Coastal Carolina University- Spadoni College of Education & Social Sciences Assessment # 4-MAT Mathematics (NCTM) Internship Evaluation

| Form Completed by (|) University Supervisor; (|) Cooperating Teacher | |
|------------------------|----------------------------|-----------------------|--|
| Intern: | | CCU ID: | |
| | | | |
| School Site: | | Grade/Subject: | |
| | | | |
| Cooperating Teacher: | | | |
| University Supervisor: | | | |
| , | | Evaluation Date: | |

Milestone: () Formative () Summative

| Unacceptable -0 points | Proficient - 1 points | Exemplary – 2 points |
|---|---|---|
| Does not meet expectations of a beginning | Meets expectations of a beginning teacher | Far exceeds expectations of a beginning |
| teacher | | teacher |

NCTM Internship Evaluation Mathematics SPA Specific Standards

| NCTM CAEP 2020 Unacceptable (0) Alignment | Proficient (1) | Exemplary (2) |
|---|----------------|---------------|
|---|----------------|---------------|

| K4.1 Use problem solving to develop conceptual understanding, and procedural fluency 2a | Use of problem-solving to develop conceptual understanding is limited or unclear. | Mathematical activities and investigations use problem-solving strategies to develop a conceptual understanding with limited development of procedural fluency. | Mathematical activities and investigations allow students to use problem-solving steps and strategies to develop a conceptual understanding with concrete steps for procedural fluency. |
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| 4T K4.2 Problem- solving activities for engagement and connection 2a | Unit Plan does not include opportunities for students to be engaged in problem-solving activities or the activities only include context within the field! Of mathematics. | Unit Plan includes opportunities for students to participate in problem- solving activities within the field of mathematics. The candidate illustrates (provides) examples of connections to real-world contexts. | Unit Plan includes opportunities for students to be engaged in problem- solving activities within the field of mathematics and make connections to real-world contexts. |
| K4.3 Problem- solving strategies for understanding and perseverance 2a | Communication of problem-solving strategies is limited or unclear. It does not encourage students to make sense of problems and persevere in solving them. | It encourages various problem-solving strategies and students to make sense of problems and persevere in solving them but does not showcase students' strategies. | It creates opportunities to showcase a variety of students' problem-solving strategies and encourages students to make sense of problems and persevere in solving them. |
| K4.4 Formulate and test conjectures generalization 2c | Do not design experiences that allow students to formulate and test conjectures to frame generalizations. | Unit Plan includes limited mathematical models (e.g., manipulative, graphing, tech tools) that allow for student discovery but lacks the proper foundation for students to frame generalizations. | Unit Plan includes various mathematical models (e.g., manipulative, graphing, tech tools) that allow students to formulate and test conjectures to frame generalizations. |

| K4.5 Reasoning and Communicating 2b | Communicates mathematical reasoning using inappropriate strategies or flawed arguments that are vague or imprecise. | Communicate mathematical reasoning with clarity, precision, and logical order. | Reason abstractly, reflectively, and quantitatively with attention to units, constructing viable arguments and proofs. |
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| K4.6 Math modeling and applications 2c | Neither represents nor models generalizations using mathematics. | Represent and model generalizations using mathematics while recognizing mathematical reasoning patterns. | Represent and model generalizations using mathematics while providing opportunities for students to recognize mathematical reasoning patterns. |
| K4.7 Use and connect math representation 4d | Communicates mathematical ideas using a single representation. | Communicates mathematical ideas using more than one type of representation but with no attempt to recognize the connections between the representations. | Communicates mathematical ideas using a variety of representations and recognizes and clarifies the connections between the representations. |
| K4.8 Use appropriate vocabulary for math communication 2b | Does not use appropriate vocabulary and symbols to communicate mathematical ideas to others. | Uses appropriate vocabulary and symbols to communicate mathematical ideas to others. | Uses appropriate vocabulary and symbols to communicate mathematical ideas to others, and clearly communicates to students that they are expected to communicate their reasoning precisely. |
| K4.9 Create learning experiences for formulating and representing | Does not recognize or represent that mathematical models are derived from variety of real world contexts. | Motivates or illustrates the <i>formulation</i> and <i>representation</i> of mathematical models derived from a variety of real world contexts. | Designs experiences that allow students to formulate * and represent * mathematical models derived from a variety of real world contexts to build mathematical understanding. |

