

# North East ISD Endorsements and Programs of Study 2016-2017

North East ISD students entering 9th grade in 2014 and thereafter, will graduate under the Foundation High School Program (FHSP) with Endorsements and Distinguished Level of Achievement. Below are the five endorsements available with the Programs of Study under each endorsement. Read through the Programs of Study and select Programs of Study by circling your choices. The courses in the Programs of Study that you circled should be used to create your four-year plan for graduation and select courses. Students attending a magnet program should contact that program for more information related to the Endorsements and Programs of Study available. All required prerequisites must be followed. NEISD will offer all Endorsements, but specific Programs of Study and course offerings may vary from school to school.

## Multidisciplinary Studies Endorsement Options

<b>Academic Four Core</b>	<p><b>4 Credits</b> Four credits in each of the four foundation subject areas (English, Mathematics, Science and Social Studies) that <u>must include English IV and Chemistry and/or Physics.</u></p>
<b>Advanced Placement and Dual Credit</b>	<p><b>4 Credits</b> Four credits in Advanced Placement or Dual Credit selected from English, Mathematics, Science, Social Studies, Economics, Languages other than English, or Fine Arts</p>
<b>AVID</b>	<p><b>4 Credits</b> (Student must be accepted to the program.) 1030 AVID I (1.0) 9 1031 AVID II (1.0) 10 1032 AVID III (1.0) 11 1033 AVID IV (1.0) 12</p>

## Arts and Humanities Endorsement Options

<b>English</b>	<p><b>6 Credits</b> (4.0 credits for Foundation and 2.0 additional credits) English I, II, III <b>And complete at least 3.0 credits from these courses:</b> English IV, Independent Study in English, Literary Genres, Creative Writing, Research and Technical Writing, Humanities, Communication Applications, and AP English Literature</p>
<b>Fine Arts</b>	<p><b>4 Credits</b> A coherent sequence of <u>4.0 credits</u> by selecting courses from one or two categories or disciplines in Fine Arts: Art, Band, Choir, Dance, Flags, Orchestra, Instrumental Ensemble, Technical Theatre or Theatre.</p>
<b>Foreign Language (Option 1)</b>	<p><b>4 Credits</b> Four levels (I-IV) of the <u>same language</u>: American Sign Language, French, German, Japanese, Latin, Mandarin Chinese, or Spanish</p>
<b>Foreign Language (Option 2)</b>	<p><b>4 Credits</b> Two levels (I-II) of the same language and then two levels (I-II) of another language: American Sign Language, French, German, Japanese, Latin, Mandarin Chinese, or Spanish</p>

**Social Studies**

**5 Credits**  
(3.0 credits for Foundation and 2.0 additional credits)  
Student must complete a total of 5.0 credits from these courses:  
Advanced Social Studies courses: Model UN, Advanced Sociology, Anthropology, AP Comparative Government and Politics, AP Human Geography, Economics, AP European History, Global Leadership, AP Macroeconomics, AP Microeconomics, Modern East Asia Studies, Psychology, AP Psychology, Special Topics, AP U.S. Government, AP U.S. History, U.S. History, U.S. Military History, PreAP World Geography, AP World History, World History.

**Business and Industry Endorsement Options**

**Accounting**

**4 Credits**  
**Complete at least 1.0 credit from these course options:**  
8290 Principles of Business, Marketing, and Finance (1.0) 9-11 (**Recommended**)  
3017/6687 Principles of Information Technology (1.0) 7-12  
3037/6686 Principles of Information Technology (0.5) 7-12  
8025 Dollars and Sense (0.5) 9-12  
5809 Professional Communications (0.5) 9-12  
**And complete at least 1.0 credit from these course options:**  
8291 Business Information Management I (1.0) 9-12  
8300 Banking and Financial Systems (0.5) 10-12  
8293 Money Matters (0.5) 9-12  
8272 Financial Math (1.0) 10-12  
**And must complete:**  
8301 Accounting I (1.0) 10-12  
8302 Accounting II (1.0) 11-12

