUSKE results are gathered as a basis for comparison, only minor changes for AY 2019-2020 are recommended. These include refreshing the faculty about core concepts for statistics that are included on the revised SoBUSKE and examining the current exam data to see which areas the students found most troublesome. Those content areas should be focused on in the AY 2019-

## Assessment Cycle 2019 – 2020

2020.

**Finding: FIN 2150 Personal Finance:** Target not met.

**Analysis (FIN only):** While not directly comparable for reasons discussed earlier in Measure 2.1, results from the past ETS exam (2015) and full academic year administration of the SoBUSKE (2016-2017) are compared to the new, current baseline testing sessions in 2019. This table refers to measure 2.1b covering finance.

**Table 9: Measure 2.1b: Finance**

Discipline	NSU ETS 2015	Old SoBUSKE AY 2016-2017	NSU ETS 2019	Revised SoBUSKE Spring 2019
<b>Finance</b>	31%	52%	44%	39%
Percentages indicate the student mean percentage on the measure. Data collected where the partial SoBUSKE was integrated into the course.				

Note: The scores in the chart above are the unprocessed student mean scores. These are presented for easy interpretation of student trends.

**AY 2016-2017:** 120 students were given the portion or partial of the SoBUSKE that relates only to the area of personal finance. Following compilation of these scores, it was determined the SoBUSKE mean score in finance was 43%. In comparison, the NSU ETS MFT student mean score in finance was 31%. It was determined 76% of the students scored above 31% on the SoBUSKE. It was determined of the 120 students taking the SoBUSKE partial exam in finance, 76% of the students scored above 31%.

Therefore, it was determined that the student learning outcome was met with more than 75% of the students scoring higher than the ETS average of 31% in this knowledge area and met the Acceptable Target. The acceptable target was met.

**Spring 2019:** 42 students were given the partial of the revised SoBUSKE that relates only to the area of finance. Following compilation of these results, it was determined the SoBUSKE mean score in finance was 39%. The NSU ETS MFT mean score was 44%. Comparing the results between the Spring 2019 SoBUSKE and the NSU student ETS MFT mean scores, it was determined that 57% of the students scored above 44% on the revised SoBUSKE. The target was not met. Instead of 57%, the acceptable target was 75%.

The Spring 2019 Finance results cannot be directly compared with the AY 2016-2017 results, but the trend is an increase in performance on the ETS exam and a decrease in the SoBUSKE. These mixed results could be caused by several factors. Among those already discussed, the new, revised SoBUSKE, the new ETS exam results, and the different sample sizes, particularly the small ETS exam sample size, are all of particular concern.

## Assessment Cycle 2019 – 2020

Based on the 2016-2017 results, in AY 2017-2018, the faculty reviewed the individual question results on the finance portion of the SoBUSKE to assure that adequate time and attention was given to those question areas where additional improvement could be achieved. The finance portion of the SoBUSKE was modified and in AY 2018-2019 finance faculty, including a new member of the team, implemented a “Providing Evidence Process (PEP)” for core information tested in the new SoBUSKE. These changes were meant to fortify the curriculum and classroom experience to strengthen outcome results in the classroom and on the finance portion of the new SoBUSKE.

The ETS and revised SoBUSKE results indicate that the curriculum may have become better at teaching concepts found on the standardized ETS exam. The increase from 31% (2015) to 44% (2019) is substantial, but the 2019 sample size (n=13) may cause for the results to be misleading. The decrease in the SoBUSKE score could also be due to the new SoBUSKE and smaller than normal (only one semester’s worth of data) sample size.

**Action – Decision (FIN only):** Based on the analysis of the AY 2018-2019 assessment results, in 2019-2020 the faculty will examine the most missed questions on the current SoBUSKE finance section and increase coverage of those topics during the 2019-2020 AY. Until a second year of revised SoBUSKE results are gathered to establish a trendline, major changes are not recommended.

**Finding: MKTG 3230 Principles of Marketing:** The acceptable target was met.

**Analysis (MKTG only):** While not directly comparable for reasons discussed earlier in Measure 2.1, results from the past ETS exam (2015) and full academic year administration of the SoBUSKE (2016-2017) are compared to the new, current baseline testing sessions in 2019. This table refers to measure 2.1c, which is discusses marketing.

**Table 10: Measure 2.1c: Marketing**

Discipline	NSU ETS 2015	Old SoBUSKE AY 2016-2017		NSU ETS 2019	Revised SoBUSKE Spring 2019
Marketing	51%	56%		45%	82%
Percentages indicate the student mean percentage on the measure. Data collected where the partial SoBUSKE was integrated into the course.					

Note: The scores in the chart above are the unprocessed student mean scores. These are presented for easy interpretation of student trends.

**AY 2016-2017:** 87 students were given the marketing portion or partial of the old SoBUSKE. It was determined the mean score in marketing was 56%. In comparison, the NSU ETS MFT mean score in marketing was 51%. It was determined 71% of the students scored above 51% on the SoBUSKE. As the acceptable target was 75% of the students scoring higher than the ETS average of 51% in this knowledge area, the acceptable target

## Assessment Cycle 2019 – 2020

was missed by 4%. The acceptable target was not met.

**Spring 2019:** 47 students were given the marketing portion or partial of the revised SoBUSKE. It was determined the mean score in marketing was 82%. In comparison, the NSU ETS MFT mean score in marketing was 51%. It was determined 70% of the students scored above 51% on the SoBUSKE. As the acceptable target was 75% of the students scoring higher than the ETS average of 45% in this knowledge area, the target was missed by 5%. The acceptable target was not met.

Since AY 2016-2017, marketing faculty that were new to NSU have reviewed the marketing area questions of the SoBUSKE and provided additional instruction and reinforcement in these topic areas. While not listed in the table above, the marketing faculty, wishing to measure their progress even as the old SoBUSKE was being phased out and the new one was under development, gave the old SoBUSKE in the Fall of 2018. The result was an average score of 71%, which was an improvement over the 2016-2017 score of 56%. While the revised SoBUSKE score of 82% in Spring 2019 is not directly comparable as it is a from a different test, the general trend is upward. Meanwhile, the ETS exam results from 2015 to 2019 showed a slight decline, but the differing ETS exam sample sizes and may play a role in the decline.

Based on the AY 2017-2018 assessment results, the faculty put additional emphasis on troublesome content in class. Each year, for the past few years, the marketing faculty has targeted content that students showed weakness on in the assessment results. This effort has led to improved results. Additionally, to build on this success, the marketing portion of the SoBUSKE was reviewed and modified in AY 2018-2019. Marketing faculty are implementing a “Providing Evidence Process (PEP)” introducing and reinforcing the subject materials in the curriculum and classroom to strengthen outcome results.

**Action – Decision (MKTG only):** Based on the improvements in the AY 2017-2018 assessment process, the Spring 2019 SoBUSKE individual question results will also be examined and content areas where students struggled with receive additional instruction in these areas in preparation for similar content on the new SoBUSKE. This practice has led to continued improvement over the last assessment cycle. Considering the steady improvement in SoBUSKE scores over the last two measurement periods, until a full assessment cycle using the revised SoBUSKE is complete, no major changes are recommended. Increasing the classroom focus on problematic content on the SoBUSKE and the growth and experience of our new faculty over the last three years seem to be improving test scores.

