Architecture, BS

BS-ARCH

Program Description

Please fill in the fields below. Refer to the Academic Program Assessment Guidelines manual for guidance.

Discipline-specific purpose and focus of program(s) (Be sure to address ALL academic programs/credentials included in this assessment plan):

The four-year Bachelor of Science in Architecture (BS-ARCH) degree (formerly the Bachelor of Environmental Design in Architectural Studies (BED-AS) prepares students for challenging careers in industries that support the built environment. The program fosters creativity and problem-solving skills, provides access to extensive knowledge, and cultivates high levels of capability, interweaving the academic areas of design; architectural history, theory, and criticism; representation; building technology; and social, professional, and community engagement. Coursework encourages multidisciplinary and comparative perspectives that allow opportunities for communication and team-oriented production methods. Global perspectives through mandatory semester-long study abroad and study away experiences and internships at national and international offices encourage students to bring the knowledge from the classroom out into the world and back to the university and their home communities to deepen lessons learned in a variety of contexts.

In addition to traditional classroom coursework, students develop skills and acquire knowledge through year-level studio-based experiences incorporating various theoretical, experimental, and practical design projects. Design studio projects place a shared emphasis on the technical and expressive content of design work, the processes by which students research, synthesize and document their design ideas and create tangible products that achieve a high quality of graphic and physical craft.

Students who graduate with the BS-ARCH degree and are interested in professional architecture registration must complete a National Architectural Accreditation Board (NAAB) accredited Master of Architecture program. Often, students earning the BS-ARCH supplement their studies with Minors also offered through the Department of Architecture. Those options include Art and Architectural History, Sustainable Architecture and Planning, Architectural Fabrication and Product Design, and Architectural Heritage Conservation.

*

List the campus/approved location where the program(s) are delivered. Indicate if the program(s) are delivered through distance education technology (synchronous, asynchronous, or both):

The primary location for coursework is on the Texas A&M University campus in College Station and delivered in face-to-face delivery method. Some courses are offered off-campus in Study Abroad programs in Barcelona (Spain) and Florence (Italy).

*

During which academic year were students first enrolled in this program?
(If more than one program is included in this plan, select the appropriate response for the newest program.)

Prior to AY2022-23

*

Internal Feedback on Program Description

Feedback & Recommendations for Revision:

n/a

Assessment Plan

Select one or more Program Learning Outcomes (PLOs) to enter Measures and Targets (and/or Findings). The checkbox appears to the left of each PLO.You may also add new PLOs by clicking the +Add Outcome button.

2 **BED-EDAS-VISCOMM - Visual and Written Communication**

Definition: In the context of BED program, visual communication is the development and expression of ideas using disciplinary specific visual means and methods, including photographing, diagramming, drawing (orthometric projections, descriptive geometry, axonometric and isometric projections, perspective projection), and modeling (physical and digital).
Learning Outcome: Upon completion of the BED program, students will be able to use the means and methods of visual communication to masterfully analyze and solve problems, formulate, develop, iterate, and self-critique ideas, and present final artifacts or products. Students will also be able to demonstrate the effective integration of visual communication across each phase of a design process

Relevant Associations

Select Relevant Associations from the menu. Select only the associations that directly align with the PLO. If multiple sets of associations are listed, please select the appropriate association(s) from each set.

Selected Outcomes:

- CORE-VCOMM - Communication skills (Visual)
- CORE-WCOMM - Communication skills (Written)

- TAMU-S-COMM - Communication

Internal Feedback on Program Learning Outcome

PLO reflects what students are expected to learn by the end of the program (i.e., program-level, not course-level):
Yes

PLO is mapped appropriately to Relevant Association(s):

Yes

Feedback & Recommendations for Revision:

> n/a

Measures, Targets & Findings

Measure Name:

End of the Semester Learning Portfolio Review

Data collection (what data are gathered, how it is gathered, and from/by who):

A four-year longitudinal study was conducted to track student learning outcomes at each year level within the BS-ARCH program. The design studio, a cornerstone of the curriculum, served as the primary platform for integrating and synthesizing knowledge from various disciplines, influencing decision-making and design iteration. Because design studios are offered each semester throughout the program, they provide a consistent and comparable basis for evaluating student learning over time.

The Department of Architecture required all students enrolled in design studio courses to submit a digital portfolio demonstrating their abilities in design, drawing, critical thinking, and comprehensive integration across multiple student learning outcomes. These portfolios contained images and short texts documenting student work—such as project descriptions, diagrams, concept sketches, case studies, design iterations, and final drawings and renderings. The department used these portfolios to verify that learning objectives were met and evident in the students' completed work.

At the conclusion of each fall and spring semester, instructors from design studios, HTC (History, Theory, and Criticism), and Technology courses collected a PDF version of each student's portfolio. These portfolios were archived on the departmental tamu.edu Google Drive.

In AY 2024–25, the BS-ARCH program also expanded its assessment scope to include data from its two study abroad programs, located in Italy and Spain, both of which are offered during the third year. These programs placed students in distinct cultural contexts where they were required to integrate their knowledge of structures and mechanical systems for the first time. Before data collection, preparation meetings were held with the faculty leading the Italy and Spain programs to ensure full participation in the portfolio review process and consistent application of the departmental assessment rubrics.

How will the data be aggregated and analyzed to be meaningful at the program level?

As part of the ongoing longitudinal study, the learning portfolio data were aggregated and analyzed at five interpretive levels to ensure validity, reliability, and meaningful synthesis at the program level:

1. Individual Design Instructor Review: Each design instructor reviewed the portfolios submitted by students in their respective studios, assessing evidence of the program learning outcomes (PLOs) using the established departmental rubric.
2. Horizontal Review Across Design Instructors of the Same Year Level: Year-level coordinators facilitated collaborative reviews in which multiple instructors evaluated student portfolios from the same year level to ensure scoring consistency and inter-rater reliability.
3. Diagonal Review by a Review Committee: A cross-disciplinary committee composed of design, history/theory, and technology faculty conducted an interdepartmental review of sample portfolios across different year levels and disciplines. This "diagonal" process allowed the program to assess integrative learning and cross-domain competency.
4. Vertical Review Among All Faculty: Representative portfolios were reviewed by faculty across all four year levels to evaluate longitudinal growth, curricular continuity, and the progression of skills from foundation through advanced studios.
5. Feedback from External Reviewers: Practitioners and professors from other institutions provided external perspectives, validating the findings and offering recommendations for strengthening the curriculum and student performance.

During AY 2024–25, the program conducted a Level 3 (Diagonal) Review. Six pairs of reviewers were each assigned 9 sample learning portfolios, including 2 from each year level and 1 from a study abroad program. Two reviewers examined each portfolio to counter potential reviewer bias. 46 reviews out of 54 were completed.

The analysis was evidence-driven, combining quantitative scoring and qualitative interpretation. Each portfolio was assessed using a 0–8 scale, where "0" indicated no evidence of learning, "1" indicated weak evidence, and "8" indicated strong evidence. Scores for each subcomponent of a learning outcome were averaged across evaluators, and the final composite score ("S") represented the mean of all components. Based on the "S" value, students were categorized into one of five performance tiers:

- Non-present ($S = 0$)
- Emerging ($0 < S \leq 2$)
- Novice ($2 < S \leq 4$)
- Proficient ($4 < S \leq 6$)

- Distinguished (6 < S ≤ 8)

At each level of interpretation, an assessment summary report was produced with three primary objectives:

1. **Reflect the Percentage of Students Demonstrating Competence:** Reports quantified the percentage of students showing awareness, understanding, and ability to communicate design solutions effectively. Quantitative results were supplemented by narrative observations to contextualize trends.
2. **Identify Recurring Weaknesses:** Aggregated findings highlighted recurring weaknesses and patterns of underperformance, identifying specific learning outcomes or curricular transitions (e.g., between second- and third-year studios) that required attention.
3. **Recommend Targeted Interventions:** Based on these findings, the reports proposed actionable strategies for curriculum and pedagogical adjustments, including revisions to course content, instructional sequencing, and rubric calibration to improve learning outcomes.

