Principal's Message to Students (and Parents/Guardians),

As a high school student, one of the most important tasks you will perform is the mapping of your 4-year course “journey” at HHS. Thoughtful reflection about present and future goals as well as careful planning are needed if you hope to make your education work for you in the years to come! This curriculum guide has been organized to ease the course selection process. Please share this guide with your parents/guardian and spend some time reviewing it together, as the course planning process should be a cooperative venture between you and your parents/guardian.

The front section of the guide covers general information - it is critical that both you and your parents/guardian review this section very carefully, for it includes important information about course selection procedures, PA and Hempfield graduation requirements, and more. The second section contains information for incoming freshmen that are scheduling for the 9th grade year. The third section contains information for students entering grades 10-12; information regarding Lancaster County Career and Technology Center (CTC) programs and other programs available to upperclassmen such as Internships, School-to-Work, and College Credit opportunities can be found at the end of this third section.

When choosing your courses, please consider your abilities and interests as well as the Hempfield graduation requirements you must meet. Regardless of whether you intend to pursue further education at a college or technical school, enter the military, or seek immediate employment in the job market, HHS offers course work that should help you achieve your career goals. Before making your selections, carefully read the course descriptions in this guide, check for course prerequisites that must be met before you can take certain courses, and think about how each course will allow you to reach your educational goals.

It is important for students and families to understand that course requests have a major impact on teacher scheduling; student sectioning; and budgeting for books, supplies, and teaching staff needed to deliver the curricular program. **So that we can effectively plan to meet the needs of students, May 22, 2015 will be the deadline for making changes in courses selected for the 2015-16 school year.** After this date, only schedule changes deemed necessary by the school or which are appropriate due to summer school attendance will be made. Every effort will be made to honor student course requests. However, in the event of insufficient enrollment, staffing, or facility limitations, the administration reserves the right to cancel or limit the enrollment for courses publicized in the curriculum guide.

As you move through the scheduling process, your teachers and guidance counselor will be excellent resources for you - please do not hesitate to ask them questions as the process unfolds. Good luck with your course selections!

Wilbur L. Stout Jr., Ed.D.
Principal
A CURRICULUM GUIDE
FOR
STUDENTS, PARENTS, AND FACULTY

ADMINISTRATIVE DIRECTORY

Dr. Wilbur L. Stout, Jr. ....................................................High School Principal
Dr. Mark E. Reinhardt ..................................................Associate & Grade 12 Principal
Mr. William S. Brossman .............................................Franklin House Grade 11 Principal
Mr. Jodi C. Harrington ................................................ Buchanan House Grade 10 Principal
Mrs. Beth B. Brumbaugh .............................................Buchanan House Grade 9 Principal
Mr. Brendan P. Cregan ................................................ Landisville Education Center Principal

COUNSELORS

Mr. Robert L. Bentley  Mrs. Kelly M. Morenko
Mrs. Kandace K. DaCosta  Mrs. Kimberly M. Romero
Ms. Sally Metz – Guidance Supervisor  Mrs. Stefanie Scarborough
Mr. P. Nathaniel Milton  Mr. Justin Snook

Telephone (717) 898-5545

ACKNOWLEDGMENTS

The instructional program described in this Curriculum Guide is the result of the cooperative efforts of many individuals. In an effort to recognize and acknowledge the significant contributions of these individuals, their names are listed below:

Dr. Christopher S. Adams – Assistant Superintendent
Mr. Mark N. Ashley – Health and Physical Education Supervisor
Dr. Brenda J. Becker – Superintendent
Mr. William S. Brossman – Grade 11 Principal
Mrs. Beth B. Brumbaugh – Grade 9 Principal
Mrs. Kathy J. Dinkelspiel – Special Education Coordinator, Secondary
Ms. Drue E. Feilmeier – Director of Curriculum
Dr. Catherine M. Fuhrman – Library Supervisor
Mrs. Donna M. Goserud – English As A Second Language
Mr. Jodi C. Harrington – Grade 10 Principal
Mr. Ralph D. Heister – Science Supervisor
Mr. Brian S. Lehman – Art Supervisor
Mrs. Eileen F. Little – Gifted Education Coordinator
Mrs. Debbie Lugar – Open Campus Director
Ms. Sally Metz – Guidance Supervisor
Dr. Alan W. Mudrick – Music Supervisor
Mr. Michael Mylin – Mathematics Supervisor
Mrs. Patricia A. Nonnemacher – Administrative Assistant to the High School Principal
Dr. Mark E. Reinhardt – Associate & Grade 12 Principal
Dr. Wanda J. Richie – English Supervisor
Mr. Leon P. Shoffler – Technology & Engineering Education Supervisor
Mrs. Lauren M. Stauffer – Family and Consumer Sciences Chairperson
Dr. Wilbur L. Stout, Jr. – High School Principal
Mr. Ryan J. Strafer – Foreign Language Supervisor
Mr. Terrance S. Trego – Social Studies Supervisor
Mr. Danny E. Walck – Business Computer & Information Technology Department Chairperson
Mr. Andrew J. Wise – Business Teacher
Mrs. Vicki L. Woerner – Student Information Systems Coordinator
High School and Middle School Counseling Staff
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GENERAL INFORMATION

4
COURSE SELECTION PROCEDURE

GENERAL GUIDELINES

• Students must select courses required for graduation as described in this publication.

• Elective courses described in this publication may be selected if prerequisite course and grade level requirements are met and the student has parental and teacher approval.

• Students must maintain a schedule with a minimum of EIGHT (8) class periods per 2 day cycle. In other words, students must be scheduled for 4 out of 5 blocks every day. (The 5th block will be lunch/flex.)

• A student may earn credit only once for a course in pursuit of high school graduation requirements.

COURSE SELECTION PROCEDURES

Counselors will discuss course offerings and share information about the course selection process in classes at the middle schools and during the flex periods at the high school.

Middle school and High school teachers will use the Sapphire portal to recommend required and select elective courses for students.

Students will be selecting courses on-line using the Sapphire portal. Middle school students will complete this process in school under the supervision of a guidance counselor. High school students may select their elective classes either at home or in school using the portal. Computers will be available in the Commons during lunch and flex periods for students to select elective courses. The Sapphire portal will be open from February 27 - March 5 for all students to enter their courses. Students who do not choose courses during this window of time, will have courses assigned to them by their counselor.

A parent signature is required on the “Course Selection Printout” for high school students or Course Selection form for middle school students to indicate approval of your program of study. The signed form will be collected for high school and middle school students on March 20, 2015.

CHANGING A COURSE

FRIDAY, MAY 22, 2015 WILL BE THE DEADLINE FOR MAKING CHANGES IN THE COURSE SELECTIONS FOR THE 2015/2016 YEAR. Changes deemed necessary by the faculty/administration and those required by summer school attendance will be made following that date. Scheduled courses will not be dropped without parent, teacher, counselor recommendation, and administrative approval.

Courses dropped 10 days after the start of the semester/school year will be noted on the permanent record as "WP" (student had a passing grade at the time the elective was dropped); or, "WF" (student was failing the course when it was dropped). The determination of WP or WF is assigned by the specific department supervisor.

Any required or elective course dropped past the midpoint of the course will be assigned an automatic “F” unless otherwise approved by the administration.

PARENTS’ NIGHT PROGRAMS

On February 3, 2015, parents and students are encouraged to attend the Course Selection Night Program in the Hempfield High School Performing Arts Center. The program for students in grade 8 will begin at 6:45 p.m. The program for current students in grades 9-11 will begin at 7:30 p.m. Information will be presented to help parents and students better understand the Curriculum Guide, Naviance, and the courses available for the upcoming school year.

CAREER AND TECHNOLOGY PROCESS

Student applications for CTC were due in the Counseling Office on January 16, 2015. Acceptance letters are sent by the CTC in the spring of 2015.
Online Learning Options: Open Campus PA

Hempfield School District is committed to providing students with a variety of education options. We have partnered with two neighboring school districts, Manheim Township and Penn Manor, and their teachers, to develop and offer a number of online courses. All online courses currently operate on the Moodle platform.

Requirements for taking a course online include:
- Self-motivation
- Responsibility for completing required work by posted due dates
- Acceptance of application (obtained from guidance office)
- Completion of online course tutorial

**Art**
- AP Art: Concentration Portfolio

**Social Studies**
- AP Psychology (1 credit)
- American History 9 CP (1 credit)
- Government & Economics CP (1 credit)
- World History CP (1 credit)

**Business**
- Personal Financial Literacy (.5 credit)
- Introduction to Marketing (.5 credit)
- Marketing in Business, Sports, and Entertainment (.5 credit)

**Health & Physical Education**
- Health Education (.5 credit)
- Physical Education (.5 credit)

**Music**
- Popular Music in America (.5 credit)

**Technology & Engineering Education**
- Introduction to Video Game Design (1 credit)

**English**
- Creative Writing (1 credit)
- English 9 CP (1 credit)
- English 10 CP (1 credit)
- English 11 CP (1 credit)
- English 12 CP (1 credit)

**Mathematics**
- Statistics CP (1 credit)
- Pre-calculus CP (1 credit)
- Calculus CP (1 credit)
- Geometry (1 credit)
- Algebra 2 CP (1 credit)
- Algebra 1A CP (1 credit)
- Algebra 1B CP (1 credit)

**Foreign Language**
- Latin 1 CP (1 credit)
- Spanish 502: Español Médico (Spanish for Health Care)
- - Honors (1 credit)
- Spanish 505: Español Comercial (Business Spanish) – Honors (1 credit)
- Chinese 1 CP (1 credit)

**Science**
- Astronomy (1 credit)
- #Biology CP (1 credit) Offered for 10th grade students
- #General Science CP (1 credit)
- Chemistry (1 credit)
- Physics (1 credit)

* As with all courses offered on-site at Hempfield High School, the determination whether or not an Open Campus PA class will be offered depends upon enrollment minimums being met and instructor availability.

# Denotes courses only offered to Hempfield students.
Family Connection and Naviance

Hempfield School District is pleased to continue to offer Family Connection, a service designed especially for students and families. Family Connection is a comprehensive website that you and your child will use to help to make plans about high school courses, careers, and post-secondary planning. Family Connection is linked with Naviance Succeed™, a service that we use to track and analyze data about career and post-secondary plans, so it provides up-to-date information that’s specific to our school.

Family Connection will allow you and your child to:

- **Get involved in the planning and advising process** – Build a resume, complete online surveys, and manage timelines and deadlines for making decisions about colleges and careers.
- **Research colleges** – Compare GPA, standardized test scores, and other statistics to actual historical data from our school for students who have applied and been admitted in the past.
- **Research careers** – Research hundreds of careers and career clusters, and take career assessments like the Do What You Are® test.
- **Create plans for the future** – Build course plans, create goals and to-dos, and complete tasks assigned to you by the school to better prepare yourself for your future college and career goals.
- **Sign up for College Representative Visitations** - All college, technical schools, and military representatives that are visiting HHS will be posted here. This program will also be utilized to reserve your seat to meet with the representative. Open to grades 9-12.
- **Scholarships** - As we receive scholarship opportunities, they will be listed here and available for you to download.
- **Surveys** - We will be conducting specific student survey’s through Naviance as the year progresses. They may include, counseling groups, career fair selections, Senior exit survey to name a few.
- **Graduation Project** – All classes will complete their graduation project components. Students attending one of the Lancaster County Career and Technology Centers (CTC) during their senior year will complete a graduation project through their specific CTC program. Transfer students will be assigned grade-level-appropriate graduation project tasks by their school counselor.

Naviance will be used for the graduation project, your child’s family and consumer science classes, business courses, college applications, transcript requests, and with all school counselors. To visit our school’s Family Connection site, use your browser to connect to:  http://connection.naviance.com/hempfield/

When you visit the site for the first time, you will be prompted to enter your username and password. In that box, *please enter your student active directory username then password*. For example, 12DaCostaK then in the following box enter your active directory password. This will activate your account.

**IMPORTANT INFORMATION FOR SENIORS**

The new transcript release form is sent home to you over the summer. This single sheet document will be used to list all of your transcript requests. Once you supply us with the signed form, you may freely add colleges to this single sheet as you apply.

Naviance participates with over 1400 colleges & universities, which allows us to send transcripts, letters of recommendations, and apply to common application schools in an electronic format. Please check the Class of 2015 Blog for the list of colleges that participate with Naviance or go to the following link for the list:  http://www.docufide.com/hp2/general/edocs_destinations.jsp

If the college(s) of your choice, are not on the Naviance list, you will have to provide the Counseling office with a #10 stamped, addressed envelope to the school(s) of your choice. You will also need to provide the teachers who are writing your letter of recommendations a #10 stamped, addressed envelope.

We are excited to provide this technology and provide you with access to an organizational tool that will allow your child to plan for their future. We highly encourage ALL students in grades 9-12 to log into the new program and begin to become acquainted with its offerings as we plan to utilize the program to enhance each child’s future.

For further updates on school wide issues and programming be sure to check out our Counseling Blogs at www.hempfieldsd.org/

We are sure you will find this resource helpful as your child moves through his/her high school experience. Please feel free to contact your child’s Counselor if you have any further questions.
NCAA Academic-Eligibility Requirements

Student-athletes interested in eventually participating in collegiate athletic team competition, especially at a Division I and Division II college, must meet the requirements established through the NCAA Eligibility Center. Along with posting minimum score requirements in either the SAT I or the ACT college entrance exam, a student-athlete will need to carry a minimum core course grade point average (Core Course GPA) upon graduation from Hempfield High School of at least a 2.3 for Division I and Division II. This Core Course GPA is calculated by the NCAA Eligibility Center office by using the best course grades from NCAA established core course requirements from the list of Approved Core Courses.

Sixteen (16) specified core course credits must be completed for those student-athletes interested in Division I / Division II. As the following year’s program of study is selected, potential collegiate student-athletes should be aware of the NCAA academic eligibility requirements which pertain specifically to Division I and Division II athletic participation. Division III colleges are not held to the academic guidelines of the NCAA Eligibility Center.

For a general reference, we have included the list of NCAA approved and pending classes that were listed in the 2014 - 2015 curriculum guide. For the latest updated list of Hempfield High School approved NCAA core courses, please visit the NCAA Eligibility Center website at www.eligibilitycenter.org

**ENGLISH**
- English 9-12 CP
- English 9-12 Honors
- English AP
- Humanities-English Honors
- Creative Writing

**FOREIGN LANGUAGE**
- Chinese I CP
- Chinese II Honors
- Chinese III Honors
- Chinese IV Honors
- French I CP
- French II CP
- French III Honors
- French IV Honors
- French 301: French History and Culture - Honors
- French 302: French Language and Literature - Honors
- German I CP
- German II CP
- German III Honors
- German IV Honors
- German Language & Culture AP
- Latin I CP
- Latin II CP
- Latin III Honors
- Latin IV Honors
- Latin 301: Latin Prose Honors
- Latin 302: Latin Poetry Honors
- Spanish I CP
- Spanish II CP
- Spanish III Honors
- Spanish IV Honors

**MATHEMATICS**
- Algebra I CP
- Algebra II CP
- Algebra IA CP (.50 credit) *
- Algebra 1A Honors (.50 credit) *
- Algebra 1B CP (.50 credit) *
- Algebra 1B Honors (.50 credit) *
- Algebra 2A CP (.50 credit) *
- Algebra 2B CP (.50 credit) *
- Advanced Algebra II CP
- Algebra II Honors
- Geometry CP
- Advanced Geometry CP
- Geometry Honors
- Precalculus CP
- Math Analysis Honors
- Calculus AB AP
- Calculus BC AP
- Calculus CP
- Introduction to Statistics
- Statistics AP

**NATURAL / PHYSICAL SCIENCE**
- General Science CP
- General Science Honors
- Biology CP
- Biology Honors
- Biology I AP
- Biology II AP
- Biology II Honors

**SOCIAL STUDIES / SOCIAL SCIENCE**
- 20th Century European History CP
- Psychology CP
- AP Psychology

---

Spanish 503: ¡Viva España!
(Spanish Life) - Honors
Spanish 504: Aventuras en la América Latina
(Adventures in Latin America) - Honors
Chemistry II AP  
Chemistry II Honors  
Environmental Science AP  
Principles of Science & Technology  
General Physics CP  
Physics CP  
Physics Honors  
Physics AP: Mechanics  
Physics AP: Electricity & Magnetism  
Anatomy & Physiology Honors

History of the U.S. I  
History of the U.S. II  
World History CP  
World History Honors  
Government and Economics CP  
Government and Economics Honors  
U.S. Government and Politics AP  
Comparative Government and Politics AP  
Principles of American Law CP  
Pennsylvania & Local History CP

SOCIAL STUDIES / SOCIAL SCIENCE
American History I CP  
American History I Honors  
American History II CP  
American History II Honors  
American History AP  
Macro Economics AP  
Micro Economics AP

PENDING
Rights and Events in A Modern World

* Hempfield High School awards 1.0 credit for successfully passing each of these courses towards graduation BUT the NCAA only awards .50 credit for each course successfully passed toward eligibility.

COUNSELING SERVICES

Parents may contact the Counseling Department for information regarding the following (some of these items may be found on the Hempfield School District website www.hempfieldsd.org, counselor blog, and Naviance):

- Career & Technology Center Programming
- Career/Occupation Information
- College Admissions
- Course Selection
- Financial Aid
- Homebound Instruction for extended physical or mental illness
- Keystone Testing
- Naviance
- PSAT, SAT I, SAT II, ACT and ASVAB Testing
- Student Support Services
- Summer School

Students are encouraged to meet regularly with their counselor.

SPECIAL EDUCATION

Special Education support services are available to meet the needs of identified exceptional individuals. Student’s services are outlined in an Individual Educational Program.

This support is only available by referral. Students believed to be eligible are directed to the office of Special Services.

GIFTED SUPPORT SERVICES

Gifted services are available to meet the individual needs of students identified as gifted per PA Chapter 16 Guidelines. Eligible students’ gifted services are outlined in a Gifted Individualized Educational Plan (GIEP). More information is available on the Hempfield School District website www.hempfieldsd.org or by contacting Gifted Services.

CAREER & TECHNOLOGY EDUCATION

A number of occupationally-oriented courses are available through the Lancaster County Career and Technology Schools located in Mount Joy, Willow Street, and Brownstown. A complete listing of career and technology course offerings appears on pages 157 and 160.

Students desiring such educational opportunities should confer with their guidance counselor for supplemental information and materials. An appointment may be made with the career and technology counselor and visitations to particular areas for students and parents may be arranged. Student applications for CTC were due in the Counseling Office on January 16, 2015. Acceptance letters are sent by the CTC in the spring of 2015.

Rank-in-Class

Rank-in-Class is the position of any one student in a graduating class in relationship to all other students in that class based upon a weighted grade point average, cumulative to include all semesters. The sole purpose of assigning values to courses is to generate rank-in-class which is included on transcripts sent with college applications. Rank-in-Class is reported both individually and in a Decile format. A Decile is 10% of the graduating class and there
are 10 deciles per class. There are approximately 60 students in each Decile. The Valedictorian, top ten students, and students in the top Decile will be recognized at commencement. Values are assigned by degree of difficulty in the course. A Value I course is less difficult than a Value II course, etc. Courses not assigned a weighted value are excluded from Rank-in-Class.

Colleges and universities are also interested in the type and quality of the courses the student elects each year, and in the student’s participation in extra-curricular activities.

All courses in English (exclusive of Journalism, Introduction to Theater, Theater Techniques, Advanced Theater Techniques, and Communications Technology Ind. Study), social studies, mathematics (exclusive of Introduction to Programming and Intro to Statistics), science, foreign language, and the courses Anatomy-Physiology, and Accounting I and II are weighted to reward degree of difficulty. This weighting factor, grade earned, and units of credit are used when computing a student’s rank-in-class.

Juniors and seniors can readily access their unweighted GPA, weighted GPA, rank and decile through Naviance. After logging into Naviance, go to the tab “About Me” and select “Profile.”

Students in grades 9-12 can access their unofficial transcripts through our Sapphire System. All Official Transcripts must be sent directly from the guidance office, and follow the current procedure that includes documenting the request through Naviance and completing an official Transcript Release Form.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Course Weighted Value I</th>
<th>Course Weighted Value IA</th>
<th>Course Weighted Value II</th>
<th>Course Weighted Value III</th>
<th>AP Course Weighted Value IV</th>
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</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.67</td>
<td>4.90</td>
<td>5.14</td>
<td>5.60</td>
<td>6.07</td>
</tr>
<tr>
<td>A</td>
<td>4.33</td>
<td>4.55</td>
<td>4.76</td>
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<td>5.63</td>
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<td>B+</td>
<td>3.67</td>
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<td>4.40</td>
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</tr>
<tr>
<td>B</td>
<td>3.33</td>
<td>3.49</td>
<td>3.66</td>
<td>4.00</td>
<td>4.33</td>
</tr>
<tr>
<td>B-</td>
<td>3.00</td>
<td>3.15</td>
<td>3.30</td>
<td>3.60</td>
<td>3.90</td>
</tr>
<tr>
<td>C+</td>
<td>2.67</td>
<td>2.80</td>
<td>2.94</td>
<td>3.20</td>
<td>3.47</td>
</tr>
<tr>
<td>C</td>
<td>2.33</td>
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<td>2.56</td>
<td>2.80</td>
<td>3.03</td>
</tr>
<tr>
<td>C-</td>
<td>2.00</td>
<td>2.10</td>
<td>2.20</td>
<td>2.40</td>
<td>2.60</td>
</tr>
<tr>
<td>D+</td>
<td>1.67</td>
<td>1.75</td>
<td>1.84</td>
<td>2.00</td>
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</tr>
<tr>
<td>D</td>
<td>1.33</td>
<td>1.39</td>
<td>1.46</td>
<td>1.60</td>
<td>1.73</td>
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<tr>
<td>D-</td>
<td>1.00</td>
<td>1.05</td>
<td>1.10</td>
<td>1.20</td>
<td>1.30</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Weighted Exemption Policy (WEP)**

Hempfield High School has implemented a Weighted Exemption Policy (WEP) in an effort to encourage students to take classes of interest without having these classes negatively impact their Weighted Grade Point Average (WGPA), which is used to calculate class rank. Students are only permitted to apply for three (3) WEP classes – one their junior year and one each semester of their senior year – during their tenure at HHS. Students who apply for a WEP will still have all of their classes count toward their Un-Weighted Grade Point Average, which is used to calculate honor roll status and is listed on a student’s academic transcript.

