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
Oklahoma State University

Date of Review

MM    DD    YYYY
08    01    2018

This report is in response to a(n):
☒ Initial Review
☒ Revised Report
☒ Response to Conditions Report

Program Covered by this Review
Secondary Mathematics Education

Grade Level(1)
6-12

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

Program Type
First Teacher Licensure

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-review-options/data-requirements](http://caepnet.org/accreditation/caep-accreditation/program-review-options/data-requirements).

Program reports a 100% pass rate on the OSAT 011 from 2014-2017.

**Summary of Strengths:**
The program is to be commended for its data-driven decision making. By focusing on assessment results, changes are being made to the program to improve candidate performance. Test scores reveal candidates' content knowledge is high. The program includes a diversity of clinical sites, as well as a broad range of mathematics courses and education courses.
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

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 indicates Assessments 1, 2, and 6 address this standard.

*Element 1a: NOT MET

Assessment 1 (OSAT 011) provides evidence for the mathematical domain competencies specified in the NCTM CAEP Mathematics Content for Secondary alignment on the NCTM website (www.nctm.org/caep) and noted in the Feedback section below.

Assessment 2 (Course Grades) provides evidence for element 1a as indicated in the Feedback section below. Some course descriptions lack detail and specificity necessary to show sufficient support for the mathematical competencies.

Assessment 4 (Student Teaching Internship Evaluation) is not appropriate for documenting content knowledge since not every candidate teaches the same content during the student teaching experience. Global performance levels do not adequately describe candidate behaviors to be demonstrated. Assessment 4 provides no evidence for Element 1a.

Assessment 6 (Historical/Cultural Mathematics Project) provides some, but insufficient evidence for Element 1a. Highlighting a single mathematician for each domain, or a single continent, does not address the breadth of each 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 (OSAT 011) provides evidence for A.1.1, A.1.2, A.1.3, and A.1.4. Assessment 2 (Course Grades) provides evidence for A.1.1 (MATH 3613), A.1.2 (MATH 3613, 4463), A.1.3 (MATH 2144, 2153, 2233), and A.1.4 (MATH 2163, 2233, 3013). See additional comments in element 1a.
Assessment 6 (Historical/Cultural Mathematics Project) provides insufficient evidence for A.1.5. See comments in Element 1a.

A.2 Algebra Competencies SATISFIED (At least 80% competency alignment)
Assessment 1 (OSAT 011) provides evidence for A.2.1, A.2.2, A.2.3, A.2.4. Assessment 2 (Course Grades) provides evidence for A.2.4 (MATH 2144, 2153), A.2.5 (MATH 3013), and A.2.6 (MATH 3613). There is insufficient evidence for A.2.1 (inequalities are not addressed), A.2.2 (functions with discrete domains, and choices of parameters are not addressed), and A.2.3 (building new functions is not addressed). See additional comments in element 1a.
Assessment 6 (Historical/Cultural Mathematics Project) provides insufficient evidence for A.2.7. See comments in Element 1a.

A.3 Geometry and Trigonometry Competencies SATISFIED (At least 80% competency alignment)
Assessment 2 (Course Grades) provides evidence for A.3.1 (MATH 4403) and A.3.9 (MATH 4403, 2153). There is insufficient evidence for A.3.1 (symmetry in terms of transformations is not addressed), A.3.3 (congruence, similarity and scaling are not addressed), A.3.4 (right triangles are not addressed), A.3.5 (periodic phenomena are not addressed), A.3.6 (two- and three-dimensional objects are not addressed), A.3.7 (invariance related to measurements are not addressed), A.3.8 (geometric constructions, axiomatic reasoning and proof are not addressed).
Assessment 6 (Historical/Cultural Mathematics Project) provides insufficient evidence for A.3.10. See comments in Element 1a.