Two primary assessment criteria guided the analysis—consistency and depth:

- **Consistency** measured the frequency with which evidence of each learning outcome appeared across the portfolio sample, indicating how broadly students met program expectations.
- **Depth** evaluated the level of mastery demonstrated, focusing on critical thinking, integrative reasoning, and the ability to apply knowledge in diverse cultural and technical contexts.

By examining both consistency and depth, the analysis provided a comprehensive, program-level understanding of student learning that informed evidence-based decisions for curriculum improvement, faculty calibration, and long-term program refinement.

Supporting Documentation:

No document was selected.

Target(s)

Target Description:

The assessment rubric contains:

Not Present: The work presented does not show any evidence.

Emerging: Uses visual means to show some understanding of a design context. The

analysis is general. Uses limited visual means to reflect on design contexts without

synthesizing knowledge from areas outside design. Arrives at a design idea but still lacks design strategies. Articulates design ideas through descriptive and analytical drawings with some mistakes. The visual representation does not facilitate design evolution. Demonstrates a limited visual vocabulary.

Uses written means to describe a design. The description is factual and reasonably structured and articulated.

Novice: Uses visual means to identify meanings in a design context. The analysis can be general. Uses one visual means to reflect on design contexts without synthesizing

knowledge from areas outside design. Arrives at a design idea with limited design

strategies. Articulates design ideas through descriptive and analytical drawings with

some mistakes. The visual representation minimally facilitates design evolution.

Demonstrates a comprehensive visual vocabulary but lacks coherence.

Uses written means to describe a design and show some understanding of its theoretical and historical contexts. The reference is general and superficial and well-structured and articulated.

Proficient: Uses visual means to identify meanings in a design context. The analysis may not lead to the discovery of design problems. Uses various visual means to reflect on design contexts without synthesizing knowledge from areas outside design. Arrives at a design idea with limited design strategies. Articulates design ideas through descriptive and analytical drawings. The visual representation facilitates design evolution in several aspects. Demonstrates consistency of a visual vocabulary, but the visual does not enhance the communication of visual meaning.

Uses written means to describe a design, show considerable depth of understanding of its theoretical and historical contexts, and develop analytical arguments about the design. The reference is specific and aids the development of an argument. The argument may not be unique nor well-supported and reasoned.

Distinguished: Utilizes visual means to discover medium-specific meanings and infers to problems in a design context. Discovers new visual means to reflect on design contexts

and information in history, theory, and criticism; technology; and engagement to arrive at a design idea and design strategies. Articulates design ideas through descriptive and analytical drawings. Uses visual means to facilitate the exploration and evolution of design strategies and solutions. Demonstrates the ability to generate compelling artifacts. Has a visual vocabulary of drawing and representation methods and demonstrates how they relate to the design process and its presentation.

Uses written means to describe a design, show an in-depth understanding of its theoretical and historical contexts, and develop new and sound arguments about the design. The reference is specific and aids the development of an argument. The argument is well-supported and reasoned. The argument shows the potential to contribute to new theoretical perspectives of the design.

The BS-ARCH program expects:

100% (Emerging) of students who demonstrate awareness and understanding of visual and written communication concepts and methods by showing inconsistent evidence of applying them.

70% (Novice) of students whose work demonstrated in the majority of the work the

understanding and ability of visual and written communication concepts and methods.

40% (Proficient) of students whose work shows the ability of visual and written communication concepts and methods in all work but may lack precision and innovation.

10% (Distinguished) of students whose work exemplifies the ability to convey

visual and written communication concepts and methods.

Internal Feedback on Measure and Target(s)

Type of measure:

Direct

Measure aligns with PLO as defined:

Yes

Both (1) data collection, and (2) the program's plan for aggregation/analysis at the program level are clear:

Yes

Target(s) is/are clear and specific:

Yes

All referenced or relevant rubrics/surveys are attached or sufficiently described:

Yes

Feedback and Recommendations for Revision on Measure and Target(s):

This is very thorough. To verify, for this year, a diagonal review was done, meaning portfolios from all year levels were reviewed by faculty from across the domains (HTC, tech, etc.)? It would help me if you bolded or somehow emphasized the portion specifically about this year: the number of portfolios reviewed, from which year levels, reviewed by whom.

The information you have here includes the required elements, but the text could be simplified or rearranged to make it easier to follow. e.g., the section about integration and social competence in the study abroad portfolios sounds more like a finding than a method of analysis.

Findings

Target Status Indicator:

Met

Findings:

The score for Visual Communication for each year level is determined by the unweighted average of the following four distinct areas: 1) Drawing, 2) Physical models, 3) Digital models, and 4) Graphic design.

The graduating cohort achieved an average score of **4.86**, which falls within the **Proficient** range ($4 < S \leq 6$). Specifically, 100% are emerging or above, meeting the program expectation of 100%; 100% are novice or above, surpassing the program expectation of 70%; 63.2% are proficient or above, surpassing the program expectation of 40% by more than 50%; and 31.6% are distinguished, more than three times as the program expectation of 10%.

Data subsets of visual and written communications also meet the program expectations. In the **visual communication** category, 100% are emerging or above, meeting the program expectation of 100%; 100% are novice or above, surpassing the program expectation of 70%; 68.4% are proficient or above, surpassing the program expectation of 40% by 70%; and 36.8% are distinguished, more than three times as the program expectation of 10%. In the **written communication** category, 100% are emerging or above, meeting the program expectation of 100%; 73.7% are novice or above, meeting the program expectation of 70%; 52.6% are proficient or above, surpassing the program expectation of 40%; and 15.8% are distinguished, meeting the program expectation of 10%.

This indicates that students demonstrated a consistent ability to communicate architectural ideas effectively through visual, written, and representational media. Their drawings, models, and presentation materials reflect a solid command of architectural conventions and a capacity to articulate design intent with clarity and precision. In written communication, students showed coherent argumentation, adequate engagement with theoretical and technical sources, and an ability to adapt their language to professional and academic audiences. The results suggest that the program's expectations have been met, as a majority of students perform at or above the proficient level, with some demonstrating characteristics approaching the distinguished range. Continued emphasis on advanced graphic composition and disciplinary writing will help further elevate performance toward distinguished benchmarks.

Briefly discuss the current findings as they relate to previous assessment findings or other relevant trends:

Since we only collected and assessed the data of visual communication in Spring 2024, but not both visual and written communication, we will only keep the comparison focused.

In Spring 2024, student performance in *Visual Communication* demonstrated a generally consistent level of proficiency across all cohorts, with average scores clustering around the mid-proficient range (approximately 4.8–5.3 on the 0–8 scale). The first-year cohort slightly outperformed other groups, suggesting that the introductory design studios were effectively cultivating representational literacy and foundational drawing and modeling skills. The upper-year cohorts (second through fourth year) exhibited comparable results, indicating stable progression but with limited differentiation in visual communication growth through the curriculum. Overall, the all-years average reflected steady attainment of the program's expectation that at least 40% of students reach the proficient level.

By Spring 2025, the pattern became more differentiated across year levels. The second-year cohort achieved the highest average, reaching the upper-proficient range (around 5.5), signifying strong advancement in graphic composition, spatial representation, and digital modeling competencies typically emphasized in intermediate studios. The fourth-year cohort also

maintained a high average (approximately 5.2), reflecting sustained mastery and the ability to integrate advanced representational strategies in comprehensive projects. In contrast, the first- and third-year cohorts posted lower averages (around 4.0 and 3.8, respectively), suggesting transitional challenges as students adapt to new representational expectations between studio levels. The overall mean for Spring 2025 (approximately 4.4) remains within the proficient range but slightly below the prior year's aggregated performance.

Comparatively, the 2025 data reveal greater variation across cohorts than in 2024, indicating that while upper-level proficiency strengthened, early-year performance declined. This divergence may reflect curricular shifts or differing emphases on representational skill development between the first and second years. From a programmatic standpoint, *Visual Communication* outcomes continue to meet departmental expectations, though the trend underscores a need to reinforce foundational skill transfer between sequential studios to ensure consistent growth across all levels. Strengthening vertical integration—through shared rubrics, coordinated exercises, and cross-year portfolio calibration—will help sustain the strong gains evident among advanced students while elevating early-year performance toward parity.

