Weber State University
Biennial Report on Assessment of Student Learning

Cover Page

Department/Program: Building Design & Construction
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.

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

Students completing the Building Design and Construction Essentials Certificate will be able to demonstrate the following outcomes:

- Experience residential and commercial Building Design in all phases of the design-build process. (building planning, site design, structural design, thermal moisture protection, Mechanical-Electrical-Plumbing system design, building science sustainability, and domestic architecture).

Students completing the Associates of Science in Pre-Architecture will be able to demonstrate the following outcomes:

- Experience residential and commercial Building Design in all phases of the design-build process. (building planning, site design, structural design, thermal moisture protection, Mechanical-Electrical-Plumbing system design, building science sustainability, and domestic architecture).
- Apply the Design Process during concept development, construction document development, and contract completion using the latest 2D and 3D software. (plans, elevations, sections, details, renderings, specifications).

Students completing the Bachelor of Science in Building Design & Construction will be able to demonstrate the following outcomes:

- Experience residential and commercial Building Design in all phases of the design-build process. (building planning, site design, structural design, thermal moisture protection, Mechanical-Electrical-Plumbing system design, building science sustainability, and domestic architecture).
- Apply the Design Process during concept development, construction document development, and contract completion using the latest 2D and 3D software. (plans, elevations, sections, details, renderings, specifications).
- Identify best architectural business practices for project management, programming, due diligence, and contracts.
- Understand Business Administration running a design firm (ethics, licensure, insurance, employment law, accounting, marketing)

C. Curriculum

___ Information is current; no changes required.

D. Program and Contact Information

___ Information is current; no changes required.

E. Assessment Plan

___ Information is current; no changes required.

F. Student Achievement

Advice is requested what the Building Design & Construction program should include here.

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

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

Course: Semester taught: Sections included:

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: Experience residential and commercial Building Design in all phases of the design-build process. (building planning, site design, structural design, thermal moisture protection, Mechanical-Electrical-Plumbing system design, building science sustainability, and domestic architecture).	Measure 1: AIBD Exam Section 1	Measure 1: 70% of students will pass the exam (score 70 of 100)	Measure 1: Not enough Data to report (Start giving the exam Fall 2021)	Measure 1:		
Learning Outcome 2: Apply the Design Process during concept development, construction document development, and contract completion using the latest 2D and 3D software. (plans, elevations, sections, details, renderings, specifications).	Measure 1: AIBD Exam Section 2	Measure 1: 70% of students will pass the exam (score 70 of 100)	Measure 1: Not enough Data to report (Start giving the exam Fall 2021	Measure 1:		

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

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: Identify best architectural business practices for project management, programming, due diligence, and contracts.	Measure 1: AIBD Exam Section 3	Measure 1: 70% of students will pass the exam (score 70 of 100)	Measure 1: Not enough Data to report (Start giving the exam Fall 2021	Measure 1:		
Learning Outcome 4: Understand Business Administration running a design firm (ethics, licensure, insurance, employment law, accounting, marketing)	Measure 1: AIBD Exam Section 4	Measure 1: 70% of students will pass the exam (score 70 of 100)	Measure 1: Not enough Data to report (Start giving the exam Fall 2021	Measure 1:		

c. Evidence of Learning: General Education Courses
(Area-specific EOL grids can be found at https://www.weber.edu/ie/Review_and_Assessment/Checklists_and_Templates.html; they can replace this page.)

Course: Semester taught: Sections included:

Evidence of Learning: General Education						
Measurable Learning Outcome Students will…	Method of Measurement	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Close the Loop"
Learning Outcome 1: Research Architecture through the use of digital and analog research, tour buildings locally and on the web, and present your research with a grade of 80 or better.	Measure 1 Students will be required to tour buildings and document their research with writings, images and photographs	Measure 1 80% of Students will score 80% or better	Measure 1:	Measure 1:	Measure 1:	
Learning Outcome 2: Learn history of architecture and beginning theory	Measure 1: Weekly Readings and Quizzes	Measure 1: 80% of Students will score 80% or better	Measure 1:	Measure 1:	Measure 1:	
Learning Outcome 3: Learn how to create architectural sketches by keeping a sketchbook of 20 sketches	Measure 1: Personal sketchbook and record keeping	Learning Outcome 3: Learn how to create architectural sketches by keeping a sketchbook of 20 sketches	Measure 1:	Measure 1:	Measure 1:	
Learning Outcome 4: Develop CAD, and 3D modelling and drawing techniques by creating a floor plan, elevations and building sections for a project	Measure 1: Computer Modelling with accuracy	Measure 1: 80% of Students will score 80% or better				

Evidence of Learning: General Education						
Measurable Learning Outcome Students will…	Method of Measurement	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Close the Loop"
Learning Outcome 5: Understand adaption of scale, tectonics, and form	Measure 1: Recreate a physical architectural scale model	Measure 1: 80% of Students will score 80% or better				
Learning Outcome 6: Learn a Career Pathway	Measure 1: Self-research through interview and documentation	Measure 1: 80% of Students will score 80% or better				
Learning Outcome 7: Demonstrate Semester skills by completing an all-encompassing signature assignment	Measure 1: Design an abstract conceptual project using digital modeling and analog techniques	Measure 1: 80% of Students will score 80% or better				

*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.

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: ####	Recommendation	Progress Description
Recommendation 1	Text of recommendation	#### +1 progress
		#### +2 progress
		#### +3 progress
		#### +4 progress
Recommendation 2	Text of recommendation	#### +1 progress
		#### +2 progress
		#### +3 progress
		#### +4 progress
Recommendation 3	Text of recommendation	#### +1 progress
		#### +2 progress
		#### +3 progress
		#### +4 progress
(add as needed)		

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)			0
Full-time Tenured			1
Full-time Non-Tenured (includes tenure-track)			1
Part-time and adjunct			3
With Master's Degrees			3
Full-time Tenured			1
Full-time Non-Tenured			1
Part-time and adjunct			1
With Bachelor's Degrees			2
Full-time Tenured			
Full-time Non-tenured			
Part-time and adjunct			2
Other			
Full-time Tenured			
Full-time Non-tenured			
Part-time			
Total Headcount Faculty			5
Full-time Tenured			1
Full-time Non-tenured			1
Part-time			3

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.

   Fall semester 2021 is the first semester of BDC 1040 – Intro to Architecture is being offered as a General Education course. We had to expand one section to three separate sections. This will assist in recruitment to the program as well as showing an increase in minority enrollment.

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

   We handle all of our own recruitment to the program, but making sure this is listed as an alternative Architecture program in the state would be a great help. All courses are offered at the Davis campus, so making sure these programs are talked about in orientation would be great.

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

   We could use some help identifying the best assessment strategies we may want to incorporate as a new program.

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?

   We grant CE credit for 6 courses required for the program. It is one of the greatest sources of recruitment. We work with the CE office very closely to train new teachers and provide the canvas course shells of our CE classes.

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