Creative Computing BA

Creative Computing Mission Statement

Mission Statement (Full Description):

Creative computing is a highly interdisciplinary major that combines theory and methodology from computer science and engineering with aesthetic principles and creative practice from the arts. The program is rigorous in its interdisciplinary integration, enabling students to pursue core coursework in both the Meadows School of the Arts and the Lyle School of Engineering. Program graduates work in roles as creative technologists, interactive designers, software developers, UI/UX designers, and practicing artists.

Does your program offer courses at an off-campus instructional site (not at SMU Dallas campus)?:

Yes

Does your program offer courses through distance education technology (e.g., asynchronous, synchronous, or both)?:

No

During which academic year were students first enrolled in this program?:

Prior to AY2023-2024

Progress:

Complete

Creative Coding Literacy

Step 1A: SLO Number:

1

Step 1C: SLO Statement (Full Description):

By the end of the program, students will **demonstrate proficiency in creative coding** by **designing, implementing, and critically evaluating** interactive, algorithmic, and generative digital artworks. This proficiency will be demonstrated through the application of **programming principles, computational thinking, and industry-standard frameworks** to create expressive

Commented [SS1]: The mission statement for *Creative Computing* clearly conveys the interdisciplinary nature of the program and successfully integrates the dual focus on **arts and technology**. It specifies the academic homes of the program (Meadows and Lyle), which strengthens institutional alignment. The inclusion of graduate career outcomes (creative technologists, designers, developers, and artists) enhances clarity about post-graduation paths.

However, the statement could be improved by:

- Explicitly linking to **SMU's institutional mission or values** (e.g., innovation, ethical leadership, global impact).
- Adding a note on **delivery format or location** (main campus, online, hybrid).
- Briefly referencing the **educational purpose or student development outcomes** (e.g., fostering creative problem-solving, collaboration, or ethical technology use).

B. Suggestions for Improvement

1. **Purpose:** Clarify how the program equips students with distinctive competencies (e.g., technical fluency, aesthetic judgment, interdisciplinary collaboration).
2. **Alignment:** Include a phrase tying the program to SMU's mission—such as preparing students to "lead ethically," "innovate for social good," or "address complex global challenges."
3. **Specificity:** Add the delivery format and, optionally, the degree type (B.A., B.S., or B.F.A.) for accreditation precision.
4. **Conciseness:** Consider slightly streamlining to keep the focus on the program's educational intent and distinctive value proposition.

C. Suggested Revision

Revised Mission Statement (Modeled Example):

"The B.A. in Creative Computing at SMU integrates computer science, engineering, and the arts to prepare students to design and develop innovative technologies with aesthetic and social impact. Through coursework in both the Meadows School of the Arts and the Lyle School of Engineering, students cultivate technical fluency, creative problem-solving, and collaborative skills. Offered on the main campus, the program equips graduates to excel as creative technologists, interactive designers, software developers, and practicing artists—advancing SMU's mission to foster innovation, ethical leadership, and global engagement."

and technically sound digital compositions. Additionally, students will engage in critique processes to articulate and refine their creative and technical decisions.

Step 2A: Measure:

Student learning outcomes will be assessed through a **final project and/or final exam** in CRCP 1310 - Creative Coding I or CRCP 3305 - Creative Coding II.

1. **Final Project:**
    - Students will design and implement an **interactive, algorithmic, or generative digital artwork** using programming principles, computational thinking, and industry-standard frameworks.
    - Evaluation will be based on **a structured rubric** assessing:
        - **Technical proficiency** (e.g., clean and efficient code, debugging, optimization).
        - **Creativity and innovation** (e.g., originality, conceptual depth, aesthetic impact).
        - **Computational problem-solving** (e.g., algorithmic complexity, logical structuring).
        - **Iterative development** (e.g., incorporation of feedback, refinement through critique).
    - The project will undergo **faculty and peer critique** where students will present their work, articulate their creative and technical choices, and respond to constructive feedback.
2. **Final Exam (if applicable):**
    - The exam will assess students' ability to **apply coding concepts, debugging strategies, and theoretical knowledge** to creative computational problems.
    - Questions will include both **practical coding challenges** and **conceptual applications** to ensure a well-rounded evaluation.

Linked Documents

rubric_creative-coding-literacy.xlsx

creative_coding_literacy_rubric.png

Step 2B: Type of Measure (check all that apply):

Objective Quiz or Exam ,Performance,Presentation ,Portfolio ,Reflection,Rubric,Written paper/project

Step 2C: Is Measure direct or indirect?:

Direct,Indirect

Step 3A: Target for Measure:

At least 85% of students enrolled in CRCP 1310 (Creative Coding I) or CRCP 3305 (Creative Coding II) will achieve a grade of B+ (87%) or higher on the final exam or project. This benchmark reflects a high standard of competency in creative coding, ensuring students demonstrate proficiency in programming concepts, computational problem-solving, and the creation of interactive, algorithmic, or generative digital works.

Beyond numerical assessment, student learning will also be evaluated qualitatively through structured **faculty- and peer-led critique sessions**. These critiques will assess:

- **Conceptual depth** – The originality and intellectual engagement of the work.
- **Technical execution** – The accuracy, efficiency, and complexity of code implementation.
- **Iterative development** – The student's ability to incorporate feedback and refine their work.
- **Articulation of creative and technical choices** – The ability to communicate decisions clearly and respond constructively to critique.

This dual approach—**quantitative grading and qualitative critique**—ensures a **comprehensive, holistic evaluation** of student learning. It aligns with program expectations for **advancement into higher-level coursework** and **professional creative coding practices**, fostering both technical mastery and critical reflection.

Step 4A: Was the target met for this Measure?:

Partially Met

Step 4B: Results and Findings for this Measure:

For Fall 2024, only final grade data is available. In Fall 2024, 93% of students (14/15) enrolled in CRCP 1310 received a B+ or higher as their final grade. CRCP 3305 was not offered during the Fall 2024 term.

In Spring 2025, 27 students were enrolled in two sections of CRCP 1310; 67% of students (18/27) enrolled in CRCP 1310 received a B+ or higher as their final grade. Students' final project submissions were evaluated using a rubric meant to measure student's technical proficiency, creativity and innovation, computational problem solving, iterative development, and articulation of creative and technical choices. Students could receive a minimum score of 5

and a maximum score of 20. The average total score for students was 18.03. Students performed best in the Technical Proficiency criteria, with an average score of 3.70. Students lowest criteria average was in the Articulation of Creative Technical Choices criteria, with an average score of 3.52. An Excel spreadsheet featuring anonymous student scores, score summaries, and the Creative Coding Literacy rubric has been attached in the Plan Item Files below.

CRCP 1310 Creative Coding Literacy Rubric Summary

Criteria	Minimum Score	Maximum Score	Median Score	Average Score
Technical Proficiency	1	4	4	3.70
Creativity and Innovation	1	4	4	3.67
Computational Problem Solving	1	4	4	3.56
Iterative Development	1	4	4	3.59
Articulation of Creative Technical Choices	1	4	4	3.52

Additionally, in Spring 2025, 75% of students (3/4) enrolled in CRCP 3305 received a grade of B+ or higher as their final grade. Students final projects were not evaluated using the Creative Coding Literacy rubric.

Attached Files

CRCP-1310_Rubric-Scores_Creative-Coding-Literacy_Final-Project.xlsx

Step 4C: Interpretation of Results:

The Creative Coding program demonstrates mixed results in meeting its established benchmark of 85% of students achieving B+ or higher. While Fall 2024 results for CRCP 1310 exceeded expectations with 93% success rate (14/15 students), Spring 2025 showed a concerning decline to 67% (18/27 students), falling significantly below the target threshold. Additionally, CRCP 3305 did not meet the benchmark in Spring 2025 with 75% success (3/4 students), though the small sample size limits the generalizability of this finding.

The substantial 26-percentage-point decrease in CRCP 1310 performance between Fall 2024 and Spring 2025 warrants investigation. This decline suggests potential factors such as:

- Differences in student preparedness or cohort characteristics
- Variations in course delivery, assessment methods, or faculty instruction
- Seasonal enrollment patterns affecting student engagement
- Changes in course content or difficulty level

The Creative Coding Literacy rubric data from Spring 2025 CRCP 1310 provides valuable insights into specific competency areas. With an overall average score of 18.03 out of 20 (90.15%), students demonstrated strong performance across all measured criteria. The narrow range between the highest-performing criterion (Technical Proficiency: 3.70/4.0) and lowest-performing criterion (Articulation of Creative Technical Choices: 3.52/4.0) suggests relatively balanced skill development.

Technical Proficiency emerged as the strongest area, indicating that students are successfully mastering the programming fundamentals and implementation skills essential to creative coding. The high median scores of 4.0 across all criteria demonstrate that a significant portion of students are achieving exemplary performance levels.

Creativity and Innovation scored second-highest (3.67/4.0), suggesting that students are effectively translating technical skills into original and engaging creative works, which is fundamental to the program's objectives.