If applicable, provide a brief explanation as to why no data were collected/reported for this measure:

Feedback on Findings

Target status indicator is accurate based on reported findings:

Yes

Current findings are compared to previous findings and/or other relevant trends:

Yes

Where appropriate, findings are disaggregated (e.g., by program, by mode of delivery, by geographic location):

Yes

Feedback and Recommendations for Revision on Findings:

n/a

3 BED-EDAS-CRITTHNK - Critical Thinking

Awareness, understanding, and ability to objectively observe an issue and discern ideas and perspectives to develop a framework for analysis, iteration, synthesis, and evaluation.

Relevant Associations

Select Relevant Associations from the menu. Select only the associations that directly align with the PLO. If multiple sets of associations are listed, please select the appropriate association(s) from each set.

Selected Outcomes:

- TAMU-S-CT - Problem Solving/Critical Thinking

Internal Feedback on Program Learning Outcome

PLO reflects what students are expected to learn by the end of the program (i.e., program-level, not course-level):

Yes

PLO is mapped appropriately to Relevant Association(s):

Yes

Feedback & Recommendations for Revision:

> n/a

Measures, Targets & Findings

Measure Name:

End of Semester Learning Portfolio Review

Data collection (what data are gathered, how it is gathered, and from/by who):

A four-year longitudinal study was conducted to track student learning outcomes at each year level within the BS-ARCH program. The design studio, a cornerstone of the curriculum, served as the primary platform for integrating and synthesizing knowledge from various disciplines, influencing decision-making and design iteration. Because design studios are offered each semester throughout the program, they provide a consistent and comparable basis for evaluating student learning over time.

The Department of Architecture required all students enrolled in design studio courses to submit a digital portfolio demonstrating their abilities in design, drawing, critical thinking, and comprehensive integration across multiple student learning outcomes. These portfolios contained images and short texts documenting student work—such as project descriptions, diagrams, concept sketches, case studies, design iterations, and final drawings and renderings. The department used these portfolios to verify that learning objectives were met and evident in the students' completed work.

At the conclusion of each fall and spring semester, instructors from design studios, HTC (History, Theory, and Criticism), and Technology courses collected a PDF version of each student's portfolio. These portfolios were archived on the departmental tamu.edu Google Drive.

In AY 2024–25, the BS-ARCH program also expanded its assessment scope to include data from its two study abroad programs, located in Italy and Spain, both of which are offered during the third year. These programs placed students in distinct cultural contexts where they were required to integrate their knowledge of structures and mechanical systems for the first time. Before data collection, preparation meetings were held with the faculty leading the Italy and Spain programs to ensure full participation in the portfolio review process and consistent application of the departmental assessment rubrics.

How will the data be aggregated and analyzed to be meaningful at the program level?

As part of the ongoing longitudinal study, the learning portfolio data were aggregated and analyzed at five interpretive levels to ensure validity, reliability, and meaningful synthesis at the program level:

1. Individual Design Instructor Review: Each design instructor reviewed the portfolios submitted by students in their respective studios, assessing evidence of the program learning outcomes (PLOs) using the established departmental rubric.
2. Horizontal Review Across Design Instructors of the Same Year Level: Year-level coordinators facilitated collaborative reviews in which multiple instructors evaluated student portfolios from the same year level to ensure scoring consistency and inter-rater reliability.
3. Diagonal Review by a Review Committee: A cross-disciplinary committee composed of design, history/theory, and technology faculty conducted an interdepartmental review of sample portfolios across different year levels and disciplines. This "diagonal" process allowed the program to assess integrative learning and cross-domain competency.
4. Vertical Review Among All Faculty: Representative portfolios were reviewed by faculty across all four year levels to evaluate longitudinal growth, curricular continuity, and the progression of skills from foundation through advanced studios.
5. Feedback from External Reviewers: Practitioners and professors from other institutions provided external perspectives, validating the findings and offering recommendations for strengthening the curriculum and student performance.

During AY 2024–25, the program conducted a Level 3 (Diagonal) Review. Six pairs of reviewers were each assigned 9 sample learning portfolios, including 2 from each year level and 1 from a study abroad program. Two reviewers examined each portfolio to counter potential reviewer bias. 46 reviews out of 54 were completed.

The analysis was evidence-driven, combining quantitative scoring and qualitative interpretation. Each portfolio was assessed using a 0–8 scale, where "0" indicated no evidence of learning, "1" indicated weak evidence, and "8" indicated strong evidence. Scores for each subcomponent of a

learning outcome were averaged across evaluators, and the final composite score (“S”) represented the mean of all components. Based on the “S” value, students were categorized into one of five performance tiers:

- Non-present (S = 0)
- Emerging (0 < S ≤ 2)
- Novice (2 < S ≤ 4)
- Proficient (4 < S ≤ 6)
- Distinguished (6 < S ≤ 8)

At each level of interpretation, an assessment summary report was produced with three primary objectives:

1. **Reflect the Percentage of Students Demonstrating Competence:** Reports quantified the percentage of students showing awareness, understanding, and ability to communicate design solutions effectively. Quantitative results were supplemented by narrative observations to contextualize trends.
2. **Identify Recurring Weaknesses:** Aggregated findings highlighted recurring weaknesses and patterns of underperformance, identifying specific learning outcomes or curricular transitions (e.g., between second- and third-year studios) that required attention.
3. **Recommend Targeted Interventions:** Based on these findings, the reports proposed actionable strategies for curriculum and pedagogical adjustments, including revisions to course content, instructional sequencing, and rubric calibration to improve learning outcomes.

Two primary assessment criteria guided the analysis—consistency and depth:

- **Consistency** measured the frequency with which evidence of each learning outcome appeared across the portfolio sample, indicating how broadly students met program expectations.
- **Depth** evaluated the level of mastery demonstrated, focusing on critical thinking, integrative reasoning, and the ability to apply knowledge in diverse cultural and technical contexts.

By examining both consistency and depth, the analysis provided a comprehensive, program-level understanding of student learning that informed evidence-based decisions for curriculum improvement, faculty calibration, and long-term program refinement.

Supporting Documentation:

No document was selected.

Target(s)

Target Description:

The BS-ARCH program expects:

100% (Emerging) students whose work illustrates a design problem but could be overly general and solves the design problem minimally with limited evidence of iteration and minimal intentional reasoning.

70% (Novice) of students whose work illustrates a clear design problem but could lack specific design intention to solve the design problem solves the design problem with evidence of iteration and intentional reasoning but may not result in progression through iteration or reasoning.

40% (Proficient) of students whose work illustrates a clear design problem and arrives at a specific design intention solves the design problem with evidence of iteration and intentional reasoning, which results in progression through iteration and reasoning.

10% (Distinguished) of students whose work illustrates a clear design problem and arrives at a specific design intention solves the design problem with evidence of iteration and intentional reasoning, which results in leaps of progression through iteration and rigorous reasoning.

Internal Feedback on Measure and Target(s)

Type of measure:

Direct

Measure aligns with PLO as defined:

Yes

Both (1) data collection, and (2) the program's plan for aggregation/analysis at the program level are clear:

Neither is clear

Target(s) is/are clear and specific:

Yes

All referenced or relevant rubrics/surveys are attached or sufficiently described:

Yes

Feedback and Recommendations for Revision on Measure and Target(s):

The definition of the LO goes in the learning outcome section. (That is, the text you currently have in your target should be in the "measure" section):
In the context of the BS-ARCH program, we will follow a design process to identify problem-solving and critical thinking at two primary design stages.

1. *Design problem definition: To define and evaluate the context to identify a design problem.*
2. *Thought process: Comprehensive strategies to solve the design problem, incorporating multiple rounds of iteration, evaluation, and reasoning.*

Same advice as in the previous section applies--I think you have most of the content needed in this report, but it could be explained more simply and reorganized.

It's not clear to me whether all 4 of the areas listed in the Target (Data Collection & Analysis, Design Problem Definition, Design Strategy, and Design Solution) are part of "Problem Solving." If so, that description probably fits better under the description of the measure.

