

# MISSOURI EDUCATOR GATEWAY ASSESSMENTS

## Field 082 Mathematics

### Content Alignment Study

The Content Alignment Study below provides information about the alignment of knowledge and skills described in the competencies that make up the test framework for this licensure test with the state and national standards designated by the Department of Elementary and Secondary Education for this field. The table indicates those portions of the relevant state and/or national standards that are addressed -- in whole or in part -- by each competency.

Test Competency	Missouri Department of Elementary and Secondary Education (Spring 2016) Mathematics Grade-Level Expectations Grades 6–12	National Council of Teachers of Mathematics (NCTM) (2000) Principles and Standards for School Mathematics
<b>Numbers and Quantity</b>		
0001 Understand real numbers and mathematical problem solving.	A1.NQ.A.1–2; A2.NQ.A.1–3	9–12.N.A.1–2, 4; 9–12.N.B.1; 9–12.N.C.1–2
0002 Understand complex numbers, vectors, and matrices.	A2.NQ.B.5–6	9–12.N.A.2–3; 9–12.N.B.2; 9–12.N.C.1
<b>Patterns, Algebra, and Functions</b>		
0003 Understand relations and functions.	A1.NQ.B.3d; A1.SSE.A.1; A1.REI.C.6; A1.APR.A.1–2; A1.IF.A.1a–b, 2, B.3–5, C.7–9; A1.LQE.B.4–6; A2.IF.A.1–2; A2.BF.A.1–2	9–12.A.A.1–4, 6; 9–12.A.B.1, 3–5; 9–12.A.D.1
0004 Understand linear, quadratic, and higher-order polynomial functions.	A1.SSE.A.2, 3a–b; A1.CED.A.1–4; A1.REI.A.1, 2a–c, B.3, 5, C.7–8; A1.IF.B.6; A1.LQE.A.1a, 3; A2.NQ.B.7; A2.APR.A.1–3, 5; A2.FM.A.1	9–12.A.A.3; 9–12.A.B.2, 5; 9–12.A.C.1–3
<b>Measurement and Geometry</b>		
0005 Understand measurement principles and procedures.	A1.NQ.B.3a–c, 4–5; G.C.B.4–5; G.GMD.A.1–2; G.MG.A.1	9–12.M.A.1; 9–12.M.B.1–2, 4
0006 Understand Euclidean geometry in two and three dimensions.	G.CO.A.1, B.6–7, C.8–10; G.SRT.A.2–3, B.4, C.5–8; G.C.A.1–3; G.GMD.B.3–4; G.MG.A.1, 3	9–12.G.A.1–3; 9–12.G.D.1–5

# MISSOURI EDUCATOR GATEWAY ASSESSMENTS

## Field 082 Mathematics

### Content Alignment Study

Test Competency	Missouri Department of Elementary and Secondary Education (Spring 2016) Mathematics Grade-Level Expectations Grades 6–12	National Council of Teachers of Mathematics (NCTM) (2000) Principles and Standards for School Mathematics
0007 Understand coordinate and transformational geometry.	A1.BF.A.1; A2.BF.A.3; G.CO.A.2–5; G.SRT.A.1; G.GPE.A.1–2, B.3–6	9–12.G.B.1–2; 9–12.G.C.1–2
<b>Trigonometry and Advanced Algebraic Functions</b>		
0008 Understand trigonometric functions.	None	9–12.A.A.3, 5; 9–12.A.B.2, 5; 9–12.A.C.1–3; 9–12.G.A.4
0009 Understand exponential and logarithmic functions.	A1.CED.A.2; A1.IF.B.6; A1.LQE.A.1b, 2–3; A2.SSE.A.1–4; A2.FM.A.1	9–12.A.A.3, 5; 9–12.A.B.2, 5; 9–12.A.C.1–3
0010 Understand rational, radical, absolute value, and piecewise defined functions.	A2.NQ.A.4; A2.REI.A.1–2; A2.APR.A.4	9–12.A.A.3, 5; 9–12.A.B.2, 5; 9–12.A.C.1–3
<b>Statistics and Probability</b>		
0011 Understand principles and techniques of statistics.	A1.NQ.B.3d; A1.DS.A.1–3, 4a–b, 5a–b, 6–8; A2.DS.A.1–5, 7	9–12.D.A.1–5; 9–12.D.B.1–5; 9–12.D.C.1–4
0012 Understand principles and techniques of probability.	A2.DS.A.6, B.8; G.CP.A.1–8	9–12.N.B.3; 9–12.D.D.1–5