**Advanced Technology and Manufacturing Academy (All Campuses)**

**An Alamo Colleges program – Students must apply and be accepted in to the 11<sup>th</sup> and 12<sup>th</sup> grade program. <http://www.alamoacademies.com/>**  
8177 Manufacturing Technology I (3.0) 11  
8178 Manufacturing Technology II (3.0) 12

**Aerospace Academy (All Campuses)**

**An Alamo Colleges program – Students must apply and be accepted in to the 11<sup>th</sup> and 12<sup>th</sup> grade program. <http://www.alamoacademies.com/>**  
8103 Energy , Power and Transportation Systems (1.0) 11  
8116 Aerospace Academy I (2.0) 11  
8117 Aerospace Academy II (3.0) 12

**AgriScience Magnet Program (Madison HS only)**

**4 Credits**  
**Complete 1.0 Credit of:**  
3023/8261 Principles of Agriculture, Food, and Natural Resources (1.0) 8-12  
**Complete at least 1.0 to 2.0 credits of these courses:**  
8025 Dollars and Sense (0.5) 9-12  
5809 Professional Communications (0.5) 9-12  
8262 Food Technology and Safety (1.0) 10-12  
8263 Wildlife, Fisheries and Ecology Management (1.0) 10-12  
8264 Small Animal Management (1.0) 10-12  
8265 Livestock Production (1.0) 10-12  
8266 Equine Science (0.5) 10-12  
8268 Food Processing (1.0) 11-12  
8275 Horticulture Science (1.0) 10-12  
8276 Landscape Design and Turf grass Management (1.0) 10-12  
8279 Professional Standards in Agribusiness (0.5) 10-12  
8280 Agribusiness Management and Marketing (1.0) 10-12  
8283 Agriculture Mechanics and Metal (1.0) 10-12

# Business and Industry Endorsement Options

	<p><b>Complete at least one of these advanced courses:</b>              8267 Veterinary Medical Applications (1.0) 11-12              8269 Advanced Animal Science (1.0) 11-12              8277 Advanced Plant and Soil Science (1.0) 11-12              8278 Principles and Elements of Floral Design (1.0) 10-12              8281 Mathematical Applications in AFNR (1.0) 9-11              8282 Agricultural Facilities Design (1.0) 11-12              8284 Agricultural Power Systems (2.0) 11-12              8286 Advanced Environmental Technology (1.0) 11-12              8287 Practicum in Agriculture (2.0) 11-12</p> <p><b>(See magnet program director for more information)</b></p>
<b>Animation</b>	<p><b>4 Credits</b>  <b>Complete at least 1.0 credit from these course options:</b>              3020/6656 Principles of Arts, A/V, and Communications (1.0) 7–12 <b>(Recommended)</b>              3040 Principles of Arts, A/V, and Communications (0.5) 7–8              8025 Dollars and Sense (0.5) 9-12              5809 Professional Communications (0.5) 9-12              3017/6687 Principles of Information Technology (1.0) 7-12              3037/6686 Principles of Information Technology (0.5) 7-12              6701 Video Game Design (0.5) 9-12              6700 Video Game Design (1.0) 9-12</p> <p><b>And must complete:</b>              6711 Animation (1.0) 10-12              6712 Advanced Animation (2.0) 11-12</p>
<b>Architectural Design</b>	<p><b>4 Credits</b>  <b>Complete at least 1.0 credit from these course options:</b>              6647 Principles of Architecture and Construction (1.0) 9-12 <b>(Recommended)</b>              6648 Principles of Architecture and Construction (0.5) 9-12              8025 Dollars and Sense (0.5) 9-12              5809 Professional Communications (0.5) 9-12</p> <p><b>And must complete:</b>              8245 Architectural Design (1.0) 10-12              8246 Advanced Architectural Design (2.0) 11-12</p>
<b>Automotive Technology Academy (All campuses)</b>	<p><b>4 Credits (Starts in 10<sup>th</sup> grade)</b>              8112 Automotive Technology (2.0) 10-12              8113 Advance Automotive Technology (2.0) 11-12              8114 Practicum in Transportation (2.0 ) 12 (Optional 10-15 hour Internship)              8115 Practicum in Transportation (3.0) 12 (Optional 10-15 hour Internship)</p> <p><b>(See magnet program director for more information.)</b></p>
<b>Broadcast Journalism</b>	<p><b>4 Credits</b>              1705 Broadcast Journal. I (1.0) 9 - 12              1706 Broadcast Journal. II (1.0) 9 - 12              1707 Broadcast Journal. III (1.0) 9 - 12</p> <p><b>And complete at least 1.0 credit from these course options:</b>              Any one of the 3 first level courses from Debate, Public Speaking, Advanced Digital Journalism, Advanced Journalism Yearbook Production; 5828 Independent Studies in Speech (11-12, 1.0); 5815 Oral Interp I (9-12, 1.0); 1703 Journalism I (9-12, 1.0); 1704 Independent Study in Journalism (9-12, 1.0); 1720 Photojournalism (9-12, 1.0)</p>