Example simplified text describing the measure/data collection process:
"We measure students' PROBLEM SOLVING through their year-level portfolios. We operationalize PROBLEM SOLVING as
1) Data Collection and Analysis-the extent to which relevant, appropriate data is used to establish the design context and to understand the design problem.
2) Design Problem Definition-the extent to which the student has conceived a clear problem statement and refines the problem statement as further analysis occurs.
3) Design Strategy-the extent to which alternative responses to the design problem are generated, evaluated, and resolved.
4) Design Solution-the extent to which the design solution addresses the design problem, including its contextual factors.

Each studio instructor uses a rubric to score their student portfolios across the 4 PROBLEM SOLVING criteria from 0-8 (no evidence-strong evidence).

How will the data be aggregated and analyzed to be meaningful at the program level?
Each year-level coordinator convenes the studio faculty to discuss their portfolio rubric scores. They discuss a sample of portfolios with respect to the proportion of students in each of the levels of achievement as defined by the rubric (emerging/novice/proficient/distinguished), identify common areas of weakness, and propose strategies for improvement.
..."

Findings

Target Status Indicator:

Met

Findings:

The Critical Thinking score is the average of the 2 dimensions (1) Analyze and Evaluate Data, and 2)Design Solution. Between the two dimensions, the scores are evenly distributed for each year level. Across year levels, although the scores consistently show a growth from the first year to the fourth year, there is a dip in the third year.

With an average score of 5.63, student performance in Critical Thinking lies firmly in the upper Proficient range, approaching the Distinguished threshold. Specifically, 100% are emerging or above, meeting the program expectation of 100%; 94.7% are novice or above, surpassing the program expectation of 70%; 78.9% are proficient or above, nearly twice as much as the program expectation of 40%; and 36.8% are distinguished, more than three times the program expectation of 10%.

This outcome reflects strong analytical and evaluative capacities in addressing complex design issues. Students effectively collected and synthesized data across site, climate, and programmatic dimensions, translating their analyses into coherent and contextually responsive design strategies. The high mean score indicates that graduates are not only able to interpret

data critically but also apply this understanding to generate original and well-reasoned design propositions. This level of achievement exceeds departmental expectations, demonstrating that the program's pedagogical sequence successfully cultivates critical inquiry, design reasoning, and intellectual independence among students. Continued scaffolding of research-driven design and integrative analysis will further reinforce this area of demonstrated strength.

Briefly discuss the current findings as they relate to previous assessment findings or other relevant trends:

In Spring 2024, student performance in Critical Thinking remained consistently strong across all cohorts, with average scores ranging between approximately 4.8 and 5.4 on the 0–8 scale. This places all year levels comfortably within the Proficient category. The small variation between cohorts suggests that critical thinking skills—particularly those related to data analysis, problem solving, and evaluative reasoning in design—were effectively scaffolded across the curriculum. The first-year cohort already demonstrated a promising grasp of analytical reasoning at an early stage, while the upper-year groups maintained stable proficiency. Overall, the 2024 results indicate balanced development and alignment with the program's expectation that at least 40% of students perform at or above the proficient level.

By Spring 2025, the distribution of performance across year levels became more differentiated. The first-year cohort recorded a modest average around 2.8, corresponding to the upper *Novice* range, suggesting that incoming students are still developing their capacity to frame and analyze design problems critically. The second-year and third-year cohorts showed marked improvement, reaching approximately 4.4 and 3.8 respectively—evidence of effective pedagogical emphasis on analytical reasoning in intermediate studios. The fourth-year cohort, however, achieved the highest average of approximately 5.9, approaching the *Distinguished* level. This indicates significant growth in the ability to synthesize contextual data, formulate design hypotheses, and critically evaluate spatial and conceptual implications at a comprehensive level. The overall average for Spring 2025, around 4.0, remains within the proficient range but reflects wider internal variance among year levels compared to the previous year.

When comparing Spring 2024 and Spring 2025, several trends emerge. While the upper-year students—particularly the fourth-year cohort—showed notable advancement in critical thinking, the lower-year averages declined. This widening gap suggests that while the program continues to produce highly capable graduates, early curricular stages may require additional reinforcement in analytical reasoning and design decision-making processes. Strategies such as integrating structured reflection, iterative critique, and cross-year mentorship could help strengthen first-year and second-year critical engagement, ensuring more even progression.

In summary, Critical Thinking outcomes continue to meet departmental expectations, with strong evidence of achievement among advanced students and clear indicators of curricular effectiveness at the upper levels. However, the increasing differentiation across cohorts underscores the importance of strengthening the continuity of cognitive skill development from foundation through advanced studios.

If applicable, provide a brief explanation as to why no data were collected/reported for this measure:

Feedback on Findings

Target status indicator is accurate based on reported findings:

Yes

Current findings are compared to previous findings and/or other relevant trends:

Yes

Where appropriate, findings are disaggregated (e.g., by program, by mode of delivery, by geographic location):

Yes

Feedback and Recommendations for Revision on Findings:

State clearly how the scores are calculated--is the critical thinking score the average of the 4 dimensions of critical thinking (Data Collection, Design Problem, Design Strategy, Design Solution)? Were there any notable strengths among the 4 dimensions, or were scores consistent across them? Overall your responses are very thorough, but there is so much information it can be challenging to identify key takeaways. -KR

Added Program Outcomes

4 **BED-EDAS-INT - Integration**

According to AACU, integrative learning is an understanding and a disposition that a student builds across the curriculum and co-curriculum, from making simple connections among ideas and experiences to synthesizing and transferring learning to new, complex situations within and beyond the campus. Integration is a synonym for design. It is built upon specific knowledge. In the context of the BED program, integrated design refers to the ability to interweave knowledge and skills across areas of design; architectural history, theory, and criticism; representation; building technology, building construction, and cost; as well as social, professional, and community engagement.

Relevant Associations

Select Relevant Associations from the menu. Select only the associations that directly align with the PLO. If multiple sets of associations are listed, please select the appropriate association(s) from each set.

Selected Outcomes:

- TAMU-S-INT - Integration

Internal Feedback on Program Learning Outcome

PLO reflects what students are expected to learn by the end of the program (i.e., program-level, not course-level):

Yes

PLO is mapped appropriately to Relevant Association(s):

Yes

Feedback & Recommendations for Revision:

n/a

Measures, Targets & Findings

Measure Name:

End of Semester Learning Portfolio Review

Data collection (what data are gathered, how it is gathered, and from/by who):

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The Department of Architecture required all students enrolled in design studio courses to submit a digital portfolio demonstrating their abilities in design, drawing, critical thinking, and comprehensive integration across multiple student learning outcomes. These portfolios contained images and short texts documenting student work—such as project descriptions, diagrams, concept sketches, case studies, design iterations, and final drawings and renderings. The department used these portfolios to verify that learning objectives were met and evident in the students' completed work.

At the conclusion of each fall and spring semester, instructors from design studios, HTC (History, Theory, and Criticism), and Technology courses collected a PDF version of each student's portfolio. These portfolios were archived on the departmental tamu.edu Google Drive.

In AY 2024–25, the BS-ARCH program also expanded its assessment scope to include data from its two study abroad programs, located in Italy and Spain, both of which are offered during the third year. These programs placed students in distinct cultural contexts where they were required to integrate their knowledge of structures and mechanical systems for the first time. Before data collection, preparation meetings were held with the faculty leading the Italy and Spain programs to ensure full participation in the portfolio review process and consistent application of the departmental assessment rubrics.

How will the data be aggregated and analyzed to be meaningful at the program level?

As part of the ongoing longitudinal study, the learning portfolio data were aggregated and analyzed at five interpretive levels to ensure validity, reliability, and meaningful synthesis at the program level:

1. Individual Design Instructor Review: Each design instructor reviewed the portfolios submitted by students in their respective studios, assessing evidence of the program learning outcomes (PLOs) using the established departmental rubric.
2. Horizontal Review Across Design Instructors of the Same Year Level: Year-level coordinators facilitated collaborative reviews in which multiple instructors evaluated student portfolios from the same year level to ensure scoring consistency and inter-rater reliability.
3. Diagonal Review by a Review Committee: A cross-disciplinary committee composed of design, history/theory, and technology faculty conducted an interdepartmental review of sample portfolios across different year levels and disciplines. This "diagonal" process allowed the program to assess integrative learning and cross-domain competency.
4. Vertical Review Among All Faculty: Representative portfolios were reviewed by faculty across all four year levels to evaluate longitudinal growth, curricular continuity, and the progression of skills from foundation through advanced studios.
5. Feedback from External Reviewers: Practitioners and professors from other institutions provided external perspectives, validating the findings and offering recommendations for strengthening the curriculum and student performance.