Any student interested in utilizing the WEP should pick up an application with additional information in the counseling office or schedule an appointment with his/her counselor. Students must turn in completed WEP applications to the counseling office within the first five (5) days of the start of the course they wish to exempt from WGPA calculation.
GRADE POINT EQUIVALENCY OF LETTER GRADES

Letter grades are converted to numerical grade point equivalencies for purposes of generating and reporting grades as may be needed by students applying to post-secondary schools and for administrative purposes. The final grade will be reported using the grade point equivalencies shown in the following scale.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Numerical Average</th>
<th>Grade Point Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding A+</td>
<td>98-100</td>
<td>4.00</td>
</tr>
<tr>
<td>Achievement A-</td>
<td>90-92</td>
<td>4.00</td>
</tr>
<tr>
<td>High B+</td>
<td>87-89</td>
<td>3.67</td>
</tr>
<tr>
<td>Achievement B-</td>
<td>80-82</td>
<td>3.00</td>
</tr>
<tr>
<td>Satisfactory C+</td>
<td>77-79</td>
<td>2.67</td>
</tr>
<tr>
<td>Achievement C-</td>
<td>70-72</td>
<td>2.00</td>
</tr>
<tr>
<td>Minimal D+</td>
<td>67-69</td>
<td>1.67</td>
</tr>
<tr>
<td>Achievement D-</td>
<td>60-62</td>
<td>1.00</td>
</tr>
<tr>
<td>F</td>
<td>59 and below</td>
<td>0.00</td>
</tr>
</tbody>
</table>

F - Failure to achieve minimal course requirements. No credit earned.
I - Incomplete - course requirements not met because of excused student absence. (The teacher will establish a reasonable number of days in which the student is expected to complete course requirements, and is required to issue a grade change, based upon the work completed, on or before a date to be determined by the principal for each quarterly report period.) An "I" is never assigned as a final course grade.
P - Passing

Numerical grade point averages are not assigned to the letter grade of "P."

HONOR ROLL

The high school program of reporting pupil progress recognizes high scholastic achievement through an honor roll system. Grades for all courses are considered for honor roll status. Students may have no "D's", "F's", or "I's" for the marking period.

- **Honors** -- students who achieve a **3.25 to 3.50** quarterly grade point average.
- **Distinguished Honors** -- students who achieve a **3.51 to 3.75** quarterly grade point average.
- **Superior Honors** -- students who achieve a **3.76-4.00 minimum** quarterly grade point average. This is the highest recognition given for academic accomplishment.
HIGH SCHOOL GRADUATION REQUIREMENTS

To graduate from Hempfield High School, a student must successfully complete the below graduation requirements approved by the Hempfield Board of School Directors. All obligations must be satisfied before a diploma may be awarded.

To be eligible for graduation from the Hempfield School District, a student must:

- pass the required courses of instruction (below)
- demonstrate mastery of the PA Academic Standards for Reading and Mathematics via attaining proficiency or better on the Keystone Exams. Details regarding this requirement are noted on the following page.
- complete a culminating graduation project

Students must earn 28 credits in order to graduate.

<table>
<thead>
<tr>
<th>Department</th>
<th>Credits</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English</strong></td>
<td>Four (4.0) credits</td>
<td>English 9, 10, 11, 12 or Humanities or English-AP</td>
</tr>
<tr>
<td><strong>Social Studies (Class of 2017 and beyond)</strong></td>
<td>Four (4.0) credits</td>
<td>American History 9, or AP, American History, World History, Government and Economics, OR U.S. Government and Politics AP, and Selective course ****</td>
</tr>
<tr>
<td><strong>Social Studies (Classes of 2015-2016)</strong></td>
<td>Four (4.0) credits</td>
<td>American History I, American History II, OR American History AP, World History, Government and Economics, OR U.S. Government and Politics AP, Comparative Government and Politics AP, or Micro Economics AP</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td>Four (4.0) credits</td>
<td>Math Electives ***</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td>Three (3.0) credits</td>
<td>General Science, Biology, and one additional credit in Chemistry, Biology, Anatomy &amp; Physiology, Physics, current topics, or Principles of Science &amp; Technology</td>
</tr>
<tr>
<td><strong>Health, Physical Ed</strong></td>
<td>Two (2.0) credits</td>
<td>Health is scheduled in grade 10; Physical Education is scheduled in grades 9, 10, and 11. (In grade 12, PE may be taken as an elective.)</td>
</tr>
<tr>
<td><strong>Arts/Humanities</strong></td>
<td>Two (2.0) credits</td>
<td>Art, Music, Foreign Language, Technology &amp; Engineering Education, Family and Consumer Sciences, English**, and Social Studies**</td>
</tr>
<tr>
<td><strong>Fundamentals of Family &amp; Consumer Sciences</strong></td>
<td>One half (0.5) credit</td>
<td></td>
</tr>
<tr>
<td><strong>Personal Financial Literacy</strong></td>
<td>One half (0.5) credit</td>
<td></td>
</tr>
<tr>
<td><strong>Electives</strong></td>
<td>*Eight (8) credits</td>
<td></td>
</tr>
</tbody>
</table>

** Courses elected in English or Social Studies in this section must be in addition to the four (4.0) credits required in the English and Social Studies sections.

*** Introduction to Statistics, Introduction to Programming, and Computer Science AP do not satisfy graduation requirements in Mathematics.

**** Selective courses can be found in the Social Studies portion of the curriculum guide.

PROMOTION AND GRADE LEVEL ASSIGNMENT

Students will remain with their class and be promoted accordingly providing they meet the minimum credits necessary for promotion:

- Grade nine to grade ten – minimum 6 credits
- Grade ten to grade eleven – minimum 12 credits
- Grade eleven to grade twelve – minimum 20 credits

Graduation Project

Students must also complete culminating tasks assigned to them via Naviance prior to graduating from high school. The purpose of the culminating project is to assure that students are able to apply, analyze, synthesize, and evaluate information and communicate significant knowledge and understanding.

Students attending the Career and Technology Center (CTC) their senior year will complete a graduation project through their specific CTC program.

EARLY COMPLETION PROGRAM

A Hempfield High School student may complete graduation requirements at the end of the first semester of the senior year. Approval from the principal is needed. A signed contract outlining the details for Early Completion is required. This contract must be completed in the Spring semester of the Junior year. All Hempfield High School graduation requirements must be fulfilled. Students who would like more information about the Early Completion Program should consult their counselor.
Mastery of the PA Keystone Literature, Mathematics & Biology Standards

Students must demonstrate proficiency in biology, literature, and mathematics on the Pennsylvania Keystone Exams to be eligible for graduation. All questions on the Keystone Exams are aligned to the PA Standards, Core Standards, Anchors and Eligible Content, which can be found on the SAS website at www.pdesas.org/Standard/Views. Students not demonstrating proficiency in any area must participate in the state’s Keystone re-test. Prior to the re-test, remediation and tutoring programs will be offered in literature and math.

Any students who do not attain proficiency or better during the re-test will receive focused remediation in the areas for which they are performing at the Basic or Below Basic levels. These students will then have the opportunity to retest through the administration of a district approved, Keystone aligned assessment or project.

Algebra 1 Keystone Exam

<table>
<thead>
<tr>
<th>Module</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module 1</td>
<td>Operations</td>
</tr>
<tr>
<td></td>
<td>Linear Equations &amp; Inequalities</td>
</tr>
<tr>
<td>Module 2</td>
<td>Linear Functions</td>
</tr>
<tr>
<td></td>
<td>Data Organization</td>
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</tbody>
</table>

Literature Keystone Exam

<table>
<thead>
<tr>
<th>Module</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module 1</td>
<td>Nonfiction - Reading for Meaning</td>
</tr>
<tr>
<td></td>
<td>Nonfiction - Analyzing and Interpreting Literature</td>
</tr>
<tr>
<td>Module 2</td>
<td>Fiction - Reading for Meaning</td>
</tr>
<tr>
<td></td>
<td>Fiction - Analyzing and Interpreting Literature</td>
</tr>
</tbody>
</table>

Biology Keystone Exam

<table>
<thead>
<tr>
<th>Module</th>
<th>Assessment Anchors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module A: Cells and Cell Processes</td>
<td>Basic Biological Principles</td>
</tr>
<tr>
<td></td>
<td>The Chemical Basis for Life</td>
</tr>
<tr>
<td></td>
<td>Bioenergetics</td>
</tr>
<tr>
<td></td>
<td>Homeostasis and Transport</td>
</tr>
<tr>
<td>Module B: Continuity and Unity of Life</td>
<td>Cell Growth and Reproduction</td>
</tr>
<tr>
<td></td>
<td>Genetics</td>
</tr>
<tr>
<td></td>
<td>Theory of Evolution</td>
</tr>
<tr>
<td></td>
<td>Ecology</td>
</tr>
</tbody>
</table>

Remediation Notes:
**Literature:** Students registered in an English 10 course will receive instruction focused on material assessed on the Literature Keystone Exam. Those students who do not score proficient at the end of the English 10 course will receive remediation throughout their English 11 course as well as through optional tutoring opportunities offered beyond the classroom setting.

**Mathematics:** At the high school level, a student in grade 9 who was non-proficient on his/her Grade 8 PSSA is required to enroll in both Algebra 1A and Algebra 1B. These students will also be assessed using the Classroom Diagnostic Tool (CDT) to determine if progress is being made toward proficiency.

**Biology:** Students taking biology 4253, 4263, 4273, or 4283 will receive instruction that is tightly aligned with Keystone modules, assessment anchors and eligible content. Those students who do not score proficient at the end of their biology course will receive remediation the subsequent year as part of their flex assignment during school as well as through optional tutoring opportunities offered beyond the classroom setting.

Starting with the class of 2017, the Pennsylvania Department of Education has developed a project based assessment (PBA) system that is aligned with the modules for Algebra 1, Biology, and Literature Keystone Exams. Successful completion of a PBA aligned to the Keystone Exam or Keystone Exam module on which a student does not demonstrate proficiency shall satisfy the Chapter 4 Keystone Exam graduation requirement. A student who does not score proficient on a Keystone Exam or Keystone Exam module by their senior year, will be scheduled for a Keystone course in order to complete a project based assessment (PBA).
GRADE 9

Pages 18-62 contain information specific to grade 9 course selection.

COURSE SELECTION PROCEDURES

Counselors will discuss course offerings and share information about the course selection process.

A course selection form will be given to each eighth grade student. Teachers will use this to make recommendations for the 2015-2016 school year. High school teachers will use the Sapphire portal to recommend required and select elective courses for students.

Students will be selecting courses on-line using the Sapphire portal. Middle school students will complete this process in school under the supervision of a guidance counselor. High school students may select their elective classes in school using the portal. Computers will be available in the Commons during flex periods for students to select courses.

The Sapphire portal will be open February 27 – March 5 for all students to enter their courses. All 8th grade students will enter courses during the school day with the Guidance Counselor.

A parent signature and teacher signatures are required on the “Course Selection Printout” to indicate approval of your program of study. The form, with all required signatures, will be collected in homeroom on March 20, 2015.

CHANGING A COURSE

FRIDAY, MAY 22, 2015 WILL BE THE DEADLINE FOR MAKING CHANGES IN THE COURSE SELECTIONS FOR THE 2015/2016 YEAR. Changes deemed necessary by the faculty/ administration and those required by summer school attendance will be made following that date. Scheduled courses will not be dropped without parent, teacher, counselor recommendation, and administrative approval.

Courses dropped after the start of the semester/school year will be noted on the permanent record as "WP" (student had a passing grade at the time the elective was dropped); or, "WF" (student was failing the course when it was dropped). The determination of WP or WF is assigned by the specific department supervisor.

Any required or elective course dropped past the midpoint of the course will be assigned an automatic “F” unless otherwise approved by the administration.
### Daily Bell Schedule 2015-2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:28</td>
<td>Warning Bell</td>
</tr>
<tr>
<td>7:33-7:39</td>
<td>Homeroom</td>
</tr>
<tr>
<td>7:44-9:04</td>
<td>PD 1</td>
</tr>
<tr>
<td>9:04-9:09</td>
<td>Pass</td>
</tr>
<tr>
<td>9:09-10:35</td>
<td>PD 2</td>
</tr>
<tr>
<td>10:35-10:40</td>
<td>Pass</td>
</tr>
<tr>
<td>10:40-12:00</td>
<td>PD 3</td>
</tr>
<tr>
<td>12:00-12:05</td>
<td>Pass</td>
</tr>
<tr>
<td>12:05-1:25</td>
<td>PD 4</td>
</tr>
<tr>
<td>1:25-1:30</td>
<td>Pass</td>
</tr>
<tr>
<td>1:30-2:50</td>
<td>PD 5</td>
</tr>
</tbody>
</table>

### PD 3: Lunch & Resource/Flex

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:40-11:10</td>
<td>Lunch 3A</td>
</tr>
<tr>
<td>11:10-11:15</td>
<td>Pass</td>
</tr>
<tr>
<td>11:15-12:00</td>
<td>Res./Flex</td>
</tr>
</tbody>
</table>

### PD 4: Lunch & Resource/Flex

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:05-12:35</td>
<td>Lunch 4A</td>
</tr>
<tr>
<td>12:35-12:40</td>
<td>Pass</td>
</tr>
<tr>
<td>12:40-1:25</td>
<td>Res./Flex</td>
</tr>
</tbody>
</table>
# Grade 9 Program of Studies

Use the following guidelines and your Curriculum Guide to plan your program of studies for next year. During each semester, your total credits attempted must add up to 4.0. Therefore, your total credits attempted for the year should add up to 8.0.

<table>
<thead>
<tr>
<th>Required:</th>
<th>Semester / Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 9</td>
<td>S</td>
<td>E</td>
<td>1.0</td>
</tr>
<tr>
<td>American History 9</td>
<td>S</td>
<td>E</td>
<td>1.0</td>
</tr>
<tr>
<td>Math (see page 19)</td>
<td>S</td>
<td>E</td>
<td>1.0 or 2.0</td>
</tr>
<tr>
<td>General Science</td>
<td>S</td>
<td>E</td>
<td>1.0</td>
</tr>
<tr>
<td>Fundamentals of Family &amp; Consumer Science</td>
<td>S</td>
<td>A</td>
<td>0.5</td>
</tr>
<tr>
<td>Physical Education</td>
<td>S</td>
<td>A</td>
<td>0.5</td>
</tr>
</tbody>
</table>

## Electives:
- Electives without a "*" marking meet every other day for a semester and count 0.5 credits.
- Electives marked with a "*" meet every day for a semester and count 1.0 credits.
- Electives marked with a "#" are prerequisites that must be taken before certain other electives can be selected - see course descriptions.
- Electives marked with a "∆" meet every day for the year and count 2.0 credits.

Please see course descriptions for any prerequisites that apply.
HEMPFIELD HIGH SCHOOL
9th Grade Course Selection Form

Student Name: ________________________    ID #___________________    Phone # ________________

Instructions:
- All students are required to schedule courses that total 8 credits.
- It is your obligation to select courses carefully, as you will be expected to continue with all scheduled subjects for the entire semester. Alternates will be used if your first choice of Electives is not available for scheduling. Please list your alternatives in order of preference.
- You may only select courses available for Grade 9 as listed in the 9th Grade section of the Curriculum Guide.
- The course selection and course change process will be followed as explained in the Curriculum Guide.
- All course selections become final as of May 22, 2015. No changes will be made thereafter, unless recommended by the school.
- All students must select a minimum of 8 Elective Courses, identified by E1, E2, E3, etc.

For the latest updated list of Hempfield High School approved NCAA core courses, please visit the NCAA Eligibility Center website at www.eligibilitycenter.org.

<table>
<thead>
<tr>
<th>REQUIRED for 9TH Grade</th>
<th>Credit</th>
<th>Signature</th>
<th>MATH</th>
<th>Credit</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>8941 Fundamentals of Family Science</td>
<td>.5</td>
<td>N/A</td>
<td>3943A Fundamentals of Math A</td>
<td>1</td>
<td>_______</td>
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<tr>
<td>Consumer Science</td>
<td></td>
<td></td>
<td>3943B Fundamentals of Math B</td>
<td>1</td>
<td>_______</td>
</tr>
<tr>
<td>7111 Physical Education (Boys)</td>
<td>.5</td>
<td></td>
<td>3043 Fundamentals of Pre-Algebra</td>
<td>1</td>
<td>_______</td>
</tr>
<tr>
<td>7121 Physical Education (Girls)</td>
<td>.5</td>
<td></td>
<td>3143A Fundamentals of Algebra 1A</td>
<td>1</td>
<td>_______</td>
</tr>
<tr>
<td>SOCIAL STUDIES</td>
<td></td>
<td></td>
<td>3053 Foundations of Pre-Algebra</td>
<td>1</td>
<td>_______</td>
</tr>
<tr>
<td>2153 Foundations of American History 9</td>
<td>1</td>
<td></td>
<td>3153A Foundations of Algebra 1A</td>
<td>1</td>
<td>_______</td>
</tr>
<tr>
<td>2173 American History 9 CP</td>
<td>1</td>
<td></td>
<td>3163A Algebra 1A CP (K)</td>
<td>1</td>
<td>_______</td>
</tr>
<tr>
<td>2173-OL American History 9 CP - OL</td>
<td>1</td>
<td></td>
<td>3163B Algebra 1B CP (K)</td>
<td>1</td>
<td>_______</td>
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<tr>
<td>2183 American History 9 Honors</td>
<td>1</td>
<td></td>
<td>3173A Algebra 1A CP (K+)</td>
<td>1</td>
<td>_______</td>
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<tr>
<td>2593 American History AP</td>
<td>1</td>
<td></td>
<td>3173B Algebra 1B CP (K+)</td>
<td>1</td>
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</tr>
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<td>ENGLISH</td>
<td></td>
<td></td>
<td>3183A Algebra 1A Honors</td>
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<td>_______</td>
</tr>
<tr>
<td>1153 Foundations of English 9</td>
<td>1</td>
<td></td>
<td>3183B Algebra 1B Honors</td>
<td>1</td>
<td>_______</td>
</tr>
<tr>
<td>1173 English 9 CP</td>
<td>1</td>
<td></td>
<td>3283 Algebra 2 Honors</td>
<td>1</td>
<td>_______</td>
</tr>
<tr>
<td>1173-OL English 9 CP - OL</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1183 English 9 Honors</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1853A Fundamentals of English 9</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCIENCE</td>
<td></td>
<td></td>
<td>4153 Foundations of General Science</td>
<td>1</td>
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<tr>
<td>9413A Fundamentals of Literacy</td>
<td>1</td>
<td></td>
<td>4173 General Science CP</td>
<td>1</td>
<td>_______</td>
</tr>
<tr>
<td>9413B Fundamentals of Literacy</td>
<td>1</td>
<td></td>
<td>4173-OL General Science CP (Online)</td>
<td>1</td>
<td>_______</td>
</tr>
<tr>
<td>ESL</td>
<td></td>
<td></td>
<td>4183 General Science Honors</td>
<td>1</td>
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<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Student’s Signature_________________________________    Date____________________

Parent’s Signature_________________________________    Date____________________

Parent’s E-Mail_________________________________
## ELECTIVES

<table>
<thead>
<tr>
<th>ART</th>
<th>Credit</th>
<th>SIGNATURE</th>
<th>MUSIC</th>
<th>Credit</th>
<th>SIGNATURE</th>
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</thead>
<tbody>
<tr>
<td>001T Fund. Of Design</td>
<td>.5</td>
<td>Signature</td>
<td>0571 Music, Technology, &amp; the Recording Arts</td>
<td>.5</td>
<td>Signature</td>
</tr>
<tr>
<td>0271 Hot Glass</td>
<td>.5</td>
<td>Signature</td>
<td>0611 Bach to Rock</td>
<td>.5</td>
<td>Signature</td>
</tr>
<tr>
<td>0261A Sculpture</td>
<td>.5</td>
<td>Signature</td>
<td>0621 Music in the Theater</td>
<td>.5</td>
<td>Signature</td>
</tr>
<tr>
<td>0251 World Crafts</td>
<td>.5</td>
<td>Signature</td>
<td>0631 Pop, Rock, &amp; Jazz</td>
<td>.5</td>
<td>Signature</td>
</tr>
<tr>
<td>0121 Drawing I</td>
<td>.5</td>
<td>Signature</td>
<td>0641 Beginning Piano</td>
<td>.5</td>
<td>Signature</td>
</tr>
<tr>
<td>0081 Fiber Arts I</td>
<td>.5</td>
<td>Signature</td>
<td>0651 Beginning Guitar</td>
<td>.5</td>
<td>Signature</td>
</tr>
<tr>
<td>0233 Painting I</td>
<td>1</td>
<td>Signature</td>
<td>0661 Intermediate Piano</td>
<td>.5</td>
<td>Signature</td>
</tr>
<tr>
<td>0243 Printmaking I</td>
<td>1</td>
<td>Signature</td>
<td>0671 Intermediate Guitar</td>
<td>.5</td>
<td>Signature</td>
</tr>
<tr>
<td>0043 Clay I</td>
<td>1</td>
<td>Signature</td>
<td>0681-OL Popular Music In America (Online)</td>
<td>.5</td>
<td>Signature</td>
</tr>
</tbody>
</table>

### BUSINESS COMPUTER & INFORMATION TECHNOLOGY

| 5631 Entrepreneurship | .5 | Signature | *0703 Concert Choir | 1 | Signature |
| 5711 Keyboarding/WP Basics | .5 | Signature | *0763 Hempfield Singers | 1 | Signature |
| 5721 MS Word/Power Point | .5 | Signature | *0764 Symphonic Band / Hampfield Singers | 2 | Signature |

