
COVER SHEET

1. Institution Name

2. State

3. Date submitted
   MM  DD  YYYY
   [ ] / [ ] / [ ]

4. Report Preparer's Information:
   Name of Preparer:
   Phone:          Ext.
   ( )-             [ ]
   E-mail:

5. CAEP Coordinator's Information:
   Name:
   Phone:          Ext.
   ( )-             [ ]
   E-mail:

6. Name of institution's program

7. CAEP Category

8. Grade levels\(^{(1)}\) for which candidates are being prepared

\(^{(1)}\) e.g. Early Childhood; Elementary K-6

9. Program Type
10. **Degree or award level**
   - Post Baccalaureate
   - Master's
   - Post Master's
   - Specialist or C.A.S.
   - Doctorate
   - Endorsement only

11. **Is this program offered at more than one site?**
   - Yes
   - No

12. **If your answer is "yes" to above question, list the sites at which the program is offered**

13. **Title of the state license for which candidates are prepared**

14. **Program report status:**
   - Initial Review
   - Response to One of the Following Decisions: Further Development Required, Recognition with Probation, or Not Nationally Recognized
   - Response to National Recognition with Conditions

15. **Is your Educator Preparation Provider (EPP) seeking**
   - CAEP accreditation for the first time (initial accreditation)
   - Continuing CAEP accreditation

16. **State Licensure data requirement on program completers disaggregated by specialty area with sub-area scores:**
    CAEP requires programs to provide completer performance data on state licensure examinations for completers who take the examination for the content field, if the state has a licensure testing requirement. Test information and data must be reported in Section IV. Does your state require such a test?
   - Yes
   - No

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**SECTION I - CONTEXT**

1. **Description of any state or institutional policies that may influence the application of NCTM standards. (Response limited to 4,000 characters)**

2. **Description of the field and clinical experiences required for the program, including the number of hours for early field experiences and the number of hours/weeks for student teaching or internships. (Response limited to 8,000 characters)**

3. **A program of study that outlines the courses and experiences required for candidates to complete the program. The program of study must include course titles and numbers. A course of study for post-baccalaureate or master's programs should include required mathematics content (This information may be provided as an attachment from the college catalog or as a student advisement sheet.) For post baccalaureate or master's programs include a graduate advising form or transcript analysis form showing undergraduate mathematics content course requirements aligned to NCTM Mathematics Content for Elementary Mathematics Specialist.**

4. **This system will not permit you to include tables or graphics in text fields. Therefore any tables or charts must be attached as files here. The title of the file should clearly indicate the content of the file. Word documents, pdf files, and other commonly used file formats are acceptable.**

5. **Candidate Information**
Directions: Provide three years of data on candidates enrolled in the program and completing the program, beginning with the most recent academic year for which numbers have been tabulated. Report the data separately for the levels/tracks (e.g., baccalaureate, post-baccalaureate, alternate routes, master's, doctorate) being addressed in this report. Data must also be reported separately for programs offered at multiple sites. Update academic years (column 1) as appropriate for your data span. Create additional tables as necessary.

<table>
<thead>
<tr>
<th>Program:</th>
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(2) CAEP uses the Title II definition for program completers. Program completers are persons who have met all the requirements of a state-approved teacher preparation program. Program completers include all those who are documented as having met such requirements. Documentation may take the form of a degree, institutional certificate, program credential, transcript, or other written proof of having met the program’s requirements.

6. Faculty Information
Directions: Complete the following information for each faculty member responsible for professional coursework, clinical supervision, or administration in this program.

<table>
<thead>
<tr>
<th>Faculty Member Name</th>
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</thead>
<tbody>
<tr>
<td>Highest Degree, Field, &amp; University (3)</td>
</tr>
<tr>
<td>Assignment: Indicate the role of the faculty member (4)</td>
</tr>
<tr>
<td>Faculty Rank (5)</td>
</tr>
<tr>
<td>Tenure Track</td>
</tr>
<tr>
<td>Scholarship (6), Leadership in Professional Associations, and Service (7): List up to 3 major contributions in the past 3 years (8)</td>
</tr>
<tr>
<td>Teaching or other professional experience in P-12 schools (9)</td>
</tr>
</tbody>
</table>