During AY 2024–25, the program conducted a Level 3 (Diagonal) Review. Six pairs of reviewers were each assigned 9 sample learning portfolios, including 2 from each year level and 1 from a study abroad program. Two reviewers examined each portfolio to counter potential reviewer bias. 46 reviews out of 54 were completed.

The analysis was evidence-driven, combining quantitative scoring and qualitative interpretation. Each portfolio was assessed using a 0–8 scale, where "0" indicated no evidence of learning, "1" indicated weak evidence, and "8" indicated strong evidence. Scores for each subcomponent of a learning outcome were averaged across evaluators, and the final composite score ("S") represented the mean of all components. Based on the "S" value, students were categorized into one of five performance tiers:

- Non-present ($S = 0$)
- Emerging ($0 < S \leq 2$)
- Novice ($2 < S \leq 4$)
- Proficient ($4 < S \leq 6$)

- Distinguished (6 < S ≤ 8)

At each level of interpretation, an assessment summary report was produced with three primary objectives:

1. **Reflect the Percentage of Students Demonstrating Competence:** Reports quantified the percentage of students showing awareness, understanding, and ability to communicate design solutions effectively. Quantitative results were supplemented by narrative observations to contextualize trends.
2. **Identify Recurring Weaknesses:** Aggregated findings highlighted recurring weaknesses and patterns of underperformance, identifying specific learning outcomes or curricular transitions (e.g., between second- and third-year studios) that required attention.
3. **Recommend Targeted Interventions:** Based on these findings, the reports proposed actionable strategies for curriculum and pedagogical adjustments, including revisions to course content, instructional sequencing, and rubric calibration to improve learning outcomes.

Two primary assessment criteria guided the analysis—consistency and depth:

- **Consistency** measured the frequency with which evidence of each learning outcome appeared across the portfolio sample, indicating how broadly students met program expectations.
- **Depth** evaluated the level of mastery demonstrated, focusing on critical thinking, integrative reasoning, and the ability to apply knowledge in diverse cultural and technical contexts.

By examining both consistency and depth, the analysis provided a comprehensive, program-level understanding of student learning that informed evidence-based decisions for curriculum improvement, faculty calibration, and long-term program refinement.

Supporting Documentation:

No document was selected.

Target(s)

Target Description:

The rubric contains:

1. Integration of representation:

- Not Present: The work presented does not show evidence.
- Emerging: Fulfills the projects in an appropriate layout, drawing type, graphic elements, and textual descriptions.
- Novice: Fulfills the projects in a basic way what is being communicated (design idea) with how it is communicated by choosing a layout, a drawing type, graphic elements, and textual descriptions.
- Proficient: Fulfills the projects by choosing a layout, a drawing type, graphic elements, and textual descriptions that explicitly connect content and form, demonstrating awareness of purpose and audience.
- Distinguished: Fulfills the projects by choosing a layout, a drawing type, graphic elements, and textual descriptions to enhance the design idea.

1. Integration of history, theory, and criticism:

- Not Present: The work presented does not show evidence.
- Emerging: When prompted, presents examples, facts, theories, and/or criticism from one historical perspective.
- Novice: When prompted, connects examples, facts, theories, and/or criticism from more than one perspective.
- Proficient: Independently connects examples, facts, or theories from more than one perspective.
- Distinguished: Independently creates complete ideas out of multiple parts (synthesizes) or draws conclusions by combining examples, facts, or theories from more than one perspective.

1. Integration of architectural technology, including energy, lighting, structures, cost, regulations, constructability, spatial systems, water collection and distribution systems, waste collection and distribution systems), construction materials, products, and methods; design technology such as computer-aided design (CAD), Building Information Modeling (BIM), building performance simulation and analysis, collaboration software, graphic design software.

- Not Present: The work presented does not show any evidence.
- Emerging: Remembers and recalls facts, principles, and concepts related to architectural technology derived from common experience and introductory study.
- Novice: Applies information about architectural technology to demonstrate, interpret situations, and solve integrated problems in environmental design.
- Proficient: Uses an understanding of architectural technology to analyze and evaluate, justifying decisions, and integrated designs relating to buildings.
- Distinguished: Uses architectural technology to create innovative and effective designs for the building environment that integrate the gamut of technologies.

1. Integration of engagement (adopted from AACU p.2):

Integration of architectural technology, including energy, lighting, structures, cost, regulations, constructability, spatial systems, water collection and distribution systems, waste collection and distribution systems), construction materials, products, and methods; design technology such as computer-aided design (CAD), Building Information Modeling (BIM), building performance simulation and analysis, collaboration software, graphic design software.

- Not Present: The work presented does not show any evidence.
- Emerging: Remembers and recalls facts, principles, and concepts related to architectural technology derived from common experience and introductory study. Plan and section recognize differences and spatial needs of system components (i.e. thick and thin walls, spanning elements…)
- Novice: Applies information about architectural technology to demonstrate, interpret situations, and solve integrated problems in environmental design. Plan and section recognize differences and spatial needs of system components (i.e. thick and thin walls, spanning elements…). Meeting the spatial needs of each system component in plan and section.
- Proficient: Uses an understanding of architectural technology to analyze and evaluate, justifying decisions, and integrated designs relating to buildings. Plan and section recognize differences and spatial needs of system components (i.e. thick and thin walls, spanning elements…). Meeting the spatial needs of each system component in plan and section.

Meeting the spatial needs of each system component. Meeting an architectural professional standard of care for constructability.

- Distinguished: Uses architectural technology to create innovative and effective designs for the building environment that integrate the gamut of technologies. Plan and section recognize differences and spatial needs of system components (i.e. thick and thin walls, spanning elements…). Meeting the spatial needs of each system component in plan and section. Meeting the spatial needs of each system component. Meeting an architectural professional standard of care for constructability and is informed by analytical tools and a specific architectural position. Shows evidence of the inter-related characteristics (e.g. acoustic dampening through mass).

The BS-ARCH program expects:

100% (Emerging) students whose work shows traces of design knowledge; architectural history, theory, and criticism; representation; building technology; and social, professional, and community engagement but have not been integrated into the design process.

70% (Novice) of students whose work shows evidence of the areas of knowledge contributing to at least one critical aspect of a design solution.

40% (Proficient) of students whose work shows evidence of the five areas of knowledge contributing to the design solution and enhancing the rigor of design reasoning.

10% (Distinguished) of students whose work utilizes the five areas of knowledge to formulate a unique design problem and arrive at a comprehensive design solution.

Internal Feedback on Measure and Target(s)

Type of measure:

Direct

Measure aligns with PLO as defined:

Yes

Both (1) data collection, and (2) the program's plan for aggregation/analysis at the program level are clear:

Yes

Target(s) is/are clear and specific:

Yes

All referenced or relevant rubrics/surveys are attached or sufficiently described:

Yes

Feedback and Recommendations for Revision on Measure and Target(s):

n/a

Findings

Target Status Indicator:

Met

Findings:

Integration was measured in three dimensions: 1) History, Theory, and Criticism, 2) Building Technology, and 3) User Need and Program Function. The Integratio score for each year level is the average of these dimensions across all sample portfolios for that year. The score distribution between these two dimensions is even, and no obvious strengths/weaknesses are shown.

The average score for Integration is 4.67, placing the cohort solidly in the Proficient category. Specifically, 100% are emerging or above, meeting the program expectation of 100%; 89.5% are novice or above, surpassing the program expectation of 70%; 57.9% are proficient or above, exceeding the program expectation of 40%; and 26.3% are distinguished, more than twice the program expectation of 10%.

