

NATIONAL RECOGNITION REPORT

Initial Preparation of Mathematics Teachers at the Secondary Level (2012 Standards)

National recognition of this program is dependent on the review of the program by representatives of the National Council of Teachers of Mathematics (NCTM).

COVER PAGE

Name of Institution

Clarion University of Pennsylvania

Date of Review

MM DD YYYY

08 / 01 / 2019

This report is in response to a(n):

- Initial Review
- Revised Report
- Response to Conditions Report

Program Covered by this Review

Bachelor of Science in Mathematics Education

Grade Level⁽¹⁾

7-12

(1) e.g. Early Childhood; Elementary K-6

Program Type

First Teaching License

Award or Degree Level

- Baccalaureate
- Post Baccalaureate
- Master's

PART A - RECOGNITION DECISION

SPA decision on national recognition of the program(s):

- Nationally recognized
- Nationally recognized with conditions
- Further development required **OR** Nationally recognized with probation **OR** Not nationally recognized [See Part G]

Test Results (from information supplied in Assessment #1, if applicable)

The program meets or exceeds SPA benchmarked licensure test data requirement, if applicable:

- Yes
- No
- Not applicable
- Not able to determine

Comments, if necessary, concerning Test Results:

Under CAEP, there is no stated policy and no CAEP standard stating an 80% pass rate requirement on licensure tests. Additional information can be found at <http://caepnet.org/accreditation/caep-accreditation/program-reviewoptions/data-requirements>.

Summary of Strengths:

Candidates have a wide variety of field experiences. Content preparation for mathematics content and mathematics education is strong. Revised rubrics provide strong candidate data.

PART B - STATUS OF MEETING SPA STANDARDS

Standard 1: Content Knowledge

Effective teachers of secondary mathematics demonstrate and apply knowledge of major mathematics concepts, algorithms, procedures, connections, and applications within and among mathematical content domains.

Preservice teacher candidates:

1a) Demonstrate and apply knowledge of major mathematics concepts, algorithms, procedures, applications in varied contexts, and connections within and among mathematical domains (Number, Algebra, Geometry, Trigonometry, Statistics, Probability, Calculus, and Discrete Mathematics) as outlined in the *NCTM Mathematics Content for Secondary*.

Met



Met with Conditions



Not Met



Standard 1 Comments:

State-required licensure test(s) aligned to NCTM CAEP Mathematics Content for Secondary and at least one additional assessment collectively demonstrating at least an 80% alignment to each domain of the NCTM CAEP Mathematics Content for Secondary providing evidence that Element 1a* is met at the acceptable or target level are required in order to satisfy the preponderance of evidence for Standard 1.

*: Indicates essential (required) element

Section III of the program report was not filled out. However, the assessments themselves indicate that Assessments 1, 2 and 6 address this standard.

*Element 1a: MET

Assessment 1 (Praxis 5161) provided evidence for 1a in the 8/2017 review.

Assessment 2 (Course Grades) provided evidence in the 8/2018 review.

Assessment 6 (Comprehensive Exam) provides evidence for some of the competencies. A preponderance of evidence was judged to be 5/7 meeting the competency.

Feedback on the NCTM CAEP Mathematics Content for Secondary alignment:

A.1 Number and Quantity Competencies SATISFIED (At least 80% competency alignment)

Assessment 1 (Praxis) provided evidence for A1.1, A1.2, and A1.3 in the 8/2017 report.

Assessment 2 (Course Grades) provided evidence for A1.4 in the 8/2017 report and for A1.1, A1.2, A1.3, and A1.5 in the 8/2018 review.

Assessment 6 (Comprehensive Exam) provides evidence for A1.1, A1.3, and A1.5.

A.2 Algebra Competencies SATISFIED (At least 80% competency alignment)

Assessment 1 (Praxis) provided evidence for A2.1, A2.2, A2.3, A2.4 in the 8/2017 report.

Assessment 2 (Course Grades) provided evidence for A2.5 and A 2.6 in the 8/2017 report and for A2.1, A2.2, A2.3, and A2.4 in the 8/2018 review.

