

# Assessment Cycle 2024 – 2025

## Computer Information Systems

**Division: School of Business, College of Business and Technology Prepared**

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**Approved by: Dr. Greg Handel, Provost**

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**Northwestern Mission.** Northwestern State University is a responsive, student-oriented institution committed to acquiring, creating, and disseminating knowledge through innovative teaching, research, and service. With its certificate, undergraduate, and graduate programs, Northwestern State University prepares its increasingly diverse student population to contribute to an inclusive global community with a steadfast dedication to improving our region, state, and nation.

**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.

**School of Business Mission.** The mission of the School of Business is to provide our diverse student population with innovative skills in business and technology to prepare them for successful careers and responsible citizenship roles to have a positive societal impact in the world of business. (Adopted 2017-2018 – mission wording was revised to include “our diverse population”; Adopted 2020-2021 – mission wording was revised to reflect societal impact)

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.

**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 Program 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 populations for careers as information

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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, 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) Prior to 2024-2025, the School of Business alternated the assessment of its SLO yearly. SLO's 1-4, which were shared among the programs were assessed during one assessment cycle. SLO 5, which was unique to each program was assessed during the alternating assessment cycle. This approach allowed for a complete program assessment every two years.
- (2) Effective 2024-2025, each School of Business area has its own measurements that are measured each year. While there are common subject areas through the various degree programs (Communication, Critical Thinking, etc.), the student learning outcomes and related targets and measurements are clearly delineated between each degree plan
- (3) The creation of these new student learning outcomes was based on feedback related to SACSCOC and AACSB. For example, AACSB wanted to see indirect measurements incorporated into the student learning outcomes. For a multi-year period, the faculty discussed what graduates should have learned in the program, prioritized the most important areas, and determined the targets and measurements related to those areas. The faculty met multiple times regarding student learning outcomes and the revision of the prior student learning outcomes to the new student learning outcomes.
- (4) 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).
- (5) Data is collected and returned to the SLO Chairs.
- (6) 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.
- (7) 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.

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- (8) Individual meetings are held with faculty and staff as required (show cause).
- (9) 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.
- (10) 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. The CIS graduate will be able to read and listen carefully to business and technology ideas and information, to understand, synthesize, and convey them to other people using both language and modes (written, oral, digital).**

- **Objective 1a: Produce professional documents that address and solve business and technical requirements.**
- **Objective 1b: Prepare and deliver professional presentations that address and solve business and technical requirements.**
- **Objective 1c: Demonstrate communication skills through interactions with stakeholders and team members.**

### Course Map

ACCT2000 – Financial Accounting  
BLAW2250 – Business Law I/BLAW3280 – Cyber Business Law  
BUAD2120 – Basic Business Statistics  
BUAD2200 – Business Reports and Communication  
BUAD3270 – International Business  
BUAD4900 – Senior Seminar  
CIS 1015 – Introduction to Computer Information Systems  
CIS 1030 – Introduction to Software Development  
CIS 1090 – Introduction to Computer Applications  
CIS 2980 – Database Systems  
CIS 3020 – Web Page Development  
CIS 3900 – Systems Analysis and Development  
CIS 4600 – Advanced Systems Development  
FIN 3090 – Business Finance  
MGT 3220 – Organization and Management  
MKTG3230 – Principles of Marketing

### Concentration/Elective Options

CIS 3300 – Intermediate Object-Oriented Programming  
CIS 3410 – Certified Ethical Hacking  
CIS 3970 – Secure Programming Principles  
CIS 4000 – Advanced Database Systems  
CIS 4020 – Data Structures  
CIS 4060 – Mobile Applications Development  
CIS 4070 – Data Analytics

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CIS 4840 – Strategic Information Systems Project Management  
CIS 4900 – Strategic Application of Enterprise Software  
CIS 4910 – Emerging Technology and Human Computer Interaction  
CIS 4930 – Information Assurance  
MGT 4500 – Leadership, Motivation, and Power

### Measure 1a (Direct – Other; CIS 3900 Final Project Group Report and Sprints)

**Details/Description:** In CIS 3900 (Systems Analysis and Development), students start work on a capstone project that involves a problem for an organization. Students work in teams to deliver a production or solution to one or more organizations. The exact requirements of the project will vary from one academic year to the next. As part of the capstone project, students must produce a system proposal including an executive summary, system request, work plan, feasibility analysis, requirements definition, and various models.

**Target:** The target is an average score of 85% on the final project group report.

**Implementation Plan (timeline):** The measure is given each semester the CIS 3900 class is offered.

**Key/Responsible Personnel:** The School of Business faculty teaching CIS 3900 are responsible for this measure.

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

**Analysis:** As the School of Business started new student learning outcomes and measurements in AC 2024-2025, there is no direct comparison data from 2023-2024. However, there were assessments related to a similar student learning outcome in 2022-2023 (see methodology for prior assessment schedule). Those measurements occurred in BUAD2200 and in CIS 4600. In AC 2022-2023, the targets were not met in BUAD2200 while the targets were met in CIS 4600.

