Weber State University
Biennial Report on Assessment of Student Learning

Cover Page

Department/Program: Supply Chain Management
Academic Year of Report: 2020/21 (covering Summer 2019 through Spring 2021)
Date Submitted: 11/15/2021
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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:

    "Transforming lives through our personal innovative approach to supply chain education, industry engagement, and research."

    B. Student Learning Outcomes
    (please note the addition of certificate and associate credential learning outcomes)
    _X_ 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:

	SCM Program Learning Outcomes			
Courses in Department/Program	Learning Outcome 1 *Data-driven decision making*	Learning Outcome 2 *Communication skills*	Learning Outcome 3 *Collaboration skills*	Learning Outcome 4 *Application of core SC functional skills*
SCM 3050 Operations & Supply Chain Management	1	1	1 A	1
SCM 3500 Spreadsheet Modeling for Predictive Analytics	2 A	1		2
SCM 3600 Logistics & Transportation	2	2	2	2

SCM 3700 Purchasing & Strategic Sourcing	2	2	2	2
SCM 4100 Quality Management and Process Improvement	3 A	2	2	2
SCM 4400 Global Supply Chain Management	2	2	2	2
SCM 4500 Supply Chain Relational Strategies	2	3 A	3	3
SCM 4550 Strategic Supply Chain Design	3	3	3 A	3 A
Elective Courses				
SCM 2400 Foundations of Project Management	1	1	1	
SCM 4700 Supply Chain Case Analysis, Logic, Presentation	2	3	3	2
SCM 4840 Operations and Supply Chain Industry Projects	3	3	3	3
SCM 4850 Supply Chain Management Study Abroad		1	1	1
SCM 4860 Supply Chain Management Internship		2		3

1= introduced; 2 = further developed or reinforced; 3 = mastered; A = Assessment point

D. Program and Contact Information

___ Information is current; no changes required.

Update if not current:

Bachelor of Science in Supply Chain Management

Weber State's supply chain management major gives students with an interest in how goods are produced, purchased, moved and marketed worldwide the skills to become leaders in supply chain management. The program offers small class sizes, taught by faculty members who have strong connections in the local community. These small classes give you the opportunity to build relationships and receive personal attention.

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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.
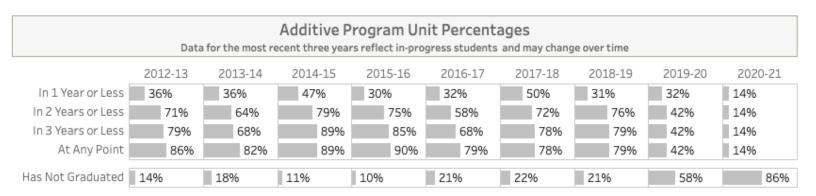
___ **Information is current; no changes required.**

Update if not current:

Learning assessment will be conducted each year during the Spring semester. Measures for the four learning outcomes will be collected in the following courses: SCM 3050, SCM 3500, SCM 4100, SCM 4500 and SCM 4550. A total of 6 measures will be collected as indicated in the evidence of learning tables below.

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 oie@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	36%	36%	47%	30%	32%	50%	31%	32%	14%
In 2 Years or Less	71%	64%	79%	75%	58%	72%	76%	42%	14%
In 3 Years or Less	79%	68%	89%	85%	68%	78%	79%	42%	14%
At Any Point	86%	82%	89%	90%	79%	78%	79%	42%	14%
Has Not Graduated	14%	18%	11%	10%	21%	22%	21%	58%	86%

From 2014-15 through 2018-19, this program averages a 72.0% 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.

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A. Evidence of Learning: Courses within the Major

Evidence of Learning Worksheet: **Courses within the Major**

Course: SCM 3050   Semester taught: Fall, Spring, Summer   Sections included: Spring

Evidence of Learning: Courses within the Major						
Measurable Learning Outcome	Method of Measurement*	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
Learning Outcome 3: *Collaboration skills*	Measure 1: We use the Comprehensive Assessment of Team Member Effectiveness (catme.org) peer evaluation survey. The measure is the student's average of (1) Contribution to work, (2) Interactions with teammates, and (3) Keeping team on track.	Measure 1: It is expected that 80% or more of students will have an average greater than 4.	Measure 1: Sp. 2020: 85.9% Sp. 2021: 78.0%	Measure 1: The 2020 measure was collected before the COVID-19 pandemic while classes were held in person. The pandemic and the move to online appears to have negatively impacted the students' ability to collaborate.	Spring 2022 will offer a measure for both virtual and face-to-face sections of the same SCM 3050, which will provide a basis for comparison.	

*Direct and indirect: at least one measure per objective must be a direct measure.

