

Weber State University  
Annual Assessment of Evidence of Learning

Cover Page

Department/Program: Engineering Technology/Design Engineering Technology  
Academic Year of Report: 2016/17 (Summer 2016, Fall 2016, Spring 2017)  
Date Submitted: 11/14/2017  
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**A. Brief Introductory Statement:**

Please review the Introductory Statement and contact information for your department or academic program displayed on the assessment site: <http://www.weber.edu/portfolio/departments.html> - if this information is current, please place an 'X' below. No further information is needed. We will indicate "Last Reviewed: [current date]" on the page.

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

**Information is not current; updates below.**

Update:

The program contact info should be updated as follows:

Megumi Usui  
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1447 Edvalson St. Dept 1802  
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Engineering Technology Bldg, Room 214L  
(801) 626-6951

## **B. Mission Statement**

Please review the Mission Statement for your department or academic program displayed on the assessment site:

<http://www.weber.edu/portfolio/departments.html> - if it is current, please indicate as much; we will mark the web page as “Last Reviewed [current date]”. No further information is needed.

If the information is not current, please provide an update:

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

**Information is not current; updates below.**

Update:

### **C. Student Learning Outcomes**

Please review the Student Learning Outcomes for your academic program displayed on the assessment site:

<http://www.weber.edu/portfolio/departments.html> - if they are current, please indicate as much; we will mark the web page as “Last Reviewed [current date]”. No further information is needed.

If they are not current, please provide an update:

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

**Information is not current; updates below.**

## D. Curriculum

Please review the Curriculum Grid for your department or academic program displayed on the assessment site:

<http://www.weber.edu/portfolio/departments.html> - if it is current, please indicate as much; we will mark the web page as “Last Reviewed: [current data]”. No further information is needed.

If the curriculum grid is not current, please provide an update:

Information is current; no changes required.

Information is not current; updates below

### Curriculum Map Format

#### Student Learning Outcomes:

Design Engineering Technology students will demonstrate:

1. effective technical communication skills, including written, oral and graphical
2. have obtained the requisite knowledge and have acquired the technical skills to be successful in the discipline.
3. the ability to function as a member of a project team.
4. problem solving skills related to the discipline.
5. knowledge of the national standards used in the discipline and the ability to apply national standards in the development of design documentation and graphics presentations.

"X" indicates the course where this objective is taught

	Department/Program Learning Outcomes							
	Learning Outcome 1	Learning Outcome 2	Learning Outcome 3	Learning Outcome 4	Learning Outcome 5			
Core Courses in Department/Program								
DET 1010		X		X	X			
DET 1040		X		X	X			
DET 1160		X		X	X			
DET 1350	X	X		X	X			
DET 2000	X	X		X	X			

Core Courses in Department/Program	Department/Program Learning Outcomes							
	Learning Outcome 1	Learning Outcome 2	Learning Outcome 3	Learning Outcome 4	Learning Outcome 5			
DET 2460	x	x	x	x	x			
DET 2650		x		x	x			
DET 2660		x		x	x			
DET 3000	x	x		x	x			
DET 3100	x	x		x	x			
DET 3300	x	x		x	x			
DET 3400		x	x	x	x			
DET 3470		x		x	x			
DET 4350	x	x		x	x			
DET 4400	x	x		x	x			
DET 4470		x		x	x			
DET 4500		x	x	x	x			
DET 4600	x	x	x	x	x			
DET 4610	x	x	x	x	x			
MFET 1210	x	x		x				
MFET 2300	x	x		x				
MFET 2360	x			x				
MFET 2410	x	x		x				
MET 3400	x	x		x	x			
MFET 3550	x	x		x	x			
MFET 4610	x	x	x	x	x			

*Note<sup>a</sup>*: Define words, letters or symbols used and their interpretation; i.e. 1= introduced, 2 = emphasized, 3 = mastered or I = Introduced, E = Emphasized, U = Utilized, A = Assessed comprehensively; these are examples, departmental choice of letters/numbers may differ  
*Note<sup>b</sup>*: Rows and columns should be transposed as required to meet the needs of each individual department

## E. Assessment Plan

Please review the Assessment Plan for your department displayed on the assessment site: <http://www.weber.edu/portfolio/departments.html> - if the plan is current, please indicate as much; we will mark the web page as “Last Reviewed [current date]”. No further information is needed.

The site should contain an up-to-date assessment plan with planning going out a *minimum of three years* beyond the current year. Please review the plan displayed for your department at the above site. The plan should include a list of courses from which data will be gathered and the schedule, as well as an overview of the assessment strategy the department is using (for example, portfolios, or a combination of Chi assessment data and student survey information, or industry certification exams, etc.).

*Please be sure to include your planned assessment of any general education courses taught within your department.* This information will be used to update the General Education Improvement and Assessment Committee’s planning documentation.

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

Assessment plan:

**F. Report of assessment results for the most previous academic year:**

There are a variety of ways in which departments can choose to show evidence of learning. This is one example. The critical pieces to include are 1) what learning outcome is being assessed, 2) what method of measurement was used, 3) what the threshold for ‘acceptable performance’ is for that measurement, 4) what the actual results of the assessment were, 5) how those findings are interpreted, and 6) what is the course of action to be taken based upon the interpretation.