Assessment 6 (Comprehensive Exam) provides evidence for A2.2, and A2.6.

A.3 Geometry and Trigonometry Competencies SATISFIED (At least 80% competency alignment)

Assessment 1 (Praxis) provided evidence for A3.2- A3.9 in the 8/2017 report.

Assessment 2 (Course Grades) provided evidence for A3.1 and A3.8 in the 8/2017 review and for A3.2, A3.3, A3.4, A3.5, A3.6, A3.7, A3.9, and A3.10 in the 8/2018 review.

Assessment 6 (Comprehensive Exam) provides evidence for A3.2, A3.3, and A3.7.

A.4 Statistics and Probability Competencies SATISFIED (At least 80% competency alignment)

Assessment 1 (Praxis) provided evidence for A4.1, A4.3, A4.4, and A4.5 in the 8/2017 review.

Assessment 2 (Course Grades) provided evidence for A4.1, A4.4, A4.5, and A4.6 and partial evidence for A 4.2 and A 4.3 In the 8/2018 review.

Assessment 6 (Comprehensive Exam) does not provide evidence for these competencies.

A.5 Calculus Competencies SATISFIED (At least 80% competency alignment)

Assessment 1 (Praxis) provided evidence for A5.1, A5.3, and A5.5 in the 8/2017 review.

Assessment 2 (Course Grades) provided evidence for A5.1, A5.3, and A5.4 in the 8/2017 review and for A5.2, A5.5, and A5.6 in the 8/2018 review.

Assessment 6 (Comprehensive Exam) provides evidence for A5.5

A.6 Discrete Mathematics Competencies SATISFIED (At least 80% competency alignment)

Assessment 1 (Praxis) provided evidence for A6.2 and A6.3 in the 8/2017 review.

Assessment 2 (Course Grades) provided evidence for A6.1 and A6.2 in the 8/2017 review and for A6.3, A6.4, and A6.5 in the 8/2018 review.

Assessment 6 (Comprehensive Exam) does not provide evidence for these competencies.

Standard 2: Mathematical Practices

Effective teachers of secondary mathematics solve problems, represent mathematical ideas, reason, prove, use mathematical models, attend to precision, identify elements of structure, generalize, engage in mathematical communication, and make connections as essential mathematical practices. They understand that these practices intersect with mathematical content and that understanding relies on the ability to demonstrate these practices within and among mathematical domains and in their teaching.

Preservice teacher candidates:

2a) Use problem solving to develop conceptual understanding, make sense of a wide variety of problems and persevere in solving them, apply and adapt a variety of strategies in solving problems confronted within the field of mathematics and other contexts, and formulate and test conjectures in order to frame generalizations.

2b) Reason abstractly, reflectively, and quantitatively with attention to units, constructing viable arguments and proofs, and critiquing the reasoning of others; represent and model generalizations using mathematics; recognize structure and express regularity in patterns of mathematical reasoning; use multiple representations to model and describe mathematics; and utilize appropriate mathematical vocabulary and symbols to communicate mathematical ideas to others.

- 2c) Formulate, represent, analyze, and interpret mathematical models derived from real-world contexts or mathematical problems.
- 2d) Organize mathematical thinking and use the language of mathematics to express ideas precisely, both orally and in writing to multiple audiences.
- 2e) Demonstrate the interconnectedness of mathematical ideas and how they build on one another and recognize and apply mathematical connections among mathematical ideas and across various content areas and real-world contexts.
- 2f) Model how the development of mathematical understanding within and among mathematical domains intersects with the mathematical practices of problem solving, reasoning, communicating, connecting, and representing.

Met

Met with Conditions

Not Met

Standard 2 Comments:

In order to satisfy the preponderance of evidence for Standard 2, Elements 2a*, 2b*, and at least 2 additional elements must be met at the acceptable or target level; at least two assessments must provide collective evidence for the overall Standard.

*: Indicates essential (required) elements

Section III of the program report was not filled out. However, the assessments themselves indicates that Assessments 2, 3, 4, and 5 address this standard.

*Element 2a: MET

Assessment 2 (Course Grades) provided evidence for this element in the 8/2017 report.

