

## Part 1: Secondary MATH Assessment (NCTM SPA Standards)



School of Education

### ***Secondary Mathematics Student Teaching FINAL Evaluation***

As part of understanding what knowledge, skills, and dispositions our students possess, we are asking you to complete an end-of-clinical evaluation. This tool is comprised of three different parts. The first part is based on the National Council of Teachers of Mathematics (NCTM) standards for beginning teachers. The second part contains knowledge and skills as outlined by InTASC and CAEP, our accrediting body. The last part asks to you to consider the dispositions that are valued by the faculty at Purdue University Fort Wayne. In other words, these dispositions align with our Conceptual Framework. You will also be asked to provide a narrative summary of the Student Teacher's performance. Thank you in advance for the time you put into this evaluation -- it is very important to us and the Student Teacher.

**Evaluation Information:**

Date of Evaluation mm/dd/yyyy

Teacher Candidate (Student) Name

Teacher Candidate (Student) email

School

Grade Level

University Supervisor Name

University Supervisor email

Cooperating Teacher Name

Cooperating Teacher email

Person filling out the survey. I am the ...

 Cooperating Teacher University Supervisor

Number of students:

**NCTM 2a - Mathematical Practices**

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.

### ACCEPTABLE

Candidates use problem solving to

- develop conceptual understanding and to formulate and test generalizations;

- 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.

### UNACCEPTABLE

Candidate

- engages in minimal problem solving,

- does not persist at tasks,

- applies strategies ineffectively to solve a problem, and/or

- does not work toward generalizations.

### TARGET

Everything at acceptable level plus:

- monitors and reflects on the process of mathematical problem solving.



## NCTM 2b - Mathematical Practices

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 math vocabulary and symbols to communicate math ideas to others.

### ACCEPTABLE

Candidate:

- reasons abstractly, reflectively, and quantitatively with attention to units, constructing viable arguments and proofs, and critiquing the reasoning of others;
- represents and models generalizations using mathematics;
- recognizes structure and expresses regularity in patterns of mathematical reasoning; - uses multiple representations to model and describe mathematics; AND
- uses appropriate mathematical vocabulary and symbols to communicate mathematical ideas to others.

### TARGET

Everything at acceptable level plus:  
- demonstrates an appreciation for mathematical rigor and inquiry.



### UNACCEPTABLE

Candidate

- reasons concretely,
- represents and models specific equations using one familiar approach,
- fails to search for or recognize patterns in reasoning, and/or
- uses inaccurate or misleading vocabulary when communicating.



## NCTM 2C - Mathematical Practices

Formulate, represent, analyze, and interpret mathematical models derived from real-world contexts or mathematical problems.

### TARGET

Item at acceptable level, plus:

### ACCEPTABLE

Candidate:

### UNACCEPTABLE

Candidate struggles to

- demonstrates flexibility in mathematical modeling when confronted with different purposes or contexts..



- formulates, represents, analyzes, interprets, and validates mathematical models derived from real-world contexts or mathematical problems.



- formulate and represent mathematical models derived from mathematical problems.



## NCTM 2d - Mathematical Practices

2d) Organize mathematical thinking and use the language of mathematics to express ideas precisely, both orally and in writing to multiple audiences.

### TARGET

Candidate:

- organizes mathematical thinking, AND  
- uses the language of mathematics to express ideas precisely, both orally and in writing to multiple audiences including peers, teachers, students, school professionals, and/or other stakeholders.



### ACCEPTABLE

Candidate:

- organizes mathematical thinking, AND  
- uses the language of mathematics to express ideas precisely, both orally and in writing to peers, teachers, or students.



### UNACCEPTABLE

Candidate

- is disorganized in mathematical thinking and/or  
- uses the language of mathematics, both orally and in writing, imprecisely with one or more audiences.



Comments for NCTM 2:

## NCTM 3a - Content Pedagogy

Apply knowledge of curriculum standards for secondary mathematics and their relationship to student learning within and across mathematical domains.