Based on the analysis of the AC 2022-2023 data, Computer Information Systems faculty implemented the following changes in AC 2023-2024 and AC 2024-2025 to drive the cycle of improvement. Effective AC 2024-2025, Computer Information Systems faculty added an additional Communication class to the Computer Information Systems curriculum. Students have the option to take COMM1010 – Oral Communication or COMM2500 – Interpersonal Communication. The CIS 1015 faculty also worked with the BUAD2200 faculty to develop a rubric that could help guide the students on a report completed in CIS 1015 and gives the students feedback that starts to align them with the expectations of the BUAD2200 faculty.

As a results of these changes, in AC 2024-2025, the target was met. Twenty-nine students were enrolled in the CIS 3900 class and all twenty-nine students submitted the assignment for a response rate of 100%. The average score on the final report for the group project was 92.7% which exceeded the 85% target. Table 1 shows the results.

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**Table 1 - Measure 1a AC 2024-2025**

AC	Number of Students in Class	Number of Completers of Assignment	Response Rate	Average Score	Target Measurement	Findings (Met/Not Met)
2024-2025	29	29	100%	92.7%	85.0%	Met

**Decision:**

In 2024-2025, the target was met.

Based on the analysis of the AC 2024-2025 results, the faculty will implement the following changes in 2025-2026 to drive the cycle of improvement. Per the analysis of results, group project performance is very influenced by the group mix. As the CIS 3900 faculty member is formulating the groups in 2025-2026, the CIS grade point average will be taken into consideration in group assignments. Additionally, the CIS faculty members will be monitoring these scores over the next few years to see the effect of adding the Communication requirement to the degree program. While the CIS faculty members made that change to assist with communication skills, it will take some time before the students affected by that change make it to the capstone classes.

These changes will improve the students' ability to produce professional documents that address and solve business and technical requirements thereby continuing to push the cycle of improvement forward.

**Measure 1b (Direct – Other; CIS 4600 Final Project - Presentation)**

**Details/Description:** In CIS 4600 (Advanced Systems Development), students complete work on the capstone project that involves a problem for an organization. Students work in teams to deliver a production or solution to one or more organizations. The exact requirements of the project will vary from one academic year to the next. As part of the capstone project, students must give a presentation of their system as well as discuss the problem statement, their solution, the cost and value for the organizations, requirements for the system, security of the system, and plans for the future.

**Target:** The target is an average score of 90% on the final presentation.

**Implementation Plan (timeline):** The measure is given each semester the CIS 4600 class is offered.

**Key/Responsible Personnel:** The School of Business faculty teaching CIS 4600 are responsible for this measure.

**Finding:** The target was met.

**Analysis:** In AC 2023-2024, the target was met. Students scored an average of 94% on the project presentation, which was a 5% increase from the 89% average in AC 2021-

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2022.

Based on the analysis of the AC 2023-2024 data, faculty implemented the following changes in AC 2024-2025 to drive the cycle of improvement. First, the CIS faculty planned to offer the CIS 4600 course in a face-to-face environment in 2023-2024. However, due to faculty and fiscal constraints, that change will not occur until 2024-2025. Additionally, effective AC 2024-2025, Computer Information Systems faculty added an additional Communication class to the Computer Information Systems curriculum. Students have the option to take COMM1010 – Oral Communication or COMM2500 – Interpersonal Communication.

As a result of these changes, In AC 2024-2025, the target was met. Twenty-nine students were enrolled in the CIS 4600 class and all twenty-nine students gave a final presentation for a response rate of 100%. The average score on the final report for the group project was 96% which exceeded the 90% target and was a 2% increase over the AC 2023-2024 results. Table 2 shows the results for this measurement

**Table 2 - Measure 1b AC 2024-2025**

AC	Number of Students in Class	Number of Completers of Assignment	Response Rate	Average Score	Target Measurement	Findings (Met/Not Met)
2024-2025	29	29	100%	96%	90%	Met

### Decision:

In 2024-2025, the target was met.

Based on the analysis of the AC 2024-2025 results, the faculty will implement the following changes in 2025-2026 to drive the cycle of improvement. Per the analysis of results, specific guidelines on slide content and video requirements helped the students on their presentation. However, improvement is needed in regard to lighting, sound, and clarity of presentation when making recordings. Students also tend to read directly from slides when recording on webcams versus not being able to read the slides when presentation is done in front of a television screen in the classroom. The CIS 4600 faculty member will provide further guidance in these areas to clarify expectations. This guidance will also be shared with the other CIS faculty members to determine an additional class(es) in which to incorporate recordings of presentations using these guidelines. Additionally, the CIS faculty members will be monitoring these scores over the next few years to see the effect of adding the Communication requirement to the degree program. While the CIS faculty members made that change to assist with communication skills, it will take some time before the students affected by that change make it to the capstone classes.

These changes will improve the students' ability to prepare and deliver professional presentations that address and solve business and technical requirements thereby continuing to push the cycle of improvement forward.

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### Measure 1c (Direct; CIS 4600 Biweekly Sprints Individual Score)

**Details/Description:** In CIS 4600 (Advanced Systems Development), students complete work on the capstone project that involves a problem for an organization. Students work in teams to deliver a production or solution to one or more organizations. The exact requirements of the project will vary from one academic year to the next. As part of the capstone project, students participate in approximately six biweekly sprints which are then graded for the individual contributions of the students.