Assessment 3 (Course Portfolio) does not provide evidence because the acceptable level of the rubric components does not completely address element 2a.

Assessment 4 (Student Teaching Assessment) provided evidence for this element in the 8/2018 report.

Assessment 5 (Effect on Student Learning) provides evidence for element 2a.

*Element 2b: MET

Assessment 2 (Course Grades) provided evidence for this element in the 8/2018 report.

Assessment 3 (Course Portfolio) provides evidence of element 2b.

Assessment 4 (Student Teaching Assessment) does not provide evidence for element 2b. The acceptable level of the rubric does not include behaviors consistent with the element.

Assessment 5 (Effect on Student Learning) does not provide evidence for element 2b. Language at the acceptable level does not reflect the element.

Element 2c: MET

Assessment 2 (Course Grades) provided evidence for this element in the 8/2017 report.

Assessment 4 (Student Teaching Assessment) provided evidence for this element in the 8/2018 report.

Element 2d: MET

Assessment 2 (Course Grades) provided evidence for this element in the 8/2017 report.

Assessment 4 (Student Teaching Assessment) provided partial evidence for this element in the 8/2018 report.

Element 2e: MET

Assessment 2 (Course grades) provided evidence for this element in the 8/2017

report.

Element 2f: MET

Assessment 2 (Course grades) provided evidence for this element in the 8/2017 report.

Standard 3: Content Pedagogy

Effective teachers of secondary mathematics apply knowledge of curriculum standards for mathematics and their relationship to student learning within and across mathematical domains. They incorporate research-based mathematical experiences and include multiple instructional strategies and mathematics-specific technological tools in their teaching to develop all students' mathematical understanding and proficiency. They provide students with opportunities to do mathematics – talking about it and connecting it to both theoretical and real-world contexts. They plan, select, implement, interpret, and use formative and summative assessments for monitoring student learning, measuring student mathematical understanding, and informing practice.

Preservice teacher candidates:

- 3a) Apply knowledge of curriculum standards for secondary mathematics and their relationship to student learning within and across mathematical domains.
- 3b) Analyze and consider research in planning for and leading students in rich mathematical learning experiences.
- 3c) Plan lessons and units that incorporate a variety of strategies, differentiated instruction for diverse populations, and mathematics-specific and instructional technologies in building all students' conceptual understanding and procedural proficiency.
- 3d) Provide students with opportunities to communicate about mathematics and make connections among mathematics, other content areas, everyday life, and the workplace.
- 3e) Implement techniques related to student engagement and communication including selecting high quality tasks, guiding mathematical discussions, identifying key mathematical ideas, identifying and addressing student misconceptions, and employing a range of questioning strategies
- 3f) Plan, select, implement, interpret, and use formative and summative assessments to inform instruction by reflecting on mathematical proficiencies essential for all students.
- 3g) Monitor students' progress, make instructional decisions, and measure students' mathematical understanding and ability using formative and summative assessments.

Met

Met with Conditions

Not Met



Standard 3 Comments:

In order to satisfy the preponderance of evidence for Standard 3, Elements 3a*, 3c*, 3f* and at least 1 additional element must be met at the acceptable or target level; at least two assessments must provide collective evidence for the overall Standard.

*: Indicates essential (required) elements

Section III of the revised program report was not filled-out. However, it is noted from the assessments themselves that Assessments 3, 4, and 5 address this standard.

The revised Assessment 3 more clearly describes how the Lesson Plan is evaluated and what is expected of candidates in creating lesson plans.

*Element 3a: MET

Assessment 3 (Mathematics Education Portfolio): The revised Assessment 3 provides sufficient evidence for Element 3a as it more clearly describes how candidates apply knowledge of curriculum standards.

Assessment 4 (Student Teaching Observation) provided evidence for element 3a in the 8/2018 review.

Assessment 5 (Unit Plan: Impact on Student Learning Assignment): The revised Assessment 5 has the potential to provide sufficient evidence for Element 3a. The rubric description still uses vague language to describe differences in levels such as "consistently and extensively" and "regularly and substantially" as it describes how candidates apply knowledge of curriculum standards.