Students demonstrated an ability to synthesize diverse architectural knowledge domains—including history, theory, technology, and user needs—into coherent design solutions. Their projects revealed an understanding of how technical systems support spatial and conceptual intentions, as well as how historical and theoretical frameworks inform contemporary practice. This outcome aligns with departmental expectations, confirming that the curriculum effectively supports integrative design thinking at multiple scales. However, since the mean score sits toward the lower end of the proficient range, targeted reinforcement of cross-course integration —particularly between technical systems and conceptual development—may help move more students toward the distinguished level. Overall, the outcome is met, with evidence of consistent, competent integration across the graduating cohort.

In AY 2024–25, the BS-ARCH program also expanded its assessment scope to include data from its two study abroad programs, located in Italy and Spain, both offered during the third year. These programs placed students in distinct cultural contexts where they were required to integrate their knowledge of structures and mechanical systems for the first time. Given the unique pedagogical conditions of these programs, the collected data yielded particularly informative findings in the categories of Integration and Social, Cultural, and Global Competence. Integration: The data show that students effectively synthesized knowledge across multiple domains—representation, design, history/theory/criticism, technology, and engagement—and applied these competencies in cross-cultural settings.

Briefly discuss the current findings as they relate to previous assessment findings or other relevant trends:

In Spring 2024, the *Integration* category showed a moderate level of consistency across cohorts, with all year levels performing in the Proficient range (approximately 4.6–5.0 on the 0–8 scale). The results suggest that students demonstrated a solid understanding of how to synthesize architectural knowledge—including history, theory, building technology, and user needs—into

cohesive design solutions. The progression between years was relatively flat, indicating steady but incremental growth in integrative ability throughout the curriculum. While this consistency reflected curricular alignment, it also suggested a potential opportunity to emphasize integrative complexity more strongly in upper-year studios to push students closer to the *Distinguished* range.

In Spring 2025, the distribution of *Integration* scores became more stratified across cohorts. The first-year group averaged near 2.1, placing them within the *Emerging* range, which is expected for students still developing foundational design comprehension. The second and third-year cohorts demonstrated measurable improvement, averaging approximately 3.1 and 3.5, respectively. This reflects their developing proficiency as they began connecting technical, theoretical, and contextual dimensions in studio work. The fourth-year cohort achieved the highest average, approximately 4.7, which falls solidly within the *Proficient* level and shows marked improvement in the capacity to coordinate design intent with structural, environmental, and material systems. The overall program average of approximately 3.2 indicates that, while students demonstrate progressive advancement year to year, the mean proficiency in 2025 is somewhat lower than the uniform 2024 performance.

When compared longitudinally, the 2024 results reflected greater overall consistency, while 2025 data revealed clearer vertical differentiation across the curriculum. This differentiation can be interpreted as a positive sign of increasing rigor and more distinct expectations at each year level. However, the lower overall mean in 2025 suggests that foundational integration skills—especially in early-year courses—may benefit from additional scaffolding. Emphasizing connections between representational exercises, theoretical frameworks, and building systems in the first two years would better prepare students for higher-order integration tasks in the upper studios.

In conclusion, *Integration* performance continues to meet departmental expectations, with the upper-year cohort demonstrating strong proficiency aligned with program goals. However, the data indicate the need for strengthened vertical continuity to ensure that students enter advanced studios with a more mature and integrated design mindset. Continued calibration of assessment rubrics and cross-year coordination between technical and design faculty will be key to sustaining upward progression and improving program-wide proficiency in this core outcome.

If applicable, provide a brief explanation as to why no data were collected/reported for this measure:

Feedback on Findings

Target status indicator is accurate based on reported findings:

Current findings are compared to previous findings and/or other relevant trends:

Where appropriate, findings are disaggregated (e.g., by program, by mode of delivery, by geographic location):

Feedback and Recommendations for Revision on Findings:

It would be appropriate to discuss integration in the study abroad portfolios here instead of in the measures section. Do those portfolios stand out in any way in terms of integration?

Similar to the other outcomes--because the outcomes involve multiple dimensions, I also think it would be helpful to briefly mention whether integration is comparable across all dimensions, or are some stronger than others (e.g., students integrate HTC more readily than incorporating structures/tech). This seems like it may lead to more actionable findings rather than focusing on the overall average. -kr

5 **BED-EDAS-COMP - Social, Cultural, & Global Competence**

Knowledge and understanding of cultures around the world, throughout history, via the architectural and archeological record. Recognizing the diversity of social and cultural conditions as they impact the built environment. Respecting these conditions as positive aspects of the built environment and not willfully imposing outcomes that would contribute to the degradation of significant social, cultural, or global ideologies.

Relevant Associations

Select Relevant Associations from the menu. Select only the associations that directly align with the PLO. If multiple sets of associations are listed, please select the appropriate association(s) from each set.

Selected Outcomes:

- TAMU-UG-SCGLOB - Social, Cultural, & Global Competence

Internal Feedback on Program Learning Outcome

PLO reflects what students are expected to learn by the end of the program (i.e., program-level, not course-level):

No

PLO is mapped appropriately to Relevant Association(s):

Yes

Feedback & Recommendations for Revision:

Use verbs to make it clear what students will be able to do as a result of their social competence. This is not phrased as a learning outcome like most of your other outcomes are, and it's not immediately obvious from reading the outcome whether it is measurable.

Measures, Targets & Findings

Measure Name:

End of Semester Learning Portfolio Review

Data collection (what data are gathered, how it is gathered, and from/by who):

A four-year longitudinal study was conducted to track student learning outcomes at each year level within the BS-ARCH program. The design studio, a cornerstone of the curriculum, served as the primary platform for integrating and synthesizing knowledge from various disciplines, influencing decision-making and design iteration. Because design studios are offered each semester throughout the program, they provide a consistent and comparable basis for evaluating student learning over time.

The Department of Architecture required all students enrolled in design studio courses to submit a digital portfolio demonstrating their abilities in design, drawing, critical thinking, and comprehensive integration across multiple student learning outcomes. These portfolios contained images and short texts documenting student work—such as project descriptions, diagrams, concept sketches, case studies, design iterations, and final drawings and renderings. The department used these portfolios to verify that learning objectives were met and evident in the students' completed work.

At the conclusion of each fall and spring semester, instructors from design studios, HTC (History, Theory, and Criticism), and Technology courses collected a PDF version of each student's portfolio. These portfolios were archived on the departmental tamu.edu Google Drive.

In AY 2024–25, the BS-ARCH program also expanded its assessment scope to include data from its two study abroad programs, located in Italy and Spain, both of which are offered during the third year. These programs placed students in distinct cultural contexts where they were required to integrate their knowledge of structures and mechanical systems for the first time. Before data collection, preparation meetings were held with the faculty leading the Italy and Spain programs to ensure full participation in the portfolio review process and consistent application of the departmental assessment rubrics.

How will the data be aggregated and analyzed to be meaningful at the program level?

As part of the ongoing longitudinal study, the learning portfolio data were aggregated and analyzed at five interpretive levels to ensure validity, reliability, and meaningful synthesis at the program level:

1. Individual Design Instructor Review: Each design instructor reviewed the portfolios submitted by students in their respective studios, assessing evidence of the program learning outcomes (PLOs) using the established departmental rubric.
2. Horizontal Review Across Design Instructors of the Same Year Level: Year-level coordinators facilitated collaborative reviews in which multiple instructors evaluated student portfolios from the same year level to ensure scoring consistency and inter-rater reliability.
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4. Vertical Review Among All Faculty: Representative portfolios were reviewed by faculty across all four year levels to evaluate longitudinal growth, curricular continuity, and the progression of skills from foundation through advanced studios.
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During AY 2024–25, the program conducted a Level 3 (Diagonal) Review. Six pairs of reviewers were each assigned 9 sample learning portfolios, including 2 from each year level and 1 from a study abroad program. Two reviewers examined each portfolio to counter potential reviewer bias. 46 reviews out of 54 were completed.