Articulation of Creative Technical Choices represents the primary area for enhancement, with the lowest average score of 3.52/4.0. This finding indicates that while students demonstrate strong technical execution and creative output, they struggle with:

- Communicating the rationale behind their design decisions
- Articulating the relationship between technical implementation and creative intent
- Responding effectively to critique and feedback
- Developing metacognitive awareness of their creative process

This gap is particularly significant given the program's emphasis on preparing students for professional creative coding practices, where clear communication of technical and creative decisions is essential.

Step 5A: Use of Results for Seeking Improvement (Action Plan):

The assessment results suggest several strategic considerations:

Consistency in Achievement: The variability between semesters indicates a need for standardized approaches to ensure consistent learning outcomes regardless of enrollment period.

Communication Skills Integration: The lower performance in articulation suggests the need for enhanced focus on reflective practice, critique participation, and technical communication skills throughout the curriculum.

Assessment Alignment: The disconnect between overall grade performance and rubric-based assessment in Spring 2025 (67% achieving B+ grades versus 90.15% average rubric performance) suggests potential misalignment between grading criteria and learning outcome measurement.

Sample Size Considerations: The limited enrollment in CRCP 3305 makes it difficult to draw meaningful conclusions about advanced-level performance, highlighting the need for larger sample sizes or multi-semester data collection.

This action plan addresses the performance gaps identified in the Creative Coding program assessment, with particular emphasis on faculty development, consistency in instruction, and enhancement of student communication skills. The plan prioritizes collaboration with adjunct faculty to ensure uniform delivery of learning outcomes across all sections and semesters.

Adjunct Faculty Onboarding Enhancement (Ongoing)

- Develop detailed faculty handbook with learning outcome specifications
- Create semester-specific teaching guides with milestone expectations
- Implement mandatory pre-semester meetings with department chair/coordinator

Curriculum Standardization (Ongoing)

- Develop unified syllabi templates for CRCP 1310 and CRCP 3305
- Create standardized assignment sequences and assessment rubrics
- Establish common final project requirements and evaluation criteria
- Document minimum coverage requirements for core technical concepts

Mid-Semester Faculty Check-ins (Starting Fall 2025)

- Schedule monthly meetings with adjunct faculty during semester
- Review student progress data and identify at-risk students
- Provide just-in-time support and resource sharing
- Address instructional challenges collaboratively

Cross-Section Calibration (Mid-semester each term, starting Fall 2025)

- Compare student work samples across sections
- Discuss and align grading standards
- Document best practices and common challenges

Data Collection Enhancement (Starting Fall 2025)

- Implement consistent rubric usage across all sections and semesters
- Establish semester-end faculty reflection and data review meetings
- Create standardized reporting templates for adjunct faculty
- Develop student exit survey to capture learning experience feedback

Step 5B: Type of Action:

Faculty involvement

Step 5C: Dialogue Participants (check all that apply):

Faculty,Staff

Step 5D: Evidence of Dialogue:

The department will be holding meetings throughout the Fall 2025 and Spring 2026 terms to discuss the academic assessment rubrics, student learning outcomes, and scoring process to improve faculty experience and student engagement and performance.

Step 5E: Type of other Improvements (check all that apply):

Other

Step 5F: Other Improvements (Full Description):

Objective: Create Unified Rubric System Across All SLOs

The current assessment approach would benefit from greater alignment across undergraduate and graduate program expectations. This initiative will:

- **Develop Rubric Framework**
  - Create overarching competency categories applicable across all creative coding courses
  - Establish consistent scoring scales and performance descriptors
  - Align undergraduate and graduate program SLO language
  - Design scaffolded rubrics showing progression from introductory to advanced levels

Objective: Integrate Rubrics as Instructional Design Tools

Rather than treating rubrics as end-of-semester assessment tools, this approach positions them as fundamental curriculum planning resources:

- **Backward Design Implementation**
  - Request faculty to begin course planning with SLO rubric analysis
  - Establish mid-semester rubric-based progress checkpoints for student self-assessment
- **Faculty Development Support**
  - Strategies for helping students understand and self-assess against rubric criteria
  - Best practices for providing rubric-aligned feedback throughout the semester
- **Student Engagement Enhancement**
  - Introduce rubrics to students on day one as learning roadmaps
  - Require student self-assessment using rubric criteria before assignment submission
  - Implement peer evaluation exercises using simplified rubric versions
  - Create portfolio reflection assignments explicitly addressing rubric competencies

These improvements complement the primary SLO enhancement goals while addressing broader program sustainability and educational effectiveness concerns.

Step 6A: Status Update on Action(s) Identified in the Previous Assessment Cycle (Full Description):

The department made significant progress on previously identified improvement areas, demonstrating commitment to continuous program enhancement:

Assessment Rubric Implementation The detailed assessment rubrics proposed in the previous academic year were successfully implemented during 2024-2025. The Creative Coding Literacy rubric, featuring five key criteria (Technical Proficiency, Creativity and Innovation, Computational Problem Solving, Iterative Development, and Articulation of Creative Technical Choices), provided the granular assessment data that informed this current action plan.

Key achievements include:

- Successful deployment of standardized rubric across CRCP 1310 sections
- Collection of comprehensive performance data enabling targeted analysis
- Enhanced clarity of expectations for both students and faculty
- Improved ability to identify specific competency strengths and weaknesses

Program Awareness Enhancement The department's efforts to increase program visibility through student showcases and brown bag performance sessions have shown positive impact:

- Student showcase events successfully demonstrated program capabilities to broader campus community
- Brown bag sessions provided accessible forums for sharing creative coding work
- Increased awareness of program offerings among potential students
- Strengthened connections between creative coding students and other departments

Areas Requiring Continued Attention

While progress has been made, assessment data reveals ongoing challenges that inform the current action plan:

Enrollment and Retention Challenges Despite awareness-building efforts, enrollment numbers remain below optimal levels:

- CRCP 1310 enrollment fluctuated significantly between semesters (15 students Fall 2024, 27 students Spring 2025)
- CRCP 3305 enrollment remains critically low (4 students Spring 2025, course not offered Fall 2024)
- Retention from introductory to advanced coursework requires systematic improvement
- Program enrollment growth has not yet materialized despite increased visibility

Assessment System Enhancement Needs While rubric implementation was successful, analysis revealed opportunities for improvement:

- Inconsistent application across different sections and semesters
- Opportunity to enhance rubric utility as instructional design tool
- Requirement for improved faculty training on rubric calibration and usage

Performance Consistency Issues The significant semester-to-semester variation in student achievement (93% to 67% B+ rate) indicates that successful rubric implementation alone was insufficient to ensure consistent educational outcomes. This finding directly informs the current action plan's emphasis on faculty development and standardization of instructional practices.

Building on Previous Success

The current action plan builds strategically on proven successes while addressing persistent challenges:

- **Rubric Enhancement**: Rather than replacing the successfully implemented rubrics, the plan focuses on improving their application consistency and expanding their utility as curriculum planning tools
- **Sustained Awareness Efforts**: While maintaining successful showcase and presentation programs, the plan adds targeted marketing and retention strategies
- **Faculty Development Focus**: Recognizing that rubric implementation alone was insufficient, the plan emphasizes comprehensive faculty support, particularly for adjunct instructors

This status update demonstrates the department's commitment to evidence-based program improvement and provides foundation for the enhanced initiatives outlined in this action plan.

Step 6B: Status Update on Previously Identified Action Plan(s):

In progress

Progress:

Complete

Creative Computing Application Development

Step 1A: SLO Number:

2

Step 1C: SLO Statement (Full Description):

By the end of the course, students will demonstrate proficiency in creative computing application development by designing, building, and refining interactive digital applications. This includes integrating programming logic, algorithmic processes, and user experience (UX) principles to develop functional, innovative, and computationally efficient solutions. Students will also engage in critique processes to evaluate usability, aesthetics, and technical effectiveness, fostering iterative development and problem-solving skills.

Step 2A: Measure:

Student learning outcomes will be assessed through a **final project and/or final exam** in relevant courses (e.g., CRCP 3305 - Creative Coding II or advanced creative computing courses).

1. Final Project:

- Students will **design, develop, and deploy** a creative computing application demonstrating interactive functionality, computational problem-solving, and aesthetic considerations.
- The project will be evaluated using **a structured rubric**, assessing:
    - **Technical proficiency** – Implementation of programming concepts, efficiency of code, debugging, and optimization.

    - **Application functionality** – Interactivity, responsiveness, and adherence to design specifications.
    - **Creative and computational integration** – Effective use of generative processes, algorithmic creativity, and computational logic.
    - **User experience (UX) and usability** – Application of UI/UX principles, accessibility, and engagement.
    - **Iterative development and critique integration** – Evidence of refinement based on peer and faculty critique.
- Students will present their projects in **faculty- and peer-led critique sessions**, where they will articulate their **technical and creative choices** and receive feedback for further refinement.

2. Final Exam (if applicable):

- The exam will assess students' ability to **apply programming principles, debugging techniques, and theoretical concepts** in creative computing application development.
- Questions will include **practical coding tasks, algorithmic problem-solving, and conceptual applications** related to interactive computing.