# Business and Industry Endorsement Options

<b>Business Administration</b>	<p><b>4 Credits</b>  <b>Complete 1.0 credit:</b>              8290 Principles of Business, Marketing, and Finance (1.0) 9-11 <b>(Recommended)</b>  <b>And Complete at least 3.0 credits from these course options:</b>              5809 Professional Communications (0.5) 9-12              8025 Dollars and Sense (0.5) 9-12              8296 Global Business (0.5) 10-12              8288 Virtual Business (0.5) 10-12              8298 Business Law (0.5) 11-12              3017/6687 Principles of Information Technology (1.0) 7-12              3037/6686 Principles of Information Technology (0.5) 7-12              8291 Business Information Management I (1.0) 9-12 <b>(Recommended)</b>              8292 Business Information Management II(1.0) 10-12              8294 Business Management (1.0) 10-12</p>
<b>Construction</b>	<p><b>4 Credits</b>  <b>Complete at least 1.0 credit from these course options:</b>              6647 Principles of Architecture and Construction (1.0) 9-12 <b>(Recommended)</b>              6648 Principles of Architecture and Construction (0.5) 9-12              5809 Professional Communications (0.5) 9-12              8025 Dollars and Sense (0.5) 9-12  <b>And must complete:</b>              8239 Construction Management (1.0) 10-12              8236 Mill and Cabinet Making (2.0) 10-12</p>
<b>Culinary Arts</b>	<p><b>4 Credits</b>              8063 Culinary Arts (2.0) 10-12 <b>(Recommended)</b>              8021 Practicum in Culinary Arts (2.0) 11-12              3015 Principles of Hospitality (1.0) 7-8 (Middle School)              3035 Principles of Hospitality(0.5) 7-8 (Middle School)              5809 Professional Communications (0.5) 9-12              8009 Restaurant Management (1.0) 10-12              8019 Restaurant Management (0.5) 10-12              8025 Dollars and Sense (0.5) 9-12              8028 Food Science (1.0) 11-12</p>
<b>Debate</b>	<p><b>Must Complete:</b>              5820 Debate/Public Speaking I (2.0) 9-12              5825 Debate/Public Speaking II. (2.0) 10-12              5827 Debate/Public Speaking III (2.0) 11-12</p>
<b>Electrical Systems and Technology Program (MacArthur HS Only)</b>	<p><b>4 Credits</b>              5809 Professional Communications (0.5) 9-12              8025 Dollars and Sense (0.5) 9-12              6647 Principles of Architecture and Construction. (1.0) 9-12              8154 Electrical Technology (1.0) 10-12              8155 Advanced Electrical Technology (2.0) 11-12              8156 Practicum in Electrical (3.0) 11-12              8248 Practicum in Construction Mgmt. (2.0) 12 (Optional Internship)</p> <p><b>(See magnet program director for more information.)</b></p>