Element 3b: MET

Assessment 3 (Mathematics Education Portfolio): The revised Assessment 3 provides sufficient evidence for Element 3b as it more clearly describes how candidates analyze and use research for lesson planning.

*Element 3c: MET

Assessment 3 (Mathematics Education Portfolio): The revised Assessment 3 provides sufficient evidence for Element 3c as it more clearly describes how candidates use a variety of strategies and differentiated instruction for diverse populations and mathematics-specific technology.

Assessment 4 (Student Teaching Observation) provided evidence for element 3c in the 8/2018 review.

Assessment 5 (Unit Plan: Impact on Student Learning Assignment): The revised Assessment 5 provides sufficient evidence for Element 3c as it more clearly describes how candidates use a variety of strategies and differentiated instruction for diverse populations and mathematics-specific technology.

Element 3d: MET

Assessment 3 (Mathematics Education Portfolio) provides evidence for element 3d.

Assessment 5 (Unit Plan: Impact on Student Learning Assignment): The revised Assessment 5 provides sufficient evidence for Element 3d as it more clearly describes how candidates provide students with opportunities to communicate about mathematics and make connections among mathematics, other content areas, everyday life, and the workplace. This section of the rubric now aligns with one element only.

Element 3e: MET

Assessment 3 (Mathematics Education Portfolio): The revised Assessment 3 does not provide evidence for element 3e. While the revised rubric elements contain some alignment to the element language, not enough detail is provided to sufficiently determine which how the candidate demonstrates Element 3e.

Assessment 5 (Unit Plan: Impact on Student Learning Assignment): The revised Assessment 5 does not provide sufficient evidence for Element 3e; the rubric description uses vague language to describe differences in levels such as "in depth;" where more detail of what is meant by "in depth" of candidate performance would show better evidence.

*Element 3f: MET

Assessment 3 (Mathematics Education Portfolio): The revised Assessment 3 provides sufficient evidence for Element 3f as it more clearly describes how candidates interpret and use data to inform instruction.

Assessment 4 (Student Teaching Observation) does not provide evidence for element 3f. The acceptable level of performance does not satisfy all components of the element.

Assessment 5 (Unit Plan: Impact on Student Learning Assignment): The revised Assessment 5 provides sufficient evidence for Element 3f as it more clearly describes how candidates interpret and use data to inform instruction.

Element 3g: NOT MET

Assessment 5 (Unit Plan: Impact on Student Learning Assignment): The revised Assessment 5 has the potential to provide sufficient evidence for Element 3g. The rubric description still uses vague language to describe differences in levels such as "consistently and extensively" and "regularly and substantially".

Standard 4: Mathematical Learning Environment

Effective teachers of secondary mathematics exhibit knowledge of adolescent learning, development, and behavior. They use this knowledge to plan and create sequential learning opportunities grounded in mathematics education research where students are actively engaged in the mathematics they are learning and building from prior knowledge and skills. They demonstrate a positive disposition toward mathematical practices and learning, include culturally relevant perspectives in teaching, and demonstrate equitable and ethical treatment of and high expectations for all students. They use instructional tools such as manipulatives, digital tools, and virtual resources to enhance learning while recognizing the possible limitations of such tools.

Preservice teacher candidates:

- 4a) Exhibit knowledge of adolescent learning, development, and behavior and demonstrate a positive disposition toward mathematical processes and learning.
- 4b) Plan and create developmentally appropriate, sequential, and challenging learning opportunities grounded in mathematics education research in which students are actively engaged in building new knowledge from prior knowledge and experiences.
- 4c) Incorporate knowledge of individual differences and the cultural and language diversity that exists within classrooms and include culturally relevant perspectives as a means to motivate and engage students.
- 4d) Demonstrate equitable and ethical treatment of and high expectations for all students.
- 4e) Apply mathematical content and pedagogical knowledge to select and use instructional tools such as manipulatives and physical models, drawings, virtual environments, spreadsheets, presentation tools, and mathematics-specific technologies (e.g., graphing tools, interactive geometry software, computer algebra systems, and statistical packages); and make sound decisions about when such tools enhance teaching and learning, recognizing both the insights to be gained and possible limitations of such tools.