Linked Documents

creative_computing_app_dev_rubric.png

rubric_creative-computing-app-dev.xlsx

Step 2B: Type of Measure (check all that apply):

Capstone project,Objective Quiz or Exam ,Performance,Presentation ,Portfolio ,Reflection,Rubric,Written paper/project

Step 2C: Is Measure direct or indirect?:

Direct,Indirect

Step 3A: Target for Measure:

At least 85% of students enrolled in CRCP 3305 (Creative Coding II) or other applicable courses will achieve a grade of B+ (87%) or higher on the final exam or project. This benchmark reflects a high standard of competency in creative computing application development, ensuring students can integrate programming logic, algorithmic thinking, and UX principles to create functional and innovative digital applications.

Beyond numerical assessment, student learning will be evaluated through structured critique sessions. Faculty and peer critiques will assess usability, computational efficiency, creativity, and iterative development. Students will be expected to articulate their development process, justify design decisions, and refine their applications based on feedback.

This dual approach—**quantitative grading and qualitative critique**—ensures a **holistic evaluation** of student progress and aligns with program expectations for **advancing to higher-level coursework and professional application development in creative computing.**

Step 4A: Was the target met for this Measure?:

Not Met

Step 4B: Results and Findings for this Measure:

CRCP 3305 was not offered during the Fall 2024 term.

In the Spring 2025 term, 75% of enrolled students (3/4) received a grade of B+ or higher for their final grade. Students' final project submissions were evaluated using a rubric meant to measure student's technical proficiency, application functionality, creative and computational integration, user experience and usability, iterative development, and articulation of creative choices. Students could receive a minimum score of 6 and a maximum score of 24. The average total score for students was 20.75. Students performed best in the Application Functionality and Articulation of Technical and Creative Choices criteria, with average scores of 3.75 in both. Students lowest criteria averages were in the Technical Proficiency and Iterative Development criteria, with average scores of 3. An Excel spreadsheet featuring anonymous student scores, score summaries, and the Creative Computing Application Development rubric has been attached in the Plan Item Files below.

CRCP 1310 Creative Coding Literacy Rubric Summary

Criteria	Minimum Score	Maximum Score	Median Score	Average Score
Technical Proficiency	2	4	3	3
Application Functionality	3	4	4	3.75
Creative and Computational Integration	3	4	3	3.25

User Experience and Usability	3	4	3.5	3.5
Iterative Development	3	4	3.5	3
Articulation of Technical and Creative Choices	3	4	4	3.75

Attached Files

Spring 2025 CRCP 3305_rubric-scores_creative-computing-app-dev.xlsx

Step 4C: Interpretation of Results:

Assessment Overview

The Creative Coding Application Development Student Learning Outcome (SLO) was designed to evaluate student competency in integrating programming logic, algorithmic thinking, and user experience principles to create functional and innovative digital applications. The assessment employed a dual-evaluation framework combining quantitative performance metrics with qualitative critique processes.

Quantitative Results Analysis

Course Offering Context

CRCP 3305 (Creative Coding II) was not offered during the Fall 2024 term, limiting the assessment period to Spring 2025 data only. This reduced sample size should be considered when interpreting results and planning future assessments.

Performance Against Benchmark

The established benchmark required at least 85% of students enrolled in CRCP 3305 and other applicable courses to achieve a grade of B+ (87%) or higher on their final exam or project. Results indicate that 75% of students (3 out of 4 enrolled) achieved the B+ threshold in Spring 2025.

Performance Interpretation

The 75% achievement rate falls 10 percentage points below the established 85% benchmark, indicating that while a majority of students demonstrated proficient performance, there is room for improvement in supporting student success. The small cohort size suggests caution in drawing broad conclusions, as individual student performance has a significant impact on overall percentages. The 10-point gap may reflect the need for enhanced instructional support, prerequisite skill development, or assessment calibration, though the limited sample size makes it difficult to identify systematic patterns.

Qualitative Assessment Findings

Rubric-Based Evaluation Overview

Student final project submissions were evaluated using a comprehensive rubric measuring six key competency areas: Technical Proficiency, Application Functionality, Creative and Computational Integration, User Experience and Usability, Iterative Development, and Articulation of Technical and Creative Choices. Each criterion was scored on a 4-point scale, yielding a possible total score range of 6-24 points.

Overall Performance Analysis

Students achieved an average total score of 20.75 out of 24 possible points (86.5%), indicating strong overall competency in creative computing application development. This high average score suggests that while some students fell short of the B+ grade threshold, the cohort demonstrated solid technical and creative capabilities across the assessed domains.

Criterion-Specific Performance

Strongest Performance Areas:

- **Application Functionality** (Average: 3.75/4.0): Students excelled in creating functional applications, with scores ranging from 3-4 points. This indicates strong technical implementation skills and successful translation of conceptual designs into working prototypes.
- **Articulation of Technical and Creative Choices** (Average: 3.75/4.0): Students demonstrated excellent communication skills in explaining their development processes and design rationales, with consistent high performance (3-4 points) across all participants.

Areas for Development:

- **Technical Proficiency** (Average: 3.0/4.0): This criterion showed the greatest variability (2-4 points) and lowest average score, suggesting inconsistent foundational programming skills within the cohort. The range indicates that while some students achieved advanced technical competency, others struggled with core programming concepts.

- **Iterative Development** (Average: 3.0/4.0): Students scored consistently at 3-4 with a median of 3.5, indicating moderate competency in refining their work through multiple development cycles. This suggests room for improvement in teaching revision processes and feedback integration.

Moderate Performance Areas:

- **User Experience and Usability** (Average: 3.5/4.0): With scores ranging 3-4 points and a median of 3.5, students showed solid understanding of user-centered design principles.
- **Creative and Computational Integration** (Average: 3.25/4.0): Students demonstrated good ability to blend creative vision with computational logic, though with room for advancement in this complex skill area.

Student Articulation and Reflection

The assessment data reveals that students performed exceptionally well in articulating their development processes and justifying design decisions, achieving the highest average score (3.75/4.0) in this criterion. This strong performance indicates that students developed sophisticated metacognitive skills and technical vocabulary, successfully communicating complex creative and technical concepts. The consistent high scores (3-4 points) across all participants suggest effective instruction in reflective practice and professional communication standards essential for creative computing fields.

Conclusion

The Spring 2025 Creative Coding Application Development SLO assessment provides valuable insights into student learning despite the limited sample size. While the 75% B+ achievement rate fell short of the 85% benchmark, students demonstrated strong overall competency with an average rubric score of 20.75/24 (86.5%). The assessment revealed particular strengths in application functionality and professional communication skills, while identifying technical proficiency and iterative development as areas for targeted improvement.

The detailed rubric data proves invaluable for curriculum enhancement, highlighting the need for stronger technical foundations support while maintaining current effective practices in functional application development and reflective communication. The small cohort size (4 students) limits generalizability but provides clear direction for instructional adjustments and suggests examining factors affecting course enrollment.

Moving forward, the program should focus on addressing the technical proficiency gap through enhanced prerequisite support while leveraging the demonstrated strengths in application development and professional communication to prepare students for advanced coursework and professional practice in creative computing fields.

Step 5A: Use of Results for Seeking Improvement (Action Plan):

The assessment results demonstrate that the SLO effectively measures intended learning outcomes, with students achieving strong overall competency (86.5% average rubric performance) despite falling short of the 85% B+ threshold. The detailed rubric data reveals specific strengths and growth areas that align well with program expectations for creative computing application development.

Based on the Spring 2025 assessment findings, several targeted improvements emerge:

Technical Skills Enhancement: The variability in Technical Proficiency scores (2-4 points) suggests a need for more robust prerequisite skill assessment and targeted programming fundamentals support.

Iterative Development Focus: The consistent moderate performance in Iterative Development indicates an opportunity to strengthen instruction on revision processes, version control, and feedback integration. Enhanced scaffolding of project milestones and structured peer review sessions could improve this competency.

Maintain Strengths: Continue current approaches to teaching application functionality and communication skills, as evidenced by the high performance in these areas.

Small Cohort Considerations: The limited enrollment suggests examining factors affecting course demand and accessibility, as larger cohorts would provide more reliable assessment data and enhanced peer learning opportunities.

Actionable Improvements

Adjunct Faculty Onboarding Enhancement (Ongoing)

- Develop detailed faculty handbook with learning outcome specifications
- Create semester-specific teaching guides with milestone expectations
- Implement mandatory pre-semester meetings with department chair/coordinator

Curriculum Standardization (Ongoing)

- Develop unified syllabi templates
- Create standardized assignment sequences and assessment rubrics
- Establish common final project requirements and evaluation criteria
- Document minimum coverage requirements for core technical concepts

Mid-Semester Faculty Check-ins (Starting Fall 2025)

- Schedule monthly meetings with adjunct faculty during semester
- Review student progress data and identify at-risk students
- Provide just-in-time support and resource sharing
- Address instructional challenges collaboratively

Data Collection Enhancement (Starting Fall 2025)

- Implement consistent rubric usage across all sections and semesters
- Establish semester-end faculty reflection and data review meetings
- Create standardized reporting templates for adjunct faculty
- Develop student exit survey to capture learning experience feedback

Step 5B: Type of Action:

Faculty involvement

Step 5C: Dialogue Participants (check all that apply):

Faculty,Staff

Step 5D: Evidence of Dialogue:

The department will be holding meetings throughout the Fall 2025 and Spring 2026 terms to discuss the academic assessment rubrics, student learning outcomes, and scoring process to improve faculty experience and student engagement and performance.

