

## HB5 Graduation Plans and Endorsements Overview

| STEM<br>Science, Technology, Engineering, & Math  | Business & Industry  | Public Services   | Arts & Humanities   | Multidisciplinary Studies   |
|---|--|---|---|---|
| <p>Students may earn a STEM endorsement by selecting and completing the requirements from any of these 4 options:</p> <p><b>Note: Algebra II, Chemistry, and Physics/Principles of Technology are required for the STEM endorsement regardless of the option the student selects from below.</b></p> <p><u>Option 1: CTE Pathways</u> (refer to CTE Counselors Guide)<br/>Students earn four CTE credits by taking at least two courses in the same cluster that lead to a final course in the STEM cluster. (With at least one advanced course in the sequence)</p> <ul style="list-style-type: none"> <li>• Engineering</li> <li>• Renewable Energy</li> <li>• Biomedical Science</li> <li>• Cybersecurity</li> <li>• Programming and Software Development</li> </ul> <p><u>Option 2: Math</u><br/>Students take Algebra I, Geometry, and Algebra II <u>AND</u> two of the following courses for which Algebra II is a prerequisite.</p> <ul style="list-style-type: none"> <li>• Pre-Calculus</li> <li>• Calculus</li> <li>• Advanced Quantitative Reasoning</li> <li>• Independent Study in Mathematics</li> <li>• Discrete Mathematics for Problem Solving</li> <li>• Algebraic Reasoning</li> <li>• Statistics</li> <li>• A comparable AP math course that does not count for another credit required for graduation</li> <li>• AP Computer Science A</li> <li>• IB Computer Science Higher Level</li> <li>• Engineering Mathematics</li> <li>• Statistics and Business Decision Making</li> <li>• Mathematics for Medical Professionals</li> <li>• Discrete Mathematics for Computer Science</li> </ul> <p><u>Option 3: Science</u><br/>Students take Biology, Chemistry, Physics/Principles of Technology, <u>AND</u> two of the following courses.</p> <ul style="list-style-type: none"> <li>• Aquatic Science</li> <li>• Astronomy</li> <li>• Earth and Space Science</li> <li>• Environmental Systems</li> <li>• A comparable AP or IB science course that does not count for another credit for graduation</li> <li>• Advanced Animal Science</li> <li>• Advanced Plant and Soil Science</li> <li>• Anatomy and Physiology</li> <li>• Medical Microbiology</li> <li>• Pathophysiology</li> <li>• Food Science</li> <li>• Forensic Science</li> <li>• Biotechnology I</li> <li>• Biotechnology II</li> <li>• Principles of Technology</li> <li>• Scientific Research and Design</li> <li>• Engineering Design and Problem Solving</li> <li>• Engineering Science</li> </ul> <p><u>Option 4: Combination</u><br/>Students take Algebra II, Chemistry, and Physics, an additional math course, an additional science course, <u>AND</u> three additional credits in the STEM endorsement.</p> | <p>Students may earn a Business &amp; Industry endorsement by selecting and completing a coherent sequence or series of courses selected from one of the following:</p> <p><u>Option 1:</u><br/>Students earn four credits by taking at least two courses in the same cluster, at least one advanced CTE course, and the final course in the sequence must be selected from one of the following areas:</p> <ul style="list-style-type: none"> <li>• Agriculture</li> <li>• Food &amp; Natural Resources</li> <li>• Architecture &amp; Construction</li> <li>• Arts</li> <li>• Audio/Video</li> <li>• Business Management</li> <li>• Finance</li> <li>• Hospitality &amp; Tourism</li> <li>• Information Technology</li> <li>• Technology Applications</li> <li>• Manufacturing</li> <li>• Marketing</li> <li>• Transportation or Distribution &amp; Logistics</li> <li>• Technology &amp; Communications</li> </ul> <p><u>Option 2: Communication</u><br/>Students earn four English credits by selecting courses in same cluster to include three levels in one of the following areas:</p> <ul style="list-style-type: none"> <li>• Public speaking</li> <li>• Debate</li> <li>• Advanced Broadcast Journalism</li> <li>• Advanced Journalism: Newspaper</li> <li>• Advanced Journalism: Yearbook</li> <li>• Advanced Journalism: Literary Magazine</li> </ul> <p><u>Option 3:</u><br/>Students earn four or more credits in a coherent sequence in CTE</p> | <p>Students may earn a Public Services endorsement by selecting and completing a coherent sequence or series of courses selected from one of the following 2 options:</p> <p><u>Option 1:</u><br/>Students earn four credits by taking at least two courses in the same career cluster in one of the following areas:</p> <ul style="list-style-type: none"> <li>• Education and Training</li> <li>• Government and Public Administration</li> <li>• Health Sciences and occupations</li> <li>• Law, Public Safety, Corrections, and Security</li> <li>• Human Services</li> <li>• Career Preparation I or II and Project-Based Research</li> </ul> <p>With at least one advanced course in the sequence</p> <p><u>Option 2: JROTC</u><br/>Student takes four JROTC credits</p> | <p>Students may earn an Arts &amp; Humanities endorsement by selecting and completing the requirements from one of the following 4 options:</p> <p><u>Option 1: Social Studies</u><br/>Students take five Social Studies credits</p> <p><u>Option 2: World Languages</u><br/>Students take four levels of the same foreign language.</p> <p><u>OR</u></p> <p>Students take two levels of one foreign language AND two levels of a different foreign language (two levels in each of two different foreign languages for 4 credits.)</p> <p><u>Option 3: Fine Arts</u><br/>Students take four credits in the same fine arts area:</p> <p><u>OR</u></p> <p>Students take two credits in one fine arts area AND two credits in a different fine arts area (two credits in each of two different fine arts areas for 4 credits).</p> <p><u>Option 4: English Literature</u><br/>Students take four English credits by selecting from the following:</p> <ul style="list-style-type: none"> <li>• English IV</li> <li>• Independent Study</li> <li>• Literary Genres/Creative Writing</li> <li>• Research/ Technical Writing</li> <li>• Humanities</li> <li>• Communication Applications</li> <li>• AP English Literature and Composition</li> <li>• IB Language Studies A1 or Higher Level</li> </ul> | <p>Students may earn a Multidisciplinary Studies endorsement by selecting and completing the requirements from one of the following 3 options:</p> <p><u>Option 1: Preparation for Workforce</u><br/>Four advanced courses that prepare a student to enter the workforce successfully or postsecondary education without remediation from within one endorsement area or among endorsement areas that are not in a coherent sequence</p> <p><u>Option 2: Four by Four</u><br/>Four credits in each of the four foundation subject areas to include chemistry and/or physics and English IV or a comparable AP or IB English course</p> <p><u>Option 3: Advanced Courses</u><br/>Allows a student to complete four Advanced Placement, International Baccalaureate, or dual credits selected from English, mathematics, science, social studies, economics, LOTE, or fine arts courses from within one endorsement area or among endorsement areas not in a coherent sequence.</p> |
| <p><u>Recommendation:</u><br/>To be college ready, we recommend students take four credits in each of the four core content areas and earn more than one endorsement. A student may enroll in courses under more than one endorsement before the student's junior year.</p>   |  |   |   |   |