### TARGET

Both items at acceptable level

plus:

- demonstrates how mathematics curriculum standards and learning progressions impact the teaching of secondary students at different developmental levels.



### ACCEPTABLE

Candidate:

- applies knowledge of mathematics curriculum standards for secondary in their teaching within and across mathematical domains.
- relates mathematics curriculum standards to student learning.



### UNACCEPTABLE

Candidate

- teaches standards and/or concepts in isolation, demonstrating minimal links within and across mathematical domains and to student learning.



## NCTM 3b - Content Pedagogy

Analyze and consider research in planning for and leading students in rich mathematical learning experiences.

### TARGET

Both items at acceptable level

plus:

- extends their repertoire of research-based instructional methods that address students' diverse learning needs through participation in leadership opportunities such as conferences, use of journals and on-line resources,

### ACCEPTABLE

Candidate:

- analyzes and considers research in planning for mathematics instruction, AND
- incorporates research-based methods when leading students in rich mathematical learning experiences.



### UNACCEPTABLE

Candidate

- relies on instructors' manual for guidance when planning instruction.



and engagement with professional organizations.



### **NCTM 3c - Content Pedagogy**

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.

#### **ACCEPTABLE**

Candidate:

- plans lessons and units that incorporate a variety of strategies;
- plans lessons and units addressing student differences and diverse populations and how these differences influence student learning of mathematics;

#### **UNACCEPTABLE**

Candidate

- plans lessons based on their favorite strategy, plans for two or fewer aspects of learners characteristics,
- misses opportunities for incorporating technology, and/or
- focuses exclusively on students' procedural proficiency.

#### **TARGET**

Everything at acceptable level plus:

- includes in planned lessons and units multiple opportunities and solution avenues for students to demonstrate conceptual understanding and procedural proficiency.

- includes mathematics-specific and instructional technologies in planned lessons and units; AND
- builds all students' conceptual understanding and procedural proficiency in planned lessons and units.



## NCTM 3f - Content Pedagogy

Plan, select, implement, interpret, and use formative and summative assessments to inform instruction by reflecting on mathematical proficiencies essential for all students.

### TARGET

Both items at acceptable level plus - uses assessment results for subsequent instructional planning.



### ACCEPTABLE

Candidate: - plans, selects, and implements formative and summative assessments, AND - interprets and uses formative and summative assessments to inform instruction by reflecting on mathematical proficiencies essential for all students.



### UNACCEPTABLE

Candidate - implements primarily summative assessments; and/or - is unclear as to the influence of the data collected on instruction.



Comments for NCTM 3:

## NCTM 4b - Mathematical Learning Environment

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.



**TARGET**

Both items at acceptable level plus

- creates a developmentally appropriate and challenging sequence of instruction for all students that shows a progression of learning over time toward proficiency and understanding.

**ACCEPTABLE**

Candidate:

- plans and creates sequential learning opportunities in which students connect new learning to prior knowledge and experiences, AND
- creates a sequence of developmentally appropriate and challenging learning opportunities grounded in mathematics education research in which students are actively engaged in building new knowledge.

**UNACCEPTABLE**

Candidate plans learning opportunities that

- seem independent from each other, not clearly linking prior knowledge to new knowledge;
- or
- are not sequential, developmentally appropriate, or challenging.

**NCTM 4d - Mathematical Learning Environment**

Demonstrate equitable and ethical treatment of and high expectations for all students.

**TARGET**

Candidate:

- demonstrates equitable and ethical treatment of all students.
- has high expectations for all students and persist in helping each student reach his/her full potential.
- demonstrates respect for and responsiveness to the cultural backgrounds and differing

**ACCEPTABLE**

Candidate:

- demonstrates equitable and ethical treatment of all students.
- has high expectations for all students.

