

Weber State University
Biennial Report on Assessment of Student Learning

Cover Page

Department/Program: Supply Chain & Management Information Systems
Management Information Systems

Academic Year of Report: 2022 and 2023 (covering Summer 2021 through Spring 2023)

Date Submitted: Fall 2023

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The Institutional Effectiveness website hosts a page for each program that displays assessment reports and information. All available biennial assessment and program review reports are located at the bottom of the program's page on our site. As a part of the biennial report process, we ask that you please review your page for completeness and accuracy, and indicate below the changes that need to be made in sections A-E.

Program page link: https://www.weber.edu/ie/Results/Management_Information_Technology.html

A. Mission Statement

Information is current; no changes required: X

Update if not current:

B. Student Learning Outcomes

(Please include certificate and associate credential learning outcomes)

Information is current; no changes required: X

Update if not current:

C. Curriculum Grid

(Please review your current curriculum grid and verify that at least one course has been identified for each outcome in which you expect your students to demonstrate the desired competency of a graduating student. This could be shown in a variety of ways: classroom work, clinical or internship work, a field test, an ePortfolio, etc. You may request access to the Google Sheet on our site if that is easiest, or we can make the updates. Please reach out to oiie@weber.edu if you wish to have access)

Information is current; no changes required: X

Update if not current

D. Program and Contact Information

Information is current; no changes required: X

Update if not current:

E. Assessment Plan

We have traditionally asked programs to report on outcome achievement by students at the course level. We are encouraging programs to consider alternative assessment approaches and plans that are outcome-based as opposed to course-based, though course-based assessment can continue to be used. A complete assessment plan should include:

- a timeline (which courses or which outcomes will be assessed each year),
- an overall assessment strategy (course-based, outcome-based, reviewed juries, ePortfolio, field tests, etc.)
- information about how you will collect and review data
- information about how the department/program faculty are engaged in the assessment review.

Information is current; no changes required: X

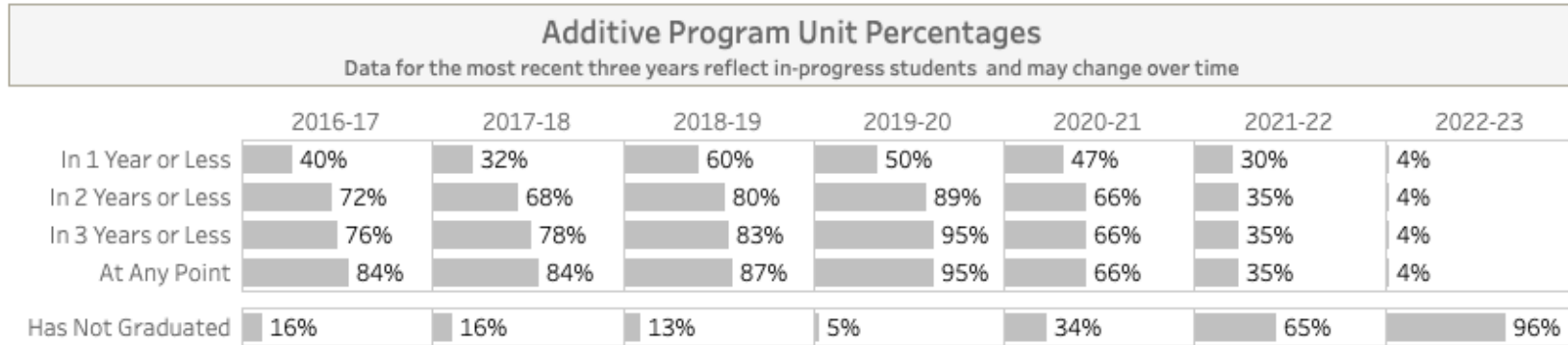
MIS Program Learning Outcomes:

Learning Outcome Assessment Plan	
Outcome	Assessment Plan
LO 1: Be able to collect, analyze, and use data to improve business decision making	Continue to assess data analytics skills and knowledge through MIS 2030, every Fall semester
LO 2: Be capable of developing and implementing information systems	Continue to assess application development skills and knowledge through MIS 2110, every Fall semester
LO 3: Be adept at helping management understand and plan for the best new technologies and how to integrate them into the organization's business processes	Continue to assess core discipline skills and knowledge through MIS 4730 (MIS Capstone class), every Fall semester

F. Student Achievement

Please come back to this section later. The dashboard is being updated and is not yet on Site Manager. OIE will send out an email when it is ready.