### ENGLISH

| 1531 Speech & Communication | .5 | Signature | *0774 Concert Strings / Concert Choir | 2 | Signature |
| 1581 Introduction to Theatre | .5 | Signature | *0784 Symphony Strings / Hempfield Singers | 2 | Signature |
| 1591 Theater Techniques | .5 | Signature | *0823 Concert Band | 1 | Signature |
| 1631 Creative Writing | .5 | Signature | *0833 Symphonic Band | 1 | Signature |
| 1633-OL Creative Writing - Online | 1 | Signature | *0923 Concert Strings | 1 | Signature |
| 1801 Communications Technology I | .5 | Signature | *0933 Symphony Strings | 1 | Signature |
| 1813 Communications Technology II | 1 | Signature | 0941 Rock Music Ensemble | .5 | Signature |

### FAMILY CONSUMER SCIENCE

| 8701 Cooking Lite & Easy | .5 | Signature | 4103 Experimental Research & Design | 1 | Signature |
| 8721 Culinary Arts | .5 | Signature | 4103 Experimental Research & Design | 1 | Signature |
| 8751 Sports Nutrition | .5 | Signature | 4103 Experimental Research & Design | 1 | Signature |
| 8763 Contemporary Fashion I | 1 | Signature | 4103 Experimental Research & Design | 1 | Signature |
| 8801 Today’s Housing & Interior Design | .5 | Signature | 4103 Experimental Research & Design | 1 | Signature |
| 8823 The Preschool Child | 1 | Signature | 2553 Rights and Events in a Modern World | 1 | Signature |
| 8833 Child Development | 1 | Signature | 2553 Rights and Events in a Modern World | 1 | Signature |

### FOREIGN LANGUAGE

| 6113 French I CP | 1 | Signature | 8093 Introduction to Eng. Design | 1 | Signature |
| 6123 French II CP | 1 | Signature | 8113 Electronics I | 1 | Signature |
| 6133 French III Honors | 1 | Signature | 8281 Digital Photography | .5 | Signature |
| 6213 German I CP | 1 | Signature | 8303 Manu. Technology I | 1 | Signature |
| 6223 German II CP | 1 | Signature | 8413 Power Technology | 1 | Signature |
| 6233 German III Honors | 1 | Signature | 8503 Materials & Processes I | 1 | Signature |
| 6313 Latin I CP | 1 | Signature | 8603 Intro to Drafting & Design | 1 | Signature |
| 6313-OL Latin I CP (Online) | 1 | Signature | 8653 Stage Design | 1 | Signature |
| 6323 Latin II CP | 1 | Signature | 8663 Desktop Publishing I | 1 | Signature |
| 6413 Spanish I CP | 1 | Signature | 8663 Desktop Publishing I | 1 | Signature |
| 6423 Spanish II CP | 1 | Signature | 8663 Desktop Publishing I | 1 | Signature |
| 6433 Spanish III Honors | 1 | Signature | 8663 Desktop Publishing I | 1 | Signature |
| 6473 Spanish for Native Speakers | 1 | Signature | 8663 Desktop Publishing I | 1 | Signature |
| 6513 Chinese I CP | 1 | Signature | 8663 Desktop Publishing I | 1 | Signature |
| 6513-OL Chinese I CP (Online) | 1 | Signature | 8663 Desktop Publishing I | 1 | Signature |
| 6523 Chinese II Honors | 1 | Signature | 8663 Desktop Publishing I | 1 | Signature |
GRADUATION REQUIREMENT – GRADE 9

8941 FUNDAMENTALS OF FAMILY & CONSUMER SCIENCES
0.5 Credit (Grade 9)

This course, required of all ninth grade students, fulfills Chapter 4’s academic standards requirements in Family and Consumer Sciences, and Career Education. It will also provide students with a positive transition to the high school.

Fundamentals of Family and Consumer Sciences is an introductory course focusing on the development of management skills indicative of a healthy family. Topics studied will include: personal finances, consumer rights and responsibilities, housing decisions, the family life cycle, interpersonal communication, decision-making skills, science and technology influences, nutrition, weight and meal management, child development, and parenting and career education.

The computerized Real Care Baby Project is experienced by students as a requirement of this Course as well. This course is a fulfillment of Pennsylvania FCS standards and is a requirement for graduation from Hempfield High School.
ART COURSE OFFERINGS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester/Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>0011</td>
<td>Fundamentals of Design</td>
<td>9-12</td>
<td>S</td>
<td>A</td>
<td>0.5</td>
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</tbody>
</table>

**Fundamentals of Design** is offered as a two-week intensive summer study option each June to allow incoming freshmen (and other interested upperclassmen) to complete this prerequisite over the summer, for .5 credits toward graduation. The summer school fee covers all supplies and two field trips to off-site locations. Upon the successful completion of this course, students will be eligible for all entry-level art courses. Look for information publicized each winter to take advantage of this dynamic learning opportunity.

Studies are designed to give students a strong foundation in two dimensional design and composition. Using a variety of materials, tools, and processes, students will create and compose art works based on the elements and principles of compositional design. Studies will reference artists, art works, styles, and historical movements. Critical analysis and interpretation of art works will be included.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester/Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>0271</td>
<td>Hot Glass I</td>
<td>9-12</td>
<td>S</td>
<td>A</td>
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<tr>
<td>0261A</td>
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<td>S</td>
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<tr>
<td>0251</td>
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<tr>
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<td>S</td>
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</tr>
<tr>
<td>0233</td>
<td>Painting I</td>
<td>9-12</td>
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</tr>
<tr>
<td>0243</td>
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<td>S</td>
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</tr>
<tr>
<td>0043</td>
<td>Clay I</td>
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<tr>
<td>0063</td>
<td>Fine Metals I</td>
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<td>S</td>
<td>E</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Course descriptions may be found on page 23-24.
ART DEPARTMENT

0011 FUNDAMENTALS OF DESIGN
0.5 Credit Grades 9-12

For a course description of this elective, please see the previous page. This course must be passed before any other Art course will be scheduled.

0271 HOT GLASS I
0.5 Credit Grades 9-12

Prerequisite: Completion of Fundamentals of Design with a passing grade.

Through lampworking, slumping, and fusing students will explore hot glass methods used to form / manipulate shapes. Cold glass techniques will also be explored to investigate stained glass techniques.

0261A SCULPTURE I
0.5 Credit Grades 9-12

Prerequisite: Completion of Fundamentals of Design with a passing grade.

Media including clay, plaster, wood, paper, metal, and found objects will allow students to explore the 3-Dimensional aspects of space/design. Both historical and contemporary approaches will guide students through art making activities including techniques in mold making, carving, plaster casting, and the additive/subtractive methods. Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.

0251 WORLD CRAFTS
0.5 Credit Grades 9-12

Prerequisite: Completion of Fundamentals of Design with a passing grade.

World civilizations will be used as a springboard for a variety of art investigations. Students will explore bookmaking, textiles, pottery, jewelry making, and other approaches to international traditions in the fine arts. Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.

0121 DRAWING I
0.5 Credit Grades 9-12

Prerequisite: Completion of Fundamentals of Design with a passing grade.

This course provides an introduction to a variety of techniques, styles, and media in drawing. Subject matter includes: figure, portrait, still-life, and landscape drawing. Instruction includes: lecture, demonstrations, and critiques.

0043 CLAY I
1 Credit Grades 9-12

Prerequisite: Completion of Fundamentals of Design with a passing grade.

This course concentrates on beginning clay techniques such as: pinch, coil, slab and hand building to produce both relief and three dimensional works of art. The student will design and construct works based on several categories of ceramics, including functional and non-functional objects using various surface design techniques. Through lecture and demonstration the student will be exposed to the history of ceramic arts and clay forms of various cultures. Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.
0063 FINE METALS I
1 Credit Grades 9-12

Prerequisite: Completion of Fundamentals of Design with a passing grade.

This course introduces students to basic metal working techniques of sawing, filing, and hand finishing used to fabricate a variety of works in fine metals. Emphasis is placed on two and three dimensional aspects of planning and designing jewelry. Students will learn flat metal construction methods, including cold connections and soldering, simple stone setting and lost wax casting, as well as, incorporation of clay, plastic, glass, and other non-metal materials in mixed media objects. A lab fee will accommodate expendable supplies/materials.

0081 FIBER ARTS I
0.5 Credit Grades 9-12

Prerequisite: Completion of Fundamentals of Design with a passing grade.

This course will give students an overview introduction of fiber work using natural and man-made materials. Areas of weaving, surface design, basketry, beadwork, quilting, and rug-making will be explored using techniques such as batik, tie dye, coiling, knotting, stitchery, and applique. Many of the techniques can be applicable to wearable art & 3-D forms. Emphasis will be placed on creative design concepts, craftsmanship, and skillful and imaginative use of materials. Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.

0233 PAINTING I
1 Credit Grades 9-12

Prerequisite: Completion of Fundamentals of Design with a passing grade.

The painting curriculum is designed to give students experience in a variety of techniques, styles, and media in painting. The course will emphasize basic painting skills, while recognizing the importance of imagination and self-expression. The intent is not only to develop particular skills, but also to instill a sense of art history and an awareness of contemporary thought. Instruction includes: lectures, demonstrations, and critiques. Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.

0243 PRINTMAKING I
1 Credit Grades 9-12

Prerequisite: Completion of Fundamentals of Design with a passing grade.

Students will explore and experiment with various types of printing which include: silk screens, relief prints, lithographs, monoprints, collographs, embossings, and drypoint. The course is designed to consider not only technical skills, but also the relationship of knowledge, creativity, and technology. Instruction includes: lectures, demonstrations, and critiques.
## DEPARTMENT COURSE OFFERINGS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester/Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>5631</td>
<td>Entrepreneurship/ Business Leadership</td>
<td>9-12</td>
<td>S</td>
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<tr>
<td>5711</td>
<td>Keyboarding/WP Basics</td>
<td>9-10</td>
<td>S</td>
<td>A</td>
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<tr>
<td>5721</td>
<td>MS Word / PowerPoint</td>
<td>9-12</td>
<td>S</td>
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</tbody>
</table>

All students are encouraged to elect courses in this department to gain an overall knowledge of business and the world of work. Business courses offer skills on which students can build careers.

## BUSINESS COMPUTER AND INFORMATION TECHNOLOGY DEPARTMENT

### 5631 ENTREPRENEURSHIP/BUSINESS LEADERSHIP
0.5 Credit Grades 9-12

In this course, students learn the essential attributes of an entrepreneur and the stages a person goes through in taking an idea and growing it into a successful business. This course provides practical insights into the differences between effective leadership and management by exploring workplace concepts.

### 5711 KEYBOARDING/WP BASICS
0.5 Credit Grades 9-10

Keyboarding/WP Basics is an introductory course designed for students with little or no computer keyboarding experience. Emphasis in the semester course is given to the attainment of a working knowledge of the computer keyboard, the development of proper keyboarding habits, and the ability to format word processing assignments.

### 5721 MS WORD AND POWERPOINTER
0.5 Credit Grades 9-12

Using Microsoft Office certified texts, students will gain the tools needed to help get great results with less work. By using the word processing and presentation software, students will be able to communicate ideas effectively, achieve more in less time, and stay on top of information. These two Office components are very popular programs utilized in both the educational and business environment.

MS Word will help students develop proficiency in editing, centering, formatting reports and term papers, preparing tables, composing letters, constructing outlines, and working with various other business documents.

MS PowerPoint allows students to enhance their oral presentations by creating dynamic online slide-shows. Presentations can include: handouts, outlines, speakers’ notes, charts, and clipart.
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester/Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
<th>Weighted Value Per Course</th>
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<tr>
<td>1153</td>
<td>Foundations of English 9</td>
<td>9</td>
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<td>Value I</td>
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<tr>
<td>1173</td>
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<td>1.0</td>
<td>Value II</td>
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<td>1173-OL</td>
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<td>1591</td>
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<td>Value II</td>
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<td>9413B</td>
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<td>9</td>
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<td></td>
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</tbody>
</table>

**English Graduation Requirements** - Four (4.0) Units of Credit (English 9, 10, 11, 12). English electives numbers higher than 1503 do not fulfill an English credit for graduation requirements. Semester examinations are given in all courses in the English department.

* This course is conducted online and has additional technical requirements. Computer and Internet access at home are required to participate. Please visit [http://start.students.hempfieldsd.org](http://start.students.hempfieldsd.org) for complete details on what is required.

Course descriptions may be found on pages 27-29.
ENGLISH DEPARTMENT

1153 FOUNDATIONS OF ENGLISH 9
1 Credit

Prerequisite: Teacher Recommendation

This English course is designed to meet the needs of students who have consistently experienced below grade level achievement in the language arts. The major areas of emphasis in this course are reading comprehension, basic writing and speaking skills, and critical thinking.

1173 ENGLISH 9 CP
1 Credit

This English course stresses grammar, usage, composition, literature and speech in order that students may improve important communication skills. Emphasis is on writing improvement, literary awareness, and vocabulary development. All students complete a required research paper.

1173-OL ENGLISH 9 CP (Online)
1 Credit

Prerequisite: English 8

This online course focuses on a study of literature, vocabulary, grammar, writing, and research. The class reviews a variety of literary genres including the short story, novel, drama, poetry, and non-fiction. Activities designed to enhance communication and comprehension are key elements of the course. Additionally, students registered for this class will be required to complete a formal research project.

1183 ENGLISH 9 HONORS
1 Credit

An accelerated program for students who have excelled in English, this course introduces major types of writing, encourages wide and varied reading, develops speaking skills, refines composition skills through grammar study, and expands vocabulary. Writing skills are emphasized. A formal research paper is required. Students selecting this course must complete an assigned reading project as preparation for the course.

ELECTIVES

1531 SPEECH & COMMUNICATION
0.5 Credit        Grades 9-12

Speech & Communication is an in-depth study of the role and process of oral communication in daily life. The course will offer the student an opportunity to become competent in understanding himself and his values, in building a relationship with another person on various levels, in being an effective leader or participant in various kinds of groups, and in becoming a confident and effective public speaker.

This course does not fulfill an English credit for graduation requirements.

1581 INTRODUCTION TO THEATER
0.5 Credit        Grades 9-12

Introduction to Theater is designed to acquaint the student with acting as a creative force in the theater. It will introduce the student to body awareness, movement for the actor, vocal techniques, improvisation, monologues for auditions, college theater expectations, the basics of play production, characterization, line analysis, multiple person scenes, and performance. The course will be an activity-oriented course, which will provide students with basic verbal and nonverbal communication skills in addition to the
principles of acting and performance. Student participation and performance will be a major portion of the course.

*This course does not fulfill an English credit for graduation requirements.*

**1591 THEATER TECHNIQUES**  
0.5 Credit  Grades 9-12  

*Prerequisite: Introduction to Theater*

Theater Techniques is designed for the advanced student of theater who has successfully completed Theater I or has permission from the instructor. This course will broaden the student's knowledge of the basic techniques of performance and production by offering additional student-directed performances. Additionally, students will study the history of theater, dialects, theater styles, advanced characterization study, and acting for the camera versus acting for the stage.

Student participation and performance will be a major portion of the course.  
*This course does not fulfill an English credit for graduation requirements.*

**1631 CREATIVE WRITING**  
0.5 Credit  Grades 9-12  

This course is designed to give students who have already mastered basic writing skills a creative outlet. The course will use the writing process in developing personal essays, short stories, plays, and poems. Students will focus on developing characters, plot, and dialogue in plays and stories and on mastering imagery, meter, and rhythm in poetry.  
*This course does not fulfill an English credit for graduation requirements.*

**1663-OL CREATIVE WRITING – Online**  
1 Credit  Grades 9-12  

This course is designed to give students who have already mastered basic writing skills a creative outlet. The course will use the writing process in developing personal essays, short stories, plays, and poems. Students will focus on developing characters, plot, and dialogue in plays and stories and on mastering imagery, meter, and rhythm in poetry.  
*This course does not fulfill an English credit for graduation requirements.*

**1801 COMMUNICATION TECHNOLOGY I**  
0.5  Credit  Grades 9-12  

Part of the English electives program, this course provides motivated students with a hands-on introductory experience in video production. The course explores camera operation, script and storyboard creation, lighting, audio production, and video editing. Also, the history of media and technology, as well as its affect on society will be discussed. By the end of the course, students will have learned all the basic skills necessary to produce a live daily news program (Comm. Tech. II). Students will be required to complete group projects and a final video project. Students might be required to spend time outside of class to videotape projects, work in the communication center, or complete group work.  
*This course does not fulfill an English credit for graduation requirements.*
1813 COMMUNICATION TECHNOLOGY II
1 Credit Grades 9-12

Prerequisite: Communication Technology I with a C+ or better and/or permission of the instructor.

Part of the English electives program, this course provides motivated students an opportunity to apply the basic video and audio production skills learned in the prerequisite Comm. Tech. I course. Students will be responsible for creating, organizing and producing The WHHS Morning Show, a daily, live news program shown to the entire school. Students learn to work as a team, assume leadership positions, and make technical and creative decisions under time pressure. Every student will rotate through all production jobs, both on and off camera. In addition, students will be responsible for producing and editing news features for the news program. Students will need to spend time outside of class to videotape and edit projects or work in the communications center.

Comm. Tech. II is also offered as a yearly every other day option only for students with an irreconcilable half-credit conflict with prior permission of the instructor.

This course does not fulfill an English credit for graduation requirements.

1853A FUNDAMENTALS OF ENGLISH 9
1 Credit Grade 9

This course is designed to meet the needs of students who are reading significantly below grade level or who have consistently experienced difficulty in meeting minimum expectations in written and oral communication. This course emphasizes literacy skills using short stories, plays, poetry and novels, writing skills (including grammar and mechanics), content-related vocabulary, and spelling. Technology-related projects are also a component of this course.

The qualifying student’s IEP team determines placement in this course. Progress monitoring is an integral component. The decision to exit the course will also be made by the IEP team.

9413A FUNDAMENTALS OF LITERACY 9A
9413B FUNDAMENTALS OF LITERACY 9B

Students in this course have demonstrated a need for direct instruction in reading and writing. Therefore, the qualifying student’s IEP team determines placement in this course, as well as when students may exit the program. This course is designed for students who are reading significantly below their current grade level as demonstrated on the District Approved Benchmark Reading Assessment. In addition, PSSA results indicate Basic or Below Basic performance levels.

This course includes the Read Naturally Program which incorporates reading comprehension, vocabulary, and fluency. REWARDS is used to assist students to improve decoding of multi-syllabic words as well as improving fluency, vocabulary, and spelling. Students will utilize audio recordings, self-assessment, and goal setting skills to improve fluency and comprehension. Reading Advantage, PSSA Performance Indicator, and CLOZE in the Content Area are other programs used to improve reading skills. Technology is also integrated in this course.
GRADE 9

ENGLISH AS A SECOND LANGUAGE

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Semester/Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
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<tr>
<td>9833</td>
<td>ESL Beginning/Developing</td>
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<td>9853</td>
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<tr>
<td>9863</td>
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<td>9883A</td>
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<td>ESL Expanding/Bridging</td>
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</table>

ESL Courses:

ESL class instruction is based on an ESL core-curriculum designed to determine the English language proficiency level of each English language learner and to provide English language instruction in the modalities of reading, writing, listening, speaking, and comprehension. ESL class instructional needs of every student are developmentally prescribed, assessed, and evaluated by the ESL teachers based on ESL and PA standards. The English language learner’s instructional goal is to progress through the levels of English language learning as facilitated by the ESL teacher in a developmentally appropriate and instructionally sound research-based manner of instruction.

Note: The ESL teacher will select the appropriate class based on a review of the student’s academic performance.

English As A Second Language – ESL Reading Basics 9800

The ESL Reading course is designed to address the basic reading needs of an English as a Second Language student in the areas of phonemics, phonics, word recognition, intonation, pronunciation, directionality, structure of the English language, comprehension of text, reading strategies, and communication of text in oral and written formats.
# FAMILY AND CONSUMER SCIENCES COURSE OFFERINGS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester/Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
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<tr>
<td>*8941</td>
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<td>* Required course for all Grade 9 students.</td>
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<td>8701</td>
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<td>8721</td>
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All students are encouraged to elect courses in the Family and Consumer Sciences Dept.

Course descriptions may be found on pages 32-33.
8941 FUNDAMENTALS OF FAMILY AND CONSUMER SCIENCES
0.5 Credit Grade 9
Fundamentals of Family and Consumer Sciences is an introductory course focusing on the development of management skills indicative of a healthy family. This course is a fulfillment of Pennsylvania FCS standards and is a requirement for graduation from Hempfield High School. Topics studied will include: personal finances, consumer rights and responsibilities, housing decisions, the family life cycle, interpersonal communication, decision-making skills, science and technology influences, nutrition, weight and meal management, child development, and parenting and career education.

The computerized Real Care Baby Project is experienced by students as a requirement of this course as well.

8701 COOKING LITE AND EASY
0.5 Credit Grades 9-12
Do you find yourself not having enough time to prepare healthy foods for your active and busy lifestyle? This course is designed to teach “lite” and quick cooking techniques through healthy nutrition. Students will prepare nutritious snacks and meals as they learn to modify recipes the “lite” way without sacrificing flavor. Discover tips on grocery store shopping and how to dine out while eating healthy too. The microwave oven and other timesaving kitchen equipment will be used. Upon completion of this course, the term “fast food” will take on a whole new meaning as you prepare quick and nutritious culinary dishes that keep excess pounds off.

8751 SPORTS NUTRITION
0.5 Credit Grades 9-12
For a serious athlete, good performance requires optimum nutrition as well as physical and mental training. This course will guide athletes through the questions and myths of the major nutrients such as water, carbohydrates, protein, fat, vitamins and minerals. Other topics covered in this course are: body fat composition, pre-game and post-game meals, carbohydrate loading, and sports drinks. By the end of the course, students will be able to make better food choices that will help them to improve their general health and athletic performance. A few food labs are incorporated in each unit, but the main emphasis is on the academics of sports nutrition.

8801 TODAY’S HOUSING AND INTERIOR DESIGN
0.5 Credit Grades 9-12
Housing structures provide people with the basic need for shelter, but a house or a home means different things to different people. People take the idea of a home and individualize it to meet their specific needs. This course is designed to help students to identify and develop individual styles and preferences for housing and interior design. Basic topics, ideas, and content are then applied to hands-on projects. Topics will include: housing needs through the life cycle, architectural and furniture styles, principles and elements of design, swatch boards, floor plans, and furniture arrangement. This class is recommended for students interested in a career in interior design.