**UNACCEPTABLE**

Candidate

- demonstrates bias toward one or more student(s) resulting in inequitable and unethical treatment for one or more students; and/or
- has lower expectations for some students.



perspectives students bring to  
the classroom.



## **NCTM 4e - Mathematical Learning Environment**

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.

### **TARGET**

Both items at acceptable level  
plus  
- participates in learning  
opportunities (i.e., professional  
development) that address  
current and emerging  
technologies in support of  
mathematics learning and  
teaching.



### **ACCEPTABLE**

Candidate:  
- applies 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; AND  
- makes sound decisions  
about when instructional tools  
enhance teaching and learning  
and recognize both the  
insights to be gained and

### **UNACCEPTABLE**

Candidate  
- has a preferred instructional  
tool and uses it frequently, to  
the exclusion of other  
appropriate tools or when the  
preferred tool is not the most  
appropriate one for the task.



possible limitations of such  
tools.



Comments for ACEI Standard 4:

### **NCTM 5b - Impact on Student Learning**

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

#### **ACCEPTABLE**

Candidates:

- engages students in developmentally appropriate mathematical activities and investigations that require active engagement in building new knowledge AND
- engages students in developmentally appropriate mathematical activities and investigations that include mathematics-specific technology in building new knowledge.

#### **UNACCEPTABLE**

Candidate plans mathematical activities that

- are not at the appropriate level – either too hard or too easy;
- do not actively engage the learner; and/or
- do not include mathematics-specific technology to facilitate the building of new knowledge.

#### **TARGET**

Both items at acceptable level plus

- facilitates students' ability to develop future inquiries based on current analyses.



## NCTM 5c -Impact on Student Learning

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.

### TARGET

Both items at acceptable level - collects, organizes, analyzes, and reflects on diagnostic, formative, and summative assessment data AND - uses assessment results as a basis for designing and modifying their instruction as a means to meet group and individual needs and increase student performance.



### ACCEPTABLE

Candidate:

- collects, organizes, analyzes, and reflects on diagnostic, formative, and summative assessment data AND - determines the extent to which students' mathematical proficiencies have increased as a result of their instruction.



### UNACCEPTABLE

Candidate

- collects formative and summative data, but doesn't link it to the strengths or weaknesses of their instruction.



Comments for NCTM 5:

## NCTM 6b - Professional Knowledge & Skills

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.

### ACCEPTABLE

Candidate:

- engages in continuous and collaborative learning as a means of enhancing students' learning opportunities in mathematics;
- uses research in mathematics education to inform practice;
- enhances all students' knowledge of mathematics;
- involves colleagues, other school professionals, families, and various stakeholders in the educational process; AND
- continues her/his development as a reflective practitioner.

### UNACCEPTABLE

Candidate

- engages in learning opportunities as required, not to enhance students' learning;
- bases practices on past experiences as a learner or on feedback from others;
- acts independently in the educational process, rather than in collaboration with others; and/or
- development as a reflective practitioner is inconsistent.

### TARGET

- Everything at acceptable level plus
- uses resources, analyses of instruction, and professional development experiences to enhance student learning of mathematics.



## NCTM 6c - Professional Knowledge & Skills

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

### TARGET

- Item at acceptable level plus
- uses research-based resources from professional

### ACCEPTABLE

Candidate:

- uses resources from professional

### UNACCEPTABLE

Candidate

- uses print, digital, and virtual resources and

mathematics education organizations that target positively impacting student learning.



mathematics education organizations such as print, digital, and virtual resources and collections.



collections without consideration or evaluation of the source(s).



Comments for NCTM 6:

### NCTM 7c1 - Field Experience and Clinical Practice

Demonstrate the knowledge, skills, and professional behaviors in both the middle and high school settings.

#### TARGET

Item at acceptable level plus  
- engages in critical thinking and reflection to improve or expand knowledge, skills, and professional behaviors.



#### ACCEPTABLE

Candidate:  
- demonstrates the knowledge, skills, and professional behaviors in both the middle and high school settings.