(3) For example, PhD in Curriculum & Instruction, University of Nebraska.
(4) For example, faculty, clinical supervisor, department chair, administrator
(5) For example, professor, associate professor, assistant professor, adjunct professor, instructor
(6) Scholarship is defined by CAEP as a systematic inquiry into the areas related to teaching, learning, and the education of teachers and other school personnel. Scholarship includes traditional research and publication as well as the rigorous and systematic study of pedagogy, and the application of current research findings in new settings. Scholarship further presupposes submission of one’s work for professional review and evaluation.
(7) Service includes faculty contributions to college or university activities, schools, communities, and professional associations in ways that are consistent with the institution and unit’s mission.
(8) For example, officer of a state or national association, article published in a specific journal, and an evaluation of a local school program.
(9) Briefly describe the nature of recent experience in P-12 schools (e.g., clinical supervision, in-service training, teaching in a PDS) indicating the discipline and grade level of the assignment(s). List current P-12 licensure or certification(s) held, if any.

SECTION II - LIST OF ASSESSMENTS

In this section, list the assessments that are being submitted as evidence for meeting the NCTM standards. For each assessment, indicate the type or form of the assessment and when it is administered in the program.

1. Please provide the following assessment information (Response is limited to 250 characters in each block.)

| Type and Number of Assessment | Name of Assessment (10) | Type or Form of Assessment (11) | When the Assessment Is Administered (12) |
Assessment #1: Licensure assessment, or other content-based assessment aligned to NCTM NCATE Mathematics Content for Elementary Mathematics Specialist (required)
Assessment #2: Assessment of student learning (required)
Assessment #3: 
Assessment #4: 
Assessment #5: 
Assessment #6: 
Assessment #7: 
Assessment #8: 

(10) Identify assessment by title used in the program; refer to Section IV for further information on appropriate assessment to include.
(11) Identify the type of assessment (e.g., essay, case study, project, comprehensive exam, reflection, state licensure test, portfolio).
(12) Indicate the point in the program when the assessment is administered (e.g., admission to the program, admission to student teaching/internship, required courses [specify course title and numbers], or completion of the program).

SECTION III - RELATIONSHIP OF ASSESSMENT TO STANDARDS

1. Standard 1: Content Knowledge

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

Elementary mathematics specialist candidates:
1a) Demonstrate and apply knowledge of major mathematics concepts, algorithms, procedures, applications in varied contexts, and connections within and among mathematical domains (Number and Operations, Algebra, Geometry, Measurement, Statistics, and Probability) as outlined in the NCTM Mathematics Content for Elementary Mathematics Specialist.

2. Standard 2: Mathematical Practices

Effective elementary mathematics specialists 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 and mathematics leadership.

In their role as teacher, lead teacher, and/or coach/mentor, elementary mathematics specialist 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.

3. Standard 3: Content Pedagogy

Effective elementary mathematics specialists apply knowledge of curriculum standards for mathematics and their relationship to student learning within and across mathematical domains in teaching elementary students and coaching/mentoring elementary classroom teachers. They incorporate research-based mathematical experiences and include multiple
instructional strategies and mathematics-specific technological tools in their teaching and coaching/mentoring to develop all students’ mathematical understanding and proficiency. As teacher, lead teacher, and coach/mentor they provide and assist teachers in providing 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 assist teachers in the incorporation of formative and summative assessments for monitoring student learning, measuring student mathematical understanding, and informing practice.

In their role as teacher, lead teacher, and/or coach/mentor, elementary mathematics specialist candidates:

3a) Apply knowledge of curriculum standards for elementary mathematics and their relationship to student learning within and across mathematical domains in teaching elementary students and coaching/mentoring elementary classroom teachers.

3b) Analyze and consider research in planning for and leading students and the teachers they coach/mentor in rich mathematical learning experiences.

3c) Plan and assist others in planning 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 and teachers with opportunities to communicate about mathematics and make connections among mathematics, other content areas, everyday life, and the workplace.

3e) Implement and promote 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 assist teachers in using formative and summative assessments to inform instruction by reflecting on mathematical proficiencies essential for all students.

3g) Monitor students’ progress and assist others, including family members, administrators and other stakeholders, in making instructional decisions and in measuring and interpreting students’ mathematical understanding and ability using formative and summative assessments.