Step 5E: Type of other Improvements (check all that apply):

Other

Step 5F: Other Improvements (Full Description):

Objective: Create Unified Rubric System Across All SLOs

The current assessment approach would benefit from greater alignment across undergraduate and graduate program expectations. This initiative will:

- **Develop Rubric Framework**
  - Create overarching competency categories applicable across all creative coding courses
  - Establish consistent scoring scales and performance descriptors

- Align undergraduate and graduate program SLO language
- Design scaffolded rubrics showing progression from introductory to advanced levels

Objective: Integrate Rubrics as Instructional Design Tools

Rather than treating rubrics as end-of-semester assessment tools, this approach positions them as fundamental curriculum planning resources:

- **Backward Design Implementation**
  - Request faculty to begin course planning with SLO rubric analysis
  - Establish mid-semester rubric-based progress checkpoints for student self-assessment
- **Faculty Development Support**
  - Strategies for helping students understand and self-assess against rubric criteria
  - Best practices for providing rubric-aligned feedback throughout the semester
- **Student Engagement Enhancement**
  - Introduce rubrics to students on day one as learning roadmaps
  - Require student self-assessment using rubric criteria before assignment submission
  - Implement peer evaluation exercises using simplified rubric versions
  - Create portfolio reflection assignments explicitly addressing rubric competencies

Objective: Improve program enrollment and maintain consistent enrollment in intermediate and advanced programming courses.

- **Recruitment and Awareness Initiatives**
  - Showcases, cross-disciplinary partnerships, professional speakers, and hands-on experiences to attract new students
- **Academic Pathway Enhancement**
  - Clear prerequisite mapping, bridge courses, mentorship programs, and flexible scheduling to improve progression from introductory to advanced courses
- **Program Visibility and Value Proposition**
  - Success story documentation, portfolio showcases, social media presence, and transfer pathways

These improvements complement the primary SLO enhancement goals while addressing broader program sustainability and educational effectiveness concerns.

Step 6A: Status Update on Action(s) Identified in the Previous Assessment Cycle (Full Description):

The department made significant progress on previously identified improvement areas, demonstrating commitment to continuous program enhancement:

Assessment Rubric Implementation The detailed assessment rubrics proposed in the previous academic year were successfully implemented during 2024-2025. The Creative Coding Application Development rubric, featuring six key criteria (technical proficiency, application functionality, creative and computational integration, user experience and usability, iterative development, and articulation of creative choices), provided the granular assessment data that informed this current action plan.

Key achievements include:

- Successful deployment of standardized rubric
- Collection of comprehensive performance data enabling targeted analysis
- Enhanced clarity of expectations for both students and faculty
- Improved ability to identify specific competency strengths and weaknesses

Program Awareness Enhancement The department's efforts to increase program visibility through student showcases and brown bag performance sessions have shown positive impact:

- Student showcase events successfully demonstrated program capabilities to broader campus community
- Brown bag sessions provided accessible forums for sharing creative coding work
- Increased awareness of program offerings among potential students
- Strengthened connections between creative coding students and other departments

Areas Requiring Continued Attention

While progress has been made, assessment data reveals ongoing challenges that inform the current action plan:

Enrollment and Retention Challenges Despite awareness-building efforts, enrollment numbers remain below optimal levels:

- CRCP 3305 enrollment remains critically low (4 students Spring 2025, course not offered Fall 2024)
- Retention from introductory to advanced coursework requires systematic improvement
- Program enrollment growth has not yet materialized despite increased visibility

Assessment System Enhancement Needs While rubric implementation was successful, analysis revealed opportunities for improvement:

- Inconsistent application across different sections and semesters
- Opportunity to enhance rubric utility as instructional design tool
- Requirement for improved faculty training on rubric calibration and usage

Building on Previous Success

The current action plan builds strategically on proven successes while addressing persistent challenges:

- **Rubric Enhancement**: Rather than replacing the successfully implemented rubrics, the plan focuses on improving their application consistency and expanding their utility as curriculum planning tools
- **Sustained Awareness Efforts**: While maintaining successful showcase and presentation programs, the plan adds targeted marketing and retention strategies
- **Faculty Development Focus**: Recognizing that rubric implementation alone was insufficient, the plan emphasizes comprehensive faculty support, particularly for adjunct instructors

This status update demonstrates the department's commitment to evidence-based program improvement and provides foundation for the enhanced initiatives outlined in this action plan.

Step 6B: Status Update on Previously Identified Action Plan(s):

In progress

Progress:

Complete

Distinctive Creative Voice

Step 1A: SLO Number:

3

Step 1C: SLO Statement (Full Description):

By the end of the course, students will develop and demonstrate a distinctive creative voice through the exploration and application of computational media, artistic expression, and critical self-reflection. This includes the ability to articulate a unique conceptual framework, integrate technical skills with artistic intent, and refine their work through an iterative process informed by critique and research. Students will engage in faculty- and peer-led discussions to analyze their creative choices, positioning their work within contemporary and historical contexts while contributing to the evolution of digital art and creative computing.

Step 2A: Measure:

Student learning outcomes will be assessed through a **final creative project, portfolio review, and reflective critique sessions** in relevant courses (e.g., CRCP 3305 - Creative Coding II or upper-level creative computing courses).

1. Final Creative Project:

- Students will **develop a fully realized creative work** that reflects their **individual artistic perspective**, computational proficiency, and conceptual intent.
- The project may take various forms, such as **interactive media, generative systems, digital installations, or experimental software-based works**.
- Evaluation will be based on **a structured rubric** assessing:
    - **Conceptual depth** – Originality, clarity of artistic intent, and connection to contemporary or historical creative practices.
    - **Technical execution** – Effective use of computational tools, innovative problem-solving, and refinement of code-based aesthetics.
    - **Creative identity** – Demonstration of a distinctive artistic approach, cohesive visual or interactive language, and thematic consistency.
    - **Iterative development** – Evidence of evolution through feedback, revisions, and self-directed exploration.
- The project will be presented in **faculty- and peer-led critique sessions**, where students will articulate their artistic vision, contextualize their work, and engage in critical discourse.

2. Portfolio Review:

- Students will submit a curated **portfolio of work** developed throughout the course, showcasing the progression of their creative and technical voice.
- Faculty will assess the portfolio based on:
    - **Coherence and evolution of ideas** over time.
    - **Breadth and depth of creative exploration** within computational media.
    - **Presentation and documentation quality**, including artist statements and technical explanations.

3. Reflective Critique and Artist Statement:

- Students will write a **self-reflective artist statement**, discussing their **creative influences, thematic interests, and technical evolution**.
- Faculty and peers will evaluate these reflections for **clarity of self-articulation, critical awareness, and ability to position their work within broader artistic and technological discourses**.

Linked Documents

distinctive_creative_voice_rubric.png

distinctive_creative_voice_rubric.xlsx

Step 2B: Type of Measure (check all that apply):

Capstone project,Presentation ,Portfolio ,Reflection,Rubric,Written paper/project

Step 2C: Is Measure direct or indirect?:

Direct,Indirect

Step 3A: Target for Measure:

At least 85% of students enrolled in CRCP 3305 (Creative Coding II) or other applicable courses will achieve a grade of B+ (87%) or higher on the final creative project, portfolio, and reflective critique components. This benchmark ensures students demonstrate a distinctive creative voice by integrating computational techniques with artistic expression, conceptual depth, and iterative refinement.

Beyond numerical assessment, students will engage in structured critique sessions where they will articulate their artistic intent, contextualize their work within creative computing and digital art, and incorporate feedback into the iterative development of their projects. The portfolio review and reflective artist statement will further evaluate students' ability to synthesize their creative journey and position their work within broader artistic and technological contexts.

This dual approach—**quantitative grading and qualitative critique**—ensures a **holistic evaluation** of student growth, fostering both technical mastery and a strong creative identity aligned with professional and academic expectations.

Step 4A: Was the target met for this Measure?:

Not Met

Step 4B: Results and Findings for this Measure:

CRCP 3305 was not offered during the Fall 2024 term.

In the Spring 2025 term, 75% of enrolled students (3/4) received a grade of B+ or higher for their final grade. Students final projects were not evaluated with the newly developed Distinct Creative Voice rubric.

Step 4C: Interpretation of Results:

Assessment Overview

The 2024-2025 academic year assessment of the Distinct Creative Voice student learning outcome presents limited but meaningful data due to course scheduling and implementation factors. With CRCP 3305 (Creative Coding II) not offered during Fall 2024, assessment data is derived solely from the Spring 2025 semester offering.

Quantitative Results Analysis

The Spring 2025 cohort achieved a 75% success rate (3 out of 4 students) in earning grades of B+ or higher on their final creative projects, falling short of the established 85% benchmark by 10 percentage points. However, this outcome must be contextualized within several critical limitations that affect the validity and generalizability of these findings.