8833 CHILD DEVELOPMENT
1 Credit Grades 9-12
Would you like to be a parent, work with children, or just learn why they do the things they do? Child Development is a course designed for anyone who wants to learn about the developing child from conception through the first two years of life. You will learn about the physical, intellectual, emotional and social development of children and the parenting skills to adapt to each area. This course is beneficial to each and every student of Hempfield High School. Many students will become parents, aunts, uncles, develop a relationship with a child, have a career as a nurse, doctor, psychologist, educator, social worker, or law enforcement officer.

8763 CONTEMPORARY FASHION I
1 Credit Grades 9-12
This course is for the student who enjoys sewing and wants to develop basic sewing skills and techniques. Students will select and furnish patterns, fabrics, and supplies needed to complete projects suitable to personal needs and tastes. New techniques and fabrics are presented along with craft and gift projects. This course is recommended for any student interested in developing personal skills and also for students interested in a career in textiles, fashion design, or interior design.

8773 CONTEMPORARY FASHION II  
1 Credit Grades 9-12 (Alternate Years)

Prerequisite: Contemporary Fashion I

This course is for the student who enjoys sewing and wants to learn advanced sewing techniques using a variety of patterns and fabrics. Students are given an opportunity to study color, line, and design in clothing. Fashion history, personal wardrobe planning, fabric characteristics and care, and clothing alterations are examined. Individual study of fashion designers is included. This course is recommended for students interested in fashion design or fashion merchandising careers. Students provide their own patterns and materials.

° This course is offered on alternating years starting in the 2016-2017 school year.

8823 THE PRESCHOOL CHILD
1 Credit Grades 9-11

(Due to safety and liability issues when working with children, the discipline records of students will be reviewed prior to acceptance into this course.)

The Preschool Child offers an in-depth study of the development of children ages three to five years of age. The areas of physical, social, emotional, and intellectual development are studied. In addition, topics such as discipline, safety, child care and early childhood education are taught. Students will be required to teach one mini-lesson as well as interact with the children who report to the development laboratory 2-days per week. Special units on art, dramatic play and literacy for preschool children are incorporated as hands-on activities in this course.

8721 CULINARY ARTS
0.5 Credit Grades 9-12

Culinary Arts covers basic American food preparation. Emphasis is placed on preparation of a wide variety of foods, the use of correct equipment and techniques, and good consumer practices in the marketplace. Students learn through teacher demonstration and laboratory experiences, along with use of a textbook that provides a base of culinary information.
## FOREIGN LANGUAGE COURSE OFFERINGS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester/Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
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</table>

The Foreign Language Department **recommends** a final average of at least a "C-" to transition from a Level I to Level II course in all languages. The Foreign Language Department **requires** a final average of at least a "C-" to transition from a Level II to Level III course (and beyond) in all languages.

* This course is conducted online and has additional technical requirements. Computer and Internet access at home are required to participate. Please visit [http://start.students.hempfieldsd.org](http://start.students.hempfieldsd.org) for complete details on what is required.

Course descriptions may be found on pages 35-38.
FOREIGN LANGUAGE DEPARTMENT

6513 CHINESE I CP
1 Credit Grades 9-12

Students who have no background or a limited background in Chinese should begin with this course.

The objective of this class is to introduce students to the Chinese language and culture through relevant topics such as school, family, daily life, and personal preferences. Students will be presented with immediately useful language while emphasizing speaking and comprehension. Course work includes listening, speaking, reading, and writing. Songs, history, poems, and rhymes will be inserted as cultural introductions whenever applicable during the lesson. The course will also explore Chinese cultures and practices in various Asian countries such as China, Taiwan, and Singapore. At the end of this course, students are expected to achieve some oral proficiency in daily conversation.

6513-OL CHINESE I CP (Online)
1 Credit Grades 9-12

This online version of Chinese I CP includes independent, online work by students to complete the Chinese I CP curriculum. (See above.)

6523 CHINESE II – HONORS
1 Credit Grades 9-12

Prerequisite: Chinese I CP

Students enrolled in Chinese II Honors will have an opportunity to continue developing their listening, speaking, reading, and writing skills. More in-depth relevant topics, coupled with additional vocabulary and grammar, will be included. Students are expected to be comfortable to use the target language for conversation in class. Students are also expected to compose short paragraphs of e-mail, letters, and/or invitations. In this course, students will further explore Chinese cultures and practices in various Asian countries through technology and possible “real life” experiences.

6113 FRENCH I CP
1 Credit Grades 9-12

As an introductory course, French I CP presents the skills of listening/understanding, speaking, reading, and writing in a natural sequence. Emphasis is placed on vocabulary building and pronunciation with an accompanying explanation of the fundamentals of French grammar. French culture is presented as part of the classroom procedure, drawing from textbook and supplemental materials.

6123 FRENCH II CP
1 Credit Grades 9-12

Prerequisite: French I CP

French II CP continues to explore the French-speaking world. Oral proficiency continues to be emphasized and vocabulary is increased.

Units cover such areas as travel, focusing on Paris and other Francophone areas, meals, and daily routines, and family life.
**6133 FRENCH III - HONORS**  
1 Credit  
Grades 9-12

**Prerequisite:** French II CP

In this course, students will study advanced French grammar as well as French history and culture. Communication, listening, reading, and writing skills will also be incorporated throughout the course. Students will be required to communicate in French and the focus of this course – aside from grammar – will be various aspects of French culture and history.

**6213 GERMAN I CP**  
1 Credit  
Grades 9-12

As an introductory course, German I CP presents the skills of listening, speaking, reading, and writing comprehension in natural learning order. Vocabulary building and basic grammar study are also emphasized. Cultural topics are introduced and authentic materials are utilized to stress proficiency in all areas.

**6223 GERMAN II CP**  
1 Credit  
Grades 9-12

**Prerequisite:** German I CP

German II CP focuses on the continued development of verbal proficiency skills and vocabulary growth. Cultural topics discussed in the course including traveling, food and meals, leisure activities, health and illness, home and community, and current events. Class materials consist of authentic realia, textbook exercises, and reading selections. Students will develop German reading skills through reading a short novel.

**6233 GERMAN III – HONORS**  
1 Credit  
Grades 9-12

**Prerequisite:** German II CP

German III Honors continues the study of the German language and culture through varying topics, including everyday customs, geography of Germany, prejudices and cultural differences, German history from the 1800s until the start of World War II, and German folktales. Materials consist mainly of realia, podcasts, videos, and authentic reading materials – including children’s literature. Emphasis is placed on proficiency via communicative-based activities involving the four language skills of listening, speaking, reading, and writing. Students will strengthen their ability to communicate verbally in longer, more elaborate settings. Students are expected to speak exclusively in the target language by the end of the semester.

**6313 LATIN I CP**  
1 Credit  
Grades 9-12

First year Latin is the first step in the process of learning to read ancient classical texts. Basic grammar and vocabulary of Latin are introduced. Students learn to read Latin texts immediately. The readings are based on Roman mythology, Roman history, and Roman literature.

Customs of daily Roman life are also included. Students will also learn about the influence Latin has had on the English language through the study of derivatives.

**6313-OL LATIN I CP (Online)**  
1 Credit  
Grades 9-12

This online version of Latin I CP includes independent, online work by students to complete the Latin I CP curriculum. (See above.)
6323 LATIN II CP  
1 Credit Grades 9-12  

Prerequisite: Latin I CP or Latin I CP (Online)  

Latin II CP is a continuation in the process of learning to read ancient classical texts. Some of the more complex structures of Latin grammar will be studied, such as indirect statement and relative clauses. The majority of readings are based on the story of Vergil's Aeneid. Continued emphasis will be placed on the influence Latin has had on the English language through the study of derivatives. Students will continue their study of daily Roman life.

6413 SPANISH I CP  
1 Credit Grades 9-12  

Spanish I CP focuses on beginning grammar lessons, common vocabulary, and an introduction to Spanish-speaking culture. Instruction will be enhanced by authentic materials and other realia. Verbal practice is stressed throughout the course, in addition to the skills of listening, reading, and writing.

6423 SPANISH II CP  
1 Credit Grades 9-12  

Prerequisite: Spanish I CP  

Spanish II CP stresses practical communication through various verbal activities, vocabulary acquisition, and grammar. Instruction will be enhanced by authentic materials and other realia. There will be an emphasis on verbal and written interactions with continuous practice of listening, speaking, reading, and writing skills.

6433 SPANISH III – HONORS  
1 Credit Grades 9-12  

Prerequisite: Spanish II CP  

Spanish III Honors is a study of the finer points of Spanish grammar, while continuing emphasis on oral proficiency, reading, and writing of the language. The semester includes a review of the grammar learned in Spanish II CP and the presentation of practical verb tenses. Communication using the target language is stressed.

6473 SPANISH FOR NATIVE SPEAKERS  
1 Credit Grades 9-12  

Spanish for Native Speakers is offered to native speakers of Spanish who need to improve their basic language skills, such as reading, writing, spelling, and grammar. Students will expand their vocabulary through reading and writing. Some class time will be devoted to addressing the differences between the English and Spanish languages and some class time will be devoted to cultural issues. The course will be taught exclusively in Spanish and students will be expected to communicate exclusively in Spanish in the class.

Upon successful completion of Spanish for Native Speakers, students may choose to register for any 500-level Spanish course.

6473 ESPAÑOL PARA NATIVO HABLANTES  
1 Credit Grades 9-12  

Español para nativo hablantes es para aquella persona que habla español como primer idioma y necesita mejorar las técnicas básicas del lenguaje como la lectura, la escritura, el deletreo y la gramática. Los estudiantes van a desarrollar su vocabulario a través de la lectura y la escritura. Parte de la clase será dedicada a distinguir las diferencias entre el español y el inglés y parte será dedicada a temas culturales.
La clase se enseñará exclusivamente en español y se requiere que los estudiantes se comuniquen exclusivamente en español.

Al terminar con éxito el curso de Español para nativohablantes los estudiantes tienen la oportunidad de matricularse en cualquier curso de Español de nivel 500.
### MATHEMATICS COURSE OFFERINGS

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<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
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<th>Everyday / Alternate Days</th>
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<th>Weighted Value Per Course</th>
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Students enrolled in Fundamentals of Math A are required to enroll in Fundamentals of Math B in the second semester of their freshman year.

Students enrolled in Fundamentals of Pre-Algebra are required to enroll in Fundamentals of Algebra 1A in the second semester of their freshman year.

Students enrolled in Foundations of Pre-Algebra are required to enroll in Foundations of Algebra 1A in the second semester of their freshman year.

Students enrolled in Algebra 1A CP are required to enroll in Algebra 1B CP in the second semester of their freshman year.

Students may only enroll in one honors level math course for 9th grade. They may enroll in multiple honors/AP level math courses in grades 10-12.

**Mathematics Graduation Requirements** - Four (4.0) Units of Credit.

Semester examinations are given in most courses in the Mathematics Department. For Computer Science courses, a required project will be evaluated and the grade substituted for the final examination.

*This course is conducted online and has additional technical requirements. Computer and Internet access at home are required to participate. Please visit [http://start.students.hempfieldsd.org](http://start.students.hempfieldsd.org) for complete details on what is required.

Course descriptions may be found on pages 40-44.
3943A FUNDAMENTALS OF MATH A
1 Credit  Grades 9-12
Prerequisite:  Consumer Math B (3843B)
Requires:  Recommendation of secondary special education coordinator and/or math department supervisor.

Students enrolled in Fundamentals of Math A will study the following topics:

- Number theory
- Fractions
- Decimals
- Ratio and proportion
- Percents

3943B FUNDAMENTALS OF MATH B
1 Credit  Grades 9-12
Prerequisite:  Fundamentals of Math A (3943A)
Requires:  Recommendation of secondary special education coordinator and/or math department supervisor

Students enrolled in Fundamentals of Math B will study the following topics:

- Introductory geometry
- Metric & customary measurement
- Time
- Circles
- Graphs
- Introductory algebra

3043 FUNDAMENTALS OF PRE-ALGEBRA
1 Credit  Grades 9-12
Requires:  Recommendation of secondary special education coordinator and/or math department supervisor

Students enrolled in Fundamentals of Pre-Algebra will study the following topics:

- Variable expressions
- Integers
- Rational numbers
- Solving equations and inequalities
- Factors
- Exponents
- Ratios and proportions
- Probability
- Percents
- Graphing linear functions
3143A FUNDAMENTALS OF ALGEBRA 1A  
1 Credit  Grades 9-12

Prerequisite:  Fundamentals of Pre-Algebra (3043)

Requires:  Recommendation of secondary special education coordinator and/or math department supervisor.

Students enrolled in Fundamentals of Algebra 1A will study the following topics:

- Properties of real numbers
- Writing and solving linear equations
- Graphing linear equations
- Solving equations and inequalities
- Functions

3053 FOUNDATIONS OF PRE-ALGEBRA  
1 Credit  Grade 9

Students enrolled in Foundations of Pre-Algebra will study the following topics:

- Variable expressions
- Integers
- Rational numbers
- Solving equations and inequalities
- Factors
- Exponents
- Ratios and proportions
- Probability
- Percents
- Graphing linear functions

3153A FOUNDATIONS OF ALGEBRA 1A  
1 Credit  Grade 9

Prerequisite:  Fundamentals of Pre-Algebra (3043)

Requires:  Recommendation of secondary special education coordinator and/or math department supervisor

Students enrolled in Foundations of Algebra 1A will study the following topics:

- Properties of real numbers
- Writing and solving linear equations
- Graphing linear equations
- Solving equations and inequalities
- Functions

3163A ALGEBRA 1A CP (K)  
1 Credit  Grade 9

Prerequisite:  Pre-Algebra

The (K) following the title of this version of Algebra 1A indicates a focus on the Assessment Anchors and Eligible Content of the Keystone Algebra Exam. Students will focus explicitly on topics that fall within
the following categories found in the two modules of the Algebra 1 Keystone Exam:

- Operations
- Linear Equations & Inequalities
- Linear Functions
- Data Organization

This course will prepare students for Algebra 1B CP (K) and future success on the Keystone Exam.

**3173A ALGEBRA 1A CP (K+)**
1 Credit  Grade 9

**Prerequisite:** Pre-Algebra

The (K+) following the title of this version of Algebra 1A indicates a focus that goes beyond the Assessment Anchors and Eligible Content of the Keystone Algebra Exam. While the course will certainly address Keystone content, students will focus on a broader range of topics including:

- Operations and properties of real numbers
- Solving equations and inequalities
- Percents, proportions, and similar figures
- Graphs, functions, and formulas
- Linear equations and their graphs
- Data and statistics
- Probability
- Graphing inequalities
- Systems of equations and inequalities

In addition to preparing students for the Keystone Algebra Exam, this course will prepare students to study a broader range of topics in Algebra 1B CP (K+).

**3173A-OL ALGEBRA 1A CP (Online)**
1 Credit  Grade 9

**Prerequisite:** Pre-Algebra

This online Algebra 1A course is designed for the independent student who desires an alternate approach to the traditional classroom setting. The content of this course mirrors that of Algebra 1A CP (K+: 3173A). Students enrolled in this course will study the topics of:

- Operations and properties of real numbers
- Solving equations and inequalities
- Percents, proportions, and similar figures
- Graphs, functions, and formulas
- Linear equations and their graphs
- Data and statistics
- Probability
- Graphing and inequalities
- Systems of equations and inequalities

**3163B ALEBRA 1B CP (K)**
1 Credit  Grade 9

**Prerequisite:** Algebra 1A CP (3163A or 3173A)

The (K) following the title of this version of Algebra 1B indicates a focus on the Assessment Anchors and Eligible Content of the Keystone Algebra Exam. Students will continue their focus on topics that fall
within the following categories found in the two modules of the Keystone Algebra Exam:

- Operations
- Linear Equations & Inequalities
- Linear Functions
- Data Organization

Students will take the Keystone Algebra Exam at the end of this course.

**3173B ALGEBRA 1B CP (K+)**

1 Credit | Grade 9

**Prerequisite:** Algebra 1A CP (3173A)

The (K+) following the title of this version of Algebra 1B indicates a focus that goes beyond the Assessment Anchors and Eligible Content of the Keystone Algebra Exam. While the course will certainly address Keystone content, students will focus on a broader range of topics including:

- Exponents and exponential functions
- Polynomials and factoring
- Quadratic equations and functions
- Radical expressions and equations
- Rational expressions and functions
- Connections to geometry

Students will take the Keystone Algebra Exam at the end of this course.

**3173-B OL ALGEBRA 1B CP (Online)**

1 Credit | Grade 9

**Prerequisite:** Algebra 1A CP (3173A or 3173A-OL)

This online Algebra 1B course is designed for the independent student who desires an alternate approach to the traditional classroom setting. The content of this course mirrors that of Algebra 1B CP (K+: 3173B).

Students enrolled in this course will study the topics of:

- Exponents and exponential functions
- Polynomials and factoring
- Quadratic equations and functions
- Radical expressions and equations
- Rational expressions and functions
- Connections to geometry

Students will take the Keystone Algebra Exam at the end of this course.

**3183A ALGEBRA 1A HONORS**

1 Credit | Grade 9

**Prerequisite:** Recommendation of 8th grade math teacher.

Students enrolled in Algebra 1A Honors will study the following topics:

- Operations and properties of real numbers
- Solving equations and inequalities
- Percents, proportions, and similar figures
- Graphs, functions, and formulas
- Linear equations and their graphs
- Data and statistics
- Probability
- Graphing inequalities
- Systems of equations and inequalities
- Polynomials
- Laws of Exponents
- Factoring

**3183B ALGEBRA 1B HONORS**
1 Credit Grades 9-10

**Prerequisite:** Algebra 1A Honors (3183A)

Students enrolled in Algebra 1B Honors will study the following topics:

- Linear and nonlinear graphing
- Systems of equations and inequalities
- Exponents and exponential functions
- Polynomials and factoring
- Quadratic equations and functions
- Radical expressions and equations
- Rational expressions and functions
- Connections to geometry

Students will take the Keystone Algebra Exam at the end of this course.

**3283 ALGEBRA 2 HONORS**
1 Credit Grades 9-11

**Prerequisite:** Algebra 1B Honors (3183B)

Students enrolled in Algebra 2 Honors will study the following topics:

- Advanced linear and nonlinear functions
- Quadratic functions and applications
- Analysis of functions
- Advanced systems of equations and inequalities
- Polynomials and polynomial functions
- Rational expressions and functions
- Complex number system
- Exponential and logarithmic functions
- Similarity
- Plane and coordinate geometry
- Circles and sectors
- Pythagorean theorem
- Geometric solids
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<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester / Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
<th>Weighted Value Per Course</th>
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<td>Music, Technology, &amp; The Recording Arts</td>
<td>9-12</td>
<td>S</td>
<td>A</td>
<td>0.5</td>
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<tr>
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<td>*0703</td>
<td>Concert Choir</td>
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<td>*0754</td>
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<td>*0774</td>
<td>Concert Strings/ Concert Choir</td>
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<td>*0923</td>
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<tr>
<td>0681-OL</td>
<td>Popular Music in America (Online)</td>
<td>9-12</td>
<td>S</td>
<td>A</td>
<td>0.5</td>
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</table>

* Designates classes that meet for an entire school year.

Students who elect to participate in all performance ensembles (bands, orchestras, and choirs) must either be recommended by their middle school director(s) or successfully perform a pre-assessment with the appropriate high school director(s).

Course descriptions may be found on pages 46-49.
0571 MUSIC, TECHNOLOGY & THE RECORDING ARTS
0.5 Credit   Grades 9-12

Prerequisite: Students should have a basic working knowledge of musical timbres, music notation, and basic keyboard skills. The class is appropriate for all students, with and without backgrounds in music performance.

The primary focus of this class is for students to compose and arrange musical compositions, using MIDI applications and a variety of music software programs. Topics include: notating music, keyboard applications, MIDI concepts, multi-track recording, sound blending, and sequencing.

0611 BACH TO ROCK
0.5 Credit   Grades 9-12 (Alternate Years)

Prerequisite: None

This class offers students a glimpse of important composers, styles, and genres from Western music history dating from the invention of opera in 1607 to the present day. This course is designed more for the serious music student who is interested in learning about historical style periods, prominent composers of art music, and listening to/analyzing significant genres and forms of music composition.

0621 MUSIC IN THE THEATER
0.5 Credit   Grades 9-12 (Alternate Years)

Prerequisite: None

This class is a chronicle of the history and development of theatrical music, including opera, ballet, minstrel shows, revues, vaudeville, musical comedies, concept musicals, and film sound tracks. The major portion of the class is devoted to the study of the history and prominent creative personalities associated with Broadway and Hollywood Musicals. The class also requires listening to and observing significant audio-visual recorded examples of each genre.

0631 POP, ROCK, & JAZZ
0.5 Credit   Grades 9-12 (Alternate Years)

Prerequisite: None

This course is recommended for students who enjoy listening to and learning about popular music styles and their relationship to contemporary culture. Students will learn about significant personalities associated with the development of each style and listen to a large amount of representative recordings. Topics include: Minstrel Shows, ragtime, blues, Dixieland jazz, swing, be-bop, Broadway, Country-Western, rhythm and blues, gospel, soul, rock and roll, commercial pop, various rock styles, disco, alternative, rap, heavy metal, MTV, and current trends in commercial and alternative music.

° Classes that will be offered on alternating years starting in 2016-17 school year:

0611 BACH TO ROCK
0621 MUSIC IN THE THEATER
0631 POP, ROCK, & JAZZ
0941 ROCK MUSIC ENSEMBLE
0641 BEGINNING PIANO  
0.5 Credit  Grades 9-12

Prerequisite: None

This course provides students with the opportunity to learn musical skills and repertoire through piano performance. The course is offered in a group setting and students are encouraged to advance at an individualized pace. Students are expected to learn to read and perform music at a reasonable, developmentally appropriate rate. Students are expected to purchase their instructional method book and are expected to practice outside of class.