4. Standard 4: Mathematical Learning Environment

Effective elementary mathematics specialists exhibit knowledge of child, pre-adolescent, and adult learning, development and behavior. They use this knowledge to plan, create, and assist teachers in planning and creating 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, promote, and assist teachers in demonstrating and promoting a positive disposition toward mathematical practices and learning and exhibit and support the equitable and ethical treatment of and high expectations for all students. They include and assist teachers in embracing culturally relevant perspectives in teaching, in recognizing individual student differences, and in using instructional tools such as manipulatives, digital tools, and virtual resources to enhance student learning, while recognizing the possible limitations of such tools.

In their role as teacher, lead teacher, and/or coach/mentor, elementary mathematics specialist candidates:

4a) Exhibit knowledge of child, pre-adolescent, and adult learning, development and behavior and demonstrate and promote a positive disposition toward mathematical processes and learning.

4b) Plan, create, and coach/mentor teachers in creating 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 and assist teachers in embracing culturally relevant perspectives as a means to motivate and engage students.

4d) Demonstrate and encourage equitable and ethical treatment of and high expectations for all students.

4e) Apply mathematical content and pedagogical knowledge in the selection, use, and promotion of instructional tools such as manipulatives and physical models, drawings, virtual environments, presentation tools, and mathematics-specific technologies (e.g., graphing tools and interactive geometry software); and make and nurture sound decisions about when such tools enhance teaching and learning, recognizing both the insights to be gained and possible limitations of such tools.

5. Standard 5: Impact on Student Learning

Elementary mathematics specialists provide evidence that as a result of their instruction or coaching/mentoring of teachers, elementary students’ conceptual understanding, procedural fluency, strategic competence, adaptive reasoning, and application of major mathematics concepts in varied contexts have increased. Elementary mathematics specialists support the continual development of a positive disposition toward mathematics. These mathematics specialists show that new student mathematical
knowledge has been created as a consequence of their ability to engage students or coach/mentor teachers in mathematical experiences that are developmentally appropriate, require active engagement, and include mathematics-specific technology in building new knowledge.

In their role as teacher, lead teacher, and/or coach/mentor, elementary mathematics specialist candidates:

5a) Verify that elementary 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 and coach/mentor teachers in using 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 or their efforts in coaching/mentoring teachers.

6. **Standard 6: Professional Knowledge and Skills**

**Effective elementary mathematics specialists are lifelong learners and recognize that learning is often collaborative. They participate in and plan mathematics-focused professional development experiences at the school and/or district level, draw upon mathematics education research to inform their practice and the practice of colleagues, continuously reflect on their practice, use and assist teachers in using resources from professional mathematics organizations, and demonstrate mathematics-focused instructional leadership.**

In their role as teacher, lead teacher, and/or coach/mentor, elementary mathematics specialist 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 and to their development as a mathematics instructional leader.

6b) Engage in and facilitate continuous and collaborative learning that draws upon research in mathematics education to inform practice; enhance learning opportunities for all students’ and teachers’ mathematical knowledge development; involve colleagues and other school professionals, families, and various stakeholders; and advance the development in themselves and others as reflective practitioners.

6c) Plan, develop, implement, and evaluate mathematics-focused professional development programs at the school and/or district level; use and assist teachers in using resources from professional mathematics education organizations such as teacher/leader discussion groups, teacher networks, and print, digital, and virtual resources/collections; and support teachers in systematically reflecting on and learning from their mathematical practice.

6d) Demonstrate mathematics-focused instructional leadership through actions such as coaching/mentoring; building and navigating relationships with teachers, administrators, and the community; establishing and maintaining learning communities; analyzing and evaluating educational structures and policies that affect students’ equitable access to high quality mathematics instruction; leading efforts to assure that all students have opportunities to learn important mathematics; evaluating the alignment of mathematics curriculum standards, textbooks, and required assessments and making recommendations for addressing learning and achievement gaps; developing appropriate classroom or school-level learning environments; and collaborating with school-based professionals to develop evidence-based interventions for high and low-achieving students.

7. **Standard 7: Elementary Mathematics Specialist Field Experiences and Clinical Practice**

**Elementary mathematics specialists engage in a planned sequence of field experiences and clinical practice under the supervision of an experienced and highly qualified mathematics educator. They develop a broad experiential base of knowledge and skills working with a range of student and adult learners including elementary students (e.g., primary, intermediate, struggling, gifted, and English language learners) and elementary school teachers, both novice and experienced, in a variety of school and professional development settings. They develop and use interpersonal and leadership skills to engage school-based and other professionals in the improvement of mathematics programs at the school and/or district levels.**

Elementary mathematics specialist candidates:

7a) Engage in a sequence of planned field experiences and clinical practice under the supervision of an experienced and highly qualified mathematics educator that involves the development of a broad experiential base of knowledge and skills working with a range of student and adult learners in a
variety of school and professional development settings and the development of interpersonal skills critical for mentoring other teachers and working with school-based personnel, district administrators, and others.