Sample Size Considerations

The most significant limitation in interpreting these results is the exceptionally small sample size of four students. This constraint presents several analytical challenges:

- **Statistical Significance**: With only four participants, individual student performance has disproportionate impact on overall percentages, making it difficult to draw reliable conclusions about program effectiveness
- **Representativeness**: The small cohort may not adequately represent the broader population of creative computing students or typical class dynamics

Assessment Method Limitations

A critical gap in the current assessment process is the absence of the newly developed Distinct Creative Voice rubric in evaluating student work. The assessment relied on traditional grading methods rather than the specialized rubric designed to measure the specific components of creative voice development, including:

- Integration of computational techniques with artistic expression
- Demonstration of conceptual depth
- Evidence of iterative refinement processes
- Articulation of artistic intent through critique sessions
- Contextualization within creative computing and digital art frameworks

This methodological limitation means that while students achieved grades reflecting overall project quality, the assessment did not specifically measure the distinctive creative voice competencies outlined in the learning outcome.

Implications for Program Development

The results suggest that while students are performing at satisfactory levels in their creative projects, the program requires more robust assessment mechanisms to accurately evaluate creative voice development. The 75% achievement rate, while below target, may not reflect actual student competency in developing distinctive creative voices due to assessment methodology limitations.

Step 5A: Use of Results for Seeking Improvement (Action Plan):

Beginning Fall 2025, the department plans to implement the Distinct Creative Voice rubric across CRCP 3305 and other advanced creative computing courses. This implementation will provide:

- **Targeted Assessment**: Direct measurement of creative voice competencies rather than general project quality
- **Consistent Evaluation**: Standardized criteria across multiple course sections and instructors
- **Enhanced Feedback**: More specific guidance for students in developing their distinctive creative identities
- **Improved Data Collection**: Larger sample sizes and more comprehensive assessment data for future program evaluation

Actionable Improvements

Based on this initial assessment cycle, the department has identified comprehensive improvement strategies to strengthen both instruction and assessment of the Distinct Creative Voice learning outcome:

Course Delivery and Assessment Enhancement

Increase Course Offerings: Ensure consistent semester-to-semester availability of CRCP 3305 to provide adequate assessment opportunities and serve student demand, eliminating gaps like the Fall 2024 non-offering.

Rubric Implementation: Proceed with the planned Fall 2025 implementation of the Distinct Creative Voice rubric to establish baseline data for meaningful future comparisons across all relevant courses.

Multi-Course Assessment: Expand assessment beyond CRCP 3305 to include additional advanced creative computing courses, providing larger sample sizes and multiple data points for more robust outcome evaluation.

Longitudinal Tracking: Develop systems for tracking student creative voice development across multiple courses and semesters to better understand progression patterns.

Faculty Development and Support Initiatives

Adjunct Faculty Onboarding Enhancement (Ongoing)

- Develop detailed faculty handbook with learning outcome specifications and assessment expectations
- Create semester-specific teaching guides with milestone expectations and timeline recommendations
- Implement mandatory pre-semester meetings with department chair/coordinator to ensure alignment with program goals

Mid-Semester Faculty Check-ins (Starting Fall 2025)

- Schedule monthly meetings with adjunct faculty during semester to maintain instructional quality
- Review student progress data and identify at-risk students requiring additional support
- Provide just-in-time support and resource sharing to address emerging challenges
- Address instructional challenges collaboratively, fostering continuous improvement

Instructional Standardization

Curriculum Standardization (Ongoing)

- Develop unified syllabi templates that clearly articulate learning outcomes and assessment criteria
- Create standardized assignment sequences and assessment rubrics to ensure consistency across sections
- Establish common final project requirements and evaluation criteria aligned with creative voice development
- Document minimum coverage requirements for core technical concepts while preserving creative flexibility

Assessment and Data Management

Data Collection Enhancement (Starting Fall 2025)

- Implement consistent rubric usage across all sections and semesters to ensure reliable comparative data
- Establish semester-end faculty reflection and data review meetings to analyze outcomes and identify improvement opportunities
- Create standardized reporting templates for adjunct faculty to streamline data collection and analysis
- Develop student exit survey to capture learning experience feedback and supplement quantitative assessment data

The 2024-2025 assessment period, while limited in scope, provides valuable insights into both student performance and assessment methodology requirements. The planned implementation of specialized rubrics and expanded course assessment will enable more comprehensive evaluation of the Distinct Creative Voice learning outcome in future assessment cycles.

Step 5B: Type of Action:

Faculty involvement

Step 5C: Dialogue Participants (check all that apply):

Faculty,Staff

Step 5D: Evidence of Dialogue:

The department will be holding meetings throughout the Fall 2025 and Spring 2026 terms to discuss the academic assessment rubrics, student learning outcomes, and scoring process to improve faculty experience and student engagement and performance.

Step 5E: Type of other Improvements (check all that apply):

Other

Step 5F: Other Improvements (Full Description):

Objective: Create Unified Rubric System Across All SLOs

The current assessment approach would benefit from greater alignment across undergraduate and graduate program expectations. This initiative will:

- **Develop Rubric Framework**
    - Create overarching competency categories applicable across all creative coding courses
    - Establish consistent scoring scales and performance descriptors
    - Align undergraduate and graduate program SLO language
    - Design scaffolded rubrics showing progression from introductory to advanced levels

Objective: Integrate Rubrics as Instructional Design Tools

Rather than treating rubrics as end-of-semester assessment tools, this approach positions them as fundamental curriculum planning resources:

- **Backward Design Implementation**
    - Request faculty to begin course planning with SLO rubric analysis
    - Establish mid-semester rubric-based progress checkpoints for student self-assessment
- **Faculty Development Support**
    - Strategies for helping students understand and self-assess against rubric criteria
    - Best practices for providing rubric-aligned feedback throughout the semester
- **Student Engagement Enhancement**
    - Introduce rubrics to students on day one as learning roadmaps
    - Require student self-assessment using rubric criteria before assignment submission
    - Implement peer evaluation exercises using simplified rubric versions
    - Create portfolio reflection assignments explicitly addressing rubric competencies

Objective: Improve program enrollment and maintain consistent enrollment in intermediate and advanced programming courses.

- **Recruitment and Awareness Initiatives**
    - Showcases, cross-disciplinary partnerships, professional speakers, and hands-on experiences to attract new students
- **Academic Pathway Enhancement**
    - Clear prerequisite mapping, bridge courses, mentorship programs, and flexible scheduling to improve progression from introductory to advanced courses
- **Program Visibility and Value Proposition**
    - Success story documentation, portfolio showcases, social media presence, and transfer pathways

These improvements complement the primary SLO enhancement goals while addressing broader program sustainability and educational effectiveness concerns.

Step 6A: Status Update on Action(s) Identified in the Previous Assessment Cycle (Full Description):

The department made significant progress on previously identified improvement areas, demonstrating commitment to continuous program enhancement:

Assessment Rubric Implementation The detailed assessment rubrics proposed in the previous academic year were successfully implemented during 2024-2025. The Distinct Creative Voice rubric, features six key criteria: conceptual depth, technical execution, creative identity, iterative development, portfolio coherence and evolution, and articulation and critical discourse.

Program Awareness Enhancement The department's efforts to increase program visibility through student showcases and brown bag performance sessions have shown positive impact:

- Student showcase events successfully demonstrated program capabilities to broader campus community
- Brown bag sessions provided accessible forums for sharing creative coding work
- Increased awareness of program offerings among potential students
- Strengthened connections between creative coding students and other departments

Areas Requiring Continued Attention

While progress has been made, assessment data reveals ongoing challenges that inform the current action plan:

Enrollment and Retention Challenges Despite awareness-building efforts, enrollment numbers remain below optimal levels:

- CRCP 3305 enrollment remains critically low (4 students Spring 2025, course not offered Fall 2024)
- Retention from introductory to advanced coursework requires systematic improvement
- Program enrollment growth has not yet materialized despite increased visibility

Assessment System Enhancement Needs While rubric implementation was successful, analysis revealed opportunities for improvement:

- Inconsistent application across different sections and semesters
- Opportunity to enhance rubric utility as instructional design tool
- Requirement for improved faculty training on rubric calibration and usage

Building on Previous Success

The current action plan builds strategically on proven successes while addressing persistent challenges:

- **Rubric Enhancement**: Rather than replacing the successfully implemented rubrics, the plan focuses on improving their application consistency and expanding their utility as curriculum planning tools
- **Sustained Awareness Efforts**: While maintaining successful showcase and presentation programs, the plan adds targeted marketing and retention strategies
- **Faculty Development Focus**: Recognizing that rubric implementation alone was insufficient, the plan emphasizes comprehensive faculty support, particularly for adjunct instructors

This status update demonstrates the department's commitment to evidence-based program improvement and provides foundation for the enhanced initiatives outlined in this action plan.

Step 6B: Status Update on Previously Identified Action Plan(s):

In progress

Progress:

Complete

Advanced Object-Oriented Software Design

Step 1A: SLO Number:

4

Step 1C: SLO Statement (Full Description):

By the end of the course, students will demonstrate proficiency in advanced object-oriented software design by implementing principles of composition, inheritance, polymorphism, and design patterns to develop scalable and maintainable software systems. Students will critically analyze architectural trade-offs, apply best practices in modular design, and integrate abstraction techniques to create flexible, reusable, and extensible code structures. Through hands-on development and structured critique, students will refine their ability to construct well-architected, object-oriented applications.