### **Measure 2.2 (Direct – Exam; UNIV 1000 Complete School of Business Knowledge Exam)**

**Details/Description:** Portions of the School of Business Knowledge Exam are given in the following classes: BUAD 2120 (Basic Business Statistics), FIN 2150 (Personal Finance), and MKTG 3230 (Principles of Marketing). These classes provide intermediate measurements for specific components of the School of Business

## Assessment Cycle 2019 – 2020

Knowledge Exam.

**Acceptable Target:** At least 75% of students will score higher than the ETS average in the knowledge area.

**Ideal Target:** At least 85% of students will score higher than the ETS average in the knowledge area.

**Implementation Plan (timeline):** These partial School of Business Knowledge Exams are given each semester the class is offered.

**Key/Responsible Personnel:** School of Business faculty teaching these courses are responsible for the measurement.

**Findings:** Data gathering has not yet begun.

**Analysis:** As planned, the School of Business Knowledge Exam (SoBUSKE) was not given in AY 2017-2018. That year was set aside to revise the SoBUSKE. Therefore, there is no analysis data to present. Portions of the revised SoBUSKE were given in several classes in Fall 2018 as a pilot run for the exam, and the fully revised exam was given in Spring 2019. However, the full exam is given at the end of the semester in most classes, but in UNIV 1000, it may be better to give the exam at the beginning of the semester as students are initially entering the university. This would give a better baseline than giving the exam at the end of the semester. Additionally, minor changes to the exam continued in some subject areas throughout the Spring 2019 semester. As a matter of logistics, giving the exam in UNIV 1000 in the spring proved impractical.

**Action-Decision:** The revised SoBUSKE will begin being administered in UNIV 1000 classes in the Fall of 2019. The results from AY 2019-2020 will establish baseline for results in the revised SoBUSKE in UNIV 1000 for measure 2.2. In AY 2018-2019, a new committee chair took over the AOL 2 committee, which includes measures 2.1, 2.2, and 2.3, and changes to the timing of the administration of the revised SoBUSKE in UNIV 1000 will be discussed late in Summer 2019 or early Fall 2019.

### **Measure 2.3 (Direct - Student Artifact; MGT 4300/CIS 4600 Complete School of Business Knowledge Exam)**

**Details/Description:** The entire School of Business Knowledge exam (SoBUSKE) (<https://www.surveymonkey.com/r/N8DENVXT>) should be given in either MGT 4300 or CIS 4600. The following areas are covered in this exam: Accounting, Economics, Management, Quantitative (Statistics and Operations Management), Finance, Marketing, Legal, Information Systems, International Business, and Ethics.

**Acceptable Target:** Average score on School of Business Knowledge exam should be higher in all areas of the exam than the ETS Mean Percentage.

## Assessment Cycle 2019 – 2020

**Ideal Target:** Average scores on School of Business Knowledge exam should be 10% higher in all areas of the exam than the ETS Mean Percentage.

**Implementation Plan (timeline):** The School of Business Knowledge exam is given each semester MGT 4300 and/or CIS 4600 is offered.

**Key/Responsible Personnel:** School of Business Faculty teaching either MGT 4300 or CIS 4600 are responsible for this measure.

**Findings:** Target not met.

**Analysis:** The full revised SoBUSKE was administered in MGT 4300 in the Spring of 2019. This class typically has students who are nearing graduation. A breakdown of those students' average scores is shown and compared to the 2019 ETS exam results in the table below. While not directly comparable, the results from the 2015 ETS exam and the AY 2016-2017 old SoBUSKE results are included for general trend comparisons.

**Table 11: Measure 2.3: SoBUSKE and ETS Exam Results**

ETS Subject Area	2015 ETS Mean Percent Correct (n=25)	AY 2016-2017 Old SoBUSKE Results from MGT 4300 and CIS 4600 (n=60)	2019 ETS Mean Percent Correct (n=13)	Spring 2019 Revised SoBUSKE Results from MGT 4300 (n=23)	Target met?
Accounting	37%	60%	41%	57%	Yes
Economics	30%	45%	30%	37%	No
Management	47%	63%	52%	58%	No
Quantitative Business Analysis	30%	70%	28%	53%	Yes
Finance	31%	54%	44%	38%	No
Marketing	51%	71%	45%	69%	Yes
Legal and Social Environment	53%	70%	36%	49% (Avg of 3 law courses)	Yes
Information Systems	43%	75%	47%	68%	Yes
International Issues	35%	56%	35%	43%	No
Ethics	N/A	N/A	N/A	64%	N/A

While the five individual subject areas, including accounting, quantitative analysis,

## Assessment Cycle 2019 – 2020

marketing, legal and social environment, and information systems, met or exceeded the target, four (economics, management, finance, and international issues) did not. Also, the ETS exam does not have an Ethics section. Therefore, those scores as listed as N/A in the table above.

The 2019 ETS exam and the Spring 2019 revised SoBUSKE are both new tests. Hence, tests and results from AY 2016-2017 are not directly comparable. However, the general trend is that the ETS exam scores are up, while the revised SoBUSKE scores are typically about the same or lower. There is only one semester of data using the revised SoBUSKE, so again, no reliable comparison to be made. This may indicate that the revised SoBUSKE is more difficult than the older exam, or it could indicate a variety of other causes, such as faculty still adapting their course content to the revised exam, changes in the student body, or unknown variables.

As planned, the full SoBUSKE was not given in AY 2017-2018. Therefore, there is no analysis or data to present. See measure 2.1 for discussion of the partial results.

Furthermore, the law section of the exam is now measured across three separate low courses, each one tailored to meet the needs of the specific major (Information Systems, Accounting, or Business Administration). This change was intended to give students in each major customized law content more in line with their specific field of study. While the average reported above is an average of all three, the instructors of each course can examine the results in each course or by each major and even more specific detail. If any individual law course did not meet the assessment results, corrective action may be implemented in that specific law course.

**Action-Decision:** In AY 2017-2018, faculty across eleven (11) discipline areas began developing the new SoBUSKE for implementation in AY 2018-2019. In an effort to continuously improve the learning environment for our students, faculty members also updated their curriculum to reflect current key and core concepts incorporated into the new SoBUSKE administered in AY 2018-2019. A pilot for the revised SoBUSKE was implemented in most classes in Fall 2018, and the completed revised exam was successfully administered in Spring 2019. (Note: Per Measure 2.2, the only course in which the exam was not administered was UNIV 1000.)

Additionally, faculty continue to implement “Providing Evidence Process (PEP)” identifying among discipline area instructors where and how the core information being tested in the new SoBUSKE is being introduced and reinforced in the curriculum and classroom.

Based on past assessment results, going forward, instructors in each subject area will be asked to review the questions that were most widely missed on the revised SoBUSKE and emphasize that material in their classes. This practice will be emphasized for subject areas in which the target was not met. Furthermore, in 2018-2019, the committee in charge of AOL 2 received a new committee chair. That chair and the committee will meet in early Fall 2019 to discuss the results of the first full execution of the revised SoBUSKE

## Assessment Cycle 2019 – 2020

as well as the ETS exam results. If the minimal ETS sample size is deemed insufficient, administering the ETS exam again with more students may be a possibility. As this was the first semester using the revised SoBUSKE, changes to the curriculum and instruction will be implemented with caution until a full year of assessment data is gathered in AY 2019-2020.