**A. Evidence of Learning: Courses within the Major**

**(this is a sample page for purpose of illustration only; a blank template can be found on the next page)**

<b>Sample only - Evidence of Learning: Courses within the Major – Sample only</b>					
Measurable Learning Outcome: Students will...	Method of Measurement*	Threshold for Evidence of Student Learning	Findings Linked to Learning Outcomes	Interpretation of Findings	Action Plan/Use of Results
Learning Outcome 1:	Measure 1: A set of 10 multiple choice questions from Exam 1  Measure 2: Student presentations	Measure 1: 85% of students will score 80% or better on 10 questions  Measure 2: Using a rubric to assess the presentation, 90% of students will achieve a score of 75% or above.	Measure 1: 93% of students scored 80% or better on 10 questions  Measure 2: the threshold was met, but students performed poorly (avg. = 1.8) on one criterion.	Measure 1: Students successfully demonstrated interpretation skills  Measure 2: unclear where the issue is	Measure 1: No curricular or pedagogical changes needed at this time  Measure 2: provide better explanation of the expectations for this criterion and re-assess.
Learning Outcome 2:	Measure 1: Results of standardized test  Measure 2: Students are surveyed about their perceived competence of the outcome	Measure 1: 85% of students will score at or above the national average.  Measure 2: On a 5 point Likert scale, 90% of students will indicate 4 or 5	Measure 1: 90% of students scored above national average  Measure 2: Less than half of students felt competence with this outcome.	Measure 1: Students successfully demonstrated competence; lowest average score was in transfer of knowledge, where only 69% of questions were answered correctly.  Measure 2: Students tested well, but their perceived competence was lower than expected.	Measure 1: Faculty agree to include review of transfer in all related courses; this outcome will be reassessed during next review  Measure 2: Students will be given more opportunity to practice this skill with immediate feedback.

\*Can be a mix of direct and indirect measures, but at least one measure must be direct



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

Course: DET 1010

Course [Subject/Number]		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
Learning Outcome 2: have obtained the requisite knowledge and have acquired the technical skills to be successful in the discipline	Measure 1: Weekly Assignments	Measure 1: 85% of students will score 80% or better on weekly assignments	Measure 1: 95% of students scored 80% or better on weekly assignments	Measure 1: Students successfully demonstrated the technical skills	Measure 1: No curricular or pedagogical changes needed at this time
	Measure 2: Quizzes with multiple choices and T/F questions	Measure 2: 85% of students will score 80% or better on quizzes	Measure 2: 90% of students scored 80% or better on quizzes	Measure 2: Students successfully demonstrated the technical skills	Measure 2: No curricular or pedagogical changes needed at this time
Learning Outcome 4: problem solving skills related to the discipline	Measure 1: Exams for each chapter from the required textbook	Measure 1: 85% of students will score 80% or better on the term project	Measure 1: 90% of students will score 80% or better on the term project	Measure 1: Students performed successfully	Measure 1: No curricular or pedagogical changes needed at this time
Learning Outcome 5: knowledge of the national standards used in the discipline and the ability to apply national standards in the development of design documentation and graphics presentations	Measure 1: Drawing assignments using ANSI standards	Measure 1: 85% of students will score 80% or better on the term project	Measure 1: 90% of students will score 80% or better on the term project	Measure 1: Students performed successfully	Measure 1: No curricular or pedagogical changes needed at this time
	Measure 2: A term project that requires ANSI standards	Measure 2: 85% of students will score 80% or better on the term project	Measure 2: 89% of students will score 80% or better on the term project	Measure 2: Students performed successfully	Measure 2: No curricular or pedagogical changes needed at this time

Course [Subject/Number]		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
Learning Outcome 1: effective technical communication skills, including written, oral and graphical	Measure 1: Essay assignment to explain the reasoning	Measure 1: 85% of students will score 80% or better on essay assignment	Measure 1: 89% of students scored 80% or better on essay assignment	Measure 1: Students successfully demonstrated communication skill individually.	Measure 1: No curricular or pedagogical changes needed at this time
	Measure 2: Have students give a group presentation	Measure 2: Using a rubric to assess the presentation, 90% of students will achieve a score of 75% or above	Measure 2: The threshold did not meet. Below 70% of the students achieved a score of 75% or above	Measure 2: Students perform poorly in a group environment.	Measure 2: Provide better explanation of the expectations for this criterion and re-assess.
Learning Outcome 2: have obtained the requisite knowledge and have acquired the technical skills to be successful in the discipline	Measure 1: Weekly Assignments	Measure 1: 85% of students will score 80% or better on weekly assignments	Measure 1: 90% of students scored 80% or better on weekly assignments	Measure 1: Students successfully demonstrated the technical skills	Measure 1: No curricular or pedagogical changes needed at this time
	Measure 2: Quizzes with multiple choices and T/F questions	Measure 2: 85% of students will score 80% or better on quizzes	Measure 2: 90% of students scored 80% or better on quizzes	Measure 2: Students successfully demonstrated the technical skills	Measure 2: No curricular or pedagogical changes needed at this time
Learning Outcome 3: the ability to function as a member of a project team	Measure 1: Group term project	Measure 1: 85% of students will score 80% or better on the term project	Measure 1: 70% of students will score 80% or better on the term project	Measure 1: Students performed poorly in a group environment.	Measure 1:
Learning Outcome 4: problem solving skills related to the discipline	Measure 1: Group term project with requirements to fix certain problems	Measure 1: 85% of students will score 80% or better on the term project	Measure 1: 100% of students will score 80% or better on the term project	Measure 1: Students performed successfully	Measure 1: No curricular or pedagogical changes needed at this time
Learning Outcome 5: knowledge of the national standards used in the discipline and the	Measure 1: Drawing assignments using ANSI standards with GD&T	Measure 1: 85% of students will score 80% or better on the term project	Measure 1: 90% of students will score 80% or better on the term project	Measure 1: Students performed successfully	Measure 1: No curricular or pedagogical changes needed at this time