A.4 Statistics and Probability Competencies NOT SATISFIED (Less than 80% competency alignment)
Assessment 1 (OSAT 011) has potential to provide evidence for A.4.3, A.4.4, and A.4.5 when data are available.
Assessment 2 (Course Grades) has potential to provide evidence for A.4.3, A.4.4, and A.4.5 (all STAT 4013) when data are available. There is insufficient evidence for A.4.1 (randomness in statistical inference is not addressed) and A.4.2 (surveys and justification of conclusions are not addressed)
Assessment 6 (Historical/Cultural Mathematics Project) provides insufficient
evidence for A.4.6. See comments in Element 1a.

A.5 Calculus Competencies SATISFIED (At least 80% competency alignment)  
Assessment 1 (OSAT 011) provides evidence for A.5.1 and A.5.5.  
Assessment 2 (Course Grades) provides evidence for A.5.1 (MATH 2144, 2153), A.5.2, A.5.3, A.5.4 (all MATH 2163), A.5.5 (MATH 2144, 2153, 2163).  
Assessment 6 (Historical/Cultural Mathematics Project) provides insufficient evidence for A.5.6. See comments in Element 1a.

A.6 Discrete Mathematics Competencies SATISFIED (At least 80% competency alignment)  
Assessment 1 (OSAT 011) provides evidence for A.6.2 and A.6.4.  
Assessment 6 (Historical/Cultural Mathematics Project) provides insufficient evidence for A.6.5. See comments in Element 1a.

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:

At least two assessments providing evidence that Elements 2a*, 2b*, and at least 2 additional elements are met at the acceptable or target level are required in order to satisfy the preponderance of evidence for Standard 2.  
*: Indicates essential (required) elements

Section III of the program report indicates Assessments 2, 3, 4, and 5 address this standard.

*Element 2a: MET
Assessment 2 (Course Grades) provides evidence for Element 2a (MATH 2144, 2153, 2163, 2233, 3013, 3613, 4403, 4663, STAT 4013). Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 2a. See additional comments in Element 1a. Assessment 5 (Impact on Student Learning Project) provides evidence for Element 2a.

*Element 2b: MET

Assessment 2 (Course Grades) provides evidence for Element 2b (MATH 2144, 2153, 2163, 2233, 3013, 3613, 4403, 4663, STAT 4013). Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 2b. See additional comments in Element 1a. Assessment 5 (Impact on Student Learning Project) provides evidence for Element 2b.

Element 2c: MET

Assessment 2 (Course Grades) provides evidence for Element 2c (MATH 2144, 2153, 2163, 3013, 3613, 4403, 4663, STAT 4013). Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 2c. See additional comments in Element 1a. Assessment 5 (Impact on Student Learning Project) provides evidence for Element 2c.

Element 2d: MET

Assessment 2 (Course Grades) provides evidence for Element 2d (MATH 2144, 2153, 2163, 3013, 3613, 4403, 4663, STAT 4013). Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 2d. See additional comments in Element 1a.

Element 2e: MET

Assessment 2 (Course Grades) provides evidence for Element 2e (MATH 2144, 2153, 2163, 2233, 3013, 3613, 4403, 4663, STAT 4013). Assessment 3 (Instructional Planning Portfolio): Rubrics are founded on the language of the standards, and not on descriptions of performance that would characterize knowledge and/or performance of the elements or sub-elements by means of the assessment tasks. Rubric descriptions do not sufficiently convey specific and discernable candidate behaviors that would characterize performance at each level and assure interrater reliability. Assessment 3 provides insufficient evidence for Element 3e. Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 2e. See additional comments in Element 1a.

Element 2f: MET

Assessment 2 (Course Grades) provides evidence for Element 2f (MATH 2144, 2153, 2163, 2233, 3013, STAT 4013). Assessment 4 (Student Teaching Internship Evaluation) provides insufficient
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.

