Student Teaching Evaluation Part II Rubric: Mathematics (Middle Level & Secondary)

Completed by: IUP Supervisor and Mentor at midterm and final for *each* placement

*Created as **4** separate assessment instruments in Anthology Portfolio:*

- *Midterm Student Teaching Evaluation Part II: Mathematics (Supervisor)*
- *Final Student Teaching Evaluation Part II: Mathematics (Supervisor)*
- *Midterm Student Teaching Evaluation Part II: Mathematics (Mentor)*
- *Final Student Teaching Evaluation Part II: Mathematics (Mentor)*

Description: The Student Teaching Evaluation Part II Rubric is aligned with content specific standards created by the National Council of Teachers of Mathematics (NCTM, 2020). The evaluation is completed by the IUP Supervisor and the mentor teacher at the midterm and end of each placement. It is designed to measure teacher candidate effectiveness, content expertise, and progression throughout the student teaching semester.

Standards for the Preparation of Secondary Mathematics Teachers (2020)

Standard 4: Teaching Meaningful Mathematics

Candidates implement effective and equitable teaching practices to support rigorous mathematical learning for a full range of students. Candidates establish rigorous mathematics learning goals, engage students in high cognitive demand learning, use mathematics specific tools and representations, elicit and use student responses, develop conceptual understanding and procedural fluency, and pose purposeful questions to facilitate student discourse.

4a) Establish Rigorous Mathematics Learning Goals Candidates establish rigorous mathematics learning goals for students based on mathematics standards and practices.

4b) Engage Students in High Cognitive Demand Learning Candidates select or develop and implement high cognitive demand tasks to engage students in mathematical learning experiences that promote reasoning and sense making.

4c) Incorporate Mathematics-Specific Tools Candidates select mathematics-specific tools, including technology, to support students' learning, understanding, and application of mathematics and to integrate tools into instruction.

4d) Use Mathematical Representations Candidates select and use mathematical representations to engage students in examining understandings of mathematics concepts and the connections to other representations.

4e) Elicit and Use Student Responses Candidates use multiple student responses, potential challenges and misconceptions, and they highlight students' thinking as a central aspect of mathematics teaching and learning.

4f) Develop Conceptual Understanding and Procedural Fluency Candidates use conceptual understanding to build procedural fluency for students through instruction that includes explicit connections between concepts and procedures.

4g) Facilitate Discourse Candidates pose purposeful questions to facilitate discourse among students that ensures that each student learns rigorous mathematics and builds a shared understanding of mathematical ideas.

Standard 5: Assessing Impact on Student Learning

Candidates assess and use evidence of students' learning of rigorous mathematics to improve instruction and subsequent student learning. Candidates analyze learning gains from formal and informal assessments for individual students, the class as a whole, and subgroups of students disaggregated by demographic categories, and they use this information to inform planning and teaching.

5a) Assessing for Learning Candidates select, modify, or create both informal and formal assessments to elicit information on students' progress toward rigorous mathematics learning goals.

5c) Modify Instruction Candidates use the evidence of student learning of individual students, the class as a whole, and subgroups of students disaggregated by demographic categories to analyze the effectiveness of their instruction with respect to these groups. Candidates propose adjustments to instruction to improve student learning for each and every student based on the analysis.

Standard 6: Social and Professional Context of Mathematics Teaching and Learning

Candidates are reflective mathematics educators who collaborate with colleagues and other stakeholders to grow professionally, to support student learning, and to create more equitable mathematics learning environments.

6a) Promote Equitable Learning Environments Candidates seek to create more equitable learning environments by identifying beliefs about teaching and learning mathematics, and associated classroom practices that produce equitable or inequitable mathematical learning for students.

6c) Engage Families and Communities Candidates communicate with families to share and discuss strategies for ensuring the mathematical success of their children.