0651 BEGINNING GUITAR  
0.5 Credit  Grades 9-12

Prerequisite: Students should provide their own acoustic guitar. A limited number of school-owned instruments are available for students to use in class.

This course provides students with the opportunity to learn musical skills and repertoire through guitar performance. The course is offered in a group setting and students are encouraged to advance at an individualized pace. Students are expected to learn to read and perform music at a reasonable, developmentally appropriate rate. Students are expected to purchase their instructional method book and are expected to practice outside of class.

0661 INTERMEDIATE PIANO  
0.5 Credit  Grades 9-12

Prerequisite: Students must satisfactorily complete Beginning Piano or have significant expertise from private study to be recommended by the music supervisor.

This course provides students with the opportunity to continue and expand their musical skill development and repertoire learned in Beginning Piano. The course is offered in a group setting and students are encouraged to advance at an individualized pace. Students are expected to learn to read and perform music at a more advanced rate. Students are expected to purchase their instructional method book and are expected to practice outside of class.

0671 INTERMEDIATE GUITAR  
0.5 Credit  Grades 9-12

Prerequisite: Students must satisfactorily complete Beginning Guitar or have significant expertise from private study to be recommended by the music supervisor. Students should also provide their own acoustic (non-electric) guitar. A limited number of school-owned instruments are available for students to use in class.

This course provides students with the opportunity to continue and expand their musical skill development and repertoire learned in Beginning Guitar. The course is offered in a group setting and students are encouraged to advance at an individualized pace. Students are expected to learn to read and perform music at a more advanced rate. Students are expected to purchase their instructional method book and are expected to practice outside of class.

0703 CONCERT CHOIR  
1 Credit (Full Year)  Grade 9 (alternative scheduling option for Grades 10-12)

Prerequisite: Although no formal audition is required for enrollment in Concert Choir, students must either be recommended by their middle school director or demonstrate the ability to sing in tune and in tempo through an informal vocal pre-assessment for the director.

This choral ensemble, primarily for students in 9th grade and less experienced students with mixed voices, rehearses and performs appropriate music for annual scheduled concerts. Students are required to perform in all concerts, which provide the basis for summative assessments during each grading period. The director encourages select members of the choir to audition for County and District Chorus Festivals.
All members are eligible to audition for the annual Spring Musical. Topics include: (a) basic to intermediate vocal technique, including range extension, resonance, diction, and breathing support; (b) various styles of multi-cultural repertoire from all eras of music history; (c) basic to intermediate sight-singing skills using solfeggio; and (d) basic to intermediate levels of musicianship and emotional expression.

**0754 CONCERT BAND / CONCERT CHOIR**
2 Credits (Full Year) Grade 9 (alternative scheduling option for Grades 10-12)

**Prerequisite:** Students should have previous band and choral experience and must either be recommended by their middle school directors or perform a successful audition for the band director and a successful vocal pre-assessment with the choral director.

This course offering is for students who would like to enroll in both Concert Band and Concert choir. Please refer to individual Course Descriptions for more specific information regarding these separate performing ensembles.

**0774 CONCERT STRINGS / CONCERT CHOIR**
2 Credits (Full Year) Grade 9

**Prerequisite:** Students should have previous string experience, and must either be recommended by their middle school directors or perform a successful audition for the orchestra director and a successful vocal pre-assessment with the choral director.

This course offering is for students who would like to enroll in both Concert Strings and Concert Choir. Please refer to individual Course Descriptions for more specific information regarding these separate performing ensembles.

**0823 CONCERT BAND**
1 Credit (Full Year) Grade 9 (alternative scheduling option for Grades 10-12)

**Prerequisite:** Students must have previous band experience and must either be recommended by their middle school director or complete a successful pre-assessment for the director.

This ensemble, primarily for 9th graders and intermediate-level students who play band instruments, rehearses and performs separately from and together with the Symphonic Band for annual scheduled concerts. Students are required to perform in all concerts, which provide the basis for summative assessments during each grading period. The director encourages select members of the orchestra to audition for the County and District Band Festivals. Topics include: intermediate instrumental techniques, concentrating on repertoire, tone quality, tuning, blend, balance, rhythmic precision, articulation, emotional expression, interpretation, and musicality.

**0923 CONCERT STRINGS**
1 Credit (Full Year) Grade 9

**Prerequisite:** Students must have previous string experience and must either be recommended by their middle school director or complete a successful pre-assessment for the director.

This ensemble is for 9th grade students who play bowed string instruments. Concert Strings rehearses every other day and performs in annual scheduled concerts and other performances as announced. Students are required to perform in all concerts, which provide the basis for summative assessments during each grading period. During rehearsals, the emphasis is on ensemble skills, including tone quality, intonation, balance, rhythmic precision, articulation, emotional expression, and musical interpretation. In order to further develop these skills on an individual basis, students are strongly encouraged to study with a private teacher outside of the school day. Select members of Concert Strings have the opportunity to audition for County and District Orchestra Festivals, and may be chosen to play in the pit orchestra for the Spring Musical.
0941 ROCK MUSIC ENSEMBLE  
0.5 Credits Grades 9-12 (Alternate Years)

Prerequisite: Students should have previous experience on instruments and/or with vocal styles associated with Rock music. Students must also perform a successful audition for the director.

This ensemble is designed for students who seek to perform rock styles, which provides them with the opportunity to participate in a non-traditional, school-sponsored group. The director will rehearse the ensemble and determine appropriate performance opportunities each semester. Topics include: music notation literacy, appropriate lyrics and repertoire, tone quality, tuning, blend, balance, rhythmic precision, articulation, electronic production and manipulation of sound ideas, computer applications, emotional expression, interpretation, and musicality.

° Classes that will be offered on alternating years starting in 2016-17 school year:

   0611 BACH TO ROCK
   0621 MUSIC IN THE THEATER
   0631 POP, ROCK, & JAZZ
   0941 ROCK MUSIC ENSEMBLE

0681-OL POPULAR MUSIC IN AMERICA
0.5 Credit Grades 9-12 (Open Campus PA On-line Course)

Prerequisite: None

Popular Music in America is designed for students who have an interest in music but may or may not be inclined toward musical performance. The lecture-based course will introduce the history and influence of American music within the broader context of American culture. The primary goal of the course is to forge connections between the world of contemporary pop music and the historical roots of this music. Students will learn to distinguish between different styles and genres and will gain a solid understanding of how popular music is constructed and produced.

Students who have scheduling concerns due to membership in multiple performing ensembles should consult with the music supervisor.
**PHYSICAL EDUCATION COURSE OFFERINGS**

Students are required to pass 2 credits of Health & Physical Education during high school. Grade 9 Physical Education classes provide the student with a varied program of both team and individual activities, as well as instruction in aspects of physical fitness.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester / Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
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<tr>
<td>7111</td>
<td>Physical Education - 9th Grade Boys</td>
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<td>7121</td>
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<td>9</td>
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<td>8940</td>
<td>Physical Education / Fundamentals of FCS</td>
<td>9</td>
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# SCIENCE COURSE OFFERINGS

<table>
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<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester / Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
<th>Weighted Value Per Course</th>
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<tbody>
<tr>
<td>4153</td>
<td>General Science – Foundations</td>
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<td>S</td>
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<td>General Science CP</td>
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<td>4173-OL</td>
<td>General Science CP (Online/Hybrid)</td>
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<td>Value II</td>
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<td>4183</td>
<td>General Science Honors</td>
<td>9</td>
<td>S</td>
<td>E</td>
<td>1.0</td>
<td>Value III</td>
</tr>
</tbody>
</table>

**Science Graduation Requirements:**

Students must complete three (3.0) units of credit including general science, biology, and one additional science course. Additionally, students must achieve a score of proficient or advanced on the Biology Keystone Exam, or successfully complete the Biology Keystone Project Based Assessment.

Students who do not score proficient or advanced on the Biology Keystone Exam will be placed into Current Topics in Science (4353) where they will receive remediation for the Biology Keystone Exam. Students who have completed Current Topics in Science (4353) and received remediation but who do not achieve a combined score of proficient or advanced on the Biology Keystone Exam a second time will be placed into General Science II and will complete the Keystone Biology Project Based Assessment during the fall of their senior year.

Semester examinations are given in all courses in the Science Department.

Please refer to pages 133 and 134 to view the recommended course sequences for Science.

Course descriptions may be found on page 52.
**SCIENCE DEPARTMENT**

**4103 EXPERIMENTAL RESEARCH & DESIGN**
1 Credit  Grades 9-12 (Alternate Years)

This is a science elective for students interested in independent science research. The course is designed to provide students with skills necessary to develop a science research thesis statement and carry out an independent research project. Emphasis will be placed upon 1) location and evaluation of background information, 2) methodologies, 3) appropriate statistical analysis, and 4) development of results and conclusions. The course culminates with students developing an independent research project.

° These courses are offered on a rotating basis. “Environmental Science – AP” is being offered for the 2015-2016 school year. “Experimental Research & Design” will be offered for the 2016-2017 school year.

**4153 GENERAL SCIENCE - FOUNDATIONS**
1 Credit  Grade 9

Students will survey basic chemistry and physics by participating in class discussions, completing writing assignments, and conducting laboratory exercises. Major topics of investigation will include: properties, classification and changes of matter; motion and forces; energy; waves; and electricity and magnetism.

**4173 GENERAL SCIENCE CP**
1 Credit  Grade 9

General Science is an introduction to the principles of chemistry, biology and physics. Topics will include the use of basic measurement, mathematics and dimensional analysis. Major topics of investigation will include properties, classification and changes of matter; motion and forces; energy; waves; and electricity and magnetism. Students will have the opportunity to learn the use of laboratory equipment and conduct a variety of experiments. Students will be required to complete reading and writing assignments, as well as demonstrations and laboratory investigations.

**4173-OL GENERAL SCIENCE CP (Online/Hybrid)**
1 Credit  Grade 9

Available during second semester only.

Laboratory experiences will occur both on-campus and via simulation. On-campus time will occur twice weekly in two separate 78-minute blocks during the student day. Major assessments will be administered during the on-campus time. This course will utilize a variety of online tools and applications. General Science is an introduction to the principles of chemistry, biology and physics. Topics will include the use of basic measurement, mathematics and dimensional analysis. Major topics of investigation will include properties, classification and changes of matter; bonding, biomolecules, motion and forces; energy; waves; and electricity and magnetism.

Students will complete laboratory investigations, research projects and participate in online discussions that will apply various science concepts.

**4183 GENERAL SCIENCE HONORS**
1 Credit  Grade 9

Prerequisite: Completion of Algebra I, or permission of the instructor.

Honors level General Science is an introduction to the concepts and theories of chemistry and physics. Emphasis will be placed on the integration of math, including algebra, graphing techniques, and scientific notation. Major topics of investigation will include: properties of matter, atomic theory, chemical reactions, acid-base theory, motion and forces, energy, waves, and electricity and magnetism. This will be a lab-oriented course.

**SOCIAL STUDIES COURSE OFFERINGS**
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<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester / Year</th>
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**Social Studies Graduation Requirements (Class of 2017 and beyond)**

Four (4.0) Units of Credit (American History 9, World History, Government and Economics, and Selective)

**American History Advanced Placement will be available for 9th grade students who meet the following academic requirements:**

1. Students must score Advanced in their Reading PSSA scores in 7th grade and Reading and Writing PSSA scores in 8th grade. PSSA scores from the 8th grade exam will not be known until the summer before the student enters 9th grade, so if their scores drop below Advanced they will be removed from the class and placed into an Honors section.

2. Students must score above average in the Comprehension Composite section in the GRADE test taken the second time in 8th grade.

3. Students must also pass the Hempfield 9th grade U.S. History AP Entrance Exam. This exam will be administered to those students in 8th grade who have scored Advanced in the 7th grade PSSAs Reading exam, met the GRADE test requirement, and wish to take the 9th Grade AP U.S. History course.

**Social Studies Requirement Changes (Class of 2017 and beyond)**

Starting with the class of 2017, the Social Studies graduation requirements will change to reflect a more updated approach to the social sciences. Students are still required to take four courses in Social Studies (American History 9, World History, Government and Economics, and a 12th grade Selective).

When students are in grade 12, they will be able to select one of the 12th grade Selective courses in order to fulfill the requirement. The purpose of the 12th Grade Selective course is to provide some choice for students to study several of our identified Social Studies themes introduced in previous classes in a more extensive setting. Courses taken beyond the four required will count for elective credits. Currently, the courses that make up the 12th grade Selectives are listed below:

- 2543 Pennsylvania and Local History CP
- 2563 Principles of American Law CP
- 2583 20th Century Europe CP
- 2593 U.S. History AP (as long as it is not taken in 9th grade)
- HIST 103-104 History of the U.S. I and II
- 2693 Microeconomics AP
- 2893 Comparative Government AP

More courses may be added to this list in future years.

Course descriptions may be found on page 54-58.
The flow chart below represents the progression of a student who is taking Foundations courses in Social Studies. Students are required to take a minimum of four (4) credits in Social Studies for graduation.

Social Studies Electives for 9th, 10th, and 11th Grade
Rights and Events in a Modern World # 2553

# Courses are given college prep weight

American History 9
Course 2153
Grade 9

World History
Course 2353
Grade 10

Government and Economics
Course 2453
Grade 11

Grade 12 - Selectives
Each student is required to take one social studies course in 12th grade. The course must be one of the Selectives from the list below. Additional Selective courses taken beyond the required one will count as elective credits.

Pennsylvania and Local History 2543

Courses may be added to this list in future school years.
The flow chart below represents the progression of a student who wishes to take College Preparatory courses in Social Studies. Students are required to take a minimum of four (4) credits in Social Studies.

Social Studies Electives for 9th Grade
- Rights and Events in a Modern World # 2553

Social Studies Electives for 10th, 11th, and 12th Grade
- Principles of American Law* 2563
- Psychology 2573
- Rights and Events in a Modern World 2553
- Pennsylvania and Local History* 2543
- 20th Century Europe* 2583
* Can also be used as Selective Course
Courses may be added during future school years

American History 9 - 2173
American History 9 - 2173-OL (Online)

World History 2373
Required Grade 10

Government and Economics 2473
Required Grade 11

Grade 12 - Selectives
Each student is required to take at least one social studies course in 12th grade. The course must be one of the Selective courses from the list below. Additional Selective courses taken beyond the required one will count as elective credits. The courses listed below carry the weight College Preparatory value. If you wish to take a selective that is a higher weighted course than College Preparatory, refer to the Honors/Advanced Placement Sequence chart.

- 20th Century Europe 2583
- Pennsylvania and Local History 2543
- Principles of American Law 2563
Social Studies Honors / Advanced Placement Sequence for Classes of 2017 and Beyond

The flow chart below represents the progression of a student who wishes to take Honors or Advanced Placement courses in Social Studies. Note that there are no AP level electives available to grade 9 students in Social Studies. Students are required to take a minimum of four (4) credits in Social Studies for graduation.

Social Studies Electives for 9th Grade
- Rights and Events in a Modern World # 2553
  # Courses are given college prep weight

Social Studies Electives for 10th, 11th, and 12th Grade
- AP Micro-Economics 2693
- AP Comparative Government 2893
- AP Psychology 2993
- AP U.S. History* 2593
- History of the US I & II* Hist. 103-104
  * Can also be used as Selective Course
  Courses may be added during future school years

Honors American History 9 - 2183 or A.P. American History - 2593
  Grade 9

Honors World History
  Course 2383
  Grade 10

Honors Government and Economics 2483 or A.P. U.S.
  Government and Politics 2493

Grade 12 - Selectives
Each student is required to take at least one Social Studies in 12th grade. The course must be one of the Selectives from the list below. Additional Selective courses taken beyond the required one will count as elective credits. The courses listed below carry the weight of Honors or AP value. If you wish to take a selective that is not of Honors or AP value please check lists on the other sequence charts.

- AP U.S. History 2593
- History of the U.S. I & II HIST. 103-104
- AP Micro-Economics 2693
- AP Comparative Government 2893

Courses may be added to this list in future school years.
SOCIAL STUDIES DEPARTMENT

Grade 9 Courses

2153 FOUNDATIONS OF AMERICAN HISTORY 9
1 Credit

Prerequisite: Teacher Recommendation

American History 9, 1870s-present provides students with a foundation in the historical, geographic, political, socio-cultural and economic development of the United States during this period. Students will examine the major issues, achievements, and challenges faced by our country and its leaders. This course includes connecting current issues in America with the past through the use of technology, cooperative learning, and individual interpretations.

2173 AMERICAN HISTORY 9 CP
1 Credit

American History 9, 1870s-present, provides students with a comprehensive foundation in the historical, geographic, political, socio-cultural and economic development of the United States during this period. Students will examine the major issues, achievements, and challenges faced by our country and its leadership. Academic standards are developed around Westward Expansion, 19th century industrial development, the social, economic, political, and cultural history of the late 19th and early 20th centuries, the emergence of the United States as a world power. This course includes oral and written content topic reports, library research, and reading outside of the classroom.

2173-OL AMERICAN HISTORY 9 CP
1 Credit

This online course of American History 9, 1870s-present, provides students with a comprehensive foundation in the historical, geographic, political, socio-cultural and economic development of the United States during this period. Students will examine the major issues, achievements, and challenges faced by our country and its leadership. The course is developed around Westward Expansion, 19th century industrial development, the social, economic, political, and cultural history of the late 19th and early 20th centuries, the emergence of the United States as a world power. This course includes oral and written content topic reports, library research, and reading outside of the classroom.

2183 AMERICAN HISTORY 9 HONORS
1 Credit

The Honors course requirements will additionally require more library research, more writing assignments, and extensive outside readings.

2593 AMERICAN HISTORY AP
1 Credit

This course CANNOT be used as a Selective if it was taken in Grade 9. There are special qualifications to be able to take this course as described on page 53.

This course is designed to study the history of the United States chronologically with emphasis on historical interpretations and analysis of events that shaped the course of our nation’s history. Students will be required to write descriptive and analytical essays on a regular basis. The course will prepare students to take the Advanced Placement Test in American History given by the College Board.
Grade 9 Electives

2553 RIGHTS AND EVENTS IN A MODERN WORLD
1 Credit  9-12th Grade Elective

This course integrates domestic and worldwide events with the study of rights and their evolution in today’s world. Through a thematic analysis of current issues, we will analyze the evolution of rights as well as the connection between rights, culture, and a nation’s political system. Skills emphasized within the course will include inquiry, analysis, and the integration of technology.
### TECHNOLOGY & ENGINEERING EDUCATION  
#### COURSE OFFERINGS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester / Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
<th>Weighted Value Per Course</th>
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</thead>
<tbody>
<tr>
<td><em>8093</em></td>
<td>Introduction to Engineering Design</td>
<td>9-12</td>
<td>S</td>
<td>E</td>
<td>1.0</td>
<td>Value II</td>
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</tbody>
</table>

*Project Lead the Way (PLTW) Course. PLTW is a National High School Pre-Engineering Curriculum (partnership with Bucknell University). See complete description below.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester / Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
<th>Weighted Value Per Course</th>
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</thead>
<tbody>
<tr>
<td>8113</td>
<td>Electronics I</td>
<td>9-12</td>
<td>S</td>
<td>E</td>
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<tr>
<td>8281</td>
<td>Digital Photography</td>
<td>9-12</td>
<td>S</td>
<td>A</td>
<td>0.5</td>
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<tr>
<td>8303</td>
<td>Manufacturing Technology I</td>
<td>9-12</td>
<td>S</td>
<td>E</td>
<td>1.0</td>
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<tr>
<td>8413</td>
<td>Power Technology</td>
<td>9-12</td>
<td>S</td>
<td>E</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>8503</td>
<td>Materials and Processes I</td>
<td>9-12</td>
<td>S</td>
<td>E</td>
<td>1.0</td>
<td></td>
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<tr>
<td>8603</td>
<td>Intro to Drafting &amp; Design</td>
<td>9-12</td>
<td>S</td>
<td>E</td>
<td>1.0</td>
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<tr>
<td>8653</td>
<td>Stage Design</td>
<td>9-12</td>
<td>S</td>
<td>E</td>
<td>1.0</td>
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<tr>
<td>8663</td>
<td>Desktop Publishing I</td>
<td>9-12</td>
<td>S</td>
<td>E</td>
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</table>

Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.

**Project Lead the Way (PLTW)**  
**National High School Pre-Engineering Curriculum (Partnership with Bucknell University)**

This is a four-year sequence of courses developed by engineers, Bucknell University faculty, and associated organizations. The curriculum, when combined with traditional mathematics and science courses in the high school, introduces students to the scope, rigor and discipline of engineering prior to entering college. The program is part of an articulation agreement with Bucknell University and other affiliated colleges where students can earn up to eleven (11) college credits in Mechanical or Electrical Engineering Technology.

Introduction to Engineering Design (8093) is the entry course in the PLTW program. Follow-up courses in Principles of Engineering (8193), Digital Electronics (8293), and Civil Engineering & Architecture (8393) are also offered. Additional courses will follow in subsequent years, including Computer Integrated Manufacturing, and a “capstone” course in Engineering Design & Development.

Course descriptions may be found on pages 60-62.
8093 INTRODUCTION TO ENGINEERING DESIGN
1 Credit Grades 9-12

Math Prerequisites/Co-requisites: Algebra 1A or Algebra 1

(This is the first course in the Project Lead the Way program.)

Ever try to design something new or draw up an idea you wanted to share with your friends and wondered how you could communicate your idea? Or, have you wondered how someone designed that new MP3 player or sleek new phone? Then Introduction to Engineering Design is the course for you. The major focus of the course is learning how to take an idea through a design process that will eventually be manufactured or produced. As you learn about various aspects of engineering and engineering design, such as how engineers communicate through drawing, you will apply what you learn through various activities, projects, and problems. For example, after learning about the different techniques engineers use in determining how to design a product, you and your teacher will have the flexibility to explore the design and engineering processes to solve problems that are of interest to you. The course covers the following:

- The Role of an Engineer
- The Design Process
- Product Design
- Product Analysis and Improvement
- Designing as an Engineer

In addition, you will use Inventor, which is a state of the art 3-D design software package from AutoDesk, to help you design solutions to different design projects. Working in teams, you will learn about documenting your solutions, solving problems, and communicating your solutions to other students and members of the professional engineering community.