# Business and Industry Endorsement Options

<b>Fashion Design</b>	<p><b>4 Credits</b>            3016/6721 Principles of Human Services (1.0) 7-12 <b>(Recommended)</b>            3036/6720 Principles of Human Services (0.5) 7-12            3020/6656 Principles of Arts, A/V, and Communications (1.0) 7-12            5809 Professional Communications (0.5) 9-12            8025 Dollars and Sense (0.5) 9-12            8015 Fashion Design (1.0) 10-12            8016 Advanced Fashion Design (2.0) 11-12</p>
<b>Graphic Design</b>	<p><b>4 Credits</b>  <b>Complete at least 1.0 credit:</b>            3020/6656 Principles of Arts, A/V, and Communications (1.0) 7-12 <b>(Recommended)</b>            3040 Principles of Arts, A/V, and Communications (0.5) 7-8            5809 Professional Communications (0.5) 9-12            8025 Dollars and Sense (0.5) 9-12            3017/6687 Principles of Information Technology (1.0) 7-12            3037/6686 Principles of Information Technology (0.5) 7-12            6701 Video Game Design (0.5) 10-12            6700 Video Game Design (1.0) 10-12  <b>And must complete:</b>            6730 Graphic Design (1.0) 9-12            6740 Advance Graphic Design (2.0) 10-12</p>
<b>Information Technology</b>	<p><b>4 Credits</b>  <b>Complete 1.0 credit:</b>            3017/6687 Principles of Information Technology (1.0) 7-12 <b>(Recommended)</b>            3037/6686 Principles of Information Technology (0.5) 7-12            5809 Professional Communications (0.5) 9-12            8025 Dollars and Sense (0.5) 9-12  <b>And complete at least 2.0 credits from these course options:</b>            8297 Digital and Interactive Media (1.0) 10-12            6701 Video Game Design (0.5) 9-12            6700 Video Game Design (1.0) 9-12            6699 Internetwork Technology I (1.0) 9-12            6631 Computer Programming (1.0) 9-12  <b>And complete at least 1.0 credit from these advanced courses:</b>            6703 Graphic Info Systems (GIS) (1.0) 9-12            6705 Internetwork Technology II (1.0) 10-12            6632 Advance Computer Programming (1.0) 11-12            6707 Spatial Tech and Remote Sensing (1.0) 9-12            6643 Web Technologies (1.0) 10-12</p>
<b>Information Technology Security Academy (All Campuses)</b>	<p><b>An Alamo Colleges program – Students must apply and be accepted in the 11<sup>th</sup> and 12<sup>th</sup> grade program. <a href="http://www.alamoacademies.com/">http://www.alamoacademies.com/</a></b>            6702 Information Technology Applications I (3.0) 11            6704 Information Technology Applications II (3.0) 12</p>
<b>Interior Design</b>	<p><b>4 Credits</b>  <b>Complete at least 2.0 credits from these course options:</b>            3016/6721 Principles of Human Services (1.0) 7-12 <b>(Recommended)</b>            3036/6720 Principles of Human Services (0.5) 7-12            6647 Principles of Architecture and Construction (1.0) 9-12            6648 Principles of Architecture and Construction (0.5) 9-12            5809 Professional Communications (0.5) 9-12            8025 Dollars and Sense (0.5) 9-12</p>