| math models 2c | | | |
|--|---|--|--|
| K4.10 Design experiences for students to analyze and interpret math models 2c | Does not recognize or represent that mathematical models are derived from variety of real world contexts. | Motivates or illustrates the <i>analysis</i> and <i>interpretation</i> of mathematical models derived from a variety of rea- world contexts. | Designs experiences that allow students to analyze and interpret mathematical models derived from a variety of real- world contexts to build mathematical understanding. |
| K4.11 Adequate reasoning and communication for express math ideas 2b | Mathematical thinking is not organized, and mathematical ideas are imprecise. | Organizes mathematical thinking and uses the language of mathematics to express ideas precisely. | Organizes mathematical thinking and uses the language of mathematics to express ideas precisely to multiple audiences. |
| K4.12 Learning engagement and communication based on math standards 4a | Goals of instruction are vague, unclear, or not quite appropriate. | Instruction shows knowledge of and clearly communicates student learning outcomes based on state mathematics standards. | Instruction engages students in developmentally appropriate mathematical investigations and clearly communicates student-learning outcomes based on state mathematics standards. |
| K4.13 Plan and engagement differentiated for diversity | Lesson plans do not include a variety of instructional strategies. | Lesson plans include more than one mathematics appropriate instructional strategy that could be differentiated for diverse | Lesson plans include a variety of mathematics-appropriate instructional strategies differentiated for diverse populations. |

| 3a | | | |
|--|---|--|--|
| K4.14 Develop students' conceptual understanding and procedural proficiency 4f 4c | Lesson plans inappropriately. Incorporate mathematics-specific technology or fails to build students' conceptual understanding and procedural proficiency. | Lesson plans appropriately. Incorporate mathematics-specific technology to build students' conceptual understanding and procedural proficiency. | Lesson plans <i>appropriately incorporate</i> mathematics-specific technologies to build all students' conceptual understanding and procedural proficiency effectively. |
| K4.15 Assessing students' learning with adequate models and various strategies 5a | Assessments do not measure student proficiencies associated with the student learning outcomes. OR Assessments focus on student recall of facts and algorithms with no evidence of interest in understanding how students think about mathematics and skew the level of thinking and difficulty. | The candidate designs (selects or modifies) both formative and summative assessments to effectively measure student proficiencies associated with all student-learning outcomes. Assessments focus on understanding how students think about mathematics but with limited strategies or skewed about the level of thinking or difficulty. | The candidate designs (selects or modifies)both formative and summative assessments to effectively measure student proficiencies associated with all student-learning outcomes. Assessments include a variety of strategies focusing on understanding the ways students think about mathematics as well as varying levels of thinking and difficulty. |
| K4.16 Demonstrate the use of assessment data to modify instruction 5c | Post observation conference: Candidate is unable to describe how assessment results were used to inform instruction. | Post observation conference: The candidate can generically' describe how assessment results were used to inform instruction. | Post observation conference: The candidate can describe how assessment results were used to inform instruction, including specific examples. |

| K4.17 Challenge all students with development appropriate learning activities 3a | Lesson plans do not create challenging learning opportunities or are not developmentally appropriate for mathematics. | Lesson plans create learning opportunities that are developmentally appropriate, and challenging for all mathematics learners. | Lesson plans create challenging learning opportunities that are developmentally appropriate and challenging for all mathematics learners where students are actively engaged. |
|--|---|--|---|
| K4.18 Teaching activities plans are sequenced and grounded in mathematics education research | Lesson plans are not grounded in mathematics education research. | Lesson plans are sequenced and grounded in mathematics education research and instruction models. | Lesson plans are sequenced and grounded in mathematics education research in which students are actively engaged. |
| K4.19 Use student prior knowledge and experiences (mathematical strengths) to build new math knowledge 3b | Lesson plans do not build new knowledge from prior mathematics knowledge and experiences (e.g., mathematical strengths). | Lesson plans build new knowledge from prior mathematics knowledge and experiences (e.g., mathematical strengths). | Lesson plans actively engage students in building new mathematics knowledge from prior knowledge and experiences (e.g., mathematical strengths). |
| K4.20 Promote equitable learning environments 6a | No evidence of equitable and ethical treatment of and high expectations for all students. | Equitable and ethical treatment of and high expectations for all students are demonstrated during lessons or observed by cooperating teacher during the internship. | Equitable and ethical treatment of and high expectations for all students are demonstrated during lessons and observed by cooperating teacher during the internship. |