	Distinguished(4)	**Proficient (3)**	**Basic (2)**	**Unsatisfactory (1)**	**Unable to Assess (n/a)**
Establish Rigorous Mathematics Learning Goals Candidates establish rigorous mathematics learning goals for students based on mathematics standards and practices. (4a)	Candidate establishes rigorous mathematics learning goals for students situated within learning progressions, mathematics standards and practices, and the purposes for learning mathematics. Candidate recognizes and uses connections when establishing goals.	Candidate establishes rigorous mathematics learning goals for students situated within mathematics standards and practices, and the purposes for learning mathematics.	Candidate establishes mathematics learning goals for students which demonstrate some level of rigor but are not situated within mathematics standards and practices, or the purposes for learning mathematics.	Candidate establishes mathematics learning goals for students which lack rigor.	N/A
4b) Engage Students in High Cognitive Demand Learning Candidates select or develop and implement high cognitive demand tasks to engage students in mathematical learning	Candidate analyzes, modifies, sequences, and implements tasks to engage each and every student in high cognitive demand mathematical learning experiences that promote reasoning and sense making.	Candidate selects or develops and implements tasks to engage a full range of students in high cognitive demand mathematical learning experiences that promote reasoning and sense making.	Candidate selects or develops tasks that could engage students in high cognitive demand mathematical learning experiences, but implementation fails to maintain a high cognitive	Candidate selects tasks without regard to engaging students in high cognitive demand mathematical learning experiences.	N/A

experiences that promote reasoning and sense making. (4b)			demand with students.		
Incorporate Mathematics-Specific Tools Candidates select mathematics-specific tools, including technology, to support students' learning, understanding, and application of mathematics and to integrate tools into instruction. (4c)	Candidate selects mathematics-specific tools, including technology, to support each and every students' learning, understanding, and application of mathematics and integrates tools into mathematics instruction.	Candidate selects mathematics-specific tools, including technology, to support a full range of students' learning, understanding, and application of mathematics and integrates tools into instruction.	Candidate selects mathematics-specific tools, including technology, to support students' learning, understanding, and application of mathematics but is unable or unsuccessful in integrating tools into instruction.	Candidate selects tools without regard to supporting students' learning, understanding, and application of mathematics.	N/A
Use Mathematical Representations Candidates select and use mathematical representations to engage students in examining understandings of mathematics concepts and the connections to other representations. (4d)	Candidate selects and connects mathematical representations to support students' learning, understanding, and application of mathematics and implements and facilitates students in making connections between representations.	Candidate selects mathematical representations to support students' learning, understanding, and application of mathematics and implements and connects representations during instruction.	Candidate selects mathematical representations to support students' learning, understanding, and application of mathematics but is unable or unsuccessful in implementing or connecting representations during instruction.	Candidate selects mathematical representations without regard to supporting students' learning, understanding, and application of mathematics.	N/A
Elicit and Use Student Responses Candidates use multiple student responses, potential	Candidate considers individual and group differences when eliciting multiple student responses, potential	Candidate elicits multiple student responses, potential challenges, and misconceptions.	Candidate elicits multiple student responses reflecting their thinking, including potential	Candidate is unable to elicit or use student responses reflecting their thinking to inform instruction.	N/A

challenges and misconceptions, and they highlight students' thinking as a central aspect of mathematics teaching and learning. (4e)	challenges, and misconceptions. Candidate notices and tracks multiple student responses as well as challenges or misconceptions as students are solving problems. Candidate uses students' multiple methods and/or challenges and/or misconceptions to engage each and every student in extending their mathematical learning.	Candidate notices and tracks multiple student responses, as well as challenges or misconceptions as students are solving problems. Candidate uses students' multiple methods and/or challenges and/or misconceptions to engage the full range of students in extending their mathematical learning.	challenges or misconceptions. Candidate is unable to use student responses to inform the mathematics teaching and learning process.		
Develop Conceptual Understanding and Procedural Fluency Candidates use conceptual understanding to build procedural fluency for students through instruction that includes explicit connections between concepts and procedures. (4f)	Candidate designs and implements instruction that uses conceptual understanding to build procedural fluency, including explicit connections between concepts and procedures. Candidate facilitates students making connections between procedures and concepts.	Candidate designs and implements instruction that uses conceptual understanding to build procedural fluency, including explicit connections between concepts and procedures.	Candidate designs instruction that includes both conceptual understanding and procedural fluency, but the conceptual understanding does not serve as a foundation for or is not connected to developing procedural fluency.	Candidate designs instruction that does not include both conceptual understanding and procedural fluency.	N/A
Facilitate Discourse Candidates pose purposeful questions to facilitate discourse among students that ensures that	Candidate poses questions that focus students on the rigorous mathematical goals and making connections. Candidate facilitates discourse among	Candidate poses questions that focus students on the rigorous mathematical goals or making connections. Candidate facilitates	Candidate poses questions that focus students on the rigorous mathematical goals or making connections; or candidate facilitates	Candidate is unable to pose questions that focus on rigorous learning goals and is not able to facilitate discourse among students in support of	N/A