# Business and Industry Endorsement Options

	<p><b>And must complete these course options:</b>              8044 Interior Design (1.0) 10-12              8045 Advanced Interior Design (1.0) 11-12</p>
<p><b>Journalism Newspaper</b></p>	<p><b>4 Credits</b>              1743 Advance Digital Journal. I (1.0) 9 - 12              1744 Advance Digital Journal. II (1.0) 9 - 12              1745 Advance Digital Journal. III (1.0) 9 - 12</p> <p><b>And complete at least 1.0 credit from these course options:</b>              Any one of the 3 first level courses from Debate, Advanced Journalism Yearbook Production; 5828 Independent Studies in Speech (11-12, 1.0); 5815 Oral Interp. I (9-12, 1.0); 1703 Journalism I (9-12, 1.0); 1704 Independent Study in Journalism (9-12, 1.0); 1720 Photojournalism (9-12, 1.0)</p>
<p><b>Marketing</b></p>	<p><b>4 Credits</b>              8290 Principles of Business, Marketing, and Finance (1.0) 9-11 (<b>Recommended</b>)              3017/6687 Principles of Information Technology (1.0) 7-12              3037/6686 Principles of Information Technology (0.5) 7-12              8306 Advertising and Sales Promotions (0.5) 9-12              8304 Sports and Entertainment Marketing (0.5) 9-12              8318 Entrepreneurship (0.5) 11-12              8014 Fashion Marketing (0.5) 9-12              8025 Dollars and Sense (0.5) 9-12              5809 Professional Communications (0.5) 9-12</p> <p><b>And must complete one of these advanced courses:</b>              8307 Marketing Dynamics (2.0) 11-12 (Classroom Based)              8317 Marketing Dynamics Coop (3.0) 11-12 (Internships – Paid/Unpaid)</p>
<p><b>Oral Interpretation</b></p>	<p><b>Must complete:</b>              5810 Oral Interpretation/Public Speaking I (2.0) 9-12              5815 Oral Interpretation/Public Speaking II (2.0) 10-12              5816 Oral Interpretation/Public Speaking III (2.0) 10-12</p>
<p><b>Technology Applications</b></p>	<p><b>4 Credits</b>              3000/3030 Digital Communications for the 21st Century (1.0) 7-12              3013/3031 Web Design (1.0) 9-12              3036 3-D Modeling and Animation (1.0) 9-12              3024 Digital Design and Media Production (1.0) 8 (Middle School)              6706 Digital Art and Animation (1.0) 11-12              3034 Independent Study in Evolving Technologies (1.0) 9-12              6710 Web Game Development (1.0) 11-12</p>

## **Business and Industry Endorsement Options**

### **Video Production**

**4 Credits**  
**Complete at least 1.0 credit:**  
 3020/6656 Principles of Arts, A/V, and Communications (1.0) 7-12 (**Recommended**)  
 3040 Principles of Arts, A/V, and Communications (0.5) 7–8 (Middle School)  
 8025 Dollars and Sense (0.5) 9-12  
 5809 Professional Communications (0.5) 9-12  
 3017/6687 Principles of Information Technology (1.0) 7-12  
 3037/6686 Principles of Information Technology (0.5) 7-12  
 6701 Video Game Design (0.5) 9-12  
 6700 Video Game Design (1.0) 9-12  
**And must complete:**  
 6731 Audio/Video Production. (1.0) 9-12  
 6733 Advanced Audio/Video Production (2.0) 10-12

### **Welding**

**4 Credits**  
**At least 1.0 Credit from the following courses:**  
 8261 Principles of Agriculture, Food, and Natural Resources (1.0) 9-12 (**Recommended**)  
**3021/6629 Principles of Manufacturing (1.0) 7-12**  
**3041 Principles of Manufacturing (0.5) 7-8**  
 6647 Principles of Architecture and Construction (1.0) 9-12  
 6648 Principles of Architecture and Construction (0.5) 9-12  
 5809 Professional Communications (0.5) 9-12  
 8025 Dollars and Sense (0.5) 9-12  
**And Complete**  
 8169 Welding I (1.0 credits) 10-12  
 8175 Advanced Welding (2.0) 11-12

