

University of Maryland University College (UMUC)
Department of Education

Conceptual Framework (CF) Alignment: UMUC’s professional education unit instills in all candidates the belief that all students can learn and learn at high levels, and that they as teachers and teacher candidates are instrumental in ensuring that this learning occurs. This transcript review form is used for MAT admissions in conjunction with Key Assessments 2 – Description of transcript analysis process, which aligns with CF Learning Objective 1: Teaching for Learning – The candidate acts upon academic content, professional and pedagogical knowledge, and understanding of students to maximize student achievement. The use of this transcript review form also aligns with the Department’s Professional Dispositions category 1: Relationship with students through curriculum and instruction.

MAT Transcript Review Form for Secondary Mathematics, 7-12 Grade Teacher Certification – NCTM Standards 2003

NCTM Assessment Standards for Certification	Typical Courses Aligned with Standards (Course Samples)	Courses Completed (Include Prefix, number, and Name)	# of Credits
Knowledge of Number and Operation (computation proficiency–via number theory, history of math, differential equations, computational methods)	<ul style="list-style-type: none"> • Differential Equations • Complex Variables 		
Knowledge of Different Perspectives on Algebra (relationship among quantities–via linear algebra, abstract algebra)	<ul style="list-style-type: none"> • College Algebra • Ex. Linear Algebra 		
Knowledge of geometries (spatial visualization, geometric modeling, analyze geometric shapes, structures and their properties)	<ul style="list-style-type: none"> • Trigonometry & Analytical Geometry 		
Knowledge of calculus (conceptual understanding of limit, continuity, integration, calculus)	<ul style="list-style-type: none"> • Calculus 		
Knowledge of discrete mathematics (in the	<ul style="list-style-type: none"> • Discrete Mathematics 		

formulation and solution of problems)			
Knowledge of Data Analysis, Statistics, and Probability (understanding of concepts and practices related to data analysis, statistics, and probability)	<ul style="list-style-type: none"> • Concept of Real Analysis • Statistics 		
		Total Credits:	

Note:

Applicants may qualify to enter the MAT program with a content specialization in Mathematics if they have an undergraduate major in the certification area, or if they have completed 30 credit hours of coursework in Mathematics.

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Full standards are available at NCTM: <http://www.nctm.org/Standards-and-Positions/CAEP-Standards/>