**SLO 3. Critical Thinking.** The objectives of SLO3 Critical Thinking are that students should be able to:

- Objective 3a: Demonstrate the ability to draw on knowledge and insights from a variety of disciplines when analyzing and formulating solutions to problems and opportunities
- Objective 3b: Demonstrate the ability to generate and compare alternatives solutions to business problems.
- Objective 3c: Demonstrate the ability to select feasible solutions to complex business problems.

Course Map: Tied to course syllabus objectives.

FIN 3090 Business Finance (Foundational Course)  
FIN 4200 Financial Policies and Practices (Foundational Course)  
MGT 4300 Strategic Management and Policies (Foundational Course)  
UNIV 1000 The University Experience (Supporting Course)

### **Measure 3.1 (Direct – Other; FIN 3090 Critical Thinking Quiz)**

**Details/Description:** In order to access critical thinking skills, two articles are presented that cover current topics in business. Students are given a 10-question quiz covering the arguments made in the articles, evidence supporting the arguments, and deductive reasoning based on the arguments. The questions were a bonus opportunity for students so that they would be motivated to do their best.

**Acceptable Target:** The acceptable target is an average of 75% and 70% of the students achieving a 70% or greater.

**Ideal Target:** The ideal target is an average of 80% and 80% of the students achieving a 70% or greater.

**Implementation Plan (timeline):** This measure is given annually (Spring semester) in the FIN 3090 class.

## Assessment Cycle 2019 – 2020

**Key/Responsible Personnel:** School of Business faculty teaching FIN 3090 are responsible for this measure.

**Findings:** The acceptable target was met. The ideal target was not met.

**Analysis:** The table below provides the 2017-18 through 2018-19 academic year results for Measure 3a.

**Table 12: AY 2017-2018 through AY 2018-2019 Results**

Measure 3a				
Academic Year	n (# of students)	Acceptable Target	Average Score	Percentage passing
2017-2018	37	75%	75.7%	73%
2018-2019	29	75%	78.6%	83%

**AY 2017-2018:** The acceptable target was met. A new quiz was developed using actual news articles related to business regulation as opposed to generic critical thinking reading selections. The articles were selected as these topic areas are more relevant to students and assesses material being taught in the classroom. Questions were developed by the faculty. This may have made the exam more difficult and consequently may have negatively impacted the results. Students also have opinions about regulations that may have influenced their answer choices. For instance, answering questions based on their views instead of the article's viewpoint. One of the important goals of critical thinking is to be able to question one's own biases and as related to the business world and believe this exercise helps students to do this even if it resulted in lower scores.

Based on these 2017-2018 results, students were assigned to research a regulatory topic in Fin 4200. This was instituted in 2018-2019 as part of the recommendations. The assignment was done in a debate framework where students were either told to be for or against a specified topic. This was intended to break students out of their own viewpoint and improve their ability to view issues from alternate viewpoints.

**AY 2018-19:** The average grade on the quiz was 78.6% and 83% of students made a 70% or better. Therefore, the acceptable target was met, but the ideal target was not met. The results for AY 2018-19 were higher than the results for the previous year.

**Decision, action, or recommendation.** Based on the analysis of the 2018-2019 results, a decision was made to expand the use of regulatory discussion and debate. This will include a written report and oral presentation in Fin 4200. While these efforts are expected to improve the critical thinking skills of our BUAD graduates, the intervention comes after the annual critical thinking measurement in Fin 3090. The revised 4200 class also includes more discussion of current events involving finance. The critical-thinking

## Assessment Cycle 2019 – 2020

'business regulations' quiz introduced in AY 2017-2018 will be administered again in AY 2019-2020 and comparable assessment results will be analyzed.

### Measure 3.2 (Direct – Other; FIN 4200 Business Simulation Game)

**Details/Description:** In AY 2017-2018, a business simulation game was added to Fin 4200 as a method for students to make business decisions, analyze results, and modify their decisions. The business simulation game is called GoVentureCEO. In this game students choose are given an initial budget and allocate those funds to Production, Distribution, R&D, Marketing, Human Resources, and Ethics. Students determine how many units to produce, how much to invest in R&D in order to make a better product, how much to charge per unit, whether to expand to new areas, and how much to spend on marketing of the product. The game takes place over 6-8 periods and students update their decisions each period after analyzing their results. Students compete against each other in order to be the most profitable and decisions made by other students affect results. Credit is given for activity and bonus points are given to the top performers.

**Acceptable Target:** 50% of the students will be profitable over the course of the game.

**Ideal Target:** 75% of the students will be profitable.

**Implementation Plan (timeline):** Game is offered each semester in Fin 4200.

**Key/Responsible Personnel:** School of Business Faculty teaching Fin 4200

**Findings:** The Acceptable Target was met, but the Ideal Target was not met.

**Analysis:** The table below provides the 2017-18 through 2018-19 academic year results for Measure 3b.

**Table 13: AY 2017-2018 through AY 2018-2019 Results**

Measure 3b				
Academic Year	n (# of students)	Percent Profitable	Avg. Profit Period 1	Avg. Profit Period 8
2017-2018	60	53%	-2.98	4.42
2018-2019	40	63%	5.01	6.13

**AY 2017-2018:** The percentage of students achieving profitability for AY 2017-2018 was 53% indicating that the acceptable target was met. Additionally, students are improving over the course of the game as they learn from prior periods. The average profitability in the final period was higher than the average in the first period indicating that students improved throughout the game. The poor results in period 1 indicated that students needed better preparation prior to the beginning of the game.

## Assessment Cycle 2019 – 2020

Based on the results of the AY 2017-2018 assessment process, the faculty worked to explain the game better earlier in the semester. This likely led to the improved results in AY 2018-2019.

**AY 2018-2019:** The percentage of students achieving profitability for AY 2017-2018 was 63% indicating that the acceptable target was met. This is an increase of 10% points over 2017-2018. A large part of the improvement came from students performing better in the initial period. This may be due to improvement in the initial explanation of the game.

**Decision, action, or recommendation:** Based on the analysis of the 2018-2019 results, the business simulation game administered has been a successful addition to the Fin 4200 class. One of the interesting discoveries to students is that there are often many ways to win. Some students follow a low-cost, high-volume approach while others invest more into the quality of their product and sell it for more. Students who overprice their low-quality products end up with lots of unsold inventory while other students have missed sales if demand exceeds their production. The chance to beat the professor also inspires them to do their best. It is expected to continue to provide this simulation game in AY 2019-2020.

### Measure 3.3 (Direct – Other; FIN 3090 Case Analysis)

**Details/Description:** Case studies link financial ideas to real events and real policies. Finance 3090 examines corporate financing, investment decisions and related issues in financial strategy. The student must deal with the situation described in the case, in the role of the manager or decision maker facing the situation. By engaging in the case, students apply the concepts, techniques and methods of the discipline and improve their ability to apply them. Students are required to identify the principle questions of the case and perform an analysis using the appropriate tools and knowledge to identify challenges and ambiguities in the case. Students learn the material more deeply when they are active generators rather than passive recipients of knowledge and retain more of the material as they apply the concepts and methods. Cases compel students to work on real world problems that are complicated and messy which require students to hone skills in identifying and using evidence, choosing which concepts, theories and methods are relevant, and ignoring extraneous and irrelevant material. Case analysis develops skills in problem solving, quantitative and/or qualitative analytical tools, decision making in complex situations, and coping with ambiguities.

**Acceptable Target:** The acceptable target is an average of 75% and 70% of the students achieving a 70% or greater.

**Ideal Target:** The ideal target is an average of 80% and 80% of the students achieving a 70% or greater

**Implementation Plan (timeline):** This assignment measure is given each semester in the FIN 3090 class.

## Assessment Cycle 2019 – 2020

**Key/Responsible Personnel:** School of Business faculty teaching FIN 3090 are responsible for this measure.

**Findings:** The Acceptable and Ideal Target were met.

**Analysis:** Table 14 presents the results for 2017-2018 through 2018-2019 academic years.

**Table 14: AY 2017-2018 through AY 2018-2019 Results**

Measure 3c				
Academic Year	# of Students	Acceptable Target	Ideal Target	Percentage passing
2017-2018	35	75%	85%	82.9
2018-2019	82	75%	85%	90.2

**AY 2017-2018:** The acceptable target was met, but the ideal target was not met as 82.9% of the students achieved a passing grade of 70% or higher. The 2017-2018 results indicated that students were having difficulty developing alternative scenarios needed to bolster the justification for their decisions.

Based on the AY 2017-2018 assessment results, in 2018-2019, students were assigned a review of Excel spreadsheets as the case involves using a spreadsheet to make a capital budgeting decision. Students were shown how changing assumptions of the model affected outcomes in future years.

**AY 2018-2019:** The acceptable and the ideal target were met. 90.2% (74/82) of the students achieved a passing grade of 70% or higher.

**Decision, action, or recommendation.** Based on the analysis of the 2018-2019 results, it was determined that case analyses allow students to see actual applications of the topics discussed. In order to improve their understanding in AY 2019-2020, students will be required to post discussions of current event articles related to business such as mergers, IPOs, or other events. This will result in students being able to connect real life events to the sanitized case studies used in textbook case studies. Both successful and unsuccessful companies are examined in order to see how specific decisions affected the outcomes of the companies.

**SLO 4. Global, Cultural, and Ethical Perspective.** Students should be able to: Identify cultural/global challenges facing management in doing business in the international arena.

Course Map: Tied to course syllabus below.

## Assessment Cycle 2019 – 2020

ACCT 2000 Financial Accounting (Foundational Course)  
 BUAD 2200 Business Reports and Communications (Foundational Course)  
 BUAD 3270 International Business (Foundational Course)  
 CIS 4600 Advanced Systems Development (Capstone Course)  
 MGT 4300 Strategic Management and Policies (Capstone Course)  
 UNIV 1000 The Student Experience (Supporting Course)

### Measure 4.1. (Direct – Exam; BUAD 2200)

**Details/Description:** Written document measure (BUAD 2200)

**Acceptable Target:** 70% of the students will score 70% or better.

**Ideal Target:** 90% of the students will score 70% or better.

**Implementation Plan (timeline):** Ongoing in BUAD 2200.

**Key/Responsible Personnel:** School of Business Faculty Teaching BUAD 2200.

**Findings:** The ideal target was met.

**Analysis:** The table below directly compares the 2017-2018 and 2018-2019 academic year results for Measure 4.1.

**Table 15: AY 2017-2018 vs. AY 2018-2019 Comparison**

Measure 4.1				
Academic Year	n (# of teams)	Acceptable Target	Ideal Target	Actual Results
2017-2018	51	70%	90%	98%
2018-2019	45	70%	90%	96%

Percentages indicate the percent of teams scoring 70% or better on the measure.

**AY 2017-2018:** During the school term 51 groups (n=206 students) completed the BUAD 2200 Country Report and 98% of the students in the teams (51), scored 70% or better on the BUAD 2200 Country Report. The acceptable target was exceeded. The ideal target was met.

Based on the AY 2017-2018 assessment results, although the results met the ideal target, changes to the class were made that affected this project. As discussed earlier, a senior faculty member was assigned as course steward for this BUAD 2200 and other courses taught by multiple faculty members. Additionally, examples of business documents were made available to students along with embedded videos.

**AY 2018-2019:** During the school term, 45 groups (180 students) completed the BUAD 2200 Country Report. 96% of the students scored 70% or better. Compared to the 2017-2018 academic year, this represents a 2% decrease. However, it should be noted that

## Assessment Cycle 2019 – 2020

the ideal target was met both years.

**Action-Decision:** Faculty members teaching BUAD 2200 will continue to utilize a variety of pedagogical methods to assist students with their group written country reports. Best practices include professors continuing to embed model examples of various business report documents into the course and voice-narrated videos. These videos provide step by step project/assignment directions for use by students. Additionally, as we are continually hitting the ideal target, we will consider raising the minimum acceptable target from 70% of students scoring 70% to a score of 75%, and the ideal target from 90% of students scoring a 70% or above to scoring 75% or above to strengthen the targets. Faculty will also re-evaluate the existing rubric to determine if it is necessary to increase its rigor.

### Measure 4.2 (Direct – Exam; BUAD 3270 International Business Plan)

**Details/Description:** Middle measure of student knowledge of cultural/global perspectives; a written document measure in BUAD 3270.

**Acceptable Target:** 70% of the students will score 70% or better.

**Ideal Target:** 90% of the students will score 70% or better.

**Implementation Plan (timeline):** Ongoing in BUAD 3270 class.

**Key/Responsible Personnel:** School of Business Faculty Teaching BUAD 3270.

**Findings:** The ideal target was met.

**Analysis:** The table below directly compares the 2017-2018 and 2018-2019 academic year results for Measure 4.2.

**Table 16: AY 2017-2018 vs. AY 2018-2019 Comparison**

Measure 4.2				
Academic Year	n (# of students)	Acceptable Target	Ideal Target	Actual Results
2017-2018	191	70%	90%	98%
2018-2019	180	70%	90%	96%

Percentages indicate the percent of teams scoring 70% or better on the measure.

**AY 2017-2018:** In Fall 2017, 102 students were registered in BUAD 3270 classes. 98 students participated in written final report of International Business Plan group project. The semester average grade of these 98 students for the written document results in fall 2017 was 88%. All 98 students scored 70% or better. That is, 100% of the students in the Fall semester exceeded the acceptable target and met the ideal target.

## Assessment Cycle 2019 – 2020

In Spring 2018 semester, 93 students registered in BUAD 3270 classes. 92 students participated in written final report of International Business Plan group project. The semester average grade of these 92 students for the written document results in Spring 2018 was 85%. 88 students scored 70% or better. That is, 96% of the students in the Spring semester exceeded the acceptable target and met the ideal target.

According to the above data, the average grade for the written document in 2017-2018 academic year was 86%, 98% of the students in the year scored 70% or better. We met the Acceptable Target and Ideal Target.

Based on these results, students are performing well on their international business plans. However, the faculty decided to implement some of the practices that showed promise in other classes. Specifically, they decided to allow students to submit their work for review in order to receive feedback before the final report was submitted.

**AY 2018-2019:** In Fall 2018, 86 students registered in BUAD 3270 classes. 80 students participated in written final report of International Business Plan group project. The semester average grade of these 80 students for the written document results in fall 2018 was 84%. 91% students scored 70% or better. That is, 91% of the students in the Fall semester exceeded the acceptable target and met the ideal target.

In Spring 2019 semester, 101 students registered in BUAD 3270 classes. 100 students participated in written final report of International Business Plan group project. The semester average grade of these 92 students for the written document results in Spring 2019 was 86%. 100 students scored 70% or better. That is, 100% of the students in the Spring semester exceeded the acceptable target and met the ideal target.

According to the above data, the average grade for the written document in AY 2018-2019 academic year was 85%, 96% of the students in the year scored 70% or better. We met the Acceptable Target and Ideal Target.

**Compared to AY 2017-2018,** the mean final report grade of AY 2018-2019 decreased by 1%; the percentage of students achieving 70% or better decreased by 2%. The percentage of students achieving below 70% was increased. The main reason for this decrease results from one group of seven students in fall 2018 which submitted the final report in draft style in three sections of the report. The group got a grade below 70%.

AY 2017-2018 good practices continued in AY 2018-2019. The faculty responsible for BUAD 3270 provided coaching and provided model examples of success for this project in each class. In AY 2018-2019 the faculty also acted to provide students with occasions to submit written sections of the report for review and additional time for individual and group oral demonstrations providing opportunities for increased mastery.

**Action-Decision:** Based on an analysis of the 2018-2019 results, in 2019-2010 it is recommended the School of Business faculty responsible for BUAD 3270 continue the good practice in coaching this project in all classes but take action to avoid students

## Assessment Cycle 2019 – 2020

submitting the wrong format final report. The faculty will require all groups to submit the first two parts of the report (Part A and Part B) in correct APA style rather than a draft for review.

### Measure 4.3 (Direct – Exam; BUAD 3270 Direct Measure)

**Details/Description:** The International Business portion of the SoBUSKE is given in BUAD 3270.

**Acceptable Target:** Average score should be equal or higher than the ETS International Business score.

**Ideal Target:** Average score should be 10% higher than the ETS International Business score.

**Implementation Plan (timeline):** Ongoing in BUAD 3270 class.

**Key/Responsible Personnel:** School of Business Faculty Teaching BUAD 3270.

**Findings:** The ideal target was met.

**Analysis:** The table below displays the 2018-2019 academic year results for Measure 4.3.

**Table 17: AY 2017-2018 vs. AY 2018-2019 Comparison**

Measure 4.3				
Academic Year	n (# of students)	Acceptable Target	Ideal Target	Actual Results
2018-2019	168	35% Based on ETS data	45%Based on ETS data	Avg. score is 52%

**AY 2017-2018:** As stated previously, the SoBUSKE was not offered in 2017-2018 and there are no results to analyze.

**AY 2018-2019:** Preliminary analysis provide a 52% average score in the International Business Partial SoBUSKE exam. The International Issues score on the ETS exam was 35% so that the acceptable and ideal target were met. It should be noted that the International score on the SoBUSKE was 43% for the students taking the entire exam in MGT 4300 and 52% for the students in BUAD 3270. This difference is understandable given the emphasis placed in international issues in BUAD 3270.

## Assessment Cycle 2019 – 2020

**Action-Decision:** Based on the analysis of the 2018-2019 results, it was determined that students perform well when international issues are the focus of the course, but their performance drops off when they are not exposed to the information. International issues are touched upon in several other classes, but greater emphasis can be made in several classes. In order to encourage greater usage and consistency in other classes, it was determined that the International Business faculty develop a mini-lesson that summarizes the major ideas of International Business. These mini-lessons can be provided to other faculty so that they can be available to students.

**SLO 5: Students will demonstrate the ability to solve problems from an integrated multi-disciplinary business perspective.**

Course Map: Tied to course syllabus objectives.

CIS 1015 – Introduction to Computer Information Systems (Foundational Course)

CIS 1030 – Introduction to Software Development (Foundational Course)

CIS 2050 – Essentials of Network Design and Hardware (Foundational Course)

CIS 2980 – Database Systems (Foundational Course)

CIS 3020 – Web Page Development (Foundational Course)

CIS 3900 – Systems Analysis and Development (Capstone Course)

CIS 4600 – Advanced Systems Development (Capstone Course)

### Measure 5.1. (Direct – knowledge)

The comprehensive computer information systems knowledge exam was given in CIS 1015 – Introduction to Computer Information Systems to establish a baseline. For a midpoint measurement, faculty administered the exam in CIS 3300 – Intermediate Object-Oriented Programming and CIS 3400 – Telecommunications and Networks. For the final measurement, faculty administered the exam in CIS 4600 – Advanced Systems Development. The acceptable target was students would score an 80% or better.

### Findings:

**AC 2019 – 2020:** The 80% target was not met.

**Analysis.** In the 2016-2017 academic cycle, the Computer Information Systems faculty developed the fifth student learning outcome and its associated measurements. Thus, the 2017-2018 academic cycle represented the baseline year on this student learning outcome.

In 2017-2018, the 80% target was not met. The actual percentages by subject area were as follows for the final measurement in 2017-2018:

- 42% for Introduction to Computer Information Systems
- 36% for Introduction to Software Development
- 47% for Essentials of Network Design and Hardware
- 54% for Database Systems

## **Assessment Cycle 2019 – 2020**

- 14% for Web Page Development
- 30% for Systems Analysis and Development
- 20% for Advanced Systems Development

The table below shows more detailed results from the comprehensive examination in 2017-2018.

## Assessment Cycle 2019 – 2020

Table 1

	<u>Question Type</u>	<u>CIS 1015</u>	<u>CIS 3300 &amp; CIS 3400</u>	<u>CIS 4600</u>
Responses		226	63	48
		<u>Percentage Correct</u>		
1015 Q1 - Loop	MC	23%	60%	58%
1015 Q2 - Planning	MC	85%	87%	83%
1015 Q3 - Structured Program Characteristics	Essay	10%	21%	14%
1015 Q4 - Benefits of Structures	Essay	4%	10%	14%
CIS 1015 Average		31%	45%	42%
1030 Q1 - Object of a Class	MC	17%	56%	56%
1030 Q2 - Value of X	MC	19%	30%	29%
1030 Q3 - Variable Definition	Essay	16%	24%	29%
1030 Q4 - Types of Control Structures	Essay	18%	42%	29%
CIS 1030 Average		17%	38%	36%
2050 Q1 - Type of Computer Network	MC	45%	46%	58%
2050 Q2 - Unit of Clock Speed	MC	44%	63%	63%
2050 Q3 - Microchip on Motherboard	MC	25%	44%	58%
2050 Q4 - Troubleshooting Process	Essay	13%	47%	31%
2050 Q5 - Dual and Quad Channel Memory	Essay	18%	32%	26%
CIS 2050 Average		29%	47%	47%
2980 Q1 - Normalization	MC	66%	71%	71%
2980 Q2 - Many-to-many Relationship	MC	35%	38%	46%
2980 Q3 - Types of Relationships	Essay	20%	55%	58%
2980 Q4 - ERDs	Essay	14%	41%	42%
CIS 2980 Average		34%	51%	54%
3020 Q1 - Link	MC	12%	30%	31%
3020 Q2 - Inline Images Attribute	MC	19%	21%	25%
3020 Q3 - Selected Option Button	MC	10%	19%	13%
3020 Q4 - Connecting to External CSS File	Essay	0%	0%	0%
3020 Q5 - Creating Rows and Columns	Essay	0%	0%	0%
CIS 3020 Average		8%	14%	14%

## Assessment Cycle 2019 – 2020

3900 Q1 - SDLC Analysis Phase	MC	32%	37%	29%
3900 Q2 - Dynamic Schedule	MC	23%	43%	56%
3900 Q3 - Phases of SDLC	Essay	8%	14%	20%
3900 Q4 - Functional Model Elements	Essay	4%	23%	17%
CIS 3900 Average		17%	29%	30%
4600 Q1 - Agile Software Development	MC	28%	35%	31%
4600 Q2 - Scrum Phases	MC	39%	37%	23%
4600 Q3 - 2nd Value of Agile Manifesto	Essay	4%	8%	17%
4600 Q4 - SCRUM framework	Essay	1%	11%	10%
CIS 4600 Average		18%	23%	20%

The expectation for the CIS 1015, CIS 1030, CIS 2050, CIS 2980, and CIS 3020 responses was lower responses from the CIS 1015 test group followed by increased scores at the midpoint. For the final point, the expectation was maintenance or further increase from the midpoint. All five areas saw increases from the baseline to the midpoint. However, two of the five groups saw decreases from the midpoint to the final measurement.

The expectation for the CIS 3900 and CIS 4600 responses was for lower responses from the baseline and midpoint groups with increased responses for the final measurement. A slight increase occurred for the CIS 3900 area with a decrease occurring for the CIS 4600 area.

The results indicated the most difficulties with Web Page Development concepts, Advanced Systems Development concepts, and Systems Analysis & Design concept.

Based on the analysis of the 2017-2018 results, the faculty made the following changes in the 2019-2020 to drive the cycle of improvement. After students showed a lack of effort in the 2017-2018 academic cycle, instructors decided to “grade effort” in the respective classes to increase the effort students were giving. This change seems to have helped with the scores as the percentage increased for every subject area. However, in reviewing the data, some students still did not give much effort in answering the exam, particularly on essay question. Cheating also remains a concern.

The faculty also reviewed the test results to ensure the test questions exhibited clarity as to what the faculty are expecting in the responses. At the time, the faculty decided to leave the questions as they were to determine if additional effort changed the results.

As a result of these changes, in 2019-2020, the target was not met. The actual percentages by subject area are as follows for the final measurement:

- 49% for Introduction to Computer Information Systems

## Assessment Cycle 2019 – 2020

- 43% for Introduction to Software Development
- 51% for Essentials of Network Design and Hardware
- 57% for Database Systems
- 32% for Web Page Development
- 37% for Systems Analysis and Development
- 29% for Advanced Systems Development

The table below shows more detailed results from the comprehensive examination.

*Table 2*

	<u>Question Type</u>	<u>CIS 1015</u>	<u>CIS 3300 &amp; CIS 3400</u>	<u>CIS 4600</u>
Responses		177	60	35
		<b>Percentage Correct</b>		
1015 Q1 - Loop	MC	24%	70%	83%
1015 Q2 - Planning	MC	86%	90%	86%
1015 Q3 - Structured Program Characteristics	Essay	2%	13%	23%
1015 Q4 - Benefits of Structures	Essay	0%	0%	3%
<b>CIS 1015 Average</b>		<b>28%</b>	<b>43%</b>	<b>49%</b>
1030 Q1 - Object of a Class	MC	20%	52%	60%
1030 Q2 - Value of X	MC	22%	43%	43%
1030 Q3 - Variable Definition	Essay	3%	38%	23%
1030 Q4 - Types of Control Structures	Essay	14%	52%	46%
<b>CIS 1030 Average</b>		<b>15%</b>	<b>46%</b>	<b>43%</b>
2050 Q1 - Type of Computer Network	MC	40%	55%	63%
2050 Q2 - Unit of Clock Speed	MC	36%	70%	66%
2050 Q3 - Microchip on Motherboard	MC	27%	52%	63%
2050 Q4 - Troubleshooting Process	Essay	12%	40%	40%
2050 Q5 - Dual and Quad Channel Memory	Essay	12%	37%	26%
<b>CIS 2050 Average</b>		<b>25%</b>	<b>51%</b>	<b>51%</b>
2980 Q1 - Normalization	MC	68%	80%	74%
2980 Q2 - Many-to-many Relationship	MC	36%	57%	57%
2980 Q3 - Types of Relationships	Essay	16%	75%	54%
2980 Q4 - ERDs	Essay	5%	45%	43%

## Assessment Cycle 2019 – 2020

CIS 2980 Average		31%	64%	57%
3020 Q1 - Link	MC	9%	38%	40%
3020 Q2 - Inline Images Attribute	MC	20%	22%	29%
3020 Q3 - Selected Option Button	MC	10%	27%	29%
3020 Q4 - Connecting to External CSS File	Essay			
3020 Q5 - Creating Rows and Columns	Essay			
CIS 3020 Average		13%	29%	32%
3900 Q1 - SDLC Analysis Phase	MC	38%	38%	49%
3900 Q2 - Dynamic Schedule	MC	23%	33%	51%
3900 Q3 - Phases of SDLC	Essay	6%	10%	20%
3900 Q4 - Functional Model Elements	Essay	4%	22%	29%
CIS 3900 Average		18%	26%	37%
4600 Q1 - Agile Software Development	MC	27%	30%	34%
4600 Q2 - Scrum Phases	MC	42%	42%	40%
4600 Q3 - 2nd Value of Agile Manifesto	Essay	3%	13%	20%
4600 Q4 - SCRUM framework	Essay	3%	8%	20%
CIS 4600 Average		19%	23%	29%

For the 2019-2020 academic cycle, some areas of concern remained that were also identified in the 2017-2018 academic cycle.

As with the 2017-2018 academic cycle, the expectation for the CIS 1015, CIS 1030, CIS 2050, CIS 2980, and CIS 3020 responses was lower responses from the CIS 1015 test group followed by increased scores at the midpoint. For the final point, the expectation was maintenance or further increase from the midpoint. All five areas saw increases from the baseline to the midpoint. However, two of the five groups (CIS 1030 and CIS 2980) saw decreases from the midpoint to the final measurement.

The expectation for the CIS 3900 and CIS 4600 responses was for lower accurate responses from the baseline and midpoint groups with increased accurate responses for the final measurement. In contrast to the 2017-2018 academic cycle, both groups increased for the final measurement.

