

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: 2020/21 (covering Summer 2019 through Spring 2021)

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We have updated the Institutional Effectiveness website, which includes an update for each program page. All Biennial Assessment and Program Review reports will now be available on a single page. Please review your page for completeness and accuracy, and indicate on the list below the changes that need to be made. Access your program page from the top-level [results](#) page. Select the appropriate college and then your program from the subsequent page.

A. Mission Statement

Information is current; no changes required.

Update if not current:

B. Student Learning Outcomes

(please note the addition of certificate and associate credential learning outcomes)

Information is current; no changes required.

Update if not current:

C. Curriculum (please note, we are using Google Sheets for this section so that updates are easier to make)

Information is current; no changes required.

Update if not current (you may request access to the Google Sheet if that is easiest, or we can make the updates):

(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.)

D. Program and Contact Information

Information is current; no changes required.

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 will 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, and information about how the department/program faculty are engaged in the assessment review.

Information is current; no changes required.

Update if not current:

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

- i. Percent of students completing degrees after 90 credit hours within 2 years and a reflection on that metric (this information can be accessed on the Program Review Undergraduate dashboard – tab labeled, ‘Time to Grad from 90CH – please reach out to oi@weber.edu if you need help with this metric). What department initiatives are in place to address this?

Additive Program Unit Percentages									
Data for the most recent three years reflect in-progress students and may change over time									
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
In 1 Year or Less	22%	7%	29%	19%	40%	32%	60%	48%	13%
In 2 Years or Less	61%	67%	50%	61%	72%	68%	80%	55%	13%
In 3 Years or Less	72%	73%	64%	65%	76%	78%	80%	55%	13%
At Any Point	78%	80%	79%	71%	80%	78%	80%	55%	13%
Has Not Graduated	22%	20%	21%	29%	20%	22%	20%	45%	88%

From 2014-15 through 2018-19, this program averages a 66.2% completion within 2 years of 90CH

Evidence of Learning

There are varieties of ways in which departments can choose to show evidence of learning.

1) Course-based assessment

- a. This is the format we have traditionally suggested programs use for assessment. The familiar 'evidence of learning worksheets' are included in the template and can also be accessed from the IE website. The critical pieces to include are:
 - i. learning outcomes addressed in the course,
 - ii. method(s) of measurement used,
 - iii. threshold for 'acceptable – that is, the target performance,
 - iv. actual results of the assessment,
 - v. interpretation/reflection on findings,
 - vi. the course of action to be taken based upon the interpretation,
 - vii. how that action will be evaluated.

2) Outcome-based assessment

- a. Moving from course-based to outcome-based assessment has the potential for programs to gather and reflect upon data that are more meaningful, and to connect assessment findings from throughout the program. The approach may be much easier for associates and certificate programs where only select students in classes are earning the credential. For more information email (gniklason@weber.edu)
- b. Reporting options include:
 - i. A traditional evidence-of-learning [worksheet](#) with an outcome (across multiple courses) as the focus (instead of a course with multiple outcomes).
 - ii. A report that is more [narrative-based](#).
 - iii. Other tools such as an ePortfolio in which key or signature assignments have been identified by the faculty, and uploaded by the student with their reflection. The key or signature assignments are aligned to student learning outcomes. (ePortfolio is an excellent assessment tool for certificates and associate degrees.)
 - iv. There are other approaches such as juried reviews, physical portfolios, field tests, etc.

- 3) General Education course assessment needs to continue to be reported at the course level using either the [traditional template](#) or a more [narrative-based format](#). See the [Checklist and Template](#) page for area-specific worksheets as well.

Note: if you cannot download templates directly from this document, please visit our [template page](#) for downloads.