Course [Subject/Number]		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
ability to apply national standards in the development of design documentation and graphics presentations	Measure 2: A group term project that requires ANSI standards with GD7T	Measure 2: 85% of students will score 80% or better on the term project	Measure 2: 75% of students will score 80% or better on the term project	Measure 2: Students performed poorly.	Measure 2: Provide better explanation of the expectations for this criterion and re-assess. Students need to work together.

Course: DET 4470

Course [Subject/Number]		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
Learning Outcome 2: have obtained the requisite knowledge and have acquired the technical skills to be successful in the discipline	Measure 1: Weekly Assignments	Measure 1: 85% of students will score 80% or better on weekly assignments	Measure 1: 90% of students scored 80% or better on weekly assignments	Measure 1: Students successfully demonstrated the technical skills	Measure 1: No curricular or pedagogical changes needed at this time
Learning Outcome 4: problem solving skills related to the discipline	Measure 1: A term project	Measure 1: 85% of students will score 80% or better on the term project	Measure 1: 100% of students will score 80% or better on the term project	Measure 1: Students performed successfully	Measure 1: No curricular or pedagogical changes needed at this time
Learning Outcome 5: knowledge of the national standards used in the discipline and the ability to apply national standards in the development of design	Measure 1: Drawing assignments using ANSI standards with GD&T	Measure 1: 85% of students will score 80% or better on the term project	Measure 1: 90% of students will score 80% or better on the term project	Measure 1: Students performed successfully	Measure 1: No curricular or pedagogical changes needed at this time
	Measure 2: A group term project that requires ANSI standards with GD&T	Measure 2: 85% of students will score 80% or better on the term project	Measure 2: 75% of students will score 80% or better on the term project	Measure 2: Students performed poorly.	Measure 2: Provide better explanation of the expectations for this criterion and re-assess.

Course [Subject/Number]	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
documentation and graphics presentations					Students need to work together.

b. Evidence of Learning: High Impact Practices (HIPs)

List the activities you have within your academic program that you consider to be high impact. For key elements of high impact practices, see: [Key Elements of High-Impact Practices](#).

If you cannot identify any HIPs occurring within your academic program, please indicate that. Are you planning to incorporate HIPs in the near future?

In our program, we implement all those things before students graduate.

1. Significant investment of time and effort by students over an extended period of time (*Personal Investment*)
2. Interactions with faculty and peers about substantive matters (*Meaningful Relationships*)
3. Inclusive experiences with people and circumstances that differ from those with which students are familiar
4. Frequent, timely, and constructive feedback (*Quality Feedback*)
5. Periodic, structured opportunities to reflect and integrate learning (*Personal Reflection*)
6. Opportunities to discover relevance of learning through real-world applications (*Practical Application*)
7. Public dissemination of learning experience

## G. Summary of Artifact Collection Procedure

Artifact	When/How Collected?	Where Stored?
Final Project Rubric for individual course	The instructor will use the rubric and grade each student at the end of the semester.	Hardcopies are kept for at least 6 months. If it is done by Canvas, it is stored as long as Canvas allows.
Quizzes/Exams on Canvas	The instructor has his/her own quizzes/exams in his/her classes. Canvas has answers immediately or the instructor will grade them on a timely manner.	Canvas

## Appendix A

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

Date of Program Review: 2015	Recommendation	Progress Description
Dean's Recommendation 1	It works if the mission statement is embedded in the syllabi. Any opportunity to clarify is recommended. However, the mission statement can also be found at department level	Our website needs to be updated.
Dean's Recommendation 2	Recently the college has purchased several additional 3D printing devices and upgraded labs	They are malfunctioning. We need to fix or buy new 3D printers.

Additional narrative:

**Please respond to the following questions.**

1) Based on your program's assessment findings, what subsequent action will your program take?

None

2) We are interested in better understanding how departments/programs assess their graduating seniors or graduate students. Please provide a short narrative describing the practices/curriculum in place for your department/program. Please include both direct and indirect measures employed. Finally, what were your findings from this past year's graduates?

We used to send out a survey but the response was very poor, close to none.