Met



Met with Conditions



Not Met



Standard 4 Comments:

In order to satisfy the preponderance of evidence for Standard 4, Elements 4b*, 4d*, and 4e* must be met at the acceptable or target level; at least two assessments must provide collective evidence for the overall Standard.

*: Indicates essential (required) elements

Section III of the program report was not filled-out. However, it is noted from the assessments themselves that Assessments 3, 4, and 5 address this standard.

Element 4a: MET

Assessment 3 (Mathematics Education Portfolio): The revised Assessment 3 provides sufficient evidence for Element 4a.

Assessment 5 (Unit Plan: Impact on Student Learning Assignment): The revised Assessment 5 has the potential to provide sufficient evidence for Element 4a. The rubric description uses vague language to describe differences in levels such as "consistently and extensively" and "regularly and substantially" as it describes how candidates apply knowledge of curriculum standards. More detail is needed to clearly show evidence of what this means for candidate performance.

*Element 4b: MET

Assessment 3 (Mathematics Education Portfolio): The revised Assessment 3 has the potential to provide sufficient evidence for Element 4b; however, the acceptable level of performance does not satisfy all components of the element if students are having difficulty building new knowledge from prior knowledge and experiences due to lack of full preparation for implementation.

Assessment 4 (Student Teaching Assessment) provided evidence for element 4b in the 8/2018 review.

Assessment 5 (Unit Plan: Impact on Student Learning Assignment): The revised Assessment 5 provides sufficient evidence for Element 4b.

Element 4c: NOT MET

Assessment 3 (Mathematics Education Portfolio): The revised Assessment 3 no longer includes evidence for Element 4c.

*Element 4d: MET

Assessment 3 (Course Portfolio): The revised Assessment 3 has the potential to provide sufficient evidence for Element 4d. It is not clear from the language of the Acceptable level how "acceptable degree" is used to assess candidates.

Assessment 4 (Student Teaching Assessment) provided evidence for 4d in the 8/2018 review.

Assessment 5 (Unit Plan: Impact on Student Learning Assignment): The revised Assessment 5 provides sufficient evidence for Element 4d.

*Element 4e: MET

Assessment 3 (Mathematics Education Portfolio): The revised Assessment 3 provides sufficient evidence for Element 4e.

Assessment 4 (Student Teaching Assessment) provides partial evidence for element 4e. The acceptable level of the rubric presents an either/or assessment.

Assessment 5 (Unit Plan: Impact on Student Learning Assignment): The revised Assessment 5 provides sufficient evidence for Element 4e.

Standard 5: Impact on Student Learning

Effective teachers of secondary mathematics provide evidence demonstrating that as a result of their instruction, secondary students' conceptual understanding, procedural fluency, strategic competence, adaptive reasoning, and application of major mathematics concepts in varied contexts have increased. These teachers support the continual development of a productive disposition toward mathematics. They show that new student mathematical knowledge has been created as a consequence of their ability to engage students in mathematical experiences that are developmentally appropriate, require active engagement, and include mathematics-specific technology in building new knowledge.

Preservice teacher candidates:

5a) Verify that secondary students demonstrate conceptual understanding; procedural fluency; the ability to formulate, represent, and solve problems; logical reasoning and continuous reflection on that reasoning; productive disposition toward mathematics; and the application of mathematics in a variety of contexts within major mathematical domains.

5b) Engage students in developmentally appropriate mathematical activities and investigations that require active engagement and include mathematics-specific technology in building new knowledge.

5c) Collect, organize, analyze, and reflect on diagnostic, formative, and summative assessment evidence and determine the extent to which students' mathematical proficiencies have increased as a result of their instruction.

Met

Met with Conditions

Not Met



Standard 5 Comments:

In order to satisfy the preponderance of evidence for Standard 5, Element 5c* and at least 1 additional element must be met at the acceptable or target level; at least two assessments must provide collective evidence for the overall Standard. *: Indicates essential (required) elements

Section III of the program report was not filled-out. However, it is noted from the assessments themselves that Assessments 3, 4, and 5 address this standard.