**Target:** The target is an average sprint score of 90 or higher.

**Implementation Plan (timeline):** The measure is given each semester the CIS 4600 class is offered.

**Key/Responsible Personnel:** The School of Business faculty teaching CIS 4600 are responsible for this measure.

**Findings:** The target was met.

**Analysis:** As the School of Business started new student learning outcomes and measurements in AC 2024-2025, there is no direct comparison data from 2023-2024.

In AC 2024-2025, the target was met. Twenty-nine students were enrolled in the CIS 4600 class and all twenty-nine students received a biweekly sprints grade for a response rate of 100%. The average score on the final report for the group project was 90% which met the 90% target. Table 3 shows the results for this measurement

**Table 3 - Measure 1c AC 2024-2025**

AC	Number of Students in Class	Number of Completers of Assignment	Response Rate	Average Score	Target Measurement	Findings (Met/Not Met)
2024-2025	29	29	100%	90%	90%	Met

#### Decision:

In 2024-2025, the target was met.

Based on the analysis of the AC 2024-2025 results, the faculty will implement the following changes in 2025-2026 to drive the cycle of improvement. Per the analysis of results, strict guidelines on submissions and requirements to help with group submissions assisted student performance. Additionally, adhering to a strict policy of “Two no shows, out of the group” and the completion of individual narratives regarding students not participating in groups helped better identify students not performing well in the groups. However, improvement is needed regarding students submitting late and students not incorporating the feedback that is given to them on the sprints. The CIS 4600 faculty member will adjust the grading of the sprints to grade whether students are taking feedback and incorporating

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it into their design. Additionally, the CIS faculty members will be monitoring these scores over the next few years to see the effect of adding the Communication requirement to the degree program. While the CIS faculty members made that change to assist with communication skills, it will take some time before the students affected by that change make it to the capstone classes.

These changes will improve the students' ability to demonstrate communication skills through interactions with stakeholders and team members thereby continuing to push the cycle of improvement forward.

### Measure 1.2 (Indirect; Graduating Student Survey)

**Details/Description:** Each semester, students who have applied for graduation in that semester receive an e-mail requesting they complete the School of Business graduating student survey. A follow-up e-mail(s) is also sent. This survey gathers information regarding their post-graduation plans, feedback on their experience in the School of Business, and feedback on their views of how effective they believe they are in accomplishing student learning outcomes. Students can choose 1 (Very Ineffective), 2 (Ineffective), 3 (Effective), or 4 (Very Effective). For this measurement, the results would be their feedback as related to their ability to "Produce professional documents that address and solve business and technical requirements.", "Prepare and deliver professional presentations that address and solve business and technical requirements.", and "Demonstrate communication skills through interactions with stakeholders and team members."

**Target:** The target is an average of 3.5 on all abilities that were measured.

**Implementation Plan (timeline):** The survey is sent during the last month of each semester.

**Key/Responsible Personnel:** The Director of the School of Business (or a designee) is responsible for this measure.

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

**Analysis:** As the School of Business started new student learning outcomes and measurements in AC 2024-2025, there is no direct comparison data from 2023-2024.

In AC 2024-2025, the target was partially met. Twenty-eight students graduated in Fall 2024 and Spring 2025 and eighteen of them completed the survey for a response rate of 64%. The average score on the survey for the "Produce professional documents that address and solve business and technical requirements" objective was 3.55. The average score on the survey for the "Prepare and deliver professional presentations that address and solve business and technical requirements" objective was 3.39. The average score on the survey for the "Demonstrate communication skills through interactions with stakeholders and team members" objective was 3.56. Thus, the CIS area met the target on two of the objectives while not meeting it on one objective. Table 4 shows the results for this measurement

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**Table 4 - Measure 1.2 AC 2024-2025**

AC	Number of Graduates	Number of Completers of Survey	Response Rate	Average Score	Target Measurement	Findings (Met/Not Met)
2024-2025	28	18	64%	1a – 3.55 1b – 3.39 1c – 3.56	3.50	Not Met (Two Met and One Not Met)

Per the analysis of results, the CIS graduating students felt more confident about their ability to produce professional reports and communicate interpersonally. However, they were less confident in their effectiveness in the area of oral presentations.

### **Decision:**

In 2024-2025, the target was partially met. The target was met for two objectives, but was missed on one objective.

Based on the analysis of the AC 2024-2025 results, the faculty will implement the following changes in 2025-2026 to drive the cycle of improvement. First, the changes discussed in 1a, 1b, and 1c should also affect the scores on the graduating student survey once implemented. In addition, the Director of the School of Business is going to be conducting specific discussions within the discipline meetings regarding interpersonal communication and presentations in the 2025-2026 academic year. These discussions will be a deeper discussion of specific topics within these broader areas. These are key areas in the student learning outcomes and the School of Business advisory council has also consistently noted the communication ability of students as a key concern. Additionally, the CIS faculty members will be monitoring these scores over the next few years to see the effect of adding the Communication requirement to the degree program. While the CIS faculty members made that change to assist with communication skills, it will take some time before the students affected by that change make it to the capstone classes.

These changes will improve the students' ability to produce professional documents that address and solve business and technical requirements, prepare and deliver professional presentations that address and solve business and technical requirements, and demonstrate communication skills through interactions with stakeholders and team members thereby continuing to push the cycle of improvement forward.