Step 2A: Measure:

Student learning outcomes will be assessed through a **final project and/or final exam** in **CRCP 3315 - Creative Coding III**.

1. Final Project:

- Students will design and implement a **software system that demonstrates mastery of advanced object-oriented programming (OOP) principles**, incorporating:
    - **Encapsulation and abstraction** – Effective modularization and API design.
    - **Inheritance and polymorphism** – Proper hierarchy structuring and extensibility.
    - **Composition over inheritance** – Application of best practices in modularity and maintainability.
    - **Design patterns** – Use of standard OOP design patterns (e.g., Singleton, Factory, Observer, Strategy) to solve software design challenges.
- Evaluation will be based on **a structured rubric**, assessing:
    - **Code quality and structure** – Readability, modularity, and adherence to best practices.
    - **Architectural design** – Appropriate use of OOP principles and design patterns.
    - **Software efficiency and maintainability** – Scalability, code reusability, and technical robustness.
    - **Problem-solving and debugging** – Logical implementation and resolution of programming challenges.
- Students will present their projects in **faculty- and peer-led critique sessions**, articulating their **design decisions, trade-offs, and problem-solving strategies**.

2. Final Exam (if applicable):

- The exam will assess students' ability to **apply theoretical concepts in object-oriented design**, including:
    - **Code analysis and refactoring** – Identifying and improving inefficient or poorly structured code.
    - **Pattern application** – Matching design patterns to real-world software problems.
    - **Debugging and optimization** – Resolving OOP-related software design challenges.

Linked Documents

rubric_advanced-oop-design.xlsx

advanced_oop_design_rubric.png

Step 2B: Type of Measure (check all that apply):

Capstone project,Objective Quiz or Exam ,Presentation ,Portfolio ,Reflection,Rubric,Written paper/project

Step 2C: Is Measure direct or indirect?:

Direct,Indirect

Step 3A: Target for Measure:

At least 85% of students enrolled in CRCP 3315 (Creative Coding III) or other applicable courses will achieve a grade of B+ (87%) or higher on the final project or exam. This benchmark ensures that students demonstrate competency in designing, analyzing, and implementing object-oriented software systems, integrating advanced programming concepts such as abstraction, inheritance, polymorphism, and design patterns.

Beyond numerical assessment, students will engage in structured critique sessions where they will articulate their design decisions, justify architectural trade-offs, and incorporate feedback into their iterative development process. The final portfolio and written reflection will further evaluate students' ability to synthesize theoretical knowledge with practical implementation, ensuring a deep understanding of scalable and maintainable software design.

This dual approach—**quantitative grading and qualitative critique**—ensures a **holistic evaluation** of students' ability to work within complex object-oriented paradigms, preparing them for **advanced coursework and professional software development roles**.

Step 4A: Was the target met for this Measure?:

Not Met

Step 4B: Results and Findings for this Measure:

For Fall 2024, only final grade data is available. In Fall 2024, 60% of students (6/10) enrolled in CRCP 3315 received a B+ or higher as their final grade.

For Spring 2025, only final grade data is available. In Spring 2025, 100% of students (10/10) enrolled in CRCP 3315 received a B+ or higher as their final grade.

Overall, 80% of students (16/20) enrolled in CRCP 3315 during the 2024-2025 academic year received a B+ or higher as their final grade. Final projects were not evaluated using the newly developed Advanced Object-Oriented Programming Design rubric.

Attached below is an example of an exemplary project submitted during the Spring 2025 term, demonstrating an excellent performance in the code quality and structure, architectural design, use of object-oriented programming principles and design patterns, and articulation of design decisions and trade-offs criteria.

Attached Files

CRCP3315 Final Project Example.pdf

Step 4C: Interpretation of Results:

Overall Performance Assessment

The 2024-2025 academic year results for the Advanced Object-Oriented Software Design student learning outcome reveal a mixed performance against the established benchmark of 85% of students achieving B+ or higher. With an overall achievement rate of 80% (16 out of 20 students), the program fell short of the target by 5 percentage points, indicating the need for targeted improvements in curriculum delivery and student support.

Semester-by-Semester Analysis

The data reveals significant variability between semesters that warrants deeper examination. Fall 2024 performance was notably below expectations, with only 60% of students (6 out of 10) achieving the B+ threshold. This represents a substantial 25-percentage-point gap from the target benchmark and suggests potential challenges in course delivery, student preparation, or external factors affecting academic performance during that term.

Conversely, Spring 2025 demonstrated exceptional performance with 100% of students (10 out of 10) achieving B+ or higher, exceeding the target by 15 percentage points. This dramatic improvement indicates that effective interventions were likely implemented between semesters, or that conditions became more conducive to student success.

Assessment Methodology Limitations

A critical limitation in the current assessment approach is the reliance solely on final course grades rather than the specific project-based evaluation outlined in the original measure. The target explicitly calls for assessment based on "final project or exam" performance using criteria such as design decisions, architectural trade-offs, and integration of object-oriented principles. The absence of the newly developed Advanced Object-Oriented Programming Design rubric represents a significant gap between intended and actual assessment practices.

This methodological discrepancy limits the validity of conclusions about student mastery of specific competencies such as abstraction, inheritance, polymorphism, and design patterns. Final grades, while indicative of overall course performance, may not accurately reflect the nuanced understanding of object-oriented design principles that the learning outcome seeks to measure.

Qualitative Evidence and Standards

The presence of exemplary student work from Spring 2025 that demonstrates excellence in code quality, architectural design, object-oriented principles, and articulation of design decisions provides encouraging evidence that students can achieve the intended learning outcomes when properly supported. This exemplary work validates the appropriateness of the learning outcome standards and suggests that the curriculum content aligns with professional expectations for advanced object-oriented software design.

Implications for Program Improvement

The semester-to-semester variation points to the need for greater consistency in course delivery and assessment practices. The successful Spring 2025 outcomes demonstrate that the 85% benchmark is realistic and achievable, while the Fall 2024 results highlight potential areas for improvement in student support, instructional methods, or prerequisite preparation.

The implementation gap between the intended assessment methodology (project-based evaluation with specific rubrics) and actual practice (final grades only) represents a priority area for program development. Establishing consistent use of the Advanced Object-Oriented Programming Design rubric would provide more granular data about student competencies and enable more targeted curricular improvements.

Step 5A: Use of Results for Seeking Improvement (Action Plan):

Beginning Fall 2025, the department plans to implement the Advanced Object-Oriented Programming Design rubric across CRCP 3315 and other applicable creative computing courses. This implementation will provide:

- **Targeted Assessment**: Direct measurement of advanced object-oriented design competencies rather than general project quality
- **Consistent Evaluation**: Standardized criteria across multiple course sections and instructors
- **Improved Data Collection**: Larger sample sizes and more comprehensive assessment data for future program evaluation

Actionable Improvements

Based on this initial assessment cycle, the department has identified comprehensive improvement strategies to strengthen both instruction and assessment of the Advanced Object-Oriented Programming Design learning outcome:

Course Delivery and Assessment Enhancement

Rubric Implementation: Proceed with the planned Fall 2025 implementation of the Advanced Object-Oriented Programming Design rubric to establish baseline data for meaningful future comparisons across all relevant courses.

Multi-Course Assessment: Expand assessment beyond CRCP 3315 to include additional applicable creative computing courses, providing larger sample sizes and multiple data points for more robust outcome evaluation.

Faculty Development and Support Initiatives

Adjunct Faculty Onboarding Enhancement (Ongoing)

- Develop detailed faculty handbook with learning outcome specifications and assessment expectations
- Create semester-specific teaching guides with milestone expectations and timeline recommendations
- Implement mandatory pre-semester meetings with department chair/coordinator to ensure alignment with program goals

Mid-Semester Faculty Check-ins (Starting Fall 2025)

- Schedule monthly meetings with adjunct faculty during semester to maintain instructional quality
- Review student progress data and identify at-risk students requiring additional support
- Provide just-in-time support and resource sharing to address emerging challenges
- Address instructional challenges collaboratively, fostering continuous improvement

Instructional Standardization

Curriculum Standardization (Ongoing)

- Develop unified syllabi templates that clearly articulate learning outcomes and assessment criteria
- Create standardized assignment sequences and assessment rubrics to ensure consistency across sections
- Establish common final project requirements and evaluation criteria
- Document minimum coverage requirements for core technical concepts while preserving creative flexibility

Assessment and Data Management

Data Collection Enhancement (Starting Fall 2025)

- Implement consistent rubric usage across all sections and semesters to ensure reliable comparative data
- Establish semester-end faculty reflection and data review meetings to analyze outcomes and identify improvement opportunities
- Create standardized reporting templates for adjunct faculty to streamline data collection and analysis
- Develop student exit survey to capture learning experience feedback and supplement quantitative assessment data

The 2024-2025 assessment period, while limited in scope, provides valuable insights into both student performance and assessment methodology requirements. The planned implementation of specialized rubrics and expanded course assessment will enable more comprehensive evaluation of the Advanced Object-Oriented Programming Design learning outcome in future assessment cycles.