Element 5a: MET

Assessment 5 (Unit Plan: Impact on Student Learning Assignment): The revised Assessment 5 provides sufficient evidence for Element 5a as elements are now disaggregated to provide evidence for all requirements of this element.

Element 5b: MET

Assessment 3 (Mathematics Education Portfolio) does not provide evidence for Element 5b. The distinction between "mostly appropriate" and "appropriate" is not clear.

Assessment 4 (Student Teaching Assessment) provides partial but not sufficient evidence for element 5b. The acceptable level of the rubric does not address all components of this element.

Assessment 5 (Unit Plan: Impact on Student Learning Assignment): The revised Assessment 5 provides sufficient evidence for Element 5b.

*Element 5c: MET

Assessment 3 (Mathematics Education Portfolio) provides minimal but not sufficient evidence for element 5c. The language of this rubric elements does not address all components of the element.

Assessment 4 (Student Teaching Observation) provides partial evidence for element 5c. The types of assessment data being used are not specified.

Assessment 5 (Unit Plan: Impact on Student Learning Assignment): The revised Assessment 5 provides sufficient evidence for Element 5c.

Standard 6: Professional Knowledge and Skills

Effective teachers of secondary mathematics are lifelong learners and recognize that learning is often collaborative. They participate in professional development experiences specific to mathematics and mathematics education, draw upon mathematics education research to inform practice, continuously reflect on their practice, and utilize resources from professional mathematics organizations.

Preservice teacher candidates:

6a) Take an active role in their professional growth by participating in professional development experiences that directly relate to the learning and teaching of mathematics.

6b) Engage in continuous and collaborative learning that draws upon research in mathematics education to inform practice; enhance learning opportunities for all students' mathematical knowledge development; involve colleagues, other school professionals, families, and various stakeholders; and advance their development as a reflective practitioner.

6c) Utilize resources from professional mathematics education organizations such as print, digital, and virtual resources/collections.

Met

Met with Conditions

Not Met



Standard 6 Comments:

In order to satisfy the preponderance of evidence for Standard 6, Element 6b* and at least 1 additional element must be met at the acceptable or target level; at least two assessments must provide collective evidence for the overall Standard. *: Indicates essential (required) elements

Section III of the program report was not filled-out. However, it is noted from the assessments themselves that Assessments 3 and 5 address this standard.

Element 6a: NOT MET

No assessments were cited for this element

*Element 6b: MET

Assessment 3 (Mathematics Education Portfolio) provides evidence for element 6b.

Element 6c: MET

Assessment 3 (Mathematics Education Portfolio) provides sufficient evidence for element 6c.

Assessment 5 (Unit Plan: Impact on Student Learning Assignment): The revised Assessment 5 provides sufficient evidence for Element 6c.

Standard 7: Secondary Mathematics Field Experiences and Clinical Practice

Effective teachers of secondary mathematics engage in a planned sequence of field experiences and clinical practice under the supervision of experienced and highly qualified mathematics teachers. They develop a broad experiential base of knowledge, skills, effective approaches to mathematics teaching and learning, and professional behaviors across both middle and high school settings that involve a diverse range and varied groupings of students. Candidates experience a full-time student teaching/internship in secondary mathematics directed by university or college faculty with secondary mathematics teaching experience or equivalent knowledge base.

Preservice teacher candidates:

7a) Engage in a sequence of planned field experiences and clinical practice prior to a full-time student teaching/internship experience that include observing and participating in both middle and high school mathematics classrooms and working with a diverse range of students individually, in small groups, and in large class settings under the supervision of experienced and highly qualified mathematics teachers in varied settings that reflect cultural, ethnic, linguistic, gender, and learning differences.

7b) Experience full-time student teaching/internship in secondary mathematics that is supervised by a highly qualified mathematics teacher and a university or college supervisor with secondary mathematics teaching experience or equivalent knowledge base.

7c) Develop knowledge, skills, and professional behaviors across both middle and high school settings; examine the nature of mathematics, how mathematics should be taught, and how students learn mathematics; and observe and analyze a range of approaches to mathematics teaching and learning, focusing on tasks, discourse, environment, and assessment.