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: 69.6% of students met or exceeded expectations in overall rubric	Measure 1: The course was held in a virtual environment due to COVID-19. About 30% of students (7 out of 23) did not turn in the required assignments, which caused the low performance.	Measure 1: The course materials and assignments were revised, in order to help students understanding the model performance through adequate examples. Faculty continues to monitor the topics/areas that students struggle from.
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: 82.2% of students met or exceeded expectations in overall rubric	Measure 1: Due to COVID-19, some students were struggling in understanding the programming concepts, even though the instructor provided several virtual help sessions.	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	Measure 1: 80% of students will meet or exceed expectations on six	Measure 1: 90.3% of students met or exceeded expectations in overall	Measure 1: Students performed very well completing most project	Measure 1: No action necessary. Faculty will continue to monitor the

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	assignments (MIS 4730)	project deliverables, including project narrative, work breakdown, risk assessment, cost estimation, schedule, and resource management	rubric	deliverables. In work_breakdown schedule, 88.1% of students met or exceeded expectations.	progress of students.

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

c. Evidence of Learning: General Education Courses – MIS 1100

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 6 questions from 2 different quizzes	Measure 1: 85% of students will score 80% or better on 6 questions	Measure 1: 90.3% of students scored 80% or better on 6 questions	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: Essay on NSA and Mass Surveillance	Measure 2: Students will average 4 (meets expectations) on assessment rubric	Measure 2: Students average was 4.1	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 4 questions from 2 different quizzes	Measure 1: 85% of students will score at 80% or better on the 4 questions.	Measure 1: 89.5% of students scored above 80% on the 4 questions.	Measure 1: Students successfully demonstrated competence in applying the diffusion of innovation theory to identify factory that influence change	Measure 1: No curricular or pedagogical changes needed at this time
	Measure 2: A "Signature Assignment" Essay on Diffusion of Innovation	Measure 2: Students will average 4 (Meets Expectations) on learning assessment when gauged on a scale from 0(not observed)-5(exceeds expectations)	Measure 2: Students average was 4.1	Measure 2: Students successfully demonstrated competence in applying the diffusion of innovation theory to identify factory that influence change.	Measure 2: No curricular or pedagogical changes needed at this time
Learning Outcome 3. Diverse	Measure 3a. Mass Surveillance Paper:	Strength and Adequacy of argument	Measure 3a. Students average was 12.75	Measure 3a. Students successfully identified	No curricular or pedagogical changes

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*				
perspectives: Students will identify an argument about a social phenomenon and understand alternative explanations	Develop a Pro-NSA 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".	and within the 'Good' range	an argument about a social phenomenon and understood alternative explanations	needed at this time
	Measure 3b. Mass Surveillance Paper: Develop an Anti-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 3b. Students Average was 13.5 and within the "Good" range	Measure 3b. Students successfully identified an argument about a social phenomenon and understood alternative explanations	No curricular or pedagogical changes needed at this time
	Measure 3c. Mass Surveillance Paper: 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 12.5 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

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

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.	
Recommendation 2	Development of a master's degree be done with careful consideration for the impact on the undergraduate program.	
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	2018-18	2019-20	2020-21
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)			
Full-time Tenured	2	2	4
Full-time Non-Tenured (includes tenure-track)	3	3	1
Part-time and adjunct	2		2
With Master's Degrees			
Full-time Tenured			
Full-time Non-Tenured			
Part-time and adjunct	6	5	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	2	4
Full-time Non-tenured	3	3	1
Part-time	8	5	7

Please respond to the following questions.

- 1) Review and comment on the trend of minority students enrolling in your classes (particularly lower-division, GEN Ed) and in your programs.

We have not collected the information at this point.

- 2) What support (from enrollment services, advising, first-year transition office, access & diversity, etc.) do you need to help you recruit and retain students?

In recruiting students for the program, incoming students do not have a clear knowledge of the differences between MIS and Computer Science. I strongly recommend students to take our introductory course (MIS 2020) earlier in their studies.

For the supports that enrollment services, advising, and the first-year transition office may be able to help with:

- advise students to take MIS 2020 as early as possible
- advise students that the MIS program enables them to develop their technical skills, along with managerial and business skills and knowledge

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

In recent, we have offered more new courses related to Data Analytics. We may consider how to incorporate those courses into the program assessment.

- 4) Finally, we are supporting our Concurrent Enrollment accreditation process. Does your program offer concurrent enrollment classes? If so, have you been able to submit the information requested from the Concurrent Enrollment office? Staff from OIE will reach out to you in the next few months to assist in finalizing that data submission as well as gather information for concurrent Gen Ed assessment.

We do not offer concurrent course.

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>