**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 Computer Science, 7-12 Grade Teacher Certification - ISTE Standards

<table>
<thead>
<tr>
<th>ISTE Assessment Standards for Certification</th>
<th>Typical Courses Aligned with Standards (Course Samples)</th>
<th>Courses Completed (Include Prefix, number, and Name)</th>
<th># of Credits</th>
</tr>
</thead>
</table>
| Knowledge of programming skills and use of data— testing programs, databases, program languages | • Advanced Programing Languages  
• Advanced Application Software  
• Relational Databases | | |
| Knowledge of components, operation, single/multi-user systems, hardware, software, usability | • Operating Systems Concepts & Applications | | |
| Understanding machine level data, structures, problem solving and information organization | • Intro to Discrete Structures  
• Data Structures & Analysis  
• Computer Architecture | | |
| Social aspects of computing in society, societal norms, laws, ethics, security, | • Social Networking & Cybersecurity Best practices | | |
Planning computer instruction through teaching tasks, approaches, application and/or evaluation


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.

Secondary Computer Science, 7-12 Grade Teacher Certification
Full standards are available at ISTE: [http://www.iste.org/standards](http://www.iste.org/standards)