The analysis was evidence-driven, combining quantitative scoring and qualitative interpretation. Each portfolio was assessed using a 0–8 scale, where "0" indicated no evidence of learning, "1" indicated weak evidence, and "8" indicated strong evidence. Scores for each subcomponent of a learning outcome were averaged across evaluators, and the final composite score ("S") represented the mean of all components. Based on the "S" value, students were categorized into one of five performance tiers:

- Non-present ($S = 0$)
- Emerging ($0 < S \leq 2$)
- Novice ($2 < S \leq 4$)
- Proficient ($4 < S \leq 6$)
- Distinguished ($6 < S \leq 8$)

At each level of interpretation, an assessment summary report was produced with three primary objectives:

1. **Reflect the Percentage of Students Demonstrating Competence:** Reports quantified the percentage of students showing awareness, understanding, and ability to communicate design solutions effectively. Quantitative results were supplemented by narrative observations to contextualize trends.
2. **Identify Recurring Weaknesses:** Aggregated findings highlighted recurring weaknesses and patterns of underperformance, identifying specific learning outcomes or curricular transitions (e.g., between second- and third-year studios) that required attention.
3. **Recommend Targeted Interventions:** Based on these findings, the reports proposed actionable strategies for curriculum and pedagogical adjustments, including revisions to course content, instructional sequencing, and rubric calibration to improve learning outcomes.

Two primary assessment criteria guided the analysis—consistency and depth:

- **Consistency** measured the frequency with which evidence of each learning outcome appeared across the portfolio sample, indicating how broadly students met program expectations.
- **Depth** evaluated the level of mastery demonstrated, focusing on critical thinking, integrative reasoning, and the ability to apply knowledge in diverse cultural and technical contexts.

By examining both consistency and depth, the analysis provided a comprehensive, program-level understanding of student learning that informed evidence-based decisions for curriculum improvement, faculty calibration, and long-term program refinement.

Supporting Documentation:

No document was selected.

Target(s)

Target Description:

For Social, Cultural, and Global Competence (TAMU Core Objective 5), the assessment rubric contains **five levels**:

Emerging: Students' work shows awareness of social, cultural, and global impacts.

Novice: Students' work shows an understanding of social, cultural, and global impacts.

Proficient: Students' work shows evidence of integrating the understanding of social, cultural, and global impacts in design solutions.

Distinguished: Students' work exemplifies how social, cultural, and global impacts can catalyze design processes and solutions.

The rubric outlines the following **three aspects** of measurement.

Social Responsibility: Students' work demonstrates awareness and integration of safety, inclusivity, environmental impact, and public access.

Sustainability: Students' work shows conceptual and technical integration of ecological concepts, illustrated in daylighting, orientation, and material choices, within design

Cultural and Global Awareness: Students' work shows engagements with local and global contexts.

Upon completion of the BS-ARCH program, students will be able to design responsibly and contextually, engaging with social, cultural, global, and environmental issues. The BS-ARCH program expects: **100% Emerging, 70% Novice, 40% Proficient, and 10% Distinguished**.

Internal Feedback on Measure and Target(s)

Type of measure:

Direct

Measure aligns with PLO as defined:

Yes

Both (1) data collection, and (2) the program's plan for aggregation/analysis at the program level are clear:

Yes

Target(s) is/are clear and specific:

No

All referenced or relevant rubrics/surveys are attached or sufficiently described:

Yes

Feedback and Recommendations for Revision on Measure and Target(s):

The targets are not clear in the sense that some of the definitions seem difficult to measure through a portfolio--will there be evidence that they analyzed their own identity and biases and their impact on the natural and human world (for example)? The way this is currently defined sounds very complex and abstract and not easily captured via drawings and renderings in a portfolio. Some of the text that you use to define the outcome here should be included in the "Outcome" definition section earlier.

Findings

Target Status Indicator:

Met

Findings:

The overall score of Social Cultural and Global Competence is the average score of the three dimensions: 1) Social Responsibility, 2) Sustainability, and 3) Cultural and Global Competence.

Graduating students achieved an average score of 4.42, at the threshold of the Proficient level. Specifically, 100% are emerging or above, meeting the program expectation of 100%; 84.2% are novice or above, surpassing the program expectation of 70%; 57.9% are proficient or above, significantly exceeding the program expectation of 40%; and 15.8% are distinguished, exceeding the program expectation of 10%.

This performance indicates that students exhibit growing sensitivity to social responsibility, sustainability, and cultural context in their design work. Most projects demonstrate awareness of inclusivity, environmental impact, and community engagement, with design responses that address these considerations in tangible ways. However, the relatively lower average compared to other outcomes suggests that while students meet expectations, opportunities remain to deepen the critical and creative integration of social and global dimensions into the design process. The program’s expectations are therefore met but not exceeded. Enhanced emphasis

on interdisciplinary collaboration, community engagement, and context-specific design problems may strengthen this area in future cohorts.

Social Cultural Global Competence has consistently been a demonstrated strength in third-year learning portfolios, a trend that persists when measuring portfolios from study abroad programs. However, across the three core dimensions, sustainability remains the lowest-scoring area in the third-year students' work.

Briefly discuss the current findings as they relate to previous assessment findings or other relevant trends:

In Spring 2024, *Social, Cultural, and Global Competence* exhibited a clear upward trajectory across the curriculum. The first-year cohort performed at approximately 3.0, within the *Novice* range, showing early-stage awareness of social and environmental factors but limited ability to integrate them meaningfully into design decisions. The second- and third-year cohorts showed progressive improvement, averaging around 3.8 and 4.5, reflecting emerging proficiency in addressing issues such as community impact, inclusivity, and sustainability. The fourth-year cohort, with an average near 5.0, demonstrated *Proficient* performance, suggesting that graduating students were able to critically synthesize global and cultural considerations into their projects. Overall, the 2024 results indicated a coherent pattern of developmental growth, with outcomes aligned to departmental expectations emphasizing progressive maturity across year levels.

In Spring 2025, however, the data reflect a broader performance spread among cohorts. The first-year average declined to approximately 1.6, falling in the *Emerging* range, suggesting that students were still developing basic understanding of social and global contexts. The second-year cohort improved modestly to around 2.6, and the third-year cohort demonstrated steady advancement with a mean near 3.8. The fourth-year group, at approximately 4.4, achieved *Proficient* performance but at a slightly lower level than in the prior year. The overall average across all years hovered near 3.0, which, while within the *Novice* range, signals a mild regression in aggregate performance compared with 2024. This decline may be attributable to variations in project emphasis, cohort size, or external factors such as differing site contexts or studio foci during the assessment period.

Comparatively, while Spring 2024 displayed stronger and more consistent upward progression through the curriculum, Spring 2025 data suggest an increased differentiation between early- and late-year students. The significant gap between the lower and upper cohorts indicates that while advanced students continue to meet program expectations, early-year students may require greater exposure to discussions of social equity, cultural context, and environmental ethics earlier in the curriculum. Integrating these themes more explicitly into first- and second-year design exercises and lecture content could help reinforce a continuous awareness of global competence across all levels.

In conclusion, *Social, Cultural, and Global Competence* continues to meet the departmental expectations at the upper levels, with fourth-year students performing solidly within the *Proficient* range. However, the decline among lower-year cohorts between 2024 and 2025 points to the need for curricular reinforcement in the early design sequence. Strengthening vertical integration—through case studies, precedent analyses, and contextually grounded design problems—will help ensure that this learning outcome maintains consistent growth across all cohorts in future assessment cycles.

If applicable, provide a brief explanation as to why no data were collected/reported for this measure:

Feedback on Findings

Target status indicator is accurate based on reported findings:

Yes

Current findings are compared to previous findings and/or other relevant trends:

Yes

Where appropriate, findings are disaggregated (e.g., by program, by mode of delivery, by geographic location):

Yes

Feedback and Recommendations for Revision on Findings:

Similar to previous comments-are there any notable findings from the study abroad portfolios in particular?
Are students performing across all dimensions of SCG Competence, or do some stand out? -kr

Use of Results for Seeking Improvement

Need help? Resources can be found on the OIEE Assessment Webpage (Report Examples, Report Necessities & Best Practices, Guidelines Manual).

Type of action:

Other

Based on the findings reported above, what action has been identified by program faculty for the purpose of improving student learning? Include a tentative timeline for implementation, the party or group responsible for implementation, and the rationale for why program faculty believe this will lead to improvements in the identified PLO.