Preservice teacher candidates:

<table>
<thead>
<tr>
<th>Met</th>
<th>Met with Conditions</th>
<th>Not Met</th>
</tr>
</thead>
</table>

Standard 3 Comments:

At least two assessments providing evidence that Elements 3a*, 3c*, 3f*, and at least 1 additional element are met at the acceptable or target level are required in order to satisfy the preponderance of evidence for Standard 3.

*: Indicates essential (required) elements

Section III of the program report indicates Assessments 3, 4, and 5 address this standard.

An additional assessment is required to satisfy the preponderance of evidence requirement for Standard 3.

*Element 3a: MET
Assessment 3 (Instructional Planning Portfolio) provides insufficient evidence for Element 3a. See additional comments in Element 2e.
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 3a. See additional comments in Element 1a.
Assessment 5 (Impact on Student Learning Project) provides evidence for Element 3a.

Element 3b: MET
Assessment 3 (Instructional Planning Portfolio) provides insufficient evidence for Element 3b. See additional comments in Element 2e.
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient
evidence for Element 3b. See additional comments in Element 1a.
Assessment 5 (Impact on Student Learning Project) provides evidence for Element 3b.

*Element 3c: MET
Assessment 3 (Instructional Planning Portfolio) provides insufficient evidence for Element 3c. See additional comments in Element 2e.
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 3c. See additional comments in Element 1a.
Assessment 5 (Impact on Student Learning Project) provides evidence for Element 3c.

Element 3d: NOT MET
Assessment 3 (Instructional Planning Portfolio) provides insufficient evidence for Element 3d. See additional comments in Element 2e.
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 3d. See additional comments in Element 1a.

Element 3e: NOT MET
Assessment 3 (Instructional Planning Portfolio) provides insufficient evidence for Element 3e. See additional comments in Element 2e.

*Element 3f: MET
Assessment 3 (Instructional Planning Portfolio) provides insufficient evidence for Element 3f. See additional comments in Element 2e.
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 3f. See additional comments in Element 1a.
Assessment 5 (Impact on Student Learning Project) provides evidence for Element 3f.

Element 3g: MET
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 3g. See additional comments in Element 1a.
Assessment 5 (Impact on Student Learning Project) provides evidence for Element 3g.

**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.

<table>
<thead>
<tr>
<th>Met</th>
<th>Met with Conditions</th>
<th>Not Met</th>
</tr>
</thead>
</table>

**Standard 4 Comments:**

At least two assessments providing evidence that Elements 4b*, 4d*, and 4e* are met at the acceptable or target level are required in order to satisfy the preponderance of evidence for Standard 4.

*: Indicates essential (required) elements

Section III of the program report indicates Assessments 3, 4, and 5 address this standard.

An additional assessment is required to satisfy the preponderance of evidence requirement for Standard 4.

Element 4a: NOT MET
Assessment 3 (Instructional Planning Portfolio) provides insufficient evidence for Element 4a. See additional comments in Element 2e.
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 4a. See additional comments in Element 1a.

*Element 4b: MET
Assessment 3 (Instructional Planning Portfolio) provides insufficient evidence for Element 4b. See additional comments in Element 2e.
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 4b. See additional comments in Element 1a.
Assessment 5 (Impact on Student Learning Project) provides evidence for Element 4b.

Element 4c: NOT MET
Assessment 3 (Instructional Planning Portfolio) provides insufficient evidence for Element 4c. See additional comments in Element 2e.
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 4c. See additional comments in Element 1a.

*Element 4d: NOT MET
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 4d. See additional comments in Element 1a.
Assessment 5 (Impact on Student Learning Project) provides insufficient evidence for Element 4d; rubric descriptions do not sufficiently convey specific and discernable candidate behaviors that would characterize performance at
each level and assure interrater reliability.

*Element 4e: NOT MET
Assessment 3 (Instructional Planning Portfolio) provides insufficient evidence for Element 4e. See additional comments in Element 2e.
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 4e. See additional comments in Element 1a.
Assessment 5 (Impact on Student Learning Project) provides partial evidence for Element 4e; does not address insights and limitations of technology.