### **Yearbook**

**4 Credits**  
 1746 Advanced Journalism I - Yearbook (1.0) 9-12  
 1744 Advanced Journalism II - Yearbook (1.0) 9-12  
 1745 Advanced Journalism III - Yearbook (1.0) 9-12  
**And complete at least 1.0 credit from these course options:**  
 Any one of the 3 first level courses from Debate, Advanced Digital Journalism; 5828 Independent Studies in Speech (11-12, 1.0); 5815 Oral Interp. I (9-12, 1.0); 1703 Journalism I (9-12, 1.0); 1704 Independent Study in Journalism (9-12, 1.0); 1720 Photojournalism (9-12, 1.0)

## **Public Services Endorsement Options**

### **Education and Training**

**4 Credits**  
**At least 1.0 Credit from the following courses:**  
 8041 Principles of Education and Training (1.0) 9-12 (**Recommended**)  
 3016/6721 Principles of Human Service (1.0) 7-12  
 3036/6720 Principles of Human Services (0.5) 7-12  
 8026 Child Development (0.5) 9-12  
 8025 Dollars and Sense (0.5) 9-12  
 5809 Professional Communications (0.5) 9-12  
**And complete the following courses:**  
 8042 Instructional Practices in Education (1.0) 11-12  
 8043 Practicum in Education and Training (2.0) 12

# Public Services Endorsement Options

<b>Health Professions Academy (All Campuses)</b>	<p>An Alamo Colleges program – Students must apply and be accepted in the 11<sup>th</sup> and 12<sup>th</sup> grade program. <a href="http://www.alamoacademies.com/">http://www.alamoacademies.com/</a></p> <p>3253 Anatomy and Physiology DC (1.0) 11 (Year 1)          1319 English III DC (1.0) 11 (Year 1)          3256 Microbiology DC (1.0) 12 (Year 2)          8353 Health Science DC (2.0) 12 (Year 2)</p>
<b>Health Science</b>	<p><b>4 Credits</b>  <b>Must Complete:</b>          3022/8340 Principles of Health Science (1.0) 8-12  <b>At least 1.0 Credit from the following courses:</b>          3247 Medical Terminology (0.5) 10-12 <b>(Recommended)</b>          8026 Child Development (0.5) 9-12          8029 Lifetime Nutrition and Wellness (0.5) 10-12          8025 Dollars and Sense (0.5) 9-12          5809 Professional Communications (0.5) 9-12  <b>And complete at least 2.0 credits from these advanced courses:</b>          8345 Counseling and Mental Health (1.0) 10-12          8344 Health Science (1.0) 11-12          8343 World Health Research (1.0) 11-12          8346 Practicum in Health Science (2.0) 12          3253 Anatomy and Physiology (1.0) 11-12          3251 Medical Microbiology (0.5) 11-12          3252 Pathophysiology (0.5) 11-12          8354 Emergency Medical Technician (EMT)-Basic (1.0) 12          8348 Practicum in HS – CNA Program (2.0) 12          8414 Forensic Science (1.0) 11-12</p>
<b>Human Services</b>	<p><b>4 Credits</b>  <b>At least 1.0 Credit from the following courses:</b>          3016/6721 Principles of Human Service (1.0) 7-12 <b>(Recommended)</b>          3036/6720 Principles of Human Services (0.5) 7-12          3015 Principles of Hospitality (1.0) 7-8          3035 Principles of Hospitality (0.5) 7-8  <b>And complete at least 3.0 credit from these course:</b>          5809 Professional Communications (0.5) 9-12          8025 Dollars and Sense (0.5) 9-12          8026 Child Development (0.5) 9-12          8029 Lifetime Nutrition and Wellness (0.5) 10-12          8345 Counseling and Mental Health (1.0) 10-12          8027 Child Guidance (1.0) 10-12          6729 Practicum in Human Services (2.0) 12</p>
<b>JROTC</b>	<p><b>4 Credits</b>          7501 JROTC I (1.0) 9-12          7502 JROTC II (1.0) 9-12          7503 JROTC III (1.0) 9-12          7504 JROTC IV (1.0) 9-12</p>