**SLO 2. The CIS graduate will be able to identify, define, analyze, and respond to problems, challenges, and opportunities by employing logical, informed, and feasible solutions within the business and technology environment.**

- **Objective 2a: Identify and decompose business and technical problems into manageable parts.**
- **Objective 2b: Create and implement feasible solutions to complex business and technical problems.**

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### Course Map

ACCT2000 – Financial Accounting  
BLAW2250 – Business Law I/BLAW3280 – Cyber Business Law  
BUAD2120 – Basic Business Statistics  
BUAD2200 – Business Reports and Communication  
BUAD3270 – International Business  
CIS 1015 – Introduction to Computer Information Systems  
CIS 1030 – Introduction to Software Development  
CIS 2980 – Database Systems  
CIS 3020 – Web Page Development  
CIS 3900 – Systems Analysis and Development  
CIS 4600 – Advanced Systems Development  
FIN 3090 – Business Finance  
MGT 3220 – Organization and Management  
MKTG3230 – Principles of Marketing

### Concentration/Elective Options

CIS 2080 – Computer Technology – Software A+ Core 2  
CIS 2090 – Computer Technology – Hardware A+ Core 1  
CIS 3300 – Intermediate Object-Oriented Programming  
CIS 3400 – Networking and Telecommunications  
CIS 3410 – Certified Ethical Hacking  
CIS 3970 – Secure Programming Principles  
CIS 3980 – Introduction to Information Security  
CIS 4000 – Advanced Database Systems  
CIS 4020 – Data Structures  
CIS 4060 – Mobile Applications Development  
CIS 4070 – Data Analytics  
CIS 4900 – Strategic Application of Enterprise Software  
CIS 4910 – Emerging Technology and Human Computer Interaction  
CIS 4930 – Information Assurance  
MGT 4500 – Leadership, Motivation, and Power

### **Measure 2.1 (Direct – Other; CIS 3900 Modeling/Diagramming/Etc. Homework)**

**Details/Description:** In CIS 3900 (Systems Analysis and Development), students complete several homework assignments in preparation for the capstone project. These homework assignments include a cost benefit analysis, use case diagram, activity diagram, sequence diagram, class diagram, and state machine diagram.

**Target:** The target is an average score of 90% on these homework assignments.

**Implementation Plan (timeline):** This measure is given each semester the CIS 3900 class is offered.

**Key/Responsible Personnel:** The School of Business faculty teaching CIS 3900 are responsible for this measure.

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

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**Analysis:** As the School of Business started new student learning outcomes and measurements in AC 2024-2025, there is no direct comparison data from 2023-2024. However, there were assessments related to a similar student learning outcome in 2022-2023 (see methodology for prior assessment schedule). Those measurements occurred in FIN 3090. In AC 2022-2023, all targets were met in FIN 3090.

Based on the analysis of the AC 2022-2023 data, Computer Information Systems faculty implemented the following changes in AC 2023-2024 and AC 2024-2025 to drive the cycle of improvement. In AC 2023-2024 and AC 2024-2025, the FIN 3090 faculty member made the decision to keep a change involving moving from a critical thinking quiz to an essay. Additionally, the FIN 3090 faculty member tried to ensure topics in business finance were current and related to future responsibilities of CIS graduates. The FIN 3090 faculty member and the FIN 4200 faculty member also reviewed the topics covered in both classes and completed a redistribution of topics to assist in success in those classes.

As a result of these changes, in AC 2024-2025, the target was partially met. Twenty-nine students were enrolled in CIS 3900 and twenty-six to twenty-eight of them completed the assignment for response rates ranging from 89.7% to 96.6%. Of the various assignments, the target was met in one area (Class Diagram) and not met in the other areas. Students had the most success on Class Diagrams followed by Cost Benefit Analysis, Activity Diagrams, Behavioral State Diagrams, Sequence Diagrams, and finally Use Case Diagrams. Table 5 shows the results for this measurement

**Table 5 - Measure 2.1 AC 2024-2025**

Assignment	Number of Students in Class	Number of Completers of Assignment	Response Rate	Average Score	Target Measurement	Findings (Met/Not Met)
Cost Benefit Analysis	29	26	89.7%	86.3%	90.0%	Not Met
Use Case Diagram	29	28	96.6%	65.0%	90.0%	Not Met
Activity Diagram	29	26	89.7%	80.7%	90.0%	Not Met
Class Diagram	29	28	96.6%	91.3%	90.0%	Met
Sequence Diagram	29	28	96.6%	75.5%	90.0%	Not Met
Behavioral State Diagram	29	26	89.7%	76.4%	90.0%	Not Met

### Decision:

In 2024-2025, the target was partially met. The target was met for two objectives, but was missed on one objective.

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Based on the analysis of the AC 2024-2025 results, the faculty will implement the following changes in 2025-2026 to drive the cycle of improvement. For each of the areas, starting with the assignments with the lowest success rates, the CIS 4600 faculty member will work with other CIS faculty members and try to create video examples for the homework assignments. Once the videos are created, the CIS 4600 faculty member will share with other faculty members who can then either use the videos or create similar videos for their classes to have a unified, cohesive approach in all classes that utilize these topics.

These changes will improve the students' ability to create and implement feasible solutions to complex business and technical problems to push the cycle of improvement forward.