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:

At least two assessments providing evidence that Element 5c* and at least 1 additional element are met at the acceptable or target level are required in order to satisfy the preponderance of evidence for Standard 5.
*: Indicates essential (required) elements

Section III of the program report indicates Assessments 4 and 5 address this standard.

An additional assessment is required to satisfy the preponderance of evidence requirement for Standard 5.

Element 5a: NOT MET
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 5a. See additional comments in Element 1a.

Element 5b: MET
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 5b. See additional comments in Element 1a.
Assessment 5 (Impact on Student Learning Project) provides evidence for Element 5b.
Element 5c: MET
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 5c. See additional comments in Element 1a.
Assessment 5 (Impact on Student Learning Project) provides 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:
At least two assessments providing evidence that Element 6b* and at least 1 additional element are met at the acceptable or target level are required in order to satisfy the preponderance of evidence for Standard 6.
*: Indicates essential (required) elements

Section III of the program report indicates Assessments 3 and 4 address this standard.

Element 6a: NOT MET
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 6a. See additional comments in Element 1a.

*Element 6b: NOT MET
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 6b. See additional comments in Element 1a.
Assessment 5 (Impact on Student Learning Project) provides insufficient evidence for Element 6b; see comments in Element 4d.

Element 6c: MET
Assessment 3 (Instructional Planning Portfolio) provides evidence for Element 6c. See additional comments in Element 2e.
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 6c. See additional comments in Element 1a.

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.

<table>
<thead>
<tr>
<th>Met</th>
<th>Met with Conditions</th>
<th>Not Met</th>
</tr>
</thead>
</table>

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

Section III of the program report indicates Assessments 4 and 5 address this standard.

*Element 7a: MET
Section I Context #2 provides evidence for this element.

*Element 7b: NOT MET
Section I Context #2 and #6: The experience and qualifications of school-based supervisors are not described. Candidates participate in full-time student teaching in secondary mathematics under the supervision of university supervisors with mathematics teaching experience.

*Element 7c: MET
Assessment 4 (Student Teaching Internship Evaluation) provides insufficient evidence for Element 7c. See additional comments in Element 1a. Assessment 5 (Impact on Student Learning Project) provides evidence for Element 7c.
### C.1. Candidates’ knowledge of content

Assessments 1, 2, and 6 provide evidence of candidates' content knowledge.

Assessment 1 (OSAT 011) provides evidence for the mathematical domain competencies specified in the NCTM CAEP Mathematics Content for Secondary alignment on the NCTM website (www.nctm.org/caep) and noted in the Feedback section, once data are available.

Assessment 2 (Course Grades) provides evidence for element 1a. Some course descriptions lack detail and specificity necessary to show sufficient support for the mathematical competencies.

Assessment 6 (Historical/Cultural Mathematics Project) provides some, but insufficient evidence. Highlighting a single mathematician for each domain, or a single continent, does not address the breadth of each competency.

Assessment 4 (Student Teaching Internship Evaluation) is not appropriate for documenting content knowledge since not every candidate teaches the same content during the student teaching experience.

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

Evidence for candidate pedagogical/professional knowledge, skills, and dispositions comes from Assessments 3, 4, and 5. An additional assessment is required to satisfy the preponderance of evidence requirement for Standards 3, 4, and 5.

Assessment 3 (Instructional Planning Portfolio): Rubrics are founded on the language of the standards, and not on descriptions of performance that would characterize knowledge and/or performance of the elements or sub-elements by means of the assessment tasks. Rubric descriptions do not sufficiently convey specific and discernable candidate behaviors that would characterize performance at each level and assure interrater reliability.

Assessment 4 (Student Teaching Internship Evaluation) provides no evidence for Elements. Global performance levels do not adequately describe candidate behaviors to be demonstrated.

Assessment 5 (Impact on Student Learning Project) provides evidence for many Elements.