## Foundation- Only 22 Credits\*

- 4 credits English** – ELA I, II, III, one credit in an advanced English course
- 3 credits Mathematics** – Algebra I, Geometry, one credit in an advanced math course
- 3 credits Science** – one credit in Biology, one credit from a laboratory- based course such as IPC, Chemistry, or Physics, and one additional credit from advanced science courses
- 3 credits Social Studies** –US History, Government, Economics, World Geography or World History
- 2 credits LOTE or Computer Programming**
- 1 credit Physical Education**
- 1 credit Fine Arts**
- .5 credit Health**
- 4.5 credits in electives**  
(may include CTE or certification courses)

\* Students may opt to Foundation-only after completing sophomore year.  
\* Consult with SPED Dept. regarding graduation plan for students being served thru SPED.

## Foundation + Endorsements- 26 Credits

- 4 credits English** – ELA I, II, III, one credit in an advanced English course
- 4 credits Mathematics** – Algebra I, Geometry, two credits in an advanced math course
- 4 credits Science** – one credit in Biology, one credit from a laboratory- based course such as IPC, Chemistry, or Physics, and two additional credits from advanced science courses
- 3 credits Social Studies** –US History, Government, Economics, World Geography or World History
- 2 credits LOTE or Computer Programming**
- 1 credit Physical Education**
- 1 credit Fine Arts**
- .5 credit Health**
- 6.5 credits in electives**  
(may include CTE or certification courses)

\* Consult with SPED Dept. regarding graduation plan for students being served thru SPED, students can receive Foundation+ Endorsement.

**Credit requirements specific to at least one**

## Distinguished Level of Achievement- 26 Credits

- 4 credits English** – ELA I, II, III, one credit in an advanced English course
- 4 credits Mathematics** – Algebra I, Geometry, Algebra II, one credit in an advanced math course
- 4 credits Science** – one credit in Biology, one credit from a laboratory- based course such as IPC, Chemistry, or Physics, and two additional credits from advanced science courses
- 3 credits Social Studies** –US History, Government, Economics, World Geography or World History
- 2 credits LOTE or Computer Programming**
- 1 credit Physical Education**
- 1 credit Fine Arts**
- .5 credit Health**
- 6.5 credits in electives**  
(may include CTE or certification courses)

**Credit requirements specific to at least one endorsement**

## State Assessments Required for Graduation

|            |            |
|------------|------------|
| English I  | English II |
| Algebra I  | Biology    |
| US History |            |

## Performance Acknowledgements

**Outstanding Performance:** 12 hours Dual Credit (3.0 or higher); Associate degree while in high school; Bilingualism/Biliteracy; College Board AP Exam Score of 3 or higher; outstanding performance on PSAT, ACT-PLAN, SAT, or ACT

**Certification:** nationally or internationally recognized business or industry certificate or license