

Weber State University
Biennial Report on Assessment of Student Learning

Cover Page

Department/Program: Architectural Design
Academic Year of Report: 2021/23 (covering Spring 2021 through Spring 2024)
Date Submitted: 1/15/2024
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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

Students completing the Architectural 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 Architectural Design 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 the 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

We would initially like to set our metric at 80% of students are graduating within 2 years of earning 90 credit hours. Because our program is so new, the data is going to be skewed for a few years until our majors get to 90 credit hours. We had 60 students declared majors in Fall 2021 and now have 91 in the Fall of 2023. We will continue to monitor our growth, retention, and completion metrics to promote a healthy program. We are very pleased with a 50% female and 50% male gender representation and have been happy to grow our underrepresented ethnicity from 20% in 2021 to 26% currently. Our pipeline of students is representative of our efforts in concurrent enrollment and presence at recruitment events on campus. The ARCH 1040 general education beginning course has been beneficial in increasing our incoming pipeline.

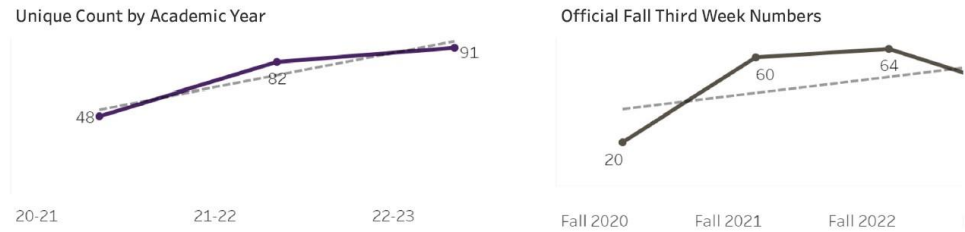


Undergraduate Program Review

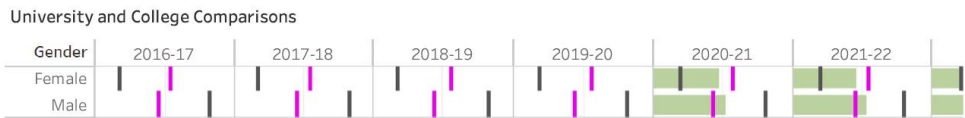
Major Demographics

Program Review Unit: Building Design and Construction | Include Certificate & Associates Degrees?: Yes | Data as of: 1/15/24

Unique Student Counts



Gender Representation



Green bars are department percentages. Dark Gray benchmark bars indicate college percentage. Fuchsia benchmark bars indicate university percentage. A green bar passing the benchmark lines indicates that the measure is performing above what your college and/or the university is producing.

Ethnicity Classification



University and College Comparisons

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 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.	Analyze the performance on the lower-scoring criterion and determine if clarity of instruction improved student performance.
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 – 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: 80% 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: NA	Measure 1: Continue teaching this curriculum in all four years of the program until a problem is evidenced in the test results.	Measure 1: We have recently converted our curriculum to a studio based approach to solidify concepts and allow more creativity.
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 2: Senior Project Course	Measure 2: 80% of students will pass earn an B or higher	Measure 2: 90% of students have earned a B or higher	Measure 2: Students are satisfactorily experiencing building design in all phases of the design-build process	Measure 2: Continue to provide real-world experiences for students to apply their knowledge in teams and individually in Senior Project	Measure 2: We are implementing BIM Collaboration into our senior projects in order to allow students to model what is done in industry working on a collaborative shared model in the cloud. They are presenting their work to industry upon completion.

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: 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: 80% of students will pass the exam (score 70 of 100)	Measure 1: Not enough Data to report (Start giving the exam Fall 2021)	NA	Continue teaching this curriculum in all four years of the program until a problem is evidenced in the test results.	We have recently converted our curriculum to a studio based approach to solidify concepts and allow more creativity.
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 2: IDT 4040 Portfolio Course	Measure 2: 80% of students will pass the class with an B or higher	Measure 2: 95% of students are passing the course with a B or Higher	Measure 2: Students are able to show competency in creating construction documents and assemble them into a professional portfolio	Measure 2: Continue requiring all students to assemble a professional portfolio to enable them to find gainful employment or continue on to graduate studies.	Measure 2: Potentially include BDC students in the annual portfolio review hosted by IDT in the Student Services Building.

*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: 80% 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: NA	Measure 1: Continue outsourcing this curriculum to construction management until we can assemble more data.	Measure 1: These concepts are currently being taught in CMT 1220 Contracts TBD if we need to develop our own version of this class so Architecture is the main focus instead of Construction Management.
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: NA	Measure 1: Continue outsourcing this curriculum to Interior Design until we can assemble more data.	Measure 1: These concepts are currently being taught in IDT 3025 Professional Practice. TBD if we need to develop our own version of Professional Practice so the focus in on Architecture instead of Interior Design.

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	Method of Measurement	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	“Close the Loop”
Students will...						
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: Fall 2021 is the first semester this course is being offered as a Gen Ed course	Measure 1: NA	Measure 1: NA	
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: Fall 2021 is the first semester this course is being offered as a Gen Ed course	Measure 1: NA	Measure 1: NA	
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: Fall 2021 is the first semester this course is being offered as a Gen Ed course	Measure 1: NA	Measure 1: NA	
Learning Outcome 4: Develop CAD, and 3D modelling and drawing techniques by creating a floor	Measure 1: Computer Modelling with accuracy	Measure 1: 80% of Students will score 80% or better	Measure 1: Fall 2021 is the first semester this course	Measure 1: NA	Measure 1: NA	

Evidence of Learning: General Education						
Measurable Learning Outcome	Method of Measurement	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Close the Loop"
Students will... plan, elevations and building sections for a project			is being offered as a Gen Ed course			
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	Measure 1: Fall 2021 is the first semester this course is being offered as a Gen Ed course	Measure 1: NA	Measure 1: NA	
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	Measure 1: Fall 2021 is the first semester this course is being offered as a Gen Ed course	Measure 1: NA	Measure 1: NA	
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	Measure 1: Fall 2021 is the first semester this course is being offered as a Gen Ed course	Measure 1: NA	Measure 1: NA	

*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	2019-20	2020-21	2021-23
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)		0	0
Full-time Tenured		1	0
Full-time Non-Tenured (includes tenure-track)		1	2
Part-time and adjunct		3	3
With Master's Degrees		3	3
Full-time Tenured		1	0
Full-time Non-Tenured		1	1
Part-time and adjunct		1	1
With Bachelor's Degrees		2	2
Full-time Tenured			
Full-time Non-tenured			
Part-time and adjunct		2	2
Other			
Full-time Tenured			
Full-time Non-tenured			
Part-time			
Total Headcount Faculty		5	5
Full-time Tenured		1	0
Full-time Non-tenured		1	2
Part-time		3	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 need more time as a program for data to become available on retention, persistence, etc. The next cycle of assessment will allow us to assemble more data. Our seniors are still transitioning from a BIS to our BS in BDC and therefore the data is skewed because not all students can be accounted for who are graduating with the BS in BDC.

- 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>