8113 ELECTRONICS I
1 Credit Grades 9-12

Students interested in careers related to electronics, computer science or engineering should elect to take electronics. Success in our present world has become highly dependent upon an understanding of electronics technology. This introductory course will help you understand how many of the devices that we use every day actually work. This is a “hands-on” class where you can develop skills with tools, machines, and electronic test equipment. During the course, each student will actually construct a variety of electronic circuits, while developing skills in: reading schematics, identifying and soldering components, wiring, enclosure design, and basic troubleshooting. Topics covered include: introduction to basic component characteristics, sources of electricity, circuits and power, Ohm's law, magnetism, and simple D.C. electrical circuits. Computers are used to design circuit boards, draw schematics and enclosure drawings, simulate circuit functions, and perform experiments. A culminating project is required at the end of the course to demonstrate the student's understanding of the course content. The major goal of this course is to provide a successful introductory experience with electronics that can serve as a foundation for further study.

8303 MANUFACTURING TECHNOLOGY I
1 Credit Grades 9-12

Designed as an introductory course, students will learn about the design, engineering and manufacturing of products. All students will gain experience working with a variety of manufacturing processes such as machining, welding fabrication, bending and forming, metal casting and computer aided manufacturing. Students will work individually and in teams to construct products made from plastics and metals. This course is an opportunity for students to design and construct individual projects as well as participate in team projects. Team projects provide many opportunities for design and problem solving. Examples of previous team projects include the construction of a pneumatic arm wrestling machine, an air hockey
game, and an all terrain go-kart. This course is valuable for learning about careers related to manufacturing and will provide all students with practical knowledge about the common materials, tools, machines and processes used in our technological world today.

**8413 POWER TECHNOLOGY**
1 Credit  Grades 9-12

Power Technology course content includes alternative energy sources, gasoline engines, mechanical power, fluid power, electrical control systems, and automation. Learning activities include designing a solar home and vehicle, constructing hydroelectric and wind turbines, rebuilding a small gasoline engine, utilizing various power train components, and constructing pneumatic circuits. Students will also learn how to use electrical control devices to control both pneumatic and mechanical systems. The course concludes with an opportunity to work in teams to create final design projects utilizing technologies taught throughout the course. Examples include Battle-Bots, and remote controlled hovercrafts. This class is an excellent opportunity to learn about our automated world.

**8503 MATERIALS & PROCESSES I**
1 Credit  Grades 9-12

This introductory class is designed to introduce students to woodworking production experiences. Students will learn how to safely use woodworking tools and power equipment to explore the properties and characteristics of wood by constructing various student centered projects. Additionally, students will complete several problem-solving activities (The Penny Launcher is an example of this type of activity). Students will have the opportunity to use the computer controlled router (CNC) and laser engraver. Basic skills in math and mechanical drawing will be helpful for project planning.

**8603 INTRO TO DRAFTING & DESIGN**
1 Credit  Grades 9-12

If you are interested in a career in engineering or architecture, this is the class for you. This class is designed as an introduction to drafting and design techniques and software. It will stress the importance of drafting to industry and technology education. Traditional topics will include measurement and geometric construction. Computer-Aided Drafting (CAD) will be introduced and used for the bulk of the student work in this class. AutoCAD will be used for 2D CAD work including the study of orthographic projection, dimensioning, section views, isometric projection, and pattern development. Autodesk Inventor will be used for the 3D Solid modeling portion of this course. Students will learn to model parts, create assemblies, animate assemblies and create drawing views of their models. The final project for this course is a reverse engineering assignment. Students will examine a product visually, structurally, and functionally. After understanding the function and geometry of the product they will model and animate the products’ parts using Autodesk Inventor. Evaluation will be based on completion of projects and assignments.

**8653 STAGE DESIGN**
1 Credit  Grades 9-12

The Stage Design course introduces students to a variety of “behind the scenes” activities as they design, construct, paint, and light sets for Hempfield's stage productions. Course content includes scale drawing and modeling, computer-aided design, set construction techniques, scenic painting, and lighting design. Theater sound is also addressed briefly. Learning activities include construction of stock scenic pieces, student-designed paint projects, 3-D computer set models, and student designed lighting areas using real equipment. Students will learn safe conduct both on the stage and in the scene shop. The course offers many optional extracurricular opportunities for those who wish to pursue further involvement in the theater.

**8663 DESKTOP PUBLISHING I**
1 Credit  Grades 9-12

Desktop Publishing focuses on communicating effective messages through the use of design and layout. Student activities concentrate on design, digital imaging, and using related software applications efficiently. Students transfer their knowledge of other disciplines as they relate to class projects. Design and layout skills will be introduced and strengthened as an integral segment of computer technology. All students will
have the opportunity to utilize the Internet, which serves as an important tool for obtaining relevant information. How related technologies impact our society will be discussed. Performance based assessment will be used and portfolios will count as the student’s final exam grade. Students may have the opportunity to meet representatives from post-secondary institutions.

8281 DIGITAL PHOTOGRAPHY
0.5 Credit  Grades 9-12

Digital Photography is an exploratory course in digital imaging and editing. Students will be required to use outside class time to complete a specific number of shooting assignments. Some of the topics focus on composition and the manipulation of camera settings. Students will use computer software to enhance, restore, and manipulate their digital photos. Image scanning techniques will also be covered along with the moral, ethical, and responsibility issues surrounding digital imaging. Students are not required to provide a digital camera for the course; a limited number of loaner cameras will be available per section.
GRADES 10-12

Pages 66-166 contains information specific to grades 10-12 course selection.

COURSE SELECTION PROCEDURES

Counselors will discuss course offerings and share information about the course selection process.

A course selection form will be given to each eighth grade student. Teachers will use this to make recommendations for the 2015-2016 school year. High School teachers will use the Sapphire portal to recommend required and select elective courses for students.

Students will be selecting courses on-line using the Sapphire portal. Middle school students will complete this process in school under the supervision of a guidance counselor. High school students may select their elective classes in school using the portal. Computers will be available in the Commons during flex periods for students to select courses.

The Sapphire portal will be open February 27 – March 5 for all students to enter their courses.

A parent signature and teacher signatures are required on the “Course Selection Printout” to indicate approval of your program of study. The form, with all required signatures, will be collected in homeroom on March 20, 2015.

CHANGING A COURSE

FRIDAY, MAY 22, 2015 WILL BE THE DEADLINE FOR MAKING CHANGES IN THE COURSE SELECTIONS FOR THE 2015/2016 YEAR. Changes deemed necessary by the faculty/ administration and those required by summer school attendance will be made following that date. Scheduled courses will not be dropped without parent, teacher, counselor recommendation, and administrative approval.

Courses dropped after the start of the semester/school year will be noted on the permanent record as "WP" (student had a passing grade at the time the elective was dropped); or, "WF" (student was failing the course when it was dropped). The determination of WP or WF is assigned by the specific department supervisor.

Any required or elective course dropped past the midpoint of the course will be assigned an automatic “F” unless otherwise approved by the administration.
## Daily Bell Schedule 2015-2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:28</td>
<td>Warning Bell</td>
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<tr>
<td>7:33-7:39</td>
<td>Homeroom</td>
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</tr>
<tr>
<td>7:44-9:04</td>
<td>80 min PD 1</td>
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</tr>
<tr>
<td>9:04-9:09</td>
<td>5 min Pass</td>
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</tr>
<tr>
<td>9:09-10:35</td>
<td>80 min PD 2</td>
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</tr>
<tr>
<td>10:35-10:40</td>
<td>5 min Pass</td>
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<tr>
<td>10:40-12:00</td>
<td>80 min PD 3</td>
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<tr>
<td>12:00-12:05</td>
<td>5 min Pass</td>
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<tr>
<td>12:05-1:25</td>
<td>80 min PD 4</td>
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<td>1:25-1:30</td>
<td>5 min Pass</td>
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<td>1:30-2:50</td>
<td>80 min PD 5</td>
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### PD 3: Lunch & Resource/Flex

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<th>Activity</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>10:40-11:10</td>
<td>30 min Lunch 3A</td>
<td>10:40-11:25</td>
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<td>11:10-11:15</td>
<td>5 min Pass</td>
<td>11:25-11:30</td>
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<tr>
<td>11:15-12:00</td>
<td>45 min Res./Flex</td>
<td>11:30-12:00</td>
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### PD 4: Lunch & Resource/Flex

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<th>Activity</th>
<th>Notes</th>
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</thead>
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<td>12:05-12:35</td>
<td>30 min Lunch 4A</td>
<td>12:05-12:50</td>
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<tr>
<td>12:35-12:40</td>
<td>5 min Pass</td>
<td>12:50-12:55</td>
</tr>
<tr>
<td>12:40-1:25</td>
<td>45 min Res./Flex</td>
<td>12:55-1:25</td>
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</table>
STUDENT COURSE PLANNING WORKSHEET

Student Name: ____________________________________________  Graduation Year: _______

Career Objective: __________________________________________

Education Goal:    _____ 4 year college    _____ Technical School    _____ Military    _____ Employment (after high school)

For your own reference, it is highly recommended that you complete this form. This should be a cooperative effort among parents and students. Please discuss this with your teachers and counselors. The completion of this form will provide you with valuable information in planning for the 2015-16 school year, as well as your entire high school career. It will help in the development of an educational plan that will prepare you for your chosen post high school educational and career goals. Space is available above the required course areas (English, Science, etc.) to write in specific course titles. Blank spaces should be filled with electives in which the student would be interested.

<table>
<thead>
<tr>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
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<tbody>
<tr>
<td>English</td>
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<td>Mathematics</td>
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<td>Science</td>
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<td>Social Studies</td>
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<td>Physical Education</td>
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<tr>
<td>Health</td>
<td>Personal Financial Literacy</td>
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<tr>
<td>0011</td>
<td>Fundamentals of Design ***</td>
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<tr>
<td>0121</td>
<td>Drawing I</td>
<td>9-12</td>
</tr>
<tr>
<td>0221</td>
<td>Drawing II</td>
<td>10-12</td>
</tr>
<tr>
<td>0321</td>
<td>Drawing III</td>
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<tr>
<td>0421</td>
<td>Drawing IV</td>
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<tr>
<td>0091</td>
<td>Fiber Arts II</td>
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<tr>
<td>0281</td>
<td>Commercial Art / Illustration</td>
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<td>0271</td>
<td>Hot Glass I</td>
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<td>Hot Glass II</td>
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<td>0261A</td>
<td>Sculpture I</td>
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<td>World Crafts</td>
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<tr>
<td>0043</td>
<td>Clay I</td>
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<tr>
<td>0053</td>
<td>Clay II</td>
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<tr>
<td>0053A</td>
<td>Advanced Clay – Independent Study</td>
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<tr>
<td>0063</td>
<td>Fine Metals I</td>
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<td>0073</td>
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<td>Advanced Fine Metals – Independent Study</td>
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<tr>
<td>0233</td>
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<td>**0431</td>
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<td>AP Art: Concentration Portfolio (Online) *</td>
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**Fundamentals of Design** is a prerequisite course for all Art courses.

**Fundamentals of Design** is offered as a two-week intensive summer study option each June to allow incoming freshmen (and other interested upperclassmen) to complete this prerequisite over the summer, for .5 credits toward graduation. The summer school fee covers all supplies and two field trips to off-site locations. Upon the successful completion of this course, students will be eligible for all entry-level art courses. Look for information publicized each winter to take advantage of this dynamic learning opportunity.

**It is recommended that these two courses be taken consecutively in the same year. All students are encouraged to elect courses in the Art Department.

* This course is conducted online and has additional technical requirements. Computer and Internet access at home are required to participate. Please visit [http://start.students.hempfieldsd.org](http://start.students.hempfieldsd.org) for complete details on what is required.

Course descriptions may be found on pages 68-73.
ART DEPARTMENT

**0011 FUNDAMENTALS OF DESIGN**  
0.5 Credit  
Grades 9-12

For a course description of this elective, please see Grade 9 description on page 22.

**0121 DRAWING I**  
0.5 Credit  
Grades 9-12

Prerequisite: Completion of Fundamentals of Design with a passing grade.

This course provides an introduction to a variety of techniques, styles, and media in drawing. Subject matter includes: figure, portrait, still-life, and landscape drawing. Instruction includes: lecture, demonstrations, and critiques.

**0221 DRAWING II**  
0.5 Credit  
Grades 10-12

Prerequisite: Completion of Drawing I with a “C” average or better and teacher / Art supervisor approval.

The requirements of this course will include drawing a variety of subject matter. Technique will be stressed for each of the projects. Media used include pencil, pen and ink, charcoal, pastels. Examples of subjects are: figure drawing, still-life, and landscape.

**0321 DRAWING III**  
0.5 Credit  
Grades 10-12

Prerequisite: Completion of Drawing II with a “C” average or better and teacher / Art supervisor approval.

In this course, emphasis will be placed on conceptualization and mastery of drawing skills. The course is intended to develop the students' own styles and approaches. Much of the work done in this course will be toward the development of a portfolio.

**0421 DRAWING IV**  
0.5 Credit  
Grades 10-12

Prerequisite: Completion of Drawing III with a “C” average or better and teacher / Art supervisor approval.

This course is an extension of Drawing III, with emphasis on drawing the figure and working from life. Students will be encouraged to explore individual areas of interest and expression, often having their choice of styles and media. Instruction will also be given on how to prepare a portfolio, and individualized assignments will be used to strengthen it.

**0081 FIBER ARTS I**  
0.5 Credit  
Grades 9-12

Prerequisite: Completion of Fundamentals of Design with a passing grade.

This course will give students an overview introduction of fiber work using natural and manmade materials. Areas of weaving, surface design, quilting, and felting will be explored using techniques such as batik, tye dye, coiling, knotting, stitchery, and applique. Many of the techniques can be applicable to wearable art & 3-D forms. Emphasis will be placed on creative design concepts, craftsmanship, and
skillful and imaginative use of materials. Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.

**0091 FIBER ARTS II**
0.5 Credit  Grades 10-12

**Prerequisite:** Completion of Fibers I with a “C” average or better and teacher / Art supervisor approval.

This advanced course in fibers is designed for students who want to continue work with fibers and concentrate their study on specific areas of their choice. Students will choose from two areas in Fibers I for concentrative study, which will include a mixed media piece. Fiber II students have the opportunity to choose one area for investigation and focus to produce an in-depth project on an individualized study basis. The selected concentration will emphasize expression, creativity, craftsmanship in fiber techniques, and presentation. Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.

**0281 COMMERCIAL ART/ILLUSTRATION**
0.5 Credit  Grades 10-12

**Prerequisite:** Completion of Drawing I with a “C” average or better and teacher / Art supervisor approval.

Students will learn basic concepts of layout and visual communication. The course provides an introduction to a variety of techniques, styles, and media used to create a well designed visual message. Projects include: layouts for magazines and books, package design, fashion design, logotypes, and typography use. Instruction includes: lecture, demonstrations, and critiques.

**0271 HOT GLASS I**
0.5 Credit  Grades 9-12

**Prerequisite:** Completion of Fundamentals of Design with a passing grade.

Through lampworking, slumping, and fusing students will explore hot glass methods used to form / manipulate shapes. Cold glass techniques will also be explored to investigate stained glass techniques. A lab fee will accommodate expendable supplies / materials.

**0291 HOT GLASS II**
0.5 Credit  Grades 10-12

**Prerequisite:** Completion of Fundamentals of Design and Hot Glass I with a passing grade.

This course will offer extended experience in all of the skill areas in Hot Glass I. Advanced techniques in lampworking, slumping and fusing will take students beyond their initial endeavors as techniques are expanded beyond the basic level. A lab fee will accommodate expendable supplies / materials.

**0261A SCULPTURE I**
0.5 Credit  Grades 9-12

**Prerequisite:** Completion of Fundamentals of Design with a passing grade.

Media including clay, plaster, wood, paper, metal, and found objects will allow students to explore the 3-Dimensional aspects of space/ design. Both historical and contemporary approaches will guide students through art making activities including techniques in mold making, carving, plaster casting, and the additive/subtractive methods. Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.
**0261B SCULPTURE II**
0.5 Credit  Grades 9-12

Prerequisite: Completion of Fundamentals of Design with a passing grade and Sculpture I with a “C” average or better.

Using media similar to what was utilized in Sculpture I, students will stretch and transcend their artistic wisdom of historical and contemporary approaches to crafting three-dimensional forms. Deepened understandings of the additive and subtractive methods along with intensive investigations into how we define dimensional space will guide learners to fully shape and manipulate the many dynamics of design in the third dimension.

**0251 WORLD CRAFTS**
0.5 Credit  Grades 9-12

Prerequisite: Completion of Fundamentals of Design with a passing grade.

World civilizations will be used as a springboard for a variety of art investigations. Students will explore sculpture, textiles, pottery, jewelry making, and other approaches to international traditions in the fine arts. **Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.**

**0043 CLAY I**
1 Credit  Grades 9-12

Prerequisite: Completion of Fundamentals of Design with a passing grade.

This course concentrates on beginning clay techniques such as: pinch, coil, slab and hand building to produce both relief and three dimensional works of art.

The student will design and construct works based on several categories of ceramics, including functional and non-functional objects using various surface design techniques.

Through lecture and demonstration the student will be exposed to the history of ceramic arts and clay forms of various cultures. **Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.**

**0053 CLAY II**
1 Credit  Grades 10-12

Prerequisite: Completion of Clay I with a “C” average or better and teacher / Art supervisor approval.

This course is designed for students who want to expand their skills while choosing specific areas of ceramics to explore.

The student will investigate contemporary ceramic artists and produce works that express both an understanding of cultures and a sense of personal vision. This course offers work in developing wheel thrown techniques. **Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.**

**0053A ADVANCED CLAY – INDEPENDENT STUDY**
1 Credit  Grades 11-12

Prerequisite: Completion of Fundamentals of Design, Clay I and Clay II with an “A” average and teacher / Art supervisor approval.

This course will endeavor to utilize all pre-existing curriculum practices from Clay I and II with the intent on students developing an investigation/exploration from a self-prescribed plan of action. Students will be
expected to work independently through their plan of growth and discovery toward a set of goals. Teacher monitoring of journal work, research and overall production will allow students to utilize the clay classroom as a professional studio. **Lab fees will accommodate expendable supplies / materials.**

**0063 FINE METALS I**
1 Credit Grades 9-12

**Prerequisite:** Completion of Fundamentals of Design with a passing grade and teacher / Art supervisor approval.

This course introduces students to basic metal working techniques of sawing, filing, and hand finishing used to fabricate a variety of works in fine metals. Emphasis is placed on two and three dimensional aspects of planning and designing jewelry. Students will learn flat metal construction methods, including cold connections and soldering, simple stone setting and lost wax casting, as well as, incorporation of clay, plastic, glass, and other non-metal materials in mixed media objects. **A lab fee will accommodate expendable supplies / materials.**

**0073 FINE METALS II**
1 Credit Grades 10-12

**Prerequisite:** Completion of Fine Metals I with a “C” average or better and teacher / Art supervisor approval.

This advanced course will use and expand the skills and design concepts acquired in Fine Metals I. Centrifugal casting, raising, and the use of alternative materials will be covered in areas of study. Emphasis will be placed on developing theme-related designs & 3-D forms using imaginative concepts and personal expression. Students will incorporate knowledge of art history and culture in their works. **A lab fee will accommodate expendable supplies / materials.**

**0073A ADVANCED FINE METALS – INDEPENDENT STUDY**
1 Credit Grades 11-12

**Prerequisite:** Completion of Fundamentals of Design, Fine Metals I, and Fine Metals II with an “A” average and teacher / Art Supervisor approval.

This course will endeavor to utilize all pre-existing curriculum practices from Fine Metals I and II with the intent on students developing an investigation/exploration from a self-prescribed plan of action. Students will be expected to work independently through their plan of growth and discovery toward a set of goals. Teacher monitoring of journal work, research and overall production will allow students to utilize the jewelry lab as a professional studio. **Lab fees will accommodate expendable supplies / materials.**

**0233 PAINTING I**
1 Credit Grades 9-12

**Prerequisite:** Completion of Fundamentals of Design with a passing grade.

The painting curriculum is designed to give students experience in a variety of techniques, styles, and media in painting. The course will emphasize basic painting skills, while recognizing the importance of imagination and self-expression. The intent is not only to develop particular skills, but also to instill a sense of art history and an awareness of contemporary thought. Instruction includes: lectures, demonstrations, and critiques. **Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.**
0333 PAINTING II
1 Credit Grades 10-12

Prerequisite: Completion of Painting I with a “C” average or better and teacher / Art supervisor approval.

Students will focus on two areas of painting for the first quarter. Areas of choice include: watercolor, acrylics, tempera, oils, and mixed media.

The second quarter work will be based on a written plan agreed upon by both the student and the instructor. The work will include an in-depth study of an artist or style of painting, a portfolio review of previous work, exploration in a painting technique that produces a body of work that emphasizes individual expression, creativity, technique, and craftsmanship. Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.

0243 PRINTMAKING I
1 Credit Grades 9-12

Prerequisite: Completion of Fundamentals of Design with a passing grade.

Students will explore and experiment with various types of printing which include: silk screens, relief prints, lithographs, monoprints, collographs, embossings, and drypoint. The course is designed to consider not only technical skills, but also the relationship of knowledge, creativity, and technology. Instruction includes: lectures, demonstrations, and critiques.

0343 PRINTMAKING II
1 Credit Grades 10-12

Prerequisite: Completion of Printmaking I with a “C” average or better and teacher / Art supervisor approval.

Students will focus on two or three areas of printmaking for the first quarter. Areas of choice are: silk screen, relief printing, lithography, monoprinting, calligraphy, embossing, and drypoint.

The second quarter work will be based on a written plan agreed upon by both the student and the instructor. The work will include an in-depth study of an artist or style of printmaking, a portfolio review of previous work, exploration in a printmaking technique that produces a body of work that emphasizes individual expression, creativity, technique, and craftsmanship.

0431 BREADTH PORTFOLIO AP – FIRST SEMESTER
0.5 Credit Grade 12

Prerequisites: Department Recommendation and Portfolio / Interview acceptance of the Art Supervisor.