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

Evidence for candidate effect on student learning comes from Assessments 4 and 5. See comments in C.2 above.
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 Secondary Mathematics Education Faculty meet regularly to discuss assessment results. As a result, faculty are encouraging candidates to take 6 credit hours of statistics instead of 3 credit hours. Faculty are also investigating ways to increase candidates' knowledge and implementation of differentiation techniques.
Areas for consideration

Since the required number of assessments addressing essential and other required elements for each standard is not met, consideration should be given to revising assessments and rubrics or developing a new assessment and rubric to target unmet mathematical domain competencies and/or standard elements.

Rewriting course descriptions in Assessment 2 to better describe how identified courses support each mathematical domain competency would provide evidence that competencies are addressed. Catalog-like descriptions cannot always convey what candidates learn and do in a course.

An additional assessment is required to satisfy the preponderance of evidence requirement for Standards 3, 4, and 5.

Assessment 1 (OSAT 011) provides evidence for the mathematical domain competencies specified in the NCTM CAEP Mathematics Content for Secondary alignment on the NCTM website (www.nctm.org/caep) and noted in the Feedback section.

Assessment 2 (Course Grades) provides evidence for element 1a. Some course descriptions lack detail and specificity necessary to show sufficient support for the mathematical competencies.

Assessment 3 (Instructional Planning Portfolio): Rubrics are founded on the language of the standards, and not on descriptions of performance that would characterize knowledge and/or performance of the elements or sub-elements by means of the assessment tasks. Rubric descriptions do not sufficiently convey specific and discernable candidate behaviors that would characterize performance at each level and assure interrater reliability.

Assessment 4 (Student Teaching Internship Evaluation) Assessment 4 is not appropriate for documenting content knowledge since not every candidate teaches the same content during the student teaching experience. Global performance levels do not adequately describe candidate behaviors to be demonstrated.

Assessment 5 (Impact on Student Learning Project) provides evidence for many Elements.

Assessment 6 (Historical/Cultural Mathematics Project) provides some, but insufficient evidence. Highlighting a single mathematician for each domain, or a single continent, does not address the breadth of each competency.
### PART F - ADDITIONAL COMMENTS

<table>
<thead>
<tr>
<th>F.1. Comments on Section I (Context) and other topics not covered in Parts B-E:</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>F.2. Concerns for possible follow-up by the CAEP site visitors:</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
</tr>
</tbody>
</table>
PART G - DECISIONS

Please select final decision:

- National Recognition with Conditions. The program has received a decision of conditional national recognition. See below for details.
The program is recognized through:

MM    DD    YYYY
08    01    2020

Subsequent action by the institution: Programs will have a maximum of two opportunities to resubmit a report with revisions to receive National Recognition. A report addressing the conditions must be submitted in accordance with the dates provided on the National Recognition Report. A program should NOT submit its Response to Conditions until it has the required data and is confident that it has addressed all the conditions in Part G of this Recognition Report. If no reports are submitted by the noted date, the program’s recognition status will expire and revert to Not Recognized. In case the status expires, the program will not be able to submit a Response to Conditions Report, but may submit a new, complete program report and initiate a new program review if time permits for the current CAEP accreditation cycle. Otherwise, the program may submit a new, complete program report and initiate a new program review for the next CAEP accreditation cycle, three years before the site visit.

If the program is currently Recognized with Conditions and is submitting a second Response to Conditions Report, the next report must be submitted by the date below. Failure to submit a report by the date below will result in loss of national recognition.

MM    DD    YYYY
03    15    2020

The following conditions must be addressed within the date specified above:

More than 50% of the elements (essential and other required) of each standard must be met.

There is a lack of quality in some assessments or scoring guides/rubrics.

At least two assessments supporting each of Standards 2, 3, 4, 5, and 6 are required in order to satisfy the preponderance of evidence.
This is the end of the report. Please click "Next" to proceed.