Step 5B: Type of Action:

Faculty involvement

Step 5C: Dialogue Participants (check all that apply):

Faculty,Staff

Step 5D: Evidence of Dialogue:

The department will be holding meetings throughout the Fall 2025 and Spring 2026 terms to discuss the academic assessment rubrics, student learning outcomes, and scoring process to improve faculty experience and student engagement and performance.

Step 5E: Type of other Improvements (check all that apply):

Other

Step 5F: Other Improvements (Full Description):

Objective: Create Unified Rubric System Across All SLOs

The current assessment approach would benefit from greater alignment across undergraduate and graduate program expectations. This initiative will:

- **Develop Rubric Framework**
  - Create overarching competency categories applicable across all creative coding courses
  - Establish consistent scoring scales and performance descriptors
  - Align undergraduate and graduate program SLO language
  - Design scaffolded rubrics showing progression from introductory to advanced levels

Objective: Integrate Rubrics as Instructional Design Tools

Rather than treating rubrics as end-of-semester assessment tools, this approach positions them as fundamental curriculum planning resources:

- **Backward Design Implementation**
  - Request faculty to begin course planning with SLO rubric analysis
  - Establish mid-semester rubric-based progress checkpoints for student self-assessment
- **Faculty Development Support**
  - Strategies for helping students understand and self-assess against rubric criteria
  - Best practices for providing rubric-aligned feedback throughout the semester
- **Student Engagement Enhancement**
  - Introduce rubrics to students on day one as learning roadmaps
  - Require student self-assessment using rubric criteria before assignment submission
  - Implement peer evaluation exercises using simplified rubric versions
  - Create portfolio reflection assignments explicitly addressing rubric competencies

Objective: Improve program enrollment and maintain consistent enrollment in intermediate and advanced programming courses.

- **Recruitment and Awareness Initiatives**
  - Showcases, cross-disciplinary partnerships, professional speakers, and hands-on experiences to attract new students
- **Academic Pathway Enhancement**
  - Clear prerequisite mapping, bridge courses, mentorship programs, and flexible scheduling to improve progression from introductory to advanced courses
- **Program Visibility and Value Proposition**
  - Success story documentation, portfolio showcases, social media presence, and transfer pathways

These improvements complement the primary SLO enhancement goals while addressing broader program sustainability and educational effectiveness concerns.

Step 6A: Status Update on Action(s) Identified in the Previous Assessment Cycle (Full Description):

The department made significant progress on previously identified improvement areas, demonstrating commitment to continuous program enhancement:

Assessment Rubric Implementation The detailed assessment rubrics proposed in the previous academic year were successfully implemented during 2024-2025. The Advanced Object-Oriented Programming Design rubric, features six key criteria: code quality and structure, architectural design, software efficiency and maintainability, problem solving and debugging, use of object-oriented programming principles and design patterns, articulation of design decisions and trade-offs.

Program Awareness Enhancement The department's efforts to increase program visibility through student showcases and brown bag performance sessions have shown positive impact:

- Student showcase events successfully demonstrated program capabilities to broader campus community
- Brown bag sessions provided accessible forums for sharing creative coding work
- Increased awareness of program offerings among potential students
- Strengthened connections between creative coding students and other departments

Areas Requiring Continued Attention

While progress has been made, assessment data reveals ongoing challenges that inform the current action plan:

Assessment System Enhancement Needs While rubric implementation was successful, analysis revealed opportunities for improvement:

- Inconsistent application across different sections and semesters
- Opportunity to enhance rubric utility as instructional design tool
- Requirement for improved faculty training on rubric calibration and usage

Building on Previous Success

The current action plan builds strategically on proven successes while addressing persistent challenges:

- **Rubric Enhancement**: Rather than replacing the successfully implemented rubrics, the plan focuses on improving their application consistency and expanding their utility as curriculum planning tools

- **Sustained Awareness Efforts**: While maintaining successful showcase and presentation programs, the plan adds targeted marketing and retention strategies
- **Faculty Development Focus**: Recognizing that rubric implementation alone was insufficient, the plan emphasizes comprehensive faculty support, particularly for adjunct instructors

This status update demonstrates the department's commitment to evidence-based program improvement and provides foundation for the enhanced initiatives outlined in this action plan.

Step 6B: Status Update on Previously Identified Action Plan(s):

In progress

Progress:

Complete

Increased Enrollment in Undergraduate Major

Step 1A: PG Number:

1

Step 1C: PG Statement (Full Description):

The Creative Computing BA program will increase undergraduate enrollment by expanding recruitment efforts, strengthening program visibility, and enhancing student engagement. The program will implement targeted outreach initiatives, interdisciplinary collaborations, and curriculum enhancements to attract and retain students. Progress will be measured through annual enrollment data, student retention rates, and comparative benchmarking against similar programs. This goal aligns with the university's strategic objectives for growth and academic excellence in emerging fields of creative technology."

This revision ensures the statement is **specific (focus on enrollment growth strategies), measurable (tracked via enrollment data), attainable (through targeted initiatives), realistic (aligned with institutional goals), and time-bound (evaluated annually)**.

Would you like to refine this further based on **specific recruitment strategies** or **retention goals**?

Step 2A: Measure:

Data will be collected after the university's annual census to measure enrollment trends in the Creative Computing BA program. Enrollment numbers will be tracked year-over-year to assess growth, retention, and recruitment effectiveness. Additional data, such as student demographics, declared major trends, and comparative enrollment in similar programs at aspirational institutions, will be analyzed to contextualize growth and identify key factors contributing to changes in enrollment.

Step 2B: Is Measure direct or indirect?:

Direct

Step 3A: Target for Measure:

The Creative Computing BA program is targeting a **20% increase in enrollment** over the next academic cycle. This benchmark reflects strategic efforts to expand student interest, improve recruitment strategies, and strengthen program visibility.

To achieve this goal, the program will monitor **trends in new student enrollment, major declaration rates, and retention data**. Additional recruitment initiatives, such as targeted outreach, high school partnerships, interdisciplinary collaborations, and curriculum enhancements, will be evaluated for effectiveness in driving growth.

This data-driven approach will allow the department to **assess progress annually, refine recruitment efforts, and implement data-informed strategies to sustain long-term program expansion**.

Step 4A: Was the target met for this Measure?:

Not Met

Step 4B: Results and Findings for this Measure:

As of the Spring 2024 census, the Creative Computation department had 47 students enrolled in the undergraduate major.

In Fall 2024, enrollment decreased 15% to 40 students in the undergraduate major.

In Spring 2025, enrollment decreased 5% to 38 students in the undergraduate major.

From Spring 2024 to Spring 2025, enrollment in the undergraduate major decreased 19%, from 47 students in Spring 2024 to 38 students in Spring 2025.

Step 4C: Interpretation of Results:

Performance Against Target Measure

The Creative Computing BA program's enrollment performance from Spring 2024 to Spring 2025 demonstrates a significant deviation from the established target of achieving a 20% increase in enrollment over the academic cycle. Rather than experiencing growth, the program encountered substantial enrollment decline across multiple consecutive semesters.

The data reveals a concerning downward trajectory, with enrollment decreasing from 47 students in Spring 2024 to 38 students in Spring 2025, representing a 19% decline over the one-year period. This outcome represents a 39 percentage point gap between the targeted 20% increase and the actual 19% decrease, indicating that current recruitment and retention strategies have not achieved their intended effectiveness.

Operational Impact

The declining enrollment has created cascading effects beyond simple numerical targets, directly impacting the program's operational capacity and academic delivery. The reduced student body has resulted in insufficient enrollment to meet minimum requirements for essential courses, exemplified by the inability to offer CRCP 3305 in Fall 2024 due to inadequate student registration. This operational constraint creates potential academic progression barriers for current students and may further compound retention challenges by limiting course availability and extending time-to-degree completion.

Enrollment Flow Analysis

The magnitude of the enrollment decline suggests a significant imbalance between student departures and new enrollments. Given the 19% decrease from Spring 2024 to Spring 2025, it is likely that the number of students who matriculated at the end of the 2023-2024 academic year exceeded the number of new students who enrolled in the major during the 2024-2025 academic year. This pattern indicates that natural program attrition through graduation and other departures has not been adequately offset by incoming student recruitment, creating a net enrollment deficit that compounds over consecutive semesters.

This enrollment flow imbalance highlights the critical importance of both recruitment and retention strategies, as the program appears to be losing students at a rate that substantially exceeds its capacity to attract and enroll new majors.

Strategic Implications

The enrollment decline indicates that the current recruitment initiatives, including targeted outreach, high school partnerships, interdisciplinary collaborations, and curriculum enhancements, require comprehensive evaluation and potential restructuring. The data suggests that external market factors, program positioning, or competitive dynamics may be influencing student choice patterns in ways that current strategies have not effectively addressed.