The results indicated the most difficulties with Web Page Development concepts, Advanced Systems Development concepts, and Systems Analysis & Design concept. For the latter two areas, these results may be due a lack of effort by the seniors participating in the final measurement.

## Assessment Cycle 2019 – 2020

The Web Development responses are partially explained by an error found in the data gathering document. Part of the answers for the questions involved HTML code. In the analysis of results, the faculty found the HTML code was not being outputted correctly to allow for correct analysis.

Overall, while the percentages increased from the 2017-2018 cycle to the 2019-2020 academic cycle, they are still further from the ideal target than desired.

Additionally, while we cannot measure the impact on the results, the COVID-19 crisis could have also impacted the results. Student were removed from normal routines, face-to-face classes were moved to online classes in less than a week, and substantial stress was placed on faculty and students. These changes could have negatively impacted the performance on the assessment.

**Decision.** In 2019-2020, the target was not met. Based on the analysis of the 2019-2020 results, the faculty will implement the following changes in 2020-2021 to drive the cycle of improvement. First, the faculty will review the Web Development questions to determine how the information can be collected and allow for valid data and analysis.

Additionally, the faculty will again review the mode of testing to determine methods to increase the student effort for the exam and improve the academic integrity of the results. While the lack of effort by students may not fully explain missing the targets, the faculty believe a better effort by students would certainly improve the results of the examination. If the students were able to make this change, the results will provide a better foundation of where weaknesses in the curriculum exist.

Furthermore, the faculty will continue examining the questions on the test as well as the methods they are using in the related classes to ensure they are teaching the students this foundational material. Some changes will take time to reflect in the results. Instructors have made changes to their materials and teaching methodologies in CIS 1015, CIS 2050, and CIS 2980 in the last two years. These changes will not be fully reflected in the final results for two to four more years.

### **Measure 5.2 (Direct – CIS 4600 Advanced Systems Development Project)**

Each year, students work in groups to design and create an application related to a real-world project or problem. Students initially design the system in CIS 3900 – Systems Analysis and Development. Students implement the design in CIS 4600 – Advanced Systems Development. The faculty member of the course grades the project based on an existing rubric. Seventy percent (70%) of the students will score 80% or better.

#### **Findings:**

**AY 2017 – 2018:** CIS 4600 target met. 84% of students achieved 80% or higher

**AY 2019 – 2020:** CIS 4600 target met. 100% of students achieved 80% or higher.

## Assessment Cycle 2019 – 2020

**Analysis.** In the 2016-2017 academic cycle, the Computer Information Systems faculty developed the fifth student learning outcome and its associated measurements. The 2017-2018 academic cycle represented the baseline cycle on this student learning outcome.

In 2017-2018, the target was met. 84% of students achieved 80% or higher. This 2017 – 2018 data was examined in more detail as shown in Table 3 and Table 4.

*Table 3*

Sprint – January 29th	98% Average
Sprint – February 12 <sup>th</sup>	88% Average
Sprint – February 26 <sup>th</sup>	81% Average
Sprint – March 12 <sup>th</sup>	96% Average
Sprint – March 26 <sup>th</sup>	85% Average
Sprint – April 16 <sup>th</sup>	82% Average

*Table 4*

Project Presentation	93% Average
Final Report Submission	89% Average
Project Functionality	89% Average
User Manual	87% Average
Project Personal Narrative	86% Average
Peer Evaluation	86% Average

Based on the analysis of the 2017-2018 results, the faculty made the following changes in 2018-2019 and 2019-2020 to drive the cycle of improvement. First, students practiced their presentations more before the final presentation, including at Research Day (in the 2018-2019 year). Secondly, the faculty member teaching CIS 4600 constructed the teams to balance technical strengths across teams. Finally, the faculty member teaching CIS 4600 incorporated additional networking and security concepts into the final project.

As a result of these changes, in 2019-2020, the target was met.

Students completed the project every academic cycle although this particular student learning outcome is only measured every other academic cycle. In this academic cycle, every student met the 80% criteria. This increase from the 2017 – 2018 academic cycle can be attributed to changes made by the instructor to increase the students' competency in key areas, particularly in the presentation area.

Analysis also occurred of individual items within the overall score. As students completed the final project, they completed sprints as part of the agile (scrum) systems

## Assessment Cycle 2019 – 2020

development methodology. The scores on each sprint decreased followed by an increase and subsequent decreases as shown in the table below. These scores are individual as each student has to complete a specific task for each sprint.

*Table 5*

Sprint – January 29th	100% Average
Sprint – February 12 <sup>th</sup>	92% Average
Sprint – February 26 <sup>th</sup>	97% Average
Sprint – March 12 <sup>th</sup>	97% Average
Sprint – March 26 <sup>th</sup>	94% Average
Sprint – April 16 <sup>th</sup>	94% Average

Additionally, Computer Information Systems faculty analyzed individual components of the project. The table below shows the individual score components.

*Table 6*

Project Presentation	100% Average
Final Report Submission	100% Average
Project Functionality	100% Average
User Manual	97% Average
Project Personal Narrative	97% Average
Peer Evaluation	98% Average

Every component of the project saw an increase from the 2017-2018 academic cycle. While some modifications occurred due to the COVID-19 pandemic, much of the project expectations remained the same. For example, the face-to-face CIS 4600 class missed two opportunities to practice their presentations, including Research Day presentation that they could have used on their resumes and for practice. All areas saw increases of 5% to 12%.

At least some of the increases should be attributed to changes in the CIS 3900 and CIS 4600 classes as well as the overall program. Students have struggled with nervousness in presentations. As part of their preparation for their final project presentations, students now complete multiple presentations in the class. Additionally, the CIS faculty have incorporated more presentations in other parts of the CIS curriculum to enhance the students' presentation skills.

Another area that increased was the peer evaluation score. In a change from the previous academic cycle, the instructor of the class chose the team members to ensure the team had a diverse range of technical backgrounds based on their various concentrations. The project also now requires components from all concentrations. This change likely led to a more cohesive group where at least one team member should have knowledge regarding a particular area of the project. This change may have led to the increase in the peer evaluation score.

## Assessment Cycle 2019 – 2020

**Decision:** In 2019-2020, the target was met. Based on the analysis of the 2019-2020 results, the faculty will implement the following changes in 2020-2021 to drive the cycle of improvement. First, the instructor will keep the changes requiring additional presentations, balancing of technical strengths on teams, and incorporating additional technical areas in the final project. These changes seem to have increased the performance of the students on the final project. Secondly, during the next academic cycle, the instructor will monitor these results to ensure that changes made in the other classes are still supporting the final project and that students are still performing at the necessary levels. Finally, one of the two lowest ratings on the final project was the production of a user guide. While still high at 97%, the CIS faculty will discuss if the creation of user guides in other classes preceding these capstone classes would be feasible.

### Comprehensive Summary of Key evidence of improvement based on the analysis of results.

Data on the students learning outcomes was collected, analyzed, and reported across multiple disciplines within the School of Business. Instruments used included the complete and partial SoBUSKE, the ETS exam, written and oral projects from students as individuals and as teams, case studies, simulations, and other quizzes or exams.