The assessment data show that first- and second-year performance follows a logical developmental trajectory, and fourth-year performance remains strong overall. However, third-year results reveal an unexpected dip, particularly in *Visual & Written Communication* and *Integration*. To address this gap and ensure continuous advancement across the curriculum, program faculty will review and discuss the following improvement proposals during the November faculty meeting.

1) Curriculum Mapping and Calibration

Curriculum mapping and calibration indirectly facilitate student learning. Curriculum mapping addresses the "what" and "when" while Curriculum Calibration addresses the "How Well." From a program administrative standpoint, while faculty deliver the instruction (the direct action), administrators use mapping and calibration to create the structural integrity and quality control necessary for learning to thrive (the indirect facilitation).

The Department initiated collaboration with the Center for Teaching Excellence (CTE) and the Office of Institutional Effectiveness & Evaluation (OIEE) in Fall 2022 to conduct comprehensive curriculum mapping. The Pre-Professional Program Committee (PPC) has continued this effort since Fall 2023. With the support of Dr. Sam Shields (CTE), the program learning outcomes (PLOs) have been reviewed and refined, and a new set of program assessment rubrics has been developed.

In the current academic year, the focus has shifted to competency mapping and curriculum alignment, ensuring that each course contributes meaningfully to the development of core program outcomes. This initiative will enhance student learning from a programmatic and longitudinal standpoint, strengthening coherence across the curriculum.

Timeline:

- Fall 2025: Collaborate with CTE to remap the curriculum based on competency alignment and assessment data.
- Spring 2026: Present and propose the updated curriculum for departmental and college-level review.

2) Third-Year Calibration

Assessment results indicate a critical need to strengthen the third-year studio sequence to address a decline in Visual Communication skills. While Spring 2025 data confirm the expected growth from first to second year—demonstrating that foundational and intermediate courses effectively build representational and analytical skills—the third-year regression disrupts the expected upward trajectory of student learning.

To address this, the BS-ARCH Committee convened a special topic meeting on November 24, 2025. However, due to internal departmental divisions and faculty concerns regarding feeling targeted or victimized, the discussion remained general and did not adequately focus on the third-year decline in visual communication. The resulting consensus recommendation was to exercise caution with team projects, noting that they may not equally expose all students to necessary visual communication skill development.

Faculty will undertake a targeted curricular realignment focused on coordination and calibration at the third-year level, emphasizing integrative thinking, communication clarity, and design synthesis. Planned actions include:

- Introducing cross-course integration workshops linking design, technology, and history/theory content within the third-year curriculum.

- Implementing shared review rubrics and peer critique frameworks to reinforce representational rigor and conceptual articulation.
- Establishing vertical review sessions that connect second-, third-, and fourth-year studios, ensuring consistent expectations for communication and integration.

Timeline:

- Fall 2025: Identify content and structural gaps contributing to the performance decline and develop targeted interventions.
- Spring 2026: Pilot new instructional modules and shared assessment tools; conduct mid-semester faculty calibration to monitor student progress and ensure consistency in evaluation practices.

How were faculty and program leadership involved in the development of this action?

The development of this action plan has been—and will continue to be—a collaborative process involving both faculty and program leadership. The Pre-Professional Program Committee (PPC) meets biweekly to review, discuss, and refine the curriculum, ensuring that assessment findings directly inform curricular adjustments.

Under the guidance of the Interim Department Head, the program maintains a commitment to transparency and inclusive participation. Monthly faculty meetings are strategically structured to include assessment updates, and special-topic meetings are scheduled as needed to focus on emerging priorities or specific areas of concern identified through data review.

The Department leadership team will continue to ensure that all actions remain aligned with departmental priorities and institutional assessment goals. Faculty participation will be further supported through calibration workshops and curriculum mapping sessions facilitated by the Center for Teaching Excellence (CTE) and the Office of Institutional Effectiveness and Evaluation (OIEE).

Through this sustained and collaborative process, the action plan reflects a shared faculty consensus that coordinated curriculum mapping, targeted third-year realignment, and rubric calibration will strengthen vertical integration and lead to measurable improvements in student learning outcomes across the BS-ARCH program.

Supporting Documentation (Optional):

No document was selected.

Internal Feedback on Use of Results

Action is designed to improve student learning:

Yes

Explains how faculty and program leadership were involved in the development of the action:

Yes

Feedback and Recommendations for Revision:

The action identified to address the dip in 3rd year scores on integration and communication has a more obvious connection to improving student learning. While the curriculum mapping will be helpful from a faculty/administrative point of view, I think it will have an indirect influence on student performance.

Add in details about what was discussed at the faculty meeting--I'd be interested to see more about what the "integration workshops" might look like. Is there coordination between the different domain instructors (HTC, tech, etc) with the studio instructors to facilitate bringing in evidence of the domain knowledge to the design project?

Status Update on a Previously Identified Action

IMPORTANT: This section is NOT about the action described above. The action discussed here should be from a PREVIOUS Program Assessment Report. To locate previous assessment reports, follow these instructions.

1. Provide an update on a curricular change or content-based action from a previous program assessment report.
2. What changes, if any, have occurred in PLO achievement since the action was taken?

Two areas of curricular improvement actions were planned and taken since the AY 2023-24 program assessment: 1) the fourth year's weakness in the learning outcome of Social, Cultural, and Global competence"; and 2) the need for curriculum mapping and calibration to strengthen the horizontal integration and vertical momentum of the curriculum.

- 1) Fourth-year Social Cultural and Global Competence

Fourth-year design studios feature integrated studios in the fall and research/competition studio in the spring. Both are extremely valuable as capstone courses. However, the integrated studios usually focus on integrating structures and mechanical systems in architecture, while research/competition studio usually focuses on cutting-edge topics, such as robotics and healthcare designs. These topics are valuable but need to be situated in social, cultural, and global contexts.

The program engages faculty members in this effort as we have started to envision our ideal graduates. 4th-year studio instructors have been meeting to choose design topics that address this awareness and competence. For example, they led the students to enter a steel building competition with the expectation that the steel components can be reused. However, more needs to be done, including actively engaging building technology professors in approaching to design projects from a social, cultural, and global perspective.

Results have shown an improvement in the AY 2024-25 program assessment.

- 2) Curriculum Mapping and Calibration

Curriculum mapping and calibration provide the overall vision and structure needed to achieve program learning outcomes. These processes also function as an effective communication mechanism. Widely sharing curriculum maps, rubrics, and assessment data helps foster a stronger sense among faculty of how the curriculum *all fits together*, empowering them to design and deliver their individual courses with the whole system in mind. More importantly, engaging faculty members directly in the mapping and calibration process fosters a critical "we" mentality across the department, counteracting the individualistic "me" perspective often found in academic settings.

The Department initiated collaboration with CTE and OIEE in Fall 2022 to conduct curriculum mapping. However, due to faculty's unavailability, the effort has not led to curriculum impacts. We have continued the efforts to develop a set of coherent entry and exit expectations for each year level and adjust the program curriculum accordingly.

With Dr. Sam Sheild's help, the program has established a refined set of PLOs descriptions and rubrics and used them for the AY 2024-25 assessment.

The most significant change is that in AY 2024-25, the BS-ARCH Program has met all expectations of PLOs. This is the first time since the program began conducting rigorous assessments in 2020.

Internal Feedback on Status Update

Status update on an action from a previous assessment report is provided:

Yes

Action is content-based/curricular in nature (i.e., NOT a change to the assessment process):

Yes

Discusses the impact of the action to date:

Yes

Feedback and Recommendations for Revision:

For SCG Competence--can you be more explicit about action taken? Were faculty directed to select studio projects that lend themselves to SCG, directed to dedicate more class time to the topic of SCG competence, or was this discussed at year level meeting, etc. ?

With respect to the curriculum mapping, can you theorize why you think that is linked to meeting all learning outcomes for the first time since 2020? I can imagine that if curriculum maps, rubrics, etc. have been shared widely with faculty it may mean that faculty have a stronger sense of how the curriculum all fits together and then develop/deliver their courses with the whole system in mind. Curious if this has come up in faculty conversation. Also, attach rubrics to the appropriate learning outcomes section if they were used for this year.

Final Approver (Department) Comments

I have reviewed and approve this Assessment Report.

- ( ) Yes
- ( ) No, report requires revision

Comments: