UNIVERSITY OF MARYLAND GLOBAL CAMPUS

UNIVERSITY OF MARYLAND GLOBAL CAMPUS (UMGC)
DEPARTMENT OF EDUCATION

Conceptual Framework (CF) Alignment: UMGC'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 COMPUTER SCIENCE, 7-12 GRADE TEACHER CERTIFICATION – ISTE STANDARDS 2011

ISTE Assessment Standards for Certification	Typical Courses Aligned with Standards (Course Samples)	Courses Completed (Include Prefix, Number, and Name)	# of Credits
Data representation and abstraction • Primitive data types • Static and dynamic data structures • External data stores • Modeling and Simulation	• Advanced Application Software • Relational Databases		

Algorithms • Programming algorithms • Analyzing algorithms • Development environments; • Software development models • Project management strategies	• Advanced Programming Languages		
Digital devices, systems, and networks • Data representation at the machine level Machine-level components and related issues of complexity • Operating systems • Computer networks and mobile computing devices	• Operating Systems Concepts & Applications • Intro to Discrete Structures • Data Structures & Analysis • Computer Architecture		
Computer science plays and its impact in the modern world • Social, ethical, and legal issues and impacts of computing, • Contributions of computer science to current and future innovations in sciences, humanities, the arts, and commerce	• Current Trends and Projects in Computer Science • Cybersecurity Best Practices		
		Total Credits:	

Note: Applicants may qualify to enter the MAT program with a content specialization in Computer Science if they have an undergraduate major in the certification area, or if they have completed 30 credit hours of coursework in Computer Science. **Applicants with a degree or coursework that is older than five years must take the Praxis II content exam in Computer Science (5652) and submit a qualifying score (149) to apply to the MAT program.**

Secondary Computer Science, 7-12 Grade Teacher Certification
Full standards are available at ISTE: https://www.iste.org/standards