Percent and number of students completing degrees within 2 years of achieving 90+ credit hours (or just time to graduation for graduate programs) and a reflection on that metric.



From 2016-17 through 2020-21, this program averages a 75 % completion within 2 years of 90 CH. This rate was higher than the last report (66.2%) based from 2014-15 to 2018-19. However, the rate (66%) in 2020-21 was the lowest in the current reporting period.

G. Evidence of Learning

A. Evidence of Learning: Courses within the Major

Measurable Learning Outcome	Method of Measurement	Threshold for Evidence of Student Learning	Findings Linked to Learning Outcomes	Interpretation of Findings	Action Plan/Use of Results
Students will...	Direct and Indirect Measures*				
Learning Outcome 1. Be able to collect, analyze, and use data to improve business decision making	Measure 1: Two major assignments with multiple sub-questions (MIS 2030)	Measure 1: 80% of students will meet or exceed expectations on three areas: visualization, model building, and interpretation	Measure 1: In Spring 2022, 89.3% of students met or exceeded expectations in overall rubric. In Spring 2023, 82.8% of students met or exceeded expectations in overall rubric	Measure 1: Students performed well completing two major assignments, which represents an improvement from the prior assessment.	Measure 1: The course materials have been revised, and faculty has introduced an additional project in Spring 2023, to enhance students' understanding of the model performance through practical examples. In addition, a new software was utilized during the same term.
Learning Outcome 2. Be capable of developing and implementing information systems	Measure 1: Three programming assignments in key concept areas (MIS 2110)	Measure 1: 80% of students will meet or exceed expectations: class/object concepts and programming logic	Measure 1: In Spring 2022, 99.3% of students met or exceeded expectations in overall rubric. In Spring 2023, 94.4% of students met or exceeded expectations in overall rubric.	Measure 1: Students performed very well completing three major assignments. However, the course had lower enrollments (10 in Spring 2022 and 12 in Spring 2023) than the prior years.	Measure 1: Continue to monitor the progress of students.
Learning Outcome 3. Be adept at helping management understand and plan	Measure 1: Complete six (6) major project deliverable assignments (MIS	Measure 1: 80% of students will meet or exceed expectations on six	Measure 1: In Spring 2022, 86.1% of students met or exceeded expectations	Measure 1: Students performed very well completing most project	Measure 1: No action necessary. Faculty will continue to monitor the progress of

Measurable Learning Outcome	Method of Measurement	Threshold for Evidence of Student Learning	Findings Linked to Learning Outcomes	Interpretation of Findings	Action Plan/Use of Results
Students will...	Direct and Indirect Measures*				
for the best new technologies and how to integrate them into the organization's business processes	4730)	project deliverables, including project narrative, work breakdown, risk assessment, cost estimation, schedule, and resource management	in overall rubric. In Spring 2023,90.0% of students met or exceeded expectations in overall rubric.	deliverables.	students.

Additional narrative (optional – use as much space as needed):

Evidence of Learning: General Education Courses

Evidence of Learning: General Education- MIS 1100					
Measurable Learning Outcome	Method of Measurement	Threshold for Evidence of Student Learning	Findings Linked to Learning Outcomes	Interpretation of Findings	Action Plan/Use of Results
Students will...	Direct and Indirect Measures*				
Learning Outcome 1.A: Interactions between individuals and society: Students will describe how individuals and groups influence and are influenced by social contexts, institutions, physical environments, and/or global process.	Measure 1: A set of 3 quiz questions from quiz 1	Measure 1: Students will score 80% or better on the 3 quiz questions.	Measure 1: Students average score on the 3 questions was 87.67%	Measure 1: Students successfully described how individuals and groups are influenced by social contexts, institutions, physical environments and global processes.	Measure 1: No curricular or pedagogical changes needed at this time
	Measure 2: Signature Assignment Essay on NSA and Mass Surveillance	Measure 2: Students will average 3 (mastery) on assessment rubric from 1-4(exceeds mastery)	Measure 2: Students average was 3.4	Measure 2: Students successfully described how individuals and groups are influenced by social contexts, institutions, physical environments and global processes	Measure 2: No curricular or pedagogical changes needed at this time
Learning Outcome 2.A: Applications of concepts, theories, and methods: Students will apply basic social science concepts, theories, and/or methods to a particular issue and identify factors that influence change.	Measure 1: A set of 3 quiz questions from quiz 2	Measure 1: Students will score 80% or better on the 3 quiz questions.	Measure 1: Students average score on the 3 quiz questions was 87%	Measure 1: Students successfully demonstrated competence in identifying factors that influence change	Measure 1: No curricular or pedagogical changes needed at this time
Learning Outcome 3: Diverse perspectives: Students will identify an argument about a social phenomenon and understand alternative explanations	Measure 3a. Signature Assignment- Essay on NSA and Mass Surveillance: Develop a Pro-NSA argument	Strength and Adequacy of argument will average “Good 12-14pts” when gauged on scale from “Other 0-10 pts”, “Adequate 10-11 pts”, “Good 12 – 14 pts”, “Excellent 15 pts”.	Measure 3a. Students average was 13.8 and within the ‘Good’ range	Measure 3a. Students successfully identified an argument about a social phenomenon and understood alternative explanations	No curricular or pedagogical changes needed at this time
	Measure 3b. Signature Assignment- Essay on NSA and Mass Surveillance:: Develop an	Strength and Adequacy of argument will average “Good 12-14pts” when gauged on scale from	Measure 3b. Students Average was 14 and within the “Good’ range	Measure 3b. Students successfully identified an argument about a social phenomenon and	No curricular or pedagogical changes needed at this time

Evidence of Learning: General Education- MIS 1100

Measurable Learning Outcome	Method of Measurement	Threshold for Evidence of Student Learning	Findings Linked to Learning Outcomes	Interpretation of Findings	Action Plan/Use of Results
Students will...	Direct and Indirect Measures*				
	Anti-NSA argument	“Other 0-10 pts”, “Adequate 10-11 pts”, “Good 12 – 14 pts”, “Excellent 15 pts”.		understood alternative explanations	
	Measure 3c. Signature Assignment- Essay on NSA and Mass Surveillance: Develop a Personal Stand Argument	Strength and Adequacy of argument will average “Good 12-14pts” when gauged on scale from “Other 0-10 pts”, “Adequate 10-11 pts”, “Good 12 – 14 pts”, “Excellent 15 pts”.	Measure 3c. Students Average was 13.75 and within the ‘Good’ range.	Measure 3c. Students successfully identified an argument about a social phenomenon and understood alternative explanations	No curricular or pedagogical changes needed at this time

*At least one measure per objective must be a direct measure; indirect measures may be used to supplement direct measure(s).

It is proposed that these assessment results will be reviewed by the General Education Improvement & Assessment Committee, who will provide feedback on evidence of continuous improvement.

Appendix A

Most departments or programs receive a number of recommendations from their Five/Seven-Year Program Review processes. This page provides a means of updating progress towards the recommendations the department/program is enacting.

Date of Program Review: Sep. 24, 2021	Recommendation	Progress Description
Recommendation 1	To review the mix of required versus elective courses offered to see if efficiencies can be gained by increasing the required courses while limiting the number of electives.	The program has added new elective courses, such as MIS 2040, MIS 3220, and MIS 3230, while developing a new Data Analytics certificate. These additions help students with more choices for their major electives.
Recommendation 2	Development of a master's degree be done with careful consideration for the impact on the undergraduate program.	Due to the lack of resources, the program cannot develop a new master's program at this point.
Recommendation 3	To consider the use of ePortfolio to both aid in program assessment and in helping students demonstrate the competencies they have mastered to prospective employers.	

Additional narrative:

Appendix B

Please provide the following information about the full-time *and adjunct faculty* contracted by your department during the last academic year (summer through spring). Gathering this information each year will help with the headcount reporting that must be done for the final Five-Year Program Review document that is shared with the State Board of Regents.

Faculty Headcount	2019-20	2020-21	2021-22	2022-23
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)				
Full-time Tenured	2	4	5	5
Full-time Non-Tenured (includes tenure-track)	3	1		
Part-time and adjunct		2	2	1
With Master's Degrees				
Full-time Tenured				
Full-time Non-Tenured				
Part-time and adjunct	5	5	7	5
With Bachelor's Degrees				
Full-time Tenured				
Full-time Non-tenured				
Part-time and adjunct				
Other				
Full-time Tenured				
Full-time Non-tenured				
Part-time				
Total Headcount Faculty				
Full-time Tenured	2	4	5	5
Full-time Non-tenured	3	1		
Part-time	5	7	9	6

Appendix C

Please respond to the following questions.

- 1) Looking back at your previous biennial report where you identified strategies for improvement, what progress has been made in implementing improvements?

While MIS 2030 was used for the assessment, the other Data Analytics courses were considered as the major electives. However, these courses were not used for the assessment, as the program did not have many enrollments in them yet.

- 2) Please take a few minutes to review the new DFWI dashboard in the Report Gallery. This dashboard allows you to see the percentage of students in each course who earn a D+, D, D-, E, W, UW, or NC grade. The data can be filtered by several parameters. Reflect on the DFWI rates overall and of your underserved minority students versus your Caucasian students:
 - a. What are you seeing?
 - b. What concerns you?
 - c. What additional data could be beneficial?

The student struggled with the lower-division courses, which were not only taken by the MIS major students but also by students from other majors. The current demographic filter includes several relevant aspects to investigate various concerns. It would be beneficial if the filter also included the disciplines to which the students belong.

- 3) We have invited you to re-think your program assessment. What strategies are you considering? What support or help would you like?

The program considers additional courses, such as other major courses or Data Analytics courses, incorporated into the program assessment.

Glossary

Student Learning Outcomes/Measurable Learning Outcomes

The terms ‘learning outcome’, ‘learning objective’, ‘learning competency’, and ‘learning goal’ are often used interchangeably. Broadly, these terms reference what we want students to be able to do AFTER they pass a course or graduate from a program. For this document, we will use the word ‘outcomes’. Good learning outcomes are specific (but not too specific), are observable, and are clear. Good learning outcomes focus on skills: knowledge and understanding; transferrable skills; habits of mind; career skills; attitudes and values.

- Should be developed using action words (if you can see it, you can assess it).
- Use compound statements judiciously.
- Use complex statements judiciously.

Curriculum Grid

A chart identifying the key learning outcomes addressed in each of the curriculum’s key elements or learning experiences (Suskie, 2019). A good curriculum:

- Gives students ample, diverse opportunities to achieve core learning outcomes.
- Has appropriate, progressive rigor.
- Concludes with an integrative, synthesizing capstone experience.
- Is focused and simple.
- Uses research-informed strategies to help students learn and succeed.
- Is consistent across venues and modalities.
- Is greater than the sum of its parts.

Target Performance (previously referred to as ‘Threshold’)

The level of performance at which students are doing well enough to succeed in later studies (e.g., next course in sequence or next level of course) or career.

Actual Performance

How students performed on the specific assessment. An average score is less meaningful than a distribution of scores (for example, 72% of students met or exceeded the target performance, 5% of students failed the assessment).

Closing the Loop

The process of following up on changes made to curriculum, pedagogy, materials, etc., to determine if the changes had the desired impact.

Continuous Improvement

An idea with roots in manufacturing, that promotes the ongoing effort to improve. Continuous improvement uses data and evidence to improve student learning and drive student success.

Direct evidence

Evidence based upon actual student work; performance on a test, a presentation, or a research paper, for example. Direct evidence is tangible, visible, and measurable.

Indirect evidence

Evidence that serves as a proxy for student learning. May include student opinion/perception of learning, course grades, measures of satisfaction, participation. Works well as a complement to direct evidence.

HIEE – High Impact Educational Experiences

Promote student learning through curricular and co-curricular activities that are intentionally designed to foster active and integrative student engagement by utilizing multiple impact strategies. Please see <https://weber.edu/weberthrives/HIEE.html>