## Public Services Endorsement Options

### Law and Public Safety

**4 Credits**  
**At least 2.0 Credit from the following courses:**  
 8410 Principles of Law, Public Safety, Corrections and Security. (1.0) 9-12 (Recommended)  
 8413 Law Enforcement I (1.0) 10-12  
 5809 Professional Communications (0.5) 9-12  
 8025 Dollars and Sense (0.5) 9-12  
**And complete at least 2.0 credits from these advanced courses:**  
 8418 Law Enforcement II (1.0) 11-12  
 8412 Court Systems and Practices (1.0) 10-12  
 8414 Forensic Science (1.0) 11-12  
 8417 Practicum in Law (2.0) 12

## STEM Endorsement Options

### Advanced Math

**5 Credits** (*Students must complete Algebra II, Chemistry and Physics for this endorsement.*)  
 Algebra I (1.0) 8-12  
 Geometry (1.0) 9-12  
 Algebra II (1.0) 10-12  
**And complete at least 2.0 credits of advanced Math courses.**

### Advanced Science

**5 Credits** (*Students must complete Algebra II, Chemistry and Physics for this endorsement.*)  
 Biology (1.0) 9-12  
 Chemistry (1.0) 10-12  
 Physics (1.0) 11-12  
**And complete at least 2.0 credits of advanced Science courses.**

### Computer Science (Option 1)

**3 Credits** (*Students must complete Algebra II, Chemistry and Physics for this endorsement.*)  
 3005 Pre AP Computer Science (1.0) 9-12  
 3007 AP Computer Science Principles (1.0) 11-12  
 3010 AP Computer Science A (1.0) 10-12  
**And complete at least 1.0 credit of advanced Math courses.**  
 Four foundational math courses plus and additional math course to total 5.0 credits of Math

### Computer Science (Option 2)

**4 Credits** (*Students must complete Algebra II, Chemistry and Physics for this endorsement.*)  
 3025/3032 Fundamentals of Computer Science (0.5) 8-12  
 3005 Pre AP Computer Science (1.0) 9-12  
 3007 AP Computer Science Principles (1.0) 11-12  
 3010 AP Computer Science A (1.0) 10-12  
 3033 Mobile Application Development (1.0) 9-12  
 3037 Game Programming Design  
 3011 Independent Study in Technology Applications (1.0) 9-12  
 8419 Digital Forensics (1.0) 11-12  
 3013 Discrete Mathematics for Computer Science (1.0) 11-12

## **Engineering**

**4 Credits** (*Students must complete Algebra II, Chemistry and Physics for this endorsement.*)

**At least 2.0 Credit from the following courses:**

3019/8250 Concepts of Engineering and Technology (1.0) 7-10 (**Recommended**)

3039 Concepts of Engineering and Technology (0.5) 7-8 (Middle School)

8252 Engineering Design and Presentation (1.0) 9-12 (**Recommended**)

8025 Dollars and Sense (0.5) 9-12

5809 Professional Communications (0.5) 9-12

**And complete at least 2.0 credits from these advanced courses:**

8253 Advanced Engineering Design (2.0) 10-12 (**Recommended**)

8258 Engineering Design and Problem Solving (1.0) 11-12

8254 Electronics (1.0) 10-12

8255 Advanced Electronics (2.0) 11-12

8260 Practicum In STEM (2.0) 12

8251 Engineering Math (1.0) 11-12

8341 Biotechnology (1.0) 10-12

8342 Advanced Biotechnology (1.0) 11-12

8230 Data Acquisitions and Analysis(1.0) 9-12

8094 Robotics and Automation(1.0) 9-12

8259 Scientific Research and Design (1.0) 11-12

8271 Principles of Engineering (1.0) 11-12

3854 Neurobiology (1.0) 11-12

**8357** Introduction to Engineering (1.0) 9-12 PLTW

8355 Computer Integrated Manufacturing (1.0) 10-12 PLTW

8356 Aerospace Engineering (1.0) 10-12 PLTW