

Alignment of NCTM Standards (2020) for Secondary to edTPA Rubrics

Alignment is based on how well edTPA Secondary Mathematics Assessment Handbook (September 2016) rubric criteria, rather than task directions, provide evidence supporting selected components of the NCTM Standards (2020) for Secondary.

Definition of edTPA Rubric Level of Support

Limited Alignment

The edTPA rubric provides partial evidence for the standard component. All parts of the component at the NCTM Reviewer Rubric Level 3 are not addressed in edTPA rubric Level 3.

Moderate Alignment

The edTPA rubric provides sufficient evidence to meet the standard component. All parts of the component at the NCTM Reviewer Rubric Level 3 are addressed in edTPA rubric Level 4 and above.

Strong Alignment

The edTPA rubric provides strong evidence to meet the standard component. All parts of the component at the NCTM Reviewer Rubric Level 3 are addressed in edTPA rubric Level 3 and above.

Alignment Table

Standard Component	edTPA Rubric Number and Level of Support
*2a) Problem Solving. Candidates demonstrate a range of mathematical problem-solving strategies to make sense of and solve nonroutine problems (both contextual and noncontextual) across mathematical domains.	1 – Limited
*2b) Reasoning and Communicating. Candidates organize their mathematical reasoning and use the language of mathematics to express their mathematical reasoning precisely, both orally and in writing, to multiple audiences.	1 – Limited 4 – Limited
*3a) Student Diversity. Candidates identify and use students' individual and group differences when planning rigorous and engaging mathematics instruction that supports students' meaningful participation and learning.	2 – Limited 3 – Limited
3b) Students' Mathematical Strengths. Candidates identify and use students' mathematical strengths to plan rigorous and engaging mathematics instruction that supports students' meaningful participation and learning.	3 – Moderate 12 – Limited
3c) Positive Mathematical Identities. Candidates understand that teachers' interactions impact individual students by influencing and reinforcing students' mathematical identities, positive or negative, and plan experiences and instruction to develop and foster positive mathematical identities.	6 – Limited
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.	1 – Limited 7 – Moderate

Standard Component	edTPA Rubric Number and Level of Support
<p>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.</p>	<p>9 – Strong</p>
<p>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.</p>	<p>8 – Limited</p>
<p>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.</p>	<p>1 – Limited 5 – Limited 7 – Strong</p>
<p>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.</p>	<p>8 – Limited</p>
<p>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.</p>	<p>5 – Limited</p>
<p>5b) Analyze Assessment Data. Candidates collect information on students’ progress and use data from informal and formal assessments to analyze progress of individual students, the class as a whole, and subgroups of students disaggregated by demographic categories toward rigorous mathematics learning goals.</p>	<p>11 – Limited 14 – Limited</p>
<p>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.</p>	<p>10 – Limited 11 – Moderate 15 – Limited</p>