#### UNACCEPTABLE

Candidate:  
- demonstrates the knowledge, skills, and professional behaviors in one or none of the school setting.



### NCTM 7c2 - Field Experience and Clinical Practice

Examine the nature of mathematics, how mathematics should be taught, and how students learn mathematics.

### TARGET

Item at acceptable level plus  
- applies understanding of the nature of mathematics to how plan instruction to improve student learning.



### ACCEPTABLE

Candidate:

- examines the nature of mathematics, how mathematics should be taught, and how students learn mathematics.



### UNACCEPTABLE

Candidate:

- imitates the CT's behaviors (good or bad) without considering the nature of mathematical knowledge, teaching, or learning.



## NCTM 7c3 - Field Experience and Clinical Practice

Observe and analyse a range of approaches to mathematical teaching and learning, focusing on tasks, discourse, environment, and assessment.

### TARGET

Item at acceptable level plus  
- employs the results of analyses to improve the teaching and learning environment for students.



### ACCEPTABLE

Candidate:

- observes and analyzes a range of approaches to mathematics teaching and learning, focusing on tasks, discourse, environment, and assessment.



### UNACCEPTABLE

Candidate:

- observes a range of approaches to mathematical teaching and learning but analyses do not lead to deeper meaning or understanding.



Comments for NCTM Standard 7:



**\*\* You have completed Part 1. Please verify your answers before hitting the button below to continue to Parts 2 and 3.\*\***

## **Part 2 - Unit-wide Assessment (CAEP/InTASC Stnds)**

### Learners & Learning

The candidate regularly assesses development and learning of each student and uses that information to scaffold to next levels.

InTASC #1

CAEP 1.1

#### **Target**

Candidate regularly assesses learning (e.g., performance, abilities, and skills) of individuals and the group. Data are used to design responsive curriculum and instruction to scaffold the next level of learning.



#### **Acceptable**

Candidate assesses, albeit inconsistently, learning (e.g., performance, abilities, and skills) of individuals and the group. Data are used to design responsive curriculum and instruction to meet learners' needs.



#### **Unacceptable**

Candidate infrequently assesses learning for individuals and group. Curriculum and instruction are selected without reference to learning characteristics.





## Content Knowledge

Candidate uses technology effectively to achieve content-specific learning goals.

InTASC #5

CAEP 1.5

### Target

Candidate engages and involves students with different technologies to achieve specific learning goals in the content area(s). The technology tools or apps are used in such a way that students deepen their understanding of the content.



### Acceptable

Candidate engages students in technologies that are connected to the specific learning goals for the content area(s).



### Unacceptable

Candidate emphasizes technologies that have limited utility for enriching learning in the content area(s).



## Content Knowledge

Candidate engages students in making meaning of the content by examining it through diverse perspectives and personal responses.

InTASC #4

CAEP 1.1

### Target

Candidate engages students in discovering meaning of the content by questioning and

### Acceptable

Candidate engages students in making meaning of content texts, materials, performances,

### Unacceptable

Candidate provides content text, materials, performances, and/or labs from limited

analyzing ideas from diverse perspectives in content texts, materials, performances, and/or labs. Students are challenged to connect their personal responses to other larger meanings and critical stances in the content area.



or labs by providing diverse materials and opportunities for personal response.



perspectives, thus restricting the students' ability to engage in making meaning. Or, candidates might over-emphasize students' personal responses to the content.



### Instructional Practice

Candidate uses both formative and summative assessment to document learning.

InTASC #6

CAEP 1.1

#### Target

Candidate balances the use of formative and summative assessments, as appropriate, to support, verify, and document learning.



#### Acceptable

Candidate uses both formative and summative assessments to document learning.



#### Unacceptable

Candidate relies significantly on one assessment method over the other. Data are used to demonstrate what students do not know or are unable to do.



### Instructional Practice

The candidate selects learning experiences that reflect curriculum goals and content standards while being relevant to learners.