| K4.21 Select adequate math-specific tools for teaching and learning 4c | No attempt to use mathematical <i>instructional tools</i> and no reasonable explanation why the limitations of the tools do not enhance learning. | The unit clearly describes how the <i>instructional tools</i> will be used to enhance teaching and learning. | The unit clearly describes how the instructional tools will be used to enhance teaching and learning, recognizing both the insights to be gained and the possible limitations of such tools. |
|--|--|--|---|
| K4.22 Select adequate math-specific tech for teaching and learning, also know its limitation 4c | No attempt to use <i>mathematics-</i> <i>specific technologies</i> and no reasonable explanation regarding the possible limitations of technologies. | The unit clearly describes how <i>mathematics-specific technologies</i> will be used to enhance teaching and learning, recognizing either the insights to be gained OR possible limitations of technologies. | The unit clearly describes how <i>mathematics-specific technologies</i> will be used to enhance teaching and learning, recognizing both the insights to be gained and possible limitations of technologies. |
| K4.23 Use math investigations for facilitating math discourse 4g | The candidate poses questions that focus students on the rigorous mathematical goals or making connections or the candidate facilitates discourse among students to build a shared understanding of mathematical ideas, but discourse is limited to a subset of students. | The candidate poses questions focusing on students' rigorous mathematical goals and connections. The candidate facilitates discourse among students to build a shared understanding of mathematical ideas and ensure that a full range of students engages in rigorous mathematics. | The candidate poses questions focusing on students' rigorous mathematical goals and connections. The candidate facilitates discourse among students to build a shared understanding of mathematical ideas and ensure that every student engages in rigorous mathematics. |
| K4.24 Select adequate math-specific tech for | The candidate does not include opportunities for students to use mathematics specific technology, and | The candidate includes opportunities for students to use mathematics-specific technologies. | The candidate includes opportunities for students to use mathematics-specific technologies appropriate to the learning |

| catching math concepts 4c | an explanation for lack of use is not based on sound pedagogy. | | objective and to investigate mathematics concepts. |
|---|---|---|---|
| K4.25 Analyzing and informing students' progress 5b | The candidate does not collect, organize, analyze, and reflect on diagnostic, formative, and summative assessment data. | The candidate collects, organizes, analyzes, and reflects diagnostic, formative, and summative assessment data. | The candidate collects, organizes, analyzes, and reflects diagnostic, formative, and summative assessment data. The candidate checks and informs the progress of the individual student, subgroup students, and the class as a whole. |
| K4.26 Use assessment for modifying instruction 5c | The candidate does not determine the extent to which students' math proficiencies have increased due to their instruction. Or The candidate do not use assessment results to design and modify his/her instruction to meet most students' needs in a whole class. | The candidate determines the extent to which students' math proficiencies have increased due to their instruction and the extent to which they made progress. The candidate uses assessment results to design and modify his/her instruction to meet most students' needs in a whole class. | The candidate determines the extent to which students' math proficiencies have increased due to their instruction. The candidate uses assessment results to design and modify his/her instruction to meet a whole class, group, and individual needs and increase student performance. |
| K4.27 Implement positive mathematical identities 3c | Observations do not provide evidence that the candidate has developed the knowledge, skills, or professional behaviors necessary to examine the nature of mathematics, how mathematics should be taught, and how students loarn mathematics | Observations provide evidence that the candidate has developed the knowledge, skills, or professional behaviors necessary to examine the nature of mathematics, how mathematics should be taught, and how | Observations provide evidence that the candidate has developed the knowledge, skills, or professional behaviors necessary to examine the nature of mathematics, how mathematics should be taught, and how |

| | | | Evidence documents' specific ways in which candidate has drawn upon research in mathematics education and professional development to inform practice. |
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| K4.28 | The candidate identifies potential | The candidate collaborates with | The candidate collaborates with |
| Seeking | collaboration or professional learning | colleagues (cooperating teachers, peers, | colleagues (cooperating teachers, peers, |
| collaborations | opportunities that focus on learning | and university supervisors)to support | and university supervisors) to support |
| with colleagues | and teaching in mathematics | student learning of mathematics. | student learning of mathematics. |
| 6d | education. | | |
| | | refessional development and (or | The candidate participates in |
| | | learning communities that focus on | learning communities that focus on |
| | | learning and teaching in mathematics | learning and teaching in mathematics |
| | | education. | education. |
| | | | |
| | | | The candidate participates in |
| | | | professional development opportunities |
| | | | based on targeted professional learning |
| | | | needs. |
| | | | |
| | | | |

| K4.29 Engage | The candidate communicates | The candidate communicates with | The candidate communicates with |
|--------------|-----------------------------------|--|--|
| families and | information to families about | families about the mathematical ideas | families about the mathematical ideas |
| communities | mathematical ideas and processes. | and princesses that students are | and princesses that students are |
| 6с | | exploring, suggests good mathematics resources, and provides opportunities for the candidate and families to discuss strategies for ensuring the mathematical success of their students. | exploring, suggests good mathematics resources, and provides opportunities for the candidate and families to discuss strategies for ensuring the mathematical success of their students. |
| | | | The candidate seeks out opportunities in the community to understand and interact with families. |

Formative:

• Unacceptable requires an automatic improvement plan.

Summative Evaluation:

- Exemplary rating requires supporting evidence.
- Unacceptable requires an improvement plan and student teaching to be extended or repeated if there is insufficient improvement in the time allotted.

Comments:

| University Supervisor Signature: | Date: |
|----------------------------------|-------|
| Cooperating Teacher Signature: | Date: |
| Intern Signature: | Date: |