### Measure 2.2 (Direct – Other; CIS 4600 Group Project Functionality)

**Details/Description:** In CIS 4600 (Advanced Systems Development), students complete work on the capstone project that involves a problem for an organization. Students work in teams to deliver a production or solution to one or more organizations. The exact requirements of the project will vary from one academic year to the next. As part of the capstone project, students must illustrate the functionality of their created system.

**Target:** The target is an average score of 90% on the group project functionality.

**Implementation Plan (timeline):** The measure is given each semester the CIS 4600 class is offered.

**Key/Responsible Personnel:** The School of Business faculty teaching CIS 4600 are responsible for this measure.

**Findings:** The target was met.

**Analysis:** In AC 2023-2024, the target would not have been met if we had been using the current target. Students scored an average of 88% on project functionality which was a 12% decrease from the AC 2021-2022 results of 100% on project functionality.

Based on the analysis of the AC 2023-2024 data, faculty implemented the following changes in AC 2024-2025 to drive the cycle of improvement. Computer Information Systems faculty members made changes to the project management classes. While these courses are electives, these changes will reinforce the idea of project planning for those students who take them and potentially increased the likelihood of full project functionality.

As a result of these changes, in AC 2024-2025, the target was met. Twenty-nine students were enrolled in the CIS 4600 class and all twenty-nine students illustrated the functionality of their created system for a response rate of 100%. The average score on the functionality of their created system was 90% which met the 90% target. This average also represented a 2% increase in project functionality as compared to the AC 2023-2024 results. Table 2 shows the results for this measurement

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**Table 6 - Measure 2.2 AC 2024-2025**

AC	Number of Students in Class	Number of Completers of Assignment	Response Rate	Average Score	Target Measurement	Findings (Met/Not Met)
2024-2025	29	29	100%	90%	90%	Met

### **Decision:**

In 2024-2025, the target was met.

Based on the analysis of the AC 2024-2025 results, the faculty will implement the following changes in 2025-2026 to drive the cycle of improvement. Per the analysis of results, providing clear user stories that are required for functionality and are checked biweekly assists with the creation of better functionality. However, students need to improve their use of feedback on functionality and make sure they are resolving their backlog status and do not forget about the backlog items. The CIS 4600 faculty member will adjust the grading of the sprints to grade whether students are taking feedback and incorporating it into their design. Additionally, one of the CIS faculty members in the Application Development area is determining how to redesign certain Application Development classes to better incorporate concepts of full-stack development. This incorporation would assist students in better understanding the development of project functionality over multiple classes.

These changes will improve the students' ability to create and implement feasible solutions to complex business and technical problems thereby continuing to push the cycle of improvement forward.

### **Measure 2.3 (Indirect; Graduating Student Survey)**

**Details/Description:** Each semester, students who have applied for graduation in that semester receive an e-mail requesting they complete the School of Business graduating student survey. A follow-up e-mail(s) is also sent. This survey gathers information regarding their post-graduation plans, feedback on their experience in the School of Business, and feedback on their views of how effective they believe they are in accomplishing student learning outcomes. Students can choose 1 (Very Ineffective), 2 (Ineffective), 3 (Effective), or 4 (Very Effective). For this measurement, the results would be their feedback as related to their ability to "Identify and decompose business and technical problems into manageable parts." and "Create and implement feasible solutions to complex business and technical problems."

**Target:** The target is an average of 3.5 on both abilities that were measured.

**Implementation Plan (timeline):** The survey is sent during the last month of each semester.

**Key/Responsible Personnel:** The Director of the School of Business (or a designee) is responsible for this measure.

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

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**Analysis:** As the School of Business started new student learning outcomes and measurements in AC 2024-2025, there is no direct comparison data from 2023-2024..

In AC 2024-2025, the target was met. Twenty-eight students graduated in Fall 2024 and Spring 2025 and eighteen of them completed the survey for a response rate of 64%. The average score on the survey for the “Identify and decompose business and technical problems into manageable parts” objective was 3.55. The average score on the survey for the “Create and implement feasible solutions to complex business and technical problems” objective was 3.55. Thus, the CIS area met the target on both of the objectives. Table 7 shows the results for this measurement

**Table 7 - Measure 2.3 AC 2024-2025**

AC	Number of Graduates	Number of Completers of Survey	Response Rate	Average Score	Target Measurement	Findings (Met/Not Met)
2024-2025	28	18	64%	2a – 3.55 2b – 3.55	3.50	Met

### Decision:

In 2024-2025, the target was met. The target was met for both objectives.

Based on the analysis of the AC 2024-2025 results, the faculty will implement the following changes in 2025-2026 to drive the cycle of improvement. The changes discussed in 2.1 and 2.2 should also affect the scores on the graduating student survey once implemented.

These changes will improve the students’ ability to identify and decompose business and technical problems into manageable parts and create and implement feasible solutions to complex business and technical problems thereby continuing to push the cycle of improvement forward.