Met

Met with Conditions

Not Met



Standard 7 Comments:

Information included in Section I - Context #2 of the program report for Element 7a* and in Section I - Context #2 and #6 for Element 7b* and at least one assessment for Element 7c* providing evidence that Elements 7a*, 7b*, and 7c* are met at the acceptable or target level are required in order to satisfy the preponderance of evidence for Standard 7.

*: Indicates essential (required) elements

*Element 7a: MET

Section I Context #2 provided evidence for 7a in the 8/2018 review.

Assessment 3 (Mathematics Education Portfolio) provides additional evidence for 7a.

*Element 7b: MET

Section I Context #2 and #6 provided evidence for element 7b in the 8/2018 review.

Section III of the program report indicates Assessment 3 addresses Element 7c*.

*Element 7c: MET

Assessment 3 (Mathematics Education Portfolio) provides evidence for 7c.

Assessment 4 (Student Teaching Assessment) provided evidence for 7c in the 8/2018 review.

Assessment 5 (Impact on Student Learning) provides evidence for 7c.

C.1. Candidates' knowledge of content

Candidates have strong content courses that emphasize mathematical processes as well as content.

C.2. Candidates' ability to understand and apply pedagogical and professional content knowledge, skills, and dispositions

Assessment 3 (Mathematics Education Portfolio) contains a variety of artifacts that address pedagogy, mathematics research, standards, and reflection. For the most part, scoring issues have been clarified and rubric elements sufficiently refined. Assessment 4 (Student Teaching Observation) provides specific evidence of the mathematics specific pedagogy outline in the NCTM standards. For the most part, rubric elements have been sufficiently revised.

Assessment 5 (Unit Plan: Impact on Student Learning Assignment) has the structure to provide evidence of the candidates' ability to plan meaningful lessons.

C.3. Candidate effects on P-12 student learning

Assessment 3 (Mathematics Education Portfolio) and Assessment 5 (Unit Plan: Impact on Student Learning Assignment) provide evidence of the candidates' impact on student learning.

PART D - EVALUATION OF THE USE OF ASSESSMENT RESULTS

Evidence that assessment results are evaluated and applied to the improvement of candidate performance and strengthening of the program (as discussed in Section V of the program report)

The mathematics education program has studied data from revised assessments extensively. There has been an increase in completers since the revisions occurred. Further, the program has worked to better align expectations with NCTM CAEP standards with the revised rubrics.

PART E - AREAS FOR CONSIDERATION

Areas for consideration

Assessments 3-5:

In some rubric components, elements/sub-elements are fully addressed at the target level of performance only. Elements/sub-elements should be fully addressed at the acceptable level.

In some rubric components, there is no real distinction between the acceptable and target levels of performance. Rubric descriptions (particularly those using words like consistently, regularly, mostly, rarely, most, some, few) do not sufficiently convey specific and discernible candidate behaviors that would characterize performance at each level and assure interrater reliability.


PART F - ADDITIONAL COMMENTS

F.1. Comments on Section I (Context) and other topics not covered in Parts B-E:

F.2. Concerns for possible follow-up by the CAEP site visitors:

PART G - DECISIONS

Please select final decision:

-  **National Recognition.** The program is recognized through the semester and year of the provider's next CAEP accreditation decision in 5-7 years. The Recognition Report will serve as program level evidence for the accreditation cycle it has been initiated. **To retain recognition and to gather new evidence for the next accreditation cycle, another program report must be submitted mid-cycle 3 years in advance of the next scheduled accreditation visit.** The program will be listed as Nationally Recognized through the semester of the next CAEP accreditation decision on websites and/or other publications of the SPA and CAEP. The institution may designate its program as Nationally Recognized by the SPA, through the semester of the next CAEP accreditation decision, in its published materials. *Please note that once a program has been Nationally Recognized, it may not submit another report addressing any unmet standards or other concerns cited in the recognition report.*

Please click "Next"

This is the end of the report. Please click "Next" to proceed.