The 19% decrease also raises questions about both recruitment effectiveness and retention strategies, as the decline likely reflects both reduced incoming student interest and potential attrition among existing students. The program's data-driven approach to assessment provides valuable baseline information for implementing corrective measures, though immediate intervention appears necessary to reverse the declining trend and work toward the original growth objectives.

Step 5A: Use of Results for Seeking Improvement (Action Plan):

This action plan outlines comprehensive strategies to reverse the 19% enrollment decline and work toward achieving the targeted 20% increase in Creative Computing BA program enrollment. The plan integrates proven engagement activities with strategic curriculum enhancements and targeted recruitment efforts to create a sustainable growth trajectory.

Strategic Initiatives

1. Community Engagement and Visibility

Brown Bag Performance Series

- Continue hosting brown bag performances to showcase student work and faculty research
- Consider expanding the format to include guest artists, industry professionals, and alumni presentations
- Document and share performances through social media and program website to increase visibility
- Invite prospective students and their families to attend select performances

Student Showcase Enhancement

- Maintain bi-annual student showcase events as flagship recruitment and retention tools
- Invite high school students, guidance counselors, and community members to showcase events
- Create digital portfolio galleries from showcase work for ongoing recruitment materials

2. Targeted Recruitment Strategy

Performing Arts High School Partnerships

- Develop formal pipeline partnerships with local performing arts high schools
- Create clear articulation agreements that demonstrate how performing arts skills translate to creative computing applications

Recruitment Expansion

- Extend outreach beyond performing arts schools to include STEM-focused high schools and maker spaces
- Develop relationships with art centers, museums, and technology organizations for student recruitment

3. Curriculum Innovation and Market Alignment

Emergent Technologies Integration

- Develop new courses and modules focusing on artificial intelligence, machine learning applications in creative fields
- Add blockchain and NFT creation components to digital art courses
- Include Internet of Things (IoT) applications for interactive installations and performance

Software Engineering and Architecture Focus

- Create pathway concentrations that emphasize industry-ready technical skills
- Develop capstone projects in partnership with local technology companies
- Add coursework in version control, collaborative development, and professional software practices
- Integrate agile development methodologies into project-based learning

User Experience and Design Enhancement

- Expand UX/UI design components across multiple courses
- Add human-computer interaction research methods to curriculum
- Create interdisciplinary projects with psychology and business programs
- Develop portfolio requirements that demonstrate UX thinking and process

4. Industry Connections and Career Preparation

Professional Development Integration

- Host regular career panels featuring Creative Computing alumni in diverse career paths
- Develop professional portfolio requirements and career preparation workshops

Market-Responsive Skill Development

- Conduct annual industry needs assessment to ensure curriculum alignment with job market demands
- Develop continuing education offerings that could serve as recruitment pipelines
- Establish relationships with local employers for guest lectures and project sponsorship

5. Program Infrastructure and Support

Academic Progression Improvements

- Address course scheduling issues that led to CRCP 3305 cancellation through creative delivery methods
- Develop hybrid and online course options to ensure consistent course availability
- Create modular curriculum design allowing for flexible scheduling with smaller cohorts

Marketing and Communication Strategy

- Develop comprehensive digital marketing campaign highlighting career outcomes and student success stories
- Establish social media presence showcasing daily program activities and student achievements
- Develop clear messaging about program uniqueness and career preparation value

Success Metrics and Assessment

- Annual industry needs assessment and curriculum alignment review
- Student satisfaction and retention rate monitoring
- Graduate employment and career advancement tracking
- Industry partner feedback on student preparation and program relevance
- Community engagement metrics from performances and showcases

This comprehensive action plan addresses both immediate enrollment challenges and long-term program sustainability through strategic curriculum enhancement, targeted recruitment, and community engagement initiatives.

Step 5B: Dialogue Participants (check all that apply):

Faculty,Staff

Step 5C: Evidence of Dialogue:

Beginning in Fall 2025, a portion of the monthly faculty meetings will be dedicated to discussing student recruitment, enrollment, and retention.

Step 5D: Type of other Improvements (check all that apply):

Advertising and marketing campaigns ,Enhanced recruitment effort

Step 5E: Other Improvements (Full Description):

Brown Bag Performance Series

- Continue hosting brown bag performances to showcase student work and faculty research
- Consider expanding the format to include guest artists, industry professionals, and alumni presentations
- Document and share performances through social media and program website to increase visibility
- Invite prospective students and their families to attend select performances

Student Showcase Enhancement

- Maintain bi-annual student showcase events as flagship recruitment and retention tools
- Invite high school students, guidance counselors, and community members to showcase events
- Create digital portfolio galleries from showcase work for ongoing recruitment materials

Performing Arts High School Partnerships

- Develop formal pipeline partnerships with local performing arts high schools
- Create clear articulation agreements that demonstrate how performing arts skills translate to creative computing applications

Recruitment Expansion

- Extend outreach beyond performing arts schools to include STEM-focused high schools and maker spaces
- Develop relationships with art centers, museums, and technology organizations for student recruitment

Marketing and Communication Strategy

- Develop comprehensive digital marketing campaign highlighting career outcomes and student success stories
- Establish social media presence showcasing daily program activities and student achievements
- Develop clear messaging about program uniqueness and career preparation value

Step 6A: Status Update on Action(s) Identified in the Previous Assessment Cycle (Full Description):

The action plan developed following the enrollment growth of the 2023-2024 academic year outlined comprehensive strategies for sustainable growth management, resource scaling, and quality maintenance. However, the subsequent enrollment decline of 19% from Spring 2024 to Spring 2025 has fundamentally altered the operational context in which these improvements were intended to be implemented.

Implementation Status by Strategic Area

Sustainable Growth Management

Enrollment Projections and Growth Rate Planning The establishment of optimal growth rates and three-year enrollment projections has been necessarily postponed due to the current enrollment decline. Rather than managing growth momentum, the program now faces the immediate challenge of reversing declining enrollment trends. The contingency plans originally designed for rapid growth scenarios require reorientation toward enrollment recovery and stabilization strategies.

Current Priority Shift Focus has shifted from managing excessive growth to implementing enrollment recovery measures, fundamentally changing the resource planning and strategic priorities outlined in the original improvement plan.

Resource Scaling

Faculty-to-Student Ratio Assessment The concern about maintaining quality individualized attention due to rapid enrollment growth has been effectively addressed by the enrollment decline, though not through the planned strategic management approach. Current faculty-to-

student ratios may now be lower than optimal for program sustainability, potentially affecting course viability as evidenced by the inability to offer CRCP 3305 due to insufficient enrollment.

Recruitment Strategy Refinement

Analysis of Successful Recruitment Channels The comprehensive analysis of successful recruitment strategies from the 2023-2024 academic year was not completed during the 2024-2025 academic year, as noted in the department's assessment. This represents a critical gap in understanding what drove the initial enrollment success and how those strategies might be replicated or adapted for current recovery efforts.

Student Decision Factor Analysis Surveys of new students to understand decision factors for choosing the Creative Computing program have not been systematically implemented. This represents a missed opportunity to gather valuable data that could inform both retention and recruitment strategies during the current enrollment challenge period.

Diversity and Outreach Initiatives The development of targeted recruitment for underrepresented student populations has been impacted by the overall enrollment decline, requiring integration with broader enrollment recovery strategies rather than serving as a growth expansion initiative.

Curriculum Capacity Planning

Course Offering and Scheduling Review The original plan to review course offerings for increased capacity has been superseded by the opposite challenge: maintaining sufficient enrollment to offer required courses. The cancellation of CRCP 3305 due to low enrollment demonstrates that capacity planning now focuses on course viability rather than expansion.

Bottleneck Course Identification Rather than identifying bottleneck courses due to high demand, the program now faces the challenge of ensuring adequate enrollment across all course offerings to maintain a complete curriculum sequence.

Growth Impact Assessment

Program Quality Review The planned comprehensive review of how enrollment growth affected program quality has been rendered largely moot by the enrollment decline. However, this assessment framework remains valuable and could be adapted to evaluate how enrollment changes have affected program delivery and student experience.

Faculty and Student Feedback Systems The feedback mechanisms for faculty regarding teaching loads and student experiences have not been systematically implemented as originally envisioned, though they remain important for understanding current program challenges and opportunities.

Revised Strategic Focus

Given the enrollment decline, the improvement initiatives from 2023-2024 require significant adaptation:

Immediate Priorities

- Complete the deferred analysis of 2023-2024 recruitment strategies to identify successful approaches for replication
- Implement student feedback systems to understand factors contributing to enrollment decline
- Adapt resource planning from growth management to recovery and stabilization

Strategic Repositioning The frameworks developed for managing growth can be modified to address enrollment recovery, with particular attention to understanding what initially drove program success and how those factors can be restored or enhanced.

Looking Forward

The 2025-2026 academic year presents an opportunity to complete the recruitment strategy analysis that was deferred during 2024-2025. This analysis will be critical for developing evidence-based approaches to enrollment recovery and establishing a foundation for sustainable future growth. The infrastructure and planning frameworks developed during the growth period remain valuable assets that can be adapted to support program recovery and eventual return to growth trajectories.

Step 6B: Status Update on Previously Identified Action Plan(s):

Not started

Progress:

Complete