

DRAFT – Last Modified September 2009

science • technology • engineering • mathematics



STEM Graduation and Credit Requirements

There are a maximum of four credits earned per semester of high school. After 8 semesters of high school students have had the opportunity to earn 32 credits during the school day. 26 of these credits are required for graduation including 8.5 elective credits. There are additional opportunities to earn credits outside of the school day. STEM Magnet students must meet AACPS graduation requirements and specific STEM program requirements.

AACPS Graduation

Minimum Credit Requirements

Students entering Grade 9 In 2005-06 and thereafter		
Subject	Minimum Credit Requirements—26	
English	4	1 credit in English 9 1 credit in English 10 1 credit in English 11 1 credits in English 12
Social Studies	3	1 credit in United States Government 1 credit in World History 1 credit in United States History
Mathematics	4	1 credit of Algebra I* 1 credit in Geometry 2 mathematics elective credits
Science	3	1 credit in Biology 2 credits, including laboratory experience in any or all of the following areas: • Earth Science • Life Science • Physical Science
Physical Education	1	1/2 credit in Fitness for Life 1/2 credit Physical Education Elective
Health	1/2	1/2 credit in Health Education
Basic Technology	1	See page A-4 for a listing of courses that meet the Basic Technology Requirement.
Fine Arts	1	Music, Art, Dance, and Theatre Arts courses
Electives	8.5	Any elective course may count. (See World and Classical Language or Advanced Technology requirement for University System of Maryland Completer.)

In addition to meeting the specific credit requirements, a student shall successfully complete one of the following:

- Two credits of world or classical language (two years of the same language),

or • Two credits of advanced technology education,

or • A state-approved career and technology program

Students must attend high school for four years unless a pre-approved AACPS alternative is satisfied.

Our AACPS STEM Magnet Program requires the following credits:

- STEM-themed Pathway of Study: 3.0 credits*
- Science and Mathematics: 4.0 credits each, including at least one credit of an AP or college level course in both subjects
- Computer Science: 1.0 credit Visual Basic/JAVA
- Social Studies: a global social studies course
- World & Classical Language: 3.0 credits required, 4.0 credits suggested
- Fine Arts: STEM-enhanced art course(s)
- Problem/Project-Based Learning (PBL)
 - PBL Exploration 1 – 0.5 credits
 - PBL Exploration 2 – 0.5 credits
 - PBL Community Challenge – 0.5 credits
- STEM Policy: 0.5 credit
- Science Research II: 0.5 credit

*See the school-based programs for specific course options and approved pathways. Each STEM Magnet Program is unique.

The STEM Magnet Program is a rigorous, honors-level program and also requires the following experiences:

- Summer Bridge Programs in all summers prior to grades 9-11
- Summer Reading Experiences in all summers prior to grades 9-12
- One hybrid or online course
- Engaged participation in the STEM job shadowing program in Grades 9-10
- Successful completion of the STEM career internship program in Grades 11-12
- Engaged participation in 2 STEM-related approved competitions
- Completion of a STEM Portfolio of course and research experiences (created with assistance from AACPS Transition Advisor)

NOTE: STEM Magnet Program requirements can be used to fulfill the AACPS minimum graduation requirements.