Course Requirements: Minimum grade of “C” in Fundamentals of Design, Drawing I and Drawing II. Prior or concurrent scheduling of Drawing III, Drawing IV, Painting or Printmaking.

This course is designed for students seriously committed to studying art and the cultivation of advanced skills, in a variety of media that are equivalent to a first year college Foundation Art Course. The course will follow the Advanced Placement Portfolio guidelines for the Quality and Breadth sections for AP 2-D Design submission. Course work combines class studio assignments with art theory, art history, journal work and critiques. Outside class assignments are required on a regular basis. It is recommended that students sign up for the sister course, 0441 – CONCENTRATION PORTFOLIO AP, in the spring, to complete a well-rounded portfolio and meet the necessary required elements for AP College Board Portfolio submission. Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.
0441 CONCENTRATION PORTFOLIO AP – SECOND SEMESTER
0.5 Credit Grade 12

Prerequisites: Department Recommendation and Portfolio / Interview acceptance of the Art Supervisor.

Course Requirements: Minimum grade of “C” in Fundamentals of Design, Drawing I and Drawing II. Prior or concurrent scheduling of Drawing III, Drawing IV, Painting or Printmaking.

This course is designed for students seriously committed to studying art and the cultivation of advanced skills, in a variety of media that are equivalent to a first year college Foundation Art Course. The course will follow the Advanced Placement Portfolio guidelines for the Concentration section for AP 2-D Design submission. Course work combines class studio assignments with art theory, art history, journal work and critiques. Outside class assignments are required on a regular basis as students will target and explore a chosen Visual Idea. Work will focus on a process of investigation to lead students through a plan of action toward growth and discovery. It is recommended that students sign up for the sister course, 0431 – BREADTH PORTFOLIO AP, in the fall prior to taking this course. This will facilitate the only possible way to successfully complete the required elements for complete portfolio submission to the College Board. Project fees may exist as students will have the option to select additional or higher quality supplies for some assignments.

0441-OL AP ART: CONCENTRATION PORTFOLIO (Online)
0.5 Credit Grade 12

Prerequisite: Minimum grade of “B” in Fundamentals of Design, Drawing I, Drawing II, Drawing III, Breadth Portfolio AP, and Painting I or Printmaking.

Participation in this course will require students to travel to one of the participating Open Campus PA Schools. Hempfield students may be required to travel to Hempfield HS, Manheim Twp. HS, or Penn Manor HS, depending on which school is teaching the course.

Designed for the independent and highly motivated learner, this course taps the strengths of each participant as they endeavor to create a portfolio of two-dimensional artwork rooted in the Advanced Placement College Board Portfolio Guidelines for the 2-D Design Concentration Section. Through the media of their choice, students will strive to deeply investigate and explore a specific visual idea. Image making will grow out of personal interests and a thorough investigation of the work of past and present artists. Students will be expected to commit serious time and effort to growing their understandings and skills through their individual practice and engagement in their investigative process. All supplies will be the sole responsibility of the student as well as a personal studio space for executing work.
### BUSINESS COMPUTER AND INFORMATION TECHNOLOGY DEPARTMENT
### COURSE OFFERINGS

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<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester / Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
<th>Weighted Value Per Course</th>
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</table>

Students are encouraged to select courses in this department to gain an overall knowledge of business and the world of work. Business courses offer skills on which students can build careers.

**COLLEGE BOUND/CAREER PATH**

If you are planning on a career in Business after high school, the Business Education Department recommends you elect the following courses for your specific career path.

<table>
<thead>
<tr>
<th>ACCOUNTING</th>
<th>BUSINESS ADMINISTRATION</th>
<th>MARKETING</th>
<th>FINANCE</th>
<th>BUSINESS INFORMATION SYSTEMS</th>
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</table>

Course descriptions may be found on pages 75-76.
5203 ACCOUNTING I
1 Credit Grades 10-12

Accounting I is an introductory course covering the main concepts of modern day accounting, including the famous accounting equation. Initially, the entire accounting cycle is developed and learned using manual records. After gaining the manual knowledge, the students apply their knowledge using computers and accounting software for merchandising, manufacturing, and service businesses. Students gain the ability to record business transactions, create financial statements, and analyze financial statements in accordance with the standards of accounting. After completing this class, students will have the skills needed to be a book-keeper for a small business.

5213 ACCOUNTING II – HONORS
1 Credit Grades 11-12

Prerequisite: Accounting I (C+ or higher)

Accounting II continues developing the student’s mastery of the accounting concepts. This honors course develops abilities that help students read and analyze financial statements of companies. Students will spend a portion of the semester studying financial accounting and managerial accounting. Financial accounting covers the external uses of accounting, mainly the production of accurate financial statements. Managerial accounting focuses on the internal uses of accounting, the development of reports used to make well-founded financial decisions. This course has a strong focus building the student’s financial analytical abilities.

5613 MARKETING IN BUSINESS, SPORTS, AND ENTERTAINMENT (MBSE)
1 Credit Grades 10-12

This course involves learning 21st century skills in the world of business, sports and entertainment marketing and management. Students will learn the key functions of marketing and how those functions are applied to the business world with an emphasis on the sports and entertainment industry. Case studies and technology based activities are meaningful components of this course. This course can provide the foundation for a challenging and lucrative career and also serve as a motivation for students to study marketing at a higher level.

5613-OL MARKETING IN BUSINESS, SPORTS AND ENTERTAINMENT (MBSE)
1 Credit Grades 10-12

This online version of MBSE includes independent, online work by students to complete the MBSE curriculum. (See above)

5631 ENTREPRENEURSHIP/BUSINESS LEADERSHIP
0.5 Credit Grades 9-12

In this course, students learn the essential attributes of an entrepreneur and the stages a person goes through in taking an idea and growing it into a successful business. This course provides practical insights into the differences between effective leadership and management by exploring workplace concepts.

5641 PERSONAL FINANCIAL LITERACY
0.5 Credit Grade 11 Grade 11 Requirement

This course will provide comprehensive classroom experiences that allow students to develop the knowledge and skills needed to make informed decisions as a consumer. Students will develop the financial skills related to income, taxes, financial planning, banking, consumer credit, budgeting, savings and investment, and insurance. Guest speakers and technology integrated learning experiences will be experienced throughout the course.
PERSONAL FINANCIAL LITERACY
0.5 Credit  Grades 11-12
Students will develop the financial skills related to income, taxes, financial planning, banking, consumer credit, budgeting, savings and investment, and insurance. This course will allow students to develop the knowledge and skills needed to make informed decisions as a consumer. Technological integrated learning experiences will be experienced throughout the course.

KEYBOARDING/WP BASICS
0.5 Credit  Grades 9-10
Keyboarding/WP Basics is an introductory course designed for students with little or no computer keyboarding experience. Emphasis in the semester course is given to the attainment of a working knowledge of the computer keyboard, the development of proper keyboarding habits, and the ability to format word processing assignments.

MS WORD AND POWERPOINT
0.5 Credit  Grades 9-12
Using Microsoft Office certified texts, students will gain the tools needed to help get great results with less work. By using the word processing and presentation software, students will be able to communicate ideas effectively, achieve more in less time, and stay on top of information. These two Office components are very popular programs utilized in both the educational and business environment.

MS Word will help students develop proficiency in editing, centering, formatting reports and term papers, preparing tables, composing letters, constructing outlines, and working with various other business documents.

MS PowerPoint allows students to enhance their oral presentations by creating dynamic online slide-shows. Presentations can include: handouts, outlines, speakers’ notes, charts, and clipart.

It is recommended that this course be paired with MS Excel and Access.

MS EXCEL AND ACCESS
0.5 Credit  Grades 10-12
Using Microsoft Office certified texts, students will be able to communicate ideas effectively, achieve more in less time, and stay on top of information. Whether you are an expert or a novice, the spreadsheet and database programs will help you work more efficiently, turning your data into answers you can count on. These two Office components are very popular programs utilized in the business environment.

MS Excel will help students analyze data and find solutions. Students will organize and calculate data, track financial data, and create charts and graphs.

MS Access will help students learn to sort, store, retrieve, analyze, and report information in a database.

It is recommended that this course be taken with MS Word and PowerPoint.

ADVANCED OFFICE
0.5 Credit  Grades 11-12
Prerequisite: MS Word/PowerPoint and MS Excel/Access
To elect this course, students must meet the prerequisite or be approved by a Business teacher. Using simulations and teacher-prepared projects, students will integrate the word processing, spreadsheet, database, and presentation software applications they have learned in previous computer courses. Time will also be spent on Internet projects and web page design.
ENGLISH COURSE OFFERINGS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester / Alternate Days</th>
<th>Units of Credit Per Year</th>
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**English Graduation Requirements** - Four (4.0) Units of Credit (English 9, 10, 11, 12).

** These English electives do not fulfill an English credit for graduation requirements. Final examinations are given in all courses in the English department. **

CTC students, please see requirements on page 158.

* This course is conducted online and has additional technical requirements. Computer and Internet access at home are required to participate. Please visit [http://start.students.hempfieldsd.org](http://start.students.hempfieldsd.org) for complete details on what is required.

Course descriptions may be found on pages 78-85.
ENGLISH DEPARTMENT

GRADE 10

1253 FOUNDATIONS OF ENGLISH 10
1 Credit

Prerequisites: Teacher Recommendation

This course is designed to meet the needs of students who are reading substantially below grade level or who have consistently experienced difficulty in meeting minimum expectations in written or oral communication. Major areas of emphasis in this course include reading comprehension, fundamental grammar study, and the development of fundamental writing skills.

1273 ENGLISH 10 CP
1 Credit

Prerequisite: Successful completion of English 9.

This course includes the study of public speaking, grammar, expository writing, a genre approach to literature, and vocabulary study. Students will continue their study of grammar in context with the research paper process working toward developing an effective expository writing style.

1273-OL ENGLISH 10 CP (Online)
1 Credit

Prerequisite: Successful completion of English 9.

This online course uses a genre approach to literature including short stories, drama, poetry, non-fiction, and the novel. Literary analysis and reading comprehension will be stressed. In addition, vocabulary study and grammar are emphasized. Developing an effective expository writing style will be addressed with a research paper. Additionally, students registered for this course will take the Keystone Exam at the end of the class.

1283 ENGLISH 10 HONORS
1 Credit

Prerequisite: Successful completion of English 9.

Part of the honors English program, this course uses a genre approach to the study of literature. Other areas of emphasis include expository writing, scholarly research, vocabulary study and basic speech experiences. A critical research paper on an approved literary subject is required. Students selecting this course must complete assigned reading as a preparation for the course.

GRADE 11

1353 FOUNDATIONS OF ENGLISH 11
1 Credit

Prerequisite: Successful completion of English 10.

Part of the remedial English program, this course is designed for the student who has a documented history of difficulty in the study of English. The course stresses basic grammatical concepts of the language, standard written English composition, and a study of world literature.
1363 ENGLISH 11
1 Credit

Prerequisite: Successful completion of English 10.

This course provides a study of American literature from a thematic perspective. Reading comprehension, analytical skills, writing, and vocabulary study are areas that are emphasized. A research project is required.

1373 ENGLISH 11 CP
1 Credit

Prerequisite: Successful completion of English 10.

This course provides a chronological and historical study of American literature. Reading comprehension, analytical skills, writing, and vocabulary study are areas of emphasis. A formal research paper and oral presentations are required.

1373-OL ENGLISH 11 CP (Online)
1 Credit

Prerequisite: Successful completion of English 10.

This course provides a chronological and historical study of American literature. Reading comprehension, analytical skills, writing, and vocabulary study are areas of emphasis. A formal research paper and technology projects are required.

1383 ENGLISH 11 HONORS
1 Credit

Prerequisite: Successful completion of English 10.

English 11 Honors emphasizes a chronological approach to American literature. A continuation of the honors English program, it stresses those academic skills necessary for success in a competitive collegiate atmosphere. Critical thinking, expository writing, and vocabulary development are also included as well as a research paper involving critical analysis. Students selecting this course must complete assigned reading as a preparation for the course.

GRADE 12

1463 ENGLISH 12
1 Credit

Prerequisite: Successful completion of English 11.

This course uses a thematic and multicultural approach to explore questions of identity, power, family, and the American dream. Students will review major works and a selection of films, short stories, poems, and speeches. Students will be encouraged to make real world connections with the texts. Students will also study vocabulary and complete a basic research assignment.

1473 ENGLISH 12 CP
1 Credit

Prerequisite: Successful completion of English 11.

This course is a chronological study of British literature, including a study of English history in relation to the development of the literature and a survey of the development of the English language. Additionally,
this course includes continued development of oral communication skills and language enrichment through vocabulary study. Several expository compositions and a major research paper are required.

1473-OL ENGLISH 12 CP (Online)
1 Credit

Prerequisite: Successful completion of English 11.

This course is a study of British literature as well as a look at other examples of world literature and a survey of the development of the English language. Additionally, this course includes continued development of oral communication skills and language enrichment through vocabulary study. Several expository compositions and a major research paper are required.

1483 ENGLISH 12 HONORS
1 Credit

Prerequisite: Successful completion of English 11.

Honors English 12 is a continuation of the honors English program and emphasizes an in-depth chronological study of British literature. Selections from the works of major authors are studied, and attention is given to the techniques of poetry and prose. In addition, students will continue to develop and enhance their oral communication skills and their expository writing skills. Several expository compositions and a major research paper are required. Students selecting this course must complete assigned reading as a preparation for the course.

1493 ENGLISH AP
1 Credit

Prerequisite: B or higher in English 1383 and Teacher Recommendation

Equivalent to a college English course, AP English focuses on in-depth reading and discussion of selected works of literature. The course emphasizes developing independence of thought and mature habits of critical thinking. Classroom discussion and active participation are required. Frequent in-class essays, short expository papers, seminar presentations and a teacher-approved research paper are required. Students selecting AP English must read three novels from a selected reading list as a preparation for the course. These works will serve as a foundation for class discussion, in class essays, and the term paper. Successful completion of this course will prepare students for the AP examination.

1503 HUMANITIES ENGLISH 12 HONORS
1 Credit

Prerequisite: English 1373 or English 1383; Teacher Recommendation

Humanities is an honors level English course taught and sequenced directly with the history, literature, and art of Western civilization. Areas of emphasis include an extensive analysis of literature as a reflection of the values of a particular culture or historical period, critical expository writing, research skills and a critical examination of a major masterpiece. Students selecting this course must complete assigned reading as a preparation for the course.

ELECTIVES

1531 SPEECH & COMMUNICATION
0.5 Credit Grades 9-12

Speech & Communication is an in-depth study of the role and process of oral communication in daily life. It will offer the student an opportunity to become competent in understanding himself and his values; in building a relationship with another person on various levels; in being an effective leader or participant in various kinds of groups; and most importantly, in becoming a confident and effective public speaker.

This course does not fulfill an English credit for graduation requirements.
1551 JOURNALISM I
0.5 Credit  Grades 10-12

Journalism is designed for students who desire to learn about writing for publication or who write for personal pleasure. All aspects of creative and standard writing are studied in a workshop atmosphere with a clinical approach under teacher supervision. Areas emphasized are news, features, sports, and editorial writing. Students in this course write articles for the school newspaper.

This course does not fulfill an English credit for graduation requirements.

1561 JOURNALISM II
0.5 Credit  Grades 10-12

Prerequisite: Journalism I

Journalism II is designed for students who have successfully completed Journalism I. Students in this course will take this class in combination with the students in Journalism I, and will serve as editors for the newspaper staff. Students will take on leadership roles and expand on their journalism skills that they learned in Journalism I. Students in this course assist with the publication of the school newspaper.

This course does not fulfill an English credit for graduation requirements.

1581 INTRODUCTION TO THEATER
0.5 Credit  Grades 9-12

Introduction to Theater is designed to acquaint the student with acting as a creative force in the theater. It will introduce the student to body awareness, movement for the actor, vocal techniques, improvisation, monologues for auditions, college theater expectations, the basics of play production, characterization, line analysis, multiple person scenes, and performance. The course will be an activity-oriented course, which will provide students with basic verbal and non-verbal communication skills in addition to the principles of acting and performance. Student participation and performance will be a major portion of the course.

This course does not fulfill an English credit for graduation requirements.

1591 THEATER TECHNIQUES
0.5 Credit  Grades 9-12

Prerequisite: Introduction to Theater

Theater Techniques is designed for the advanced students of theater who has successfully completed Theater I or has permission from the instructor. This course will broaden the student's knowledge of the basic techniques of performance and production by offering additional student-directed performances. Additionally, students will study the history of theater, dialects, theater styles, advanced characterization study, acting for the camera versus acting for the stage. Student participation and performance will be a major portion of the course.

This course does not fulfill an English credit for graduation requirements.

1603 ADVANCED THEATER TECHNIQUES
0.5 Credit  Grades 10-12

Prerequisite: Introduction to Theater and Theater Techniques

Advanced Theater Techniques is built upon skills mastered in previous theater courses and is intended for the serious student of drama who is considering a vocation or avocation in theater, film, or other performing arts. Television and film acting are studied in addition to advanced stage techniques and auditioning. Students analyze scripts from the perspective of writers, directors, and actors; they also
study the history of the theater, period styles, and playwrights. Student participation and performance will be the main emphasis of the course.

*This course does not fulfill an English credit for graduation requirements.*

This course will be offered every other year.

**1631 CREATIVE WRITING**
0.5 Credit Grades 9-12

This course is designed to give students who have already mastered basic writing skills a creative outlet. The course will use the writing process in developing personal essays, short stories, plays, and poems. Students will focus on developing characters, plot, and dialogue in plays and stories and on mastering imagery, meter, and rhythm in poetry.

*This course does not fulfill an English credit for graduation requirements.*

**1663-OL CREATIVE WRITING - ONLINE**
1 Credit Grades 9-12

This course is designed to give students who have already mastered basic writing skills a creative outlet. The course will use the writing process in developing personal essays, short stories, plays, and poems. Students will focus on developing characters, plot, and dialogue in plays and stories and on mastering imagery, meter, and rhythm in poetry.

*This course does not fulfill an English credit for graduation requirements.*

**1651 HISTORY OF AMERICAN FILM**
0.5 Credit Grades 10-12

**Prerequisite:** English 9

History of American Film is a chronological study of American film from its 19th century origins through Hollywood’s Golden Age to the present. The study will begin with the “Magic Lantern” and Nickelodeon era. Students will then examine silent films and the development of Hollywood as the geographical center of American film. Other major units will include the Advent of the “Talkies,” Film and the Great Depression, Hollywood Goes to War, the Golden Age of Hollywood, Hollywood and the Turbulent Sixties, and Hollywood Today. Ancillary topics include individual studios and stars, film technique, and the economics of film. In addition to tests and frequent quizzes, students will be required to write one page reflections on two films per unit, participate in class discussions, take notes while viewing each film, and provide unique insight to small group discussions that will follow certain films throughout the course.

*This course does not fulfill an English credit for graduation requirements.*

**1801 COMMUNICATION TECHNOLOGY I**
0.5 Credit Grades 9-12

Part of the English electives program, this course provides motivated students with a hands-on introductory experience in video production. The course explores camera operation, script and storyboard creation, lighting, audio production, and video editing. Also, the history of media and technology, as well as its affect on society will be discussed. By the end of the course, students will have learned all the basic skills necessary to produce a live daily news program (Comm. Tech. II). Students will be required to complete group projects and a final video project. Students might be required to spend time outside of class to videotape projects, work in the communication center, or complete group work.

*This course does not fulfill an English credit for graduation requirements.*
1813 COMMUNICATION TECHNOLOGY II
1 Credit

Prerequisite: Communication Technology I with a C+ or better and/or permission of the instructor.

Part of the English electives program, this course provides motivated students an opportunity to apply the basic video and audio production skills learned in the prerequisite Comm. Tech. I course. Students will be responsible for creating, organizing and producing The WHHS Morning Show, a daily, live news program shown to the entire school. Students learn to work as a team, assume leadership positions, and make technical and creative decisions under time pressure. Every student will rotate through all production jobs, both on and off camera. In addition, students will be responsible for producing and editing news features for the news program. Students will need to spend time outside of class to videotape and edit projects or work in the communications center.

Comm. Tech II is also offered as a yearly every other day option only for students with an irreconcilable half-credit conflict with prior permission of the instructor.

This course does not fulfill an English credit for graduation requirements.

1823 COMMUNICATION TECHNOLOGY III
1 Credit Grades 10-12

Prerequisite: Communication Technology II with a C+ or better and/or permission of the instructor.

Part of the English electives program, this course provides the serious student of video production with advanced opportunities to be involved in a regularly produced professional level television show airing online, and on local cable television. Comm. Tech. III and IV students work as an actual production company. They work in conjunction with the district’s Community Relations Office to produce Hempfield Happenings, a 30-minute television show which highlights events and information for the entire Hempfield School District. This might require students to leave the building and travel to other schools to cover district events. In addition, students must master the use of editing software. Students are required to be flexible with their schedules, and to spend time outside of class or the school day to videotape projects and work in the communications center.

This course does not fulfill an English credit for graduation requirements.

1833 COMMUNICATION TECHNOLOGY IV
1 Credit Grades 11-12

Prerequisite: Completion of Communication Technology III with at least a B average and permission of the instructor.

Part of the English electives program, this course provides the serious student of video production with advanced opportunities to be involved in a regularly produced professional level television show airing online, and on local cable television. Comm. Tech. III and IV students work as an actual production company. They work in conjunction with the district’s Community Relations Office to produce Hempfield Happenings, a 30-minute television show, which highlights events and information for the entire Hempfield School District. This might require students to leave the building and travel to other schools to cover district events. In addition, students must master the use of editing software. Students are required to be flexible with their schedules, and to spend time outside of class or the school day to videotape projects and work in the communications center.

This course does not fulfill an English credit for graduation requirements.
1843 COMMUNICATION TECHNOLOGY V
1 Credit  Grade 12

Prerequisite: Completion of Comm. Tech. IV with at least a B+ and permission of the instructor.