**SLO 3. The CIS graduate will be able to learn (pursue knowledge) to work ethically, respectfully, and productively with people from diverse backgrounds operating in a multicultural environment while balancing personal and professional challenges.**

### Course Map

BLAW2250 – Business Law I/BLAW3280 – Cyber Business Law  
BUAD2200 – Business Reports and Communication  
BUAD3270 – International Business  
BUAD4900 – Senior Seminar  
CIS 1015 – Introduction to Computer Information Systems  
CIS 1030 – Introduction to Software Development  
CIS 2980 – Database Systems

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CIS 3020 – Web Page Development  
CIS 3900 – Systems Analysis and Development  
CIS 4600 – Advanced Systems Development  
FIN 3090 – Business Finance  
MGT 3220 – Organization and Management  
MKTG3230 – Principles of Marketing

### Concentration/Elective Options

CIS 2080 – Computer Technology – Software A+ Core 2  
CIS 2090 – Computer Technology – Hardware A+ Core 1  
CIS 3300 – Intermediate Object-Oriented Programming  
CIS 3400 – Networking and Telecommunications  
CIS 3970 – Secure Programming Principles  
CIS 4000 – Advanced Database Systems  
CIS 4020 – Data Structures  
CIS 4910 – Emerging Technologies and Human Computer Interaction  
MGT 4500 – Leadership, Motivation, and Power

### **Measure 3.1 (Direct – Other; CIS 3900 Ethical Scenario)**

**Details/Description:** In CIS 3900 (Systems Analysis and Development), students must complete an ethical scenario assignment regarding a cybersecurity problem. This assignment involves the analysis of a cybersecurity scenario which students must analyze for its ethical ramifications.

**Target:** The target is an average score of 90% on the ethical assignment.

**Implementation Plan (timeline):** This measure is given each semester the CIS 3900 class is offered.

**Key/Responsible Personnel:** The School of Business faculty teaching CIS 3900 are responsible for this measure.

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

**Analysis:** As the School of Business started new student learning outcomes and measurements in AC 2024-2025, there is no direct comparison data from 2023-2024.

In AC 2024-2025, the target was not met. Twenty-nine students were enrolled in the CIS 4600 class and twenty-five students completed the ethical scenario for a response rate of 86%. The average score on the ethical scenario was 88% which did not meet the 90% target. Table 8 shows the results for this measurement

**Table 8 - Measure 3.1 AC 2024-2025**

AC	Number of Students in Class	Number of Completers of Assignment	Response Rate	Average Score	Target Measurement	Findings (Met/Not Met)
2024-2025	29	25	86%	88%	90%	Not Met

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Unfortunately, students were a little confused on this assignment. The assignment included questions to help students reflect. Instead of reflecting and using the questions to create a plan, students just answered the questions.

### **Decision:**

In 2024-2025, the target was met.

Based on the analysis of the AC 2024-2025 results, the faculty will implement the following changes in 2025-2026 to drive the cycle of improvement. Per the analysis of results, students were confused on the assignment. The CIS 3900 faculty member will remove the reflection questions to better guide students on what they need to do to complete the assignment.

These changes will improve the students' ability to create learn (pursue knowledge) to work ethically, respectfully, and productively with people from diverse backgrounds operating in a multicultural environment while balancing personal and professional challenges thereby continuing to push the cycle of improvement forward.

### **Measure 3.2 (Indirect – Other; CIS 3900 Peer Review Matrix)**

**Details/Description:** In CIS 3900 (Systems Analysis and Development), students start work on a capstone project that involves a problem for an organization. Students work in teams to deliver a production or solution to one or more organizations. The exact requirements of the project will vary from one academic year to the next. As part of the capstone project, students must rate the other members of their team on a five-point scale. The five areas on which they are ranked are timeliness, respectfulness, responsiveness, teamwork, and content knowledge.

**Target:** The target is an average score of 4.5 on each of the five areas.

**Implementation Plan (timeline):** This measure is given each semester the CIS 3900 class is offered.

**Key/Responsible Personnel:** The School of Business faculty teaching CIS 3900 are responsible for this measure.

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

**Analysis:** As the School of Business started new student learning outcomes and measurements in AC 2024-2025, there is no direct comparison data from 2023-2024.

In AC 2024-2025, the target was partially met. Twenty-nine students were enrolled in CIS 3900 and twenty-eight of them completed the assignment for a response rate of 97%. Students met the target in the areas of respectfulness, teamwork, and content knowledge. However, student did not meet the target in the areas of timeliness and responsiveness. Table 9 shows the results for this measurement

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**Table 9 - Measure 3.2 AC 2024-2025**

Area	Number of Students in Class	Number of Completers of Assignment	Response Rate	Average Score	Target Measurement	Findings (Met/Not Met)
Timeliness	29	28	97%	4.44	4.50	Not Met
Respectfulness	29	28	97%	4.84	4.50	Met
Teamwork	29	28	97%	4.60	4.50	Met
Responsiveness	29	28	97%	4.46	4.50	Not Met
Content Knowledge	29	28	97%	4.59	4.50	Met

### Decision:

In 2024-2025, the target was partially met.

Based on the analysis of the AC 2024-2025 results, the faculty will implement the following changes in 2025-2026 to drive the cycle of improvement. The CIS 3900 faculty member is investigating the incorporation of tasks, techniques, and activities that would improve the responsiveness and timeliness of the group members. The CIS 3900 faculty member is also exploring updating rules about group participation to either potentially change it to where students are removed from a group after one missed scrum or incorporating peer evaluation into every sprint where a score of 3 on two scrums gets the student removed from the group.