each student learns rigorous mathematics and builds a shared understanding of mathematical ideas. (4g)	students to build shared understanding of mathematical ideas and ensures that each and every student engages in rigorous mathematics.	discourse among students to build shared understanding of mathematical ideas and ensure that a full range of students engage in rigorous mathematics.	discourse among students to build shared understanding of mathematical ideas, but discourse is limited to a subset of students.	building shared understanding of mathematical ideas.	
Assessing for Learning Candidates select, modify, or create both informal and formal assessments to elicit information on students' progress toward rigorous mathematics learning goals (5a)	Candidate selects, creates, or adapts assessments and uses both informal and formal assessments to elicit progress toward rigorous mathematics learning goals for students' individual learning.	Candidate selects, creates, or adapts assessments and uses both informal and formal assessments to elicit progress toward rigorous mathematics learning goals for a full range of students.	Candidate uses informal or formal assessments to elicit progress toward rigorous mathematics learning goals.	Candidate uses informal and/or formal assessments, but assessments do not measure rigorous mathematics learning goals.	N/A
Modify Instruction Candidates use the evidence of student learning of individual students, the class as a whole, and subgroups of students disaggregated by demographic categories to analyze the effectiveness of their instruction with respect to these groups. Candidates propose adjustments to	Candidate consistently uses evidence of student learning to analyze the effectiveness of their instruction and propose adjustments to instruction that are explicitly connected to the analysis of the data and address the learning needs of each individual student, the class as a whole, and subgroups of students disaggregated by demographic categories without prompting.	Candidate uses evidence of student learning to analyze the effectiveness of their instruction and proposes adjustments to instruction that are explicitly connected to the analysis of the data for selected students, the class as a whole, and subgroups of students disaggregated by demographic categories when directed.	Candidate uses evidence of student learning to analyze the effectiveness of their instruction and proposes adjustments to instruction, but those adjustments are not explicitly connected to the analysis of the data for selected students, the class as a whole, or subgroups of students disaggregated by demographic categories.	Candidate does not use evidence of student learning to analyze the effectiveness of their instruction, or they analyze effectiveness of instruction without proposing adjustments to instruction.	N/A

instruction to improve student learning for each and every student based on the analysis. (5c)					
Promote Equitable Learning Environments Candidates seek to create more equitable learning environments by identifying beliefs about teaching and learning mathematics, and associated classroom practices that produce equitable or inequitable mathematical learning for students. (6a)	Candidate identifies personal beliefs, classroom practices, and systemic structures that produce equitable and inequitable mathematical learning experiences and outcomes for students. Candidate seeks out information to increase equitable practices and/or eliminate inequitable practices to further mathematical learning for individual students. Candidate demonstrates ways to help traditionally marginalized students experience success.	Candidate identifies beliefs and classroom practices that produce equitable and inequitable mathematical learning experiences and outcomes for students. Candidate seeks out information to increase equitable practices and/or eliminate inequitable practices to further mathematical learning.	Candidate identifies beliefs and classroom practices that produce inequitable mathematical learning experiences and outcomes for students. Candidate identifies beliefs that produce equitable mathematical learning experiences and outcomes for students.	Candidate is unable to identify beliefs and practices that produce inequitable mathematical learning experiences and outcomes for students.	N/A
Engage Families and Communities Candidates communicate with families to share and discuss strategies for ensuring the mathematical success of their children.	Candidate communicates with families about the mathematical ideas and processes that students are exploring, suggests good mathematics resources, and provides opportunities for the candidate and families to discuss strategies for	Candidate communicates with families about the mathematical ideas and processes that students are exploring, suggests good mathematics resources, and provides opportunities for the	Candidate communicates information to families about mathematical ideas and processes and suggests good mathematics resources for families to contribute to the mathematical	Candidate communicates information to families about mathematical ideas and processes.	N/A

(6c)	ensuring the mathematical success of their children. Candidate seeks out opportunities in the community to understand and interact with families.	candidate and families to discuss strategies for ensuring the mathematical success of their children.	success of their children.		