**Alignment of *NCTM CAEP Standards (2012) for Secondary* to edTPA Rubrics**

Alignment is based on how well edTPA Secondary Mathematics Operational Handbook 2013-14 rubric criteria, rather than task directions, provide evidence supporting selected elements of the *NCTM CAEP Standards (2012) for Secondary*. Seven of 15 edTPA rubrics provide sufficient evidence (moderate or strong support level) for one or more elements of Standards 3, 4, and 5. edTPA rubrics do not provide evidence for elements of Standards 1, 6, and 7 and provide insufficient evidence (limited support level) for elements of Standard 2. edTPA is designed as a measure of pedagogy and is not intended to measure ALL aspects of effective teaching. Elements of the *NCTM CAEP Standards (2012) for Secondary* not listed below are recognized as beyond the scope of edTPA purpose and composition.

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| **Element** | **edTPA Rubric # and Level of Support** |
| **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. | 8 – Limited |
| **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. | 9 – Limited |
| **3b**  Analyze and consider research in planning for and leading students in rich mathematical learning experiences. | 3 – Moderate |
| **3c**  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. | 3 – Moderate |
| **3d**  Provide students with opportunities to communicate about mathematics and make connections among mathematics, other content areas, everyday life, and the workplace. | 8 – Moderate |
| **3e**  Implement 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. | 7 – Moderate; 8 – Limited |
| **3f**  Plan, select, implement, interpret, and use formative and summative assessments to inform instruction by reflecting on mathematical proficiencies essential for all students. | 5 – Strong; 10 – Limited; 11 – Limited; 13 – Limited; 15 – Limited |
| **3g**  Monitor students’ progress, make instructional decisions, and measure students’ mathematical understanding and ability using formative and summative assessments. | 11 – Limited; 13 – Limited; 15 – Moderate |
| **4b**  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. | 1 – Limited; 3 – Moderate; 7 – Limited |
| **4c**  Incorporate knowledge of individual differences and the cultural and language diversity that exists within classrooms and include culturally relevant perspectives as a means to motivate and engage students. | 2 – Limited; 4 – Limited |
| **5a**  Verify that secondary 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. | 8 – Limited; 11 – Moderate |
| **5b**  Engage students in developmentally appropriate mathematical activities and investigations that require active engagement and include mathematics-specific technology in building new knowledge. | 7 – Limited |
| **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. | 10 – Limited; 11 – Limited; 13 – Moderate |