These changes will improve the students' ability to create learn (pursue knowledge) to work ethically, respectfully, and productively with people from diverse backgrounds operating in a multicultural environment while balancing personal and professional challenges thereby continuing to push the cycle of improvement forward.

### Measure 3.3 (Indirect – Other; CIS 4600 Individual Reflection)

**Details/Description:** In CIS 4600 (Advanced Systems Development), students complete work on the capstone project that involves a problem for an organization. Students work in teams to deliver a production or solution to one or more organizations. The exact requirements of the project will vary from one academic year to the next. As part of the capstone project, students complete an individual reflection with a self-assessment rating in the areas of timeliness, respectfulness, team work, responsiveness, and content knowledge.

**Target:** The target is an average score of 4.5 on each of the five areas.

**Implementation Plan (timeline):** This measure is given each semester the CIS 4600 class is offered.

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**Key/Responsible Personnel:** The School of Business faculty teaching CIS 4600 are responsible for this measure.

**Findings:** The target was met.

**Analysis:** As the School of Business started new student learning outcomes and measurements in AC 2024-2025, there is no direct comparison data from 2023-2024.

In AC 2024-2025, the target was met. Twenty-nine students were enrolled in CIS 3900 and twenty-seven of them completed the assignment for a response rate of 93%. Students met the targets in all areas. They scored themselves the highest on respectfulness followed by teamwork, content knowledge, and then timeliness and responsiveness. Table 10 shows the results for this measurement

**Table 10 - Measure 3.3 AC 2024-2025**

Area	Number of Students in Class	Number of Completers of Assignment	Response Rate	Average Score	Target Measurement	Findings (Met/Not Met)
Timelines	29	27	93%	4.60	4.50	Met
Respectfulness	29	27	93%	4.90	4.50	Met
Teamwork	29	27	93%	4.80	4.50	Met
Responsiveness	29	27	93%	4.60	4.50	Met
Content Knowledge	29	27	93%	4.70	4.50	Met

**Decision:**

In 2024-2025, the target was met.

Based on the analysis of the AC 2024-2025 results, the faculty will implement the following changes in 2025-2026 to drive the cycle of improvement. The CIS 4600 faculty member is investigating the incorporation of tasks, techniques, and activities that would improve the responsiveness and timeliness of the group members. The CIS 4600 faculty member is also exploring updating rules about group participation to either potentially change it to where students are removed from a group after one missed scrum or incorporating peer evaluation into every sprint where a score of 3 on two scrums gets the student removed from the group.

These changes will improve the students' ability to create learn (pursue knowledge) to work ethically, respectfully, and productively with people from diverse backgrounds operating in a multicultural environment while balancing personal and professional challenges thereby continuing to push the cycle of improvement forward.

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### Measure 3.4 (Indirect; Graduating Student Survey)

**Details/Description:** Each semester, students who have applied for graduation in that semester receive an e-mail requesting they complete the School of Business graduating student survey. A follow-up e-mail(s) is also sent. This survey gathers information regarding their post-graduation plans, feedback on their experience in the School of Business, and feedback on their views of how effective they believe they are in accomplishing student learning outcomes. Students can choose 1 (Very Ineffective), 2 (Ineffective), 3 (Effective), or 4 (Very Effective). For this measurement, the results would be their feedback as related to their ability to “Learn (pursue knowledge) and work ethically, respectfully, and productively with people from diverse backgrounds operating in a multicultural environment while balancing personal and professional challenges.”

**Target:** The target is an average of 3.5 on the ability being measured.

**Implementation Plan (timeline):** The survey is sent during the last month of each semester.

**Key/Responsible Personnel:** The Director of the School of Business (or a designee) is responsible for this measure.

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

**Analysis:** As the School of Business started new student learning outcomes and measurements in AC 2024-2025, there is no direct comparison data from 2023-2024.

In AC 2024-2025, the target was met. Twenty-eight students graduated in Fall 2024 and Spring 2025 and eighteen of them completed the survey for a response rate of 64%. The average score on the survey for the “Learn (pursue knowledge) and work ethically, respectfully, and productively with people from diverse backgrounds operating in a multicultural environment while balance personal and professional challenges” objective was 3.67. Table 11 shows the results for this measurement

**Table 11 - Measure 3.4 AC 2024-2025**

AC	Number of Graduates	Number of Completers of Survey	Response Rate	Average Score	Target Measurement	Findings (Met/Not Met)
2024-2025	28	18	64%	3.67	3.50	Met

### Decision:

In 2024-2025, the target was met.

Based on the analysis of the AC 2024-2025 results, the faculty will implement the following changes in 2025-2026 to drive the cycle of improvement. The changes discussed in 3.1,

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3.2, and 3.3 should also affect the scores on the graduating student survey once implemented.

These changes will improve the students' ability to create learn (pursue knowledge) to work ethically, respectfully, and productively with people from diverse backgrounds operating in a multicultural environment while balancing personal and professional challenges thereby continuing to push the cycle of improvement forward.

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

The School of Business (SoB) started all new Student Learning Outcomes (SLOs) and measures in Academic Year (AC) 2024-2025. Therefore, for most measurements, AC 2024-2025 serves as the base year for data analysis and for driving the cycle of continuous improvement in future years.