Six measures were taken for SLO#1 Effective Communication. Of these, three measures met the acceptable target plus one meeting the ideal target and two did not meet the target. Actions included to improve student communication skills include the use of Peer Learning Exercises and Communication reviews being offered to students.

The results for SLO#2 Integration of Knowledge were unclear. As discussed earlier in the document, a new SoBUSKE was developed in 2017-2018 and implemented in 2018-2019. One of the criticisms of the old SoBUSKE was that it was written by faculty members and covered what those instructors taught. The new SoBUSKE focused more on the general subject areas instead of faculty preferences. When comparing the results of the new SoBUSKE given in 2019 with the results of the old SoBUSKE given in 2016-2017, students had a lower average in all nine areas. This does not reflect a decrease in ability so much as a shift in the questions asked away from faculty preferences. Indeed, a comparison of the ETS offered in 2019 to the 2015 results reflect an improvement in four areas, a decline in three areas, and no change in two areas. The targets for SLO#2 were based on a comparison of SoBUSKE scores to ETS scores. The decline in scores for the new SoBUSKE resulted in the targets not being met.

All three measures for SLO#3 Critical Thinking met the acceptable target with the case study measure (3c) also meeting the ideal target. The inclusion of a mini-lesson covering Excel seemed to help students with the case study project as it involved a lot of number crunching and what-if analysis. While it is not a part of the measurement, the addition of a debate project related to the regulatory environment is expected to help develop critical thinking skills.

For SLO#4, all three measure met the ideal target. The BUAD 3270 faculty found that the class benefitted from the review of communication principles in their students

## Assessment Cycle 2019 – 2020

International Business Plan. This cross-disciplinary activity motivated the idea of creating mini-lessons that can be used by other faculty as a resource for themselves and their students.

For SLO#5, one measure met the target while one measure did not meet the target. On Measurement 5.2, students increased their already high performance from the 2017-2018 academic cycle. These results in the capstone class showed students knew how to create information systems projects and go through the systems development process.

Unfortunately, the CIS unit did not meet the target for measurement 5.1 which indicates students still have issues with supporting their abilities with the underlying knowledge and theory. As with the 2017-2018 academic cycle, this contrast fits with what the faculty often find in the classroom where students can complete an assignment but struggle explaining why and how. However, changes made since the 2017-2018 academic cycle do seem to have helped. Scores in every subject area increased from the 2017-2018 academic cycle.

Additionally, we can point to other changes within the program as evidence of continuous improvement. We continued to make changes to the curriculum based on assessment, advisory council feedback, and student needs. In 2018-2019, we had a new Cyber Security concentration approved as well as changes to the Networking and Systems Management concentration. In 2019-2020, the Board of Regents approved the MS in Computer Information Systems and, pending faculty resource availability, the program will start in 2020-2021.

### Plan of Action moving forward.

Based on analysis of the 2018-2019 results, the School of Business has identified several strategies for enhancing the student experience and improving learning outcomes. At the heart of many of these strategies is their relationship to the SLOs.

One area of action is Peer Learning Exercises that allow students to work with each other and learn from each other. This is especially important in the communications area as students see other students work and can gauge their own work as well. Detailed rubrics can only go so far in communicating expectations with students. Additionally, the faculty believes that some students may be more motivated to put in effort if their work is to be evaluated by peers rather than just the professor.

Peer learning is not limited to students as the faculty promotes a collegial work environment with both formal and informal mentoring. One area of formal mentoring is course stewards where an experienced faculty member guides the course when there are multiple instructors. This is especially helpful for new and/or adjunct faculty. The informal mentoring occurs through frequent faculty interaction including the Lunch and Learn program.

Team projects and presentations are also useful in promoting communication skills and

## Assessment Cycle 2019 – 2020

may also involve integration of knowledge, critical thinking, and international perspectives. A challenge for many of the classes is implementing these for online sections where students are less likely to know each other or be located together. Having students tasked with different components allows the instructor to grade each individual's component task while an additional grade would be for the integration of the task.

The development of mini-lessons that can be used in multiple classes to reinforce crucial concepts is also being utilized. This improves cross-disciplinary learning as students get refreshers of communication skills in their management classes, legal issues in their marketing class, and international concepts in their finance class (as examples). It also keeps those lessons fresh for students so that the ideas are not forgotten as they drift further from the initial class.

The school is also undertaking a "Providing Evidence Process" to ensure that core concepts, especially those covered by the new SoBUSKE are covered. Course stewards are responsible for ensuring that these concepts are taught in a consistent manner in courses taught by multiple faculty members.

Case studies, analyses of actual businesses, and current events are also an increasingly important component of the curriculum. Case studies allow the student to look at real world business issues from an inside point of view. The possible outcomes of various actions can be discussed and evaluated to determine the best decision. This promotes critical thinking, effective communication, and knowledge integration. There is frequently an international component to these projects as the regulatory framework in different countries can be compared and evaluated. Discussions cover current and proposed regulations over topics such as Net Neutrality, GDPR, codetermination, and financial regulation.

One concern is that the addition of all of these new aspects will take away from existing coursework. Indeed, the School of Business is placing greater reliance on online resources provided by textbook publishers for the course material such as Connect and LearnSmart by McGraw Hill. The University of Louisiana system has also encouraged that access to these resources be bundled as part of the class fee so that students do not have to pay as much for textbooks and will have access to the resources from day one. Overall, it is believed that this will allow the faculty to spend more of their time on the non-textbook initiatives described above as opposed to spending a majority of their time going over the textbook.

Developments are being made outside of the classroom as well. The faculty Lunch and Learn program continues to provide an opportunity for faculty to share and discuss best practices. Faculty development has been an important component of our success and several faculty members take outside courses in order to improve their skills and knowledge.

The faculty is also investigating modifications to assignments, rubrics, and targets

## Assessment Cycle 2019 – 2020

related to the SLOs so that they better reflect the intent of the measurements. This is especially true as it relates to the new SoBUSKE as it relates to the ETS exam.

On SLO#5, the faculty will continue to brainstorm and review ways to increase the effort on the comprehensive exam to try to get a better feel of how our students' knowledge is actually progressing through the program. Additionally, the faculty will monitor how changes to our curriculum and classes affect the exam results. The faculty will also modify the data collection and/or questions for the web development area to ensure we are measuring that area comprehensively.

On the capstone project, the faculty will monitor how changes in the curriculum are affecting student performance on the final project. Faculty will also discuss how more practice for the creation of user guides can be incorporated into the curriculum.

The CIS faculty has developed many initiatives to better serve our students. A major development moving forward is the creation of a new concentration in Cyber Security that began in AY 2018-2019 and the elimination of the Core Programming concentration as of AY 2019-2020 (although students already in the concentration will be allowed to finish). These changes were driven by demand from employers and the desires of students.

In conclusion, the School of Business and its faculty strive to improve all aspects of student learning. New initiatives are constantly being introduced and evaluated based on their effectiveness. Measures of student learning outcomes are assessed each semester and compared to previous results to determine progress. Additionally, student and faculty feedback are considered. Successful initiatives are shared with other faculty so that they may be implemented in other courses if applicable.