Course: SCM 3500   Semester taught: Fall & Spring   Sections included: Spring

Evidence of Learning: Courses within the Major						
Measurable Learning Outcome	Method of Measurement*	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
Learning Outcome 1: *Data-driven decision making*	Measure 1: We use the course final examination.	Measure 1: It is expected that 80% or more of students will score 80% or higher on the course final exam.	Measure 1: Measurement will begin in Spring 2022.	Measure 1:		

*Direct and indirect: at least one measure per objective must be a direct measure.

Course: SCM 4100   Semester taught: Fall & Spring   Sections included: Spring

Evidence of Learning: Courses within the Major						
Measurable Learning Outcome	Method of Measurement*	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
Learning Outcome 1: *Data-driven decision making*	Measure 2: We use the score on a multi-stage simulated process improvement project.	Measure 2: To be defined later.	Measure 2:	Measure 2:		

*Direct and indirect: at least one measure per objective must be a direct measure.

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Course: SCM 4500   Semester taught: Spring   Sections included: Spring

Evidence of Learning: Courses within the Major						
Measurable Learning Outcome	Method of Measurement*	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
Learning Outcome 2: *Communication skills*	Measure 1: We use the course final examination. The exam is a written case final, where students are presented with a real-life business scenario. Students must distill the major issues from the case, determine necessary decisions and provide a supported recommendation.	Measure 1: It is expected that 80% or more of students will score 77% or higher on the course final exam.	Measure 1: Measurement will begin in Spring 2022.	Measure 1:		

*Direct and indirect: at least one measure per objective must be a direct measure.

Course: SCM 4550   Semester taught: Spring   Sections included: Spring

Evidence of Learning: Courses within the Major						
Measurable Learning Outcome	Method of Measurement*	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
Learning Outcome 3: *Collaboration skills*	Measure 2: This measure is a repeat of the measure for this learning outcome in SCM 3050.	Measure 2: It is expected that 90% or more of students will have an average greater than 4.	Measure 2: Measurement will begin in Spring 2022.	Measure 2:		

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Evidence of Learning: Courses within the Major						
Measurable Learning Outcome	Method of Measurement*	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
Learning Outcome 4: *Application of core SC functional skills*	Measure 1: We use a practice test from CSCMP's SC Pro Level One certification exam. The test consists of 24 questions (3 questions in each of the 8 knowledge areas), with each question worth one point.	Measure 1: It is expected that 80% or more of students will get a score greater than 16.	Measure 1: Measurement will begin in Spring 2022.	Measure 1:		

*Direct and indirect: at least one measure per objective must be a direct measure.

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Appendix A

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	3	3
Full-time Non-Tenured (includes tenure-track)	3	2	3
Part-time and adjunct			
With Master's Degrees			
Full-time Tenured			
Full-time Non-Tenured			
Part-time and adjunct	4	4	2
With Bachelor's Degrees			
Full-time Tenured			
Full-time Non-tenured			
Part-time and adjunct	1	1	
Other			
Full-time Tenured			
Full-time Non-tenured			
Part-time			
Total Headcount Faculty			
Full-time Tenured	2	3	3
Full-time Non-tenured	3	2	3
Part-time	5	5	2

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.

    NA

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

    A major and persistent handicap in recruiting students for the program is that incoming students do not know what supply chain management really is. Yes, they've heard the stories on TV. Since COVID, the name "supply chain" appears routinely in the press and in corporate boardrooms. However, students do not understand the variety and nature of the truly fascinating occupations within the supply chain field usually until it is too late. It would really help if students took our introductory course (SCM 3050) sooner in their studies. Many students take this course in their last year, and it is unfortunately not uncommon to hear students bemoan "if I had known what supply chain really is, I would have majored in it." But it's too late. This is something that enrollment services, advising, and the first-year transition office may be able to help with: advise students to take SCM 3050 as early as possible.

    According to Report Gallery, about 5% of SCM students switch to another major every year, with 63% going to another business major and 12% going into engineering. If we knew when the students switched, it would be very helpful for us. How can we have access to that information?

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

    To assess learning across all our learning outcomes, we are collecting assessment points in four of our major courses at the 3000 and 4000 levels. Our assessment strategy is to use external measures whenever possible, which is why we are reusing one assessment point from the AACSB assurance of learning process for which we use a third-party tool (the CATME survey, https://info.catme.org/) to measure the collaboration skills of students coming into the major. We use the CATME survey again to measure collaboration skills in the capstone course. To measure the application of core SCM functional skills, we use questions from a practice exam for one of the certifications offered by a professional organization in our field.

    We do not need any external support at this time.

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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 Enrollment courses at this time.

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

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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