InTASC #7

CAEP 1.1

**Target**

Candidate creates learning experiences that are meaningful to learners due to students' contextual variables and prior knowledge. The experiences also align to curriculum and content standards

**Acceptable**

Candidate selects learning experiences based on students' prior knowledge. The experiences also reflect curriculum and content standards, yet sometimes not directly.

**Unacceptable**

Candidate follows curriculum guides or sequence with minimal consideration to how meaningful experiences are for learners or for addressing content standards.



## Instructional Practice

Candidate uses technology to ensure accessibility and relevance for all learners.

InTASC #8

CAEP 1.1

**Target**

Technology enhances the teaching and learning process in a way that is not achievable without it. Also, it is age-appropriate, matching ability levels, interests, and needs.

**Acceptable**

Technology selected is age-appropriate, matching ability levels, interests, and needs.

**Unacceptable**

Technology selected is appropriate for a subset of students.



## Professional Responsibility

The candidate uses a variety of self-assessment strategies to analyze and reflect on his/her practice.

InTASC #9

## CAEP 3.6

**Target**

Candidate creates a plan for reflecting on practices during and after instruction. The data gathered via the strategies are analyzed and used to make a variety of adaptations/ adjustments (e.g., organizational, instructional, materials, etc.) that benefit the students.

**Acceptable**

Candidate creates a plan for reflecting on practice after instruction occurs. The data gathered via the strategies are analyzed and used to make improvements to future instructional plans.

**Unacceptable**

Candidate reflects on practice in an unplanned, unsystematic way or only when prompted by someone to do so.

Experiences are reflected on in a holistic manner without reference to specific data. In addition, the candidate may lack links between changes made and data collected.



## Professional Responsibility

The candidate understands laws related to learners' rights and teacher responsibilities.

InTASC #9

CAEP 3.6

**Target**

Candidate understands and appropriately applies educational laws, especially confidentiality, requirements for reporting child abuse and neglect and discrimination/ harassment/bullying.

**Acceptable**

Candidate demonstrates a firm understanding of educational laws, especially confidentiality, requirements for reporting child abuse and neglect and discrimination/harassment/bullying.

**Unacceptable**

Candidate demonstrates misunderstandings or gaps in knowledge concerning educational laws, especially confidentiality, requirements for reporting child abuse and neglect and/or discrimination/ harassment/bullying.



## Professional Responsibility

The candidate demonstrates professional ethics and respect for others in the use of technology (e.g., learning management system, social media).

InTASC #9

CAEP 1.5

<b>Target</b>	<b>Acceptable</b>	<b>Unacceptable</b>
<p>Candidate explicitly teaches and supports students' application of digital citizenship characteristics. When necessary, family members are notified in advance of classroom activities.</p> <p style="text-align: center;">○</p>	<p>Candidate follows characteristics of digital citizenship when developing lesson plans that incorporate technology. Reminders or prompts for students are outlined. When necessary, family members are notified in advance of classroom activities.</p> <p style="text-align: center;">○</p>	<p>Candidate does not acknowledge, support, or follow components of digital citizenship for self or students. Family members are not notified in advance of classroom activities when it was necessary.</p> <p style="text-align: center;">○</p>

**\*\*You have completed Parts 1 and 2. Please verify your answers before hitting the button below to continue to Part 3.\*\***

## Part 3: Unit-wide Disposition Assessment (CAEP/InTASC Stnds)

**College of Professional Studies**

## Disposition Assessment

Indicator 1: DEMOCRACY & COMMUNITY: Builds a community based on belief that each **child/adolescent (c/a)** can learn to high levels.

InTASC #2

CAEP 3.3

### Target

Communicates through words and actions that each c/a can learn to high levels.

Communicates faith in values, strengths, and competencies of each c/a and family.

Communicates high expectations through design and delivery of challenging curriculum and assessments that foster high-level skills for each c/a.