7b) Develop and use leadership skills to improve mathematics programs at the school and/or district level, e.g., coaching/mentoring new and experienced teachers to better serve students; sharing critical issues, policy initiatives, and curriculum trends related to mathematics teaching; keeping abreast of local, state, or national policy decisions related to mathematics education; communicating to educational constituents about students, curriculum, instruction, and assessment; collaborating to create a shared vision and to develop an action plan for school improvement; and partnering with school-based professionals to improve each student’s achievement.

SECTION IV - EVIDENCE FOR MEETING STANDARDS

DIRECTIONS: The key assessments listed in Section II must be documented and discussed in Section IV. Taken as a whole, the assessments must demonstrate candidate mastery of the SPA standards. The key assessments must be required of all candidates. Assessments, scoring guides/rubrics and data charts should be aligned with the SPA standards. This means that the concepts in the SPA standards should be apparent in the assessments and in the scoring guides/rubrics to the same depth, breadth, and specificity as in the SPA standards. Data tables should also be aligned with the SPA standards. The data should be presented, in general, at the same level it is collected. For example, if a rubric collects data on 10 elements [each relating to specific SPA standard(s)], then the data chart should report the data on each of the elements rather than reporting a cumulative score.

A program is free to select the types of assessments within the following constraints:

- A program cannot use more than 8 key assessments. There is no minimum requirement.
- Assessments should be required of all candidates.
- The program must include the state licensure test in the program area for assessment #1. This requirement is waived if there is no state licensure test in the program area.
- One assessment must demonstrate candidate effects on student learning.
- In their entirety, the assessments and data should demonstrate that candidates have mastered the SPA standards.

Program must submit the following documentation:

1. Rationale: Attach a narrative outlining your case that the key assessments, taken as a whole, demonstrate candidate mastery of the SPA standards. (Character limit 40,000 characters)

2. State licensure test(s) or professional examinations of content knowledge. NCTM standards addressed in this entry could include but are not limited to Standards 1-2. If your state does not require licensure tests or professional examinations in the content area, data from another assessment that is aligned to NCTM Mathematics Content for Elementary Mathematics Specialist must be presented to document candidate attainment of content knowledge. (Assessment Required)

3. Assessment that demonstrates candidate effect on student learning. NCTM standards that could be addressed in this assessment include but are not limited to Standard 5. Examples of assessments include those based on student work samples, portfolio tasks, case studies, follow-up studies, and employer surveys. (Assessment Required)

4. Provide assessment information (items 1-5) as outlined in the directions for Section IV
SECTION V - USE OF ASSESSMENT RESULTS TO IMPROVE PROGRAM

1. Evidence must be presented in this section that assessment results have been analyzed and have been or will be used to improve candidate performance and strengthen the program. This description should not link improvements to individual assessments but, rather, it should summarize principal findings from the evidence, the faculty’s interpretation of those findings, and changes made in (or planned for) the program as a result. Describe the steps program faculty have taken to use information from assessments for improvement of both candidate performance and the program. This information should be organized around (1) content knowledge, (2) professional and pedagogical knowledge, skill, and dispositions, and (3) student learning.

(Response limited to 12,000 characters)

SECTION VI - FOR REVISED REPORTS OR RESPONSE TO CONDITIONS REPORTS ONLY

1. For Revised Reports: Describe what changes or additions have been made to address the standards that were not met in the original submission. Provide new responses to questions and/or new documents to verify the changes described in this section. Specific instructions for preparing a Revised Report are available on the CAEP website at http://caepnet.org/accreditation/caep-accreditation/spa-program-review-policies-and-procedures

For Response to Conditions Reports: Describe what changes or additions have been made to address the conditions cited in the original recognition report. Provide new responses to questions and/or new documents to verify the changes described in this section. Specific instructions for preparing a Response to Conditions Report are available on the CAEP website at http://caepnet.org/accreditation/caep-accreditation/spa-program-review-policies-and-procedures

(Response limited to 24,000 characters.)

Please click "Next"