While the School of Business implemented new Student Learning Outcomes, many of the changes that were made based on the 2023-2024 results would still impact the 2024-2025 student learning outcomes, even if the student learning outcomes and measurements are slightly different. The following reflects all changes implemented to drive the continuous process of seeking improvement in AC 2024-2025. These changes are based on the knowledge gained through the AC 2022-2023 and AC 2023-2024 results analysis.

In the Communication area, the Computer Information Systems faculty added an additional Communication class to the Computer Information Systems curriculum, effective Fall 2024. Students have the option to take COMM1010 – Oral Communication or COMM2500 - Interpersonal Communication. The MKTG3230 faculty member also strengthened efforts to ensure participation in the group presentation by utilizing one-on-one contact to ensure students participate in the group presentation. The CIS 1015 faculty member(s) also worked with the BUAD2200 faculty member(s) to develop rubrics that could help guide students on a report and oral presentation completed in CIS 1015 and gives the students feedback that starts to align them with the expectations of the BUAD2200 faculty members.

In the Critical Thinking area, the FIN 3090 faculty member made the decision to keep a change involving moving from a critical thinking quiz to an essay and also tried to ensure topics in business finance were current and related to future responsibilities of CIS graduates. The FIN 3090 faculty member and the FIN 4200 faculty member also reviewed the topics covered in both classes and completed a redistribution of topics to assist in success in those classes. CIS faculty members also made changes to project management classes. While those courses are electives, the changes reinforced the idea of project planning for those students who took them and increased the likelihood of full project functionality.

Table 12 is the summary of findings in AC 2024-2025.

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**Table 12 - Summary of findings AC 2024- 2025**

SLO #	Measure	Target Met?
1	1a (CIS 3900 Final Project Group Report and Springs)	Yes
1	1b (CIS 4600 Final Project - Presentation)	Yes
1	1c (CIS 4600 Biweekly Sprints Individual Score)	Yes
1	1.2 (Graduating Student Survey)	Met two objectives; Did not meet one objective
2	2.1 (CIS 3900 Modeling/Diagramming/Etc. Homework)	Met in one area; Did not meet in five areas
2	2.2 (CIS 4600 Group Project Functionality)	Yes
2	2.3 (Graduating Student Survey)	Yes
3	3.1 (CIS 3900 Ethical Scenario)	No
3	3.2 (CIS 3900 Peer Review Matrix)	Met in three areas; Did not meet in three areas
3	3.3 (CIS 4600 Individual Reflection)	Yes
3	3.4 (Graduating Student Survey)	Yes

Across the various measures, most of the targets were met, reflecting strong student performance in many key areas. Instructors' key lessons learned and changes to make include:

- Considering CIS grade point average in the formulation of groups for the capstone project (CIS 3900).
- Providing more specific guidelines on lighting, sound, and clarity of presentation when making recordings as well as how to present without reading slides (CIS 4600 and other CIS Classes).
- Revising grading on sprints to encourage incorporation of feedback and investigating other changes regarding removal from groups and promotion of responsiveness and timeliness of group members (CIS 4600).
- Conducting a deeper analysis and discussion within the School of Business regarding interpersonal communication and electronic presentations.
- Creating videos for specific areas where students are having the most difficulty (CIS 4600 and other CIS classes).
- Incorporating concepts of full-stack development into certain classes (Classes within the Application Development area).

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- Revising ethical scenario assignment (CIS 3900).

Overall, the School of Business is employing a data-informed approach to drive ongoing improvements. Through careful reflection, collaboration, and implementation of these strategies, SoB aims to enable all its graduates to become well-prepared, adaptable, and proficient business practitioners.

### Plan of Action moving forward.

Based on the comprehensive analysis of direct and indirect measure results from AC 2024–2025, the School of Business has identified several common themes and opportunities for targeted intervention. While most performance benchmarks were met or nearly met, key areas highlight the need for strategic action.

To address these findings and foster a cycle of continuous improvement, the following strategies can be considered to guide the School's actions in AC 2025–2026:

1. Enhance instructional support and learning resources. The faculty members can implement additional resources such as study guides, practice exams, recorded tutorials, and instructional workshops. These tools will support students in complex topics.
2. Standardize assessment tools and expectations across courses. The School can develop and adopt consistent rubrics for key written reports, presentations, and project components. Clear evaluation criteria will help faculty identify patterns in student strengths and weaknesses, promote consistency, and enhance the quality of feedback.
3. Implement targeted interventions in underperforming areas. For courses and survey areas that fell below the benchmark, the faculty members can collaborate to revise instructional content and incorporate more interactive, application-driven exercises, including case studies and problem-solving workshops.
4. Expand faculty collaboration and pedagogical best practices. Faculty can be encouraged to share effective teaching methods and assessment techniques across disciplines at SoB Faculty Luncheons, Lunch & Learn, or school meetings.
5. Strengthen engagement with industry and experiential learning. Building on successful experiential projects, the School will continue to involve external stakeholders and industry partners. Structured communication protocols, clear deliverables, and early feedback loops will enhance students' readiness for professional interactions and project success.

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 will be compared to AC 2024-2025 results to determine progress. The School of Business fosters a collegial environment, with faculty frequently collaborating to ensure that effective strategies are shared with other faculty members. By driving the cycle of continuous improvement, the School of Business remains committed to preparing graduates to thrive in a dynamic global marketplace.