### ACCEPTABLE

Communicates through words and actions that each c/a can learn to high levels.

Communicates positive perspectives about c/a and families. Supplements prescribed curriculum with enrichment experiences that reflect some c/a's lives outside of school.



### UNACCEPTABLE

Communicates through words and actions that some (not all) c/a can learn to high levels.

Communicates negative perspectives about a c/a or families. Sets minimal expectations for c/a performance. Seeks minimal information about c/a's lives outside of school, usually in response to a problem.



Indicator 2: DEMOCRACY & COMMUNITY: Values diversity and uses it to create inclusive classroom.

InTASC # 2

CAEP 3.3

### TARGET

Culturally responsive practices are evident in delivery of

### ACCEPTABLE

Creates a curriculum that demonstrates valuing diverse

### UNACCEPTABLE

A single perspective dominates classroom

instruction. Works with children/adolescents to address injustices in curriculum, society, or own lives.



groups through classroom materials, activities, and assignments.



materials, activities, and assignments.



**Indicator 3: HABITS OF MIND:** Relentless in belief about the importance of teachers using critical thinking, reflection, and professional development to grow as a teacher.

InTASC # 9

### TARGET

Independently reflects on effectiveness of teaching by asking critical questions.

Approaches professional growth from a critical thinking, inquiry perspective. Seeks out opportunities within learning environment to grow as a professional.



### ACCEPTABLE

Makes changes to practices in response to feedback.

Participates in professional development opportunities, including professional learning communities, scholarly endeavors, and/or teacher research.



### UNACCEPTABLE

Overly dependent on feedback from others OR disregards feedback provided. Actively avoids engaging intellectually in professional development opportunities



**Indicator 4: HABITS OF MIND:** Committed to designing meaningful, intellectually engaging curriculum.

InTASC # 7

CAEP 3.3

### TARGET

### ACCEPTABLE

### UNACCEPTABLE

Makes c/a's habits of mind visible through inquiries or investigations (critiquing, questioning, analyzing, evaluating). Ties together multiple concepts so that similarities and differences are understood by c/a.



Creates a context that is supportive in developing c/a's habits of mind. Encourages multiple pathways for solving problems. Judiciously utilizes worksheets or tests.



Engages in behaviors that result in intellectual dependency of c/a, for example, show, tell, and demonstrate. Teaches one way to solve a problem and accepts only that method. Follows teaching manual, curriculum guides, or colleagues without evaluating potential engagement levels by c/a's.



#### Indicator 5: ADVOCACY:

Willingness to collaborate to help each child learn.

InTASC # 9

CAEP 3.3

#### **TARGET**

Collaborates with family members and other teachers to create innovative solutions that support each child's/ adolescent's success.



#### **ACCEPTABLE**

Coordinates actions with colleagues to meet students' learning needs.



#### **UNACCEPTABLE**

Important educational decisions are made independently without communicating with family members or colleagues.



#### Indicator 6: ADVOCACY: Persistent in advocating for and promoting the profession.

InTASC # 10

CAEP 3.3



**TARGET**

Advocates for the profession by speaking or acting publically on issues facing schools, teachers, families, students, or communities.

**ACCEPTABLE**

Projects positive view of profession when communicating with others about children, adolescents, families, colleagues, or the profession.

**UNACCEPTABLE**

Initiates or adds to negativity about c/a, families, colleagues, or profession, projecting a negative view of the profession to others.

**COMMENTS - FOR FINAL EVALUATION ONLY:**

**This is the most important part of the rating of the student teacher.** This narrative summary should be reasonably detailed, complete, and accurate, including reference to specific examples of the student teacher's skills. It should address the student teacher's abilities and readiness to be a first-year teacher. The summary should include your recommendation of the student teacher's potential as a member of the profession. Please remember that many times candidates are required to include this as part of their job application packet.

**Final Recommendation**

- Recommend for licensing
- Recommend for licensing with reservations

I do not recommend for licensing

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