Part of the English electives program, this course provides the serious student of media and communications with the experience to serve as a producer, instructor, and director of video programming at Hempfield. Students in this class will work with Comm. Tech. VI students to either (1) produce or direct the WHHS news program, (2) produce a weekly web show as well as maintain our social networking presence, (3) produce a complex film, and (4) prepare a portfolio project of Hempfield work. Individual conferences will be held with the teacher to discuss the content and requirements of your independent study.

This course does not fulfill an English credit for graduation requirements.

1853 COMMUNICATION TECHNOLOGY VI
1 Credit  Grade 12

Prerequisite: Successful completion of Comm. Tech. V.

Part of the English electives program, this course provides the serious student of media and communications with the experience to serve as a producer, instructor, and director of video programming at Hempfield. Students in this class will work with Comm. Tech. V students to either (1) produce or direct the WHHS news program, (2) produce a weekly web show as well as maintain our social networking presence, (3) produce a complex film, and (4) prepare a portfolio project of Hempfield work. Individual conferences will be held with the teacher to discuss the content and requirements of your independent study.

This course does not fulfill an English credit for graduation requirements.

1863A FUNDAMENTALS OF ENGLISH 10
1 Credit  Grade 10

This course is designed to meet the needs of students who continue to read significantly below grade level and still experience difficulty in written and oral communication. This course emphasizes literacy skills using short stories, a graphic novel, poetry and a novel, writing skills (including grammar and mechanics), content-related vocabulary, and spelling. Technology-related projects are also a component of this course. The qualifying student’s IEP team determines placement in this course. Progress monitoring is an integral component. The decision to exit the course will also be made by the IEP team.

1873A FUNDAMENTALS OF ENGLISH 11
1 Credit  Grade 11

This course is designed to meet the needs of students who continue to read significantly below grade level and still experience difficulty in written and oral communication. This course emphasizes literacy skills using short stories and novels, writing skills (including grammar and mechanics), content-related vocabulary, and spelling. Also, students will complete a research project as part of the course. Technology-related projects are also an element of this course. The qualifying student’s IEP team determines placement in this course. Progress monitoring is an integral component. The decision to exit the course will also be made by the IEP team.

1883A FUNDAMENTALS OF ENGLISH 12
1 Credit  Grade 12

This course is designed to meet the needs of students who continue to read significantly below grade level and still experience difficulty in written and oral communication. This course emphasizes literacy skills using short stories and novels, writing skills (including grammar and mechanics), content-related vocabulary, and spelling. Technology-related projects are also an element of this course. Students will develop a portfolio that includes job applications, resumes and other writing pieces needed to assist the
student to prepare for transition. The qualifying student's IEP team determines placement in this course. Progress monitoring is an integral component. The decision to exit the course will also be made by the IEP team.

**1911 TEST PREPARATION: SAT/ACT**

0.5 Credit Grades 10-12

**Prerequisite:** Geometry

This elective course is intended to provide additional instruction and practice with test-taking skills. The course is designed to meet the needs of students who desire extra practice and instruction in preparation for the PSATs, SATs, or ACTs. The focus of the course is on verbal, math, and writing skills.

*This course does not fulfill an English credit for graduation requirements.*

9423A FUNDAMENTALS OF LITERACY 10A
9423B FUNDAMENTALS OF LITERACY 10B

9433A FUNDAMENTALS OF LITERACY 11A
9433B FUNDAMENTALS OF LITERACY 11B

9443A FUNDAMENTALS OF LITERACY 12A
9443B FUNDAMENTALS OF LITERACY 12B

1 Credit

Students in this course have demonstrated a need for direct instruction in reading and writing. Therefore, the qualifying student’s IEP team determines placement in this course, as well as when students may exit the program. This course is designed for students who are reading significantly below their current grade level as demonstrated on the District Approved Benchmark Reading Assessment. In addition, PSSA results indicate Basic or Below Basic performance levels.

This course includes the Read Naturally Program which incorporates reading comprehension, vocabulary, and fluency. REWARDS is used to assist students to improve decoding of multi-syllabic words as well as improving fluency, vocabulary, and spelling. Students will utilize audio recordings, self-assessment, and goal setting skills to improve fluency and comprehension. Reading Advantage, PSSA Performance Indicator, and CLOZE in the Content Area are other programs used to improve reading skills. Technology is also integrated in this course.

**0001 - HONORS SEMINAR**

0.5 Credit Grades 11-12

Honors Seminar is an elective course designed to provide an opportunity for students to interact with their intellectual peers in a rich and stimulating environment and to provide opportunities for students to explore areas of interest and talent. This elective is available to any 11th or 12th grade student with teacher approval. Curriculum and assignments were designed based on collaboration with local colleges/universities. Students will select an independent research topic to study in-depth and participate in small group investigations building leadership capacity. A high level of commitment to individualized work is necessary. The students will work with the teacher to set rigorous goals, a realistic timeline, and an in-depth final product and presentation to their peers. Students enrolled in this course must demonstrate a high level of self-directed learning and active participation to produce high quality work. This course will be offered every other day for one semester, and will be worth a ½ credit. This elective will also be considered a weighted course due to content and rigor.
## ENGLISH AS A SECOND LANGUAGE

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### ESL Courses:

ESL class instruction is based on an ESL core-curriculum designed to determine the English language proficiency level of each English language learner and to provide English language instruction in the modalities of reading, writing, listening, speaking, and comprehension. ESL class instructional needs of every student are developmentally prescribed, assessed, and evaluated by the ESL teachers based on ESL and PA standards. The English language learner's instructional goal is to progress through the levels of English language learning as facilitated by the ESL teacher in a developmentally appropriate and instructionally sound research-based manner of instruction.

**NOTE:** The ESL teacher will select the appropriate class based on a review of the student's academic performance.

### English As A Second Language – ESL Reading Basics 9800

The ESL Reading course is designed to address the basic reading needs of an English as a Second Language student in the areas of phonemics, phonics, word recognition, intonation, pronunciation, directionality, structure of the English language, comprehension of text, reading strategies, and communication of text in oral and written formats.
## FAMILY AND CONSUMER SCIENCES COURSE OFFERINGS

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<tr>
<th>Course Number</th>
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Students are encouraged to select courses in the Family and Consumer Sciences Department.

Course descriptions may be found on pages 88-90.
FAMILY AND CONSUMER SCIENCES DEPARTMENT

8701 COOKING LITE AND EASY
0.5 Credit          Grades 9-12

Do you find yourself not having enough time to prepare healthy foods for your active lifestyle? This course is designed to teach "lite" and quick cooking techniques through healthy nutrition. Students will prepare nutritious snacks and meals as they learn to modify recipes the "lite" way without sacrificing flavor. Discover tips on grocery store shopping and how to dine out while eating healthy too. The microwave oven and other timesaving kitchen equipment will be used. Upon completion of this course, the term “fast food” will take on a whole new meaning as you prepare quick and nutritious culinary dishes that keep pounds off.

8713 BAKING AND PASTRY ARTS
1 Credit          Grades 10-12

This course is designed to teach the fundamental principles and the creative art of baking. Emphasis is on baking products such as quick breads, yeast breads, cakes, cookies, pies and other pastries. Students will follow recipes and bake from scratch. Various topics include functions of ingredients, accurate measurements, mixing methods, baking terminology, equipment safety and usage.

8721 CULINARY ARTS
0.5 Credit          Grades 9-12

Culinary Arts covers basic American food preparation. Emphasis is placed on preparation of a wide variety of foods, the use of correct equipment and techniques, and good consumer practices in the marketplace. Students learn through teacher demonstration and laboratory experiences, along with use of a textbook that provides a base of culinary information.

8733 GLOBAL CUISINE
1 Credit          Grades 10-12

This course is for the student who wishes to learn about American and International Cuisine. This class is twofold as students have the opportunity to explore the melting pot of flavors and aromas that represent American cuisine and experience and enjoy the vast array of world cuisine. The global effects of geography, climate, heritage, and culture are studied to inform students how these factors influence a country’s food selection, and preparation. All this is at their fingertips as students begin to appreciate cultural diversity at the dinner table.

8751 SPORTS NUTRITION
0.5 Credit          Grades 9-12

For a serious athlete, good performance requires optimum nutrition as well as physical and mental training. This course will guide athletes through the questions and myths of the major nutrients water, carbohydrates, protein, fat, vitamins and minerals. Other topics covered in this course are: body fat composition, pre-game and post-game meals, carbohydrate loading, and sports drinks. By the end of the course, students will be able to make better food choices that will help them to improve their general health and athletic performance. A few food labs are incorporated in each unit, but the main emphasis is on the academics of sports nutrition.

8763 CONTEMPORARY FASHION I
1 Credit          Grades 9-12

This course is for the student who enjoys sewing and wants to develop basic sewing skills and techniques. Students will select and furnish patterns, fabrics, and supplies needed to complete projects suitable to personal needs and tastes. New techniques and fabrics are presented along with craft and gift
projects. This course is recommended for any student interested in developing personal skills and also for students interested in a career in textiles, fashion design, or interior design.

**8773 CONTEMPORARY FASHION II ˚**
1 Credit  Grades 9-12 (Alternate Years)

**Prerequisite:** Contemporary Fashion I

This course is for the student who enjoys sewing and wants to learn advanced sewing techniques using a variety of patterns and fabrics. Students are given an opportunity to study color, line, and design in clothing. Fashion history, personal wardrobe planning, fabric characteristics and care, and clothing alterations are examined. Individual study of fashion designers is included. This course is recommended for students interested in fashion design or fashion merchandising careers. Students provide their own patterns and materials.

˚ *This course is offered on alternating years starting in the 2016-2017 school year.*

**8801 TODAY'S HOUSING AND INTERIOR DESIGN**
0.5 Credit  Grades 9-12

Housing structures provide people with the basic need for shelter, but a house or a home means different things to different people. People take the idea of a home and individualize it to meet their specific needs. This course is designed to help students to identify and develop individual styles and preferences for housing and interior design. Basic topics, ideas, and content are then applied to hands-on projects. Topics will include: housing needs through the life cycle, architectural and furniture styles, principles and elements of design, swatch boards, floor plans, and furniture arrangement. This class is recommended for students interested in a career in interior design.

**8823 THE PRESCHOOL CHILD**
1 Credit  Grades 9-11

(Due to safety and liability issues when working with children, the discipline records of students will be reviewed prior to acceptance into this course.)

The Preschool Child offers an in-depth study of the development of children ages three to five years of age. The areas of physical, social, emotional, and intellectual development are studied. In addition, topics such as discipline, safety, child care and early childhood education are taught. Students will be required to teach one mini-lesson as well as interact with the children who report to the development laboratory 2 days per week. Special units on art, dramatic play and literacy for preschool children are incorporated as hands-on activities in this course.

**8833 CHILD DEVELOPMENT**
1 Credit  Grades 9-12

Would you like to be a parent, work with children, or just learn why they do the things they do? Child Development is a course designed for anyone who wants to learn about the developing child from conception through the first two years of life. You will learn about the physical, intellectual, emotional and social development of children and the parenting skills to adapt to each area. This course is beneficial to each and every student of Hempfield High School. Many students will become parents, aunts, uncles, develop a relationship with a child, have a career as a nurse, doctor, psychologist, educator, social worker, or law enforcement officer. Child Development would be suggested for students interested in The Preschool Child and the Preschool Laboratory courses.
8913 PRESCHOOL LABORATORY I
1 Credit Grades 10-12

Successful completion of The Preschool Child along with teacher recommendation is recommended.

The Family and Consumer Sciences Department recommends a final average of at least a “C” in the previous course to move onto the next level in the Child Development Laboratory classes. Due to safety and liability issues when working with children, discipline records of students are reviewed prior to acceptance into this course.

Preschool Laboratory I is designed to help students better understand the preschool age child through direct interaction 3 days a week in the child development laboratory operated by the students under the supervision of the teacher. The laboratory for children 3-1/2 - 5 years of age is held from September through May throughout the school year. Theory and instruction, preparing instructional materials, discussion of individual child observations, and evaluation are a major part of this course. Each student in this class is expected to serve in the capacity of a student teacher on a weekly basis. This class is recommended for students who are interested in pursuing careers in early childhood education, elementary education, day care, child psychology, and related fields dealing with children or parenting skills.

8933 PRESCHOOL LABORATORY II
1 Credit Grades 11-12

Successful completion of Preschool Lab I, along with teacher recommendation is recommended. Due to safety and liability issues when working with children, discipline records of students are reviewed prior to acceptance into this course.

The Family and Consumer Sciences Department recommends a final average of at least a “C” in the previous course to move onto the next level in the Child Development Laboratory classes.

This course is designed to help students understand the role of a teacher in the child development laboratory classroom. The laboratory class is held from September until May on three days a week. Preparing lesson plans, discussing observations, evaluating, and working on individual children’s case studies formulate the course activities. Each student in this class is expected to serve in the capacity of a student teacher on a weekly basis. This class is recommended for students who are interested in pursuing a career in early childhood education, elementary education, day care, or related fields dealing with children. High school students plan and participate in field trips that reinforce weekly themes.
The Foreign Language Department recommends a final average of at least a “C-” to transition from a Level I to Level II course in all languages. The Foreign Language Department requires a final average of at least a “C-” to transition from a Level II to Level III course (and beyond) in all languages.

* This course is conducted online and has additional technical requirements. Computer and Internet access at home are required to participate. Please visit [http://start.students.hempfieldsd.org](http://start.students.hempfieldsd.org) for complete details on what is required.

(Foreign Language Course Offerings continued on the next page)
The Foreign Language Department recommends a final average of at least a "C-" to transition from a Level I to Level II course in all languages. The Foreign Language Department requires a final average of at least a "C-" to transition from a Level II to Level III course (and beyond) in all languages.

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Course descriptions may be found on pages 93-100.
# FOREIGN LANGUAGE COURSE SEQUENCES

## CHINESE

<table>
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## FRENCH

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<td>German II</td>
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* These courses are offered on a rotating basis. “German Language and Culture – AP” is being offered for the 2015-2016 school year. “German Culture and History through Film – Honors” will be offered for the 2016-2017 school year.

## LATIN

<table>
<thead>
<tr>
<th>CP</th>
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<th>Latin 301: Latin Prose – Honors</th>
<th>Latin 302: Latin Poetry – Honors</th>
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## SPANISH

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Spanish 501: Cine Hispano (Hispanic History in Film) – Honors  
Spanish 502: Español Médico (Spanish for Health Care) – Honors (Online)  
Spanish 503: ¡Viva Españla! (Spanish Life) – Honors  
Spanish 504: Aventuras en la América Latina (Adventures in Latin America) – Honors  
Spanish 505: Español Comercial (Business Spanish) – Honors  
Spanish 505: Español Comercial (Business Spanish) – Honors (Online)
FOREIGN LANGUAGE DEPARTMENT

6513 CHINESE I CP
1 Credit Grades 9-12

Students who have no background or a limited background in Chinese should begin with this course.

The objective of this class is to introduce students to the Chinese language and culture through relevant topics such as school, family, daily life, and personal preferences. Students will be presented with immediately useful language while emphasizing speaking and comprehension. Course work includes listening, speaking, reading, and writing. Songs, history, poems, and rhymes will be inserted as cultural introductions whenever applicable during the lesson. The course will also explore Chinese cultures and practices in various Asian countries such as China, Taiwan, and Singapore. At the end of this course, students are expected to achieve some oral proficiency in daily conversation.

6513-OL CHINESE I CP (Online)
1 Credit Grades 9-12

This online version of Chinese I CP includes independent, online work by students to complete the Chinese I CP curriculum. (See above.)

6523 CHINESE II – HONORS
1 Credit Grades 9-12

Prerequisite: Chinese I CP

Students enrolled in Chinese II Honors will have an opportunity to continue developing their listening, speaking, reading, and writing skills. More in-depth relevant topics, coupled with additional vocabulary and grammar, will be included. Students are expected to be comfortable to use the target language for conversation in class. Students are also expected to compose short paragraphs of e-mail, letters, and/or invitations. In this course, students will further explore Chinese cultures and practices in various Asian countries through technology and possible “real life” experiences.

6533 CHINESE III – HONORS
1 Credit Grades 10-12

Prerequisite: Chinese II Honors

Students in Chinese III Honors will further expand their listening, speaking, reading and writing skills through more in-depth topics that are relevant to student life and surroundings. Students are expected to use the target language during class. Grammar and sentence structures will be studied more carefully. Chinese idioms and their origins as short stories will be one of the tools for expanding the language skills and exploring more about Chinese culture. Technology and possible “real life” experiences will also be used to enhance the cultural aspects of this course.

6543 CHINESE IV – HONORS
1 Credit Grades 10-12

Prerequisite: Chinese III Honors

More in-depth vocabulary, grammar, and sentence structures will be included in this course. Students in Chinese IV Honors are expected to use the target language to initiate conversation in various practical, “real life” situations. Chinese history and society will be explored in more detail.
6113 FRENCH I CP  
1 Credit  Grades 9-12

As an introductory course, French I CP presents the skills of listening/understanding, speaking, reading, and writing in a natural sequence. Emphasis is placed on vocabulary building and pronunciation with an accompanying explanation of the fundamentals of French grammar. French culture is presented as part of the classroom procedure, drawing from textbook and supplemental materials.

6123 FRENCH II CP  
1 Credit  Grades 9-12

Prerequisite: French I CP

French II CP continues to explore the French-speaking world. Oral proficiency continues to be emphasized and vocabulary is increased.

Units cover such areas as travel, focusing on Paris and other Francophone areas, meals, daily routines, and family life.

6133 FRENCH III - HONORS  
1 Credit  Grades 9-12

Prerequisite: French II CP

In this course, students will study advanced French grammar as well as French history and culture. Communication, listening, reading, and writing skills will also be incorporated throughout the course. Students will be required to communicate in French and the focus of this course – aside from grammar – will be various aspects of French culture and history.

6143 FRENCH IV - HONORS  
1 Credit  Grades 10-12

Prerequisite: French III - Honors

In this course, students will study advanced French grammar as well as French literature and history. Communication, listening, reading, and writing skills will also be incorporated throughout the course. Students will be required to communicate in French and the focus of this course – aside from grammar – will be writing in French and reading French literature and history.

6213 GERMAN I CP  
1 Credit  Grades 9-12

As an introductory course, German I CP presents the skills of listening, speaking, reading, and writing comprehension in natural learning order. Vocabulary building and basic grammar study are also emphasized. Cultural topics are introduced and authentic materials are utilized to stress proficiency in all areas.

6223 GERMAN II CP  
1 Credit  Grades 9-12

Prerequisite: German I CP

German II CP focuses on the continued development of verbal proficiency skills and vocabulary growth. Cultural topics discussed in the course include traveling, food and meals, leisure activities, health and illness, home and community, and current events. Class materials consist of authentic realia, textbook exercises, and reading selections. Students will develop German reading skills through reading a short novel.
**6233 GERMAN III – HONORS**  
1 Credit Grades 9-12

**Prerequisite: German II CP**

German III Honors continues the study of the German language and culture through varying topics, including everyday customs, geography of Germany, prejudices and cultural differences, German history from the 1800s until the start of World War II, and German folktales. Materials consist mainly of realia, podcasts, videos, and authentic reading materials – including children’s literature. Emphasis is placed on proficiency via communicative-based activities involving the four language skills of listening, speaking, reading, and writing. Students will strengthen their ability to communicate verbally in longer, more elaborate settings. Students are expected to speak exclusively in the target language by the end of the semester.

**6243 GERMAN IV – HONORS**  
1 Credit Grades 10-12

**Prerequisite: German III Honors**

German IV Honors is designed to further develop and increase creative writing and editing skills, oral proficiency and reading comprehension, as well as listening skills through instruction and class discussion exclusively in the target language. General topics covered throughout the year include youth literature, culture comparison and analysis through the use of authentic materials, texts, songs and realia, German history from 1945 until 1990 and the interactive and communicative project, “Give a Gnome a Home.”

**6253 GERMAN LANGUAGE AND CULTURE - AP °**  
1 Credit Grades 10-12 (Alternate Years)

**Prerequisite: German IV Honors**

German Language and Culture AP emphasizes the use of the language for active communication, including: having a strong command of vocabulary and structure; understanding spoken German in various conversational situations; regarding newspaper and magazine articles, contemporary fiction, and nontechnical writing without the use of a dictionary; and fluently and accurately expressing ideas verbally and in writing. In addition to standard textbooks and anthologies, resources may also include audio and visual materials, news-papers, magazines and contemporary literature.

**6263 GERMAN CULTURE AND HISTORY THROUGH FILM – HONORS °**  
1 Credit Grades 10-12 (Alternate Years)

**Prerequisite: German IV Honors**

As a main source of media, film serves to not only tell stories, but more importantly to reflect the thoughts, ideas and culture of a time period. German Culture and History Through Film Honors is more than just a survey of some of the most important German films made. Using these films, students will comprehend, discuss and evaluate the cultural and historical relevance and views presented. This course will dramatically increase students’ listening and speaking abilities using real-world media. Students are expected to communicate exclusively in German.

° These courses are offered on a rotating basis. “German Language and Culture – AP” is being offered for the 2015-2016 school year. “German Culture and History Through Film - Honors” will be offered for the 2016-2017 school year.

**6313 LATIN I CP**  
1 Credit Grades 9-12

First year Latin CP is the first step in the process of learning to read ancient classical texts. Basic grammar and vocabulary of Latin are introduced. Students learn to read Latin texts immediately. The readings are based on Roman mythology, Roman history, and Roman literature.
Customs of daily Roman life are also included. Students will also learn about the influence Latin has had on the English language through the study of derivatives.

6313-OL LATIN I CP (Online)
1 Credit  Grades 9-12

This online version of Latin I CP includes independent, online work by students to complete the Latin I CP curriculum. (See above.)

6323 LATIN II CP
1 Credit  Grades 9-12

Prerequisite: Latin I CP or Latin I CP (Online)

Latin II CP is a continuation in the process of learning to read ancient classical texts. Some of the more complex structures of Latin grammar will be studied, such as indirect statement and relative clauses. The majority of readings are based on the story of Vergil's Aeneid. Continued emphasis will be placed on the influence Latin has had on the English language through the study of derivatives. Students will continue their study of daily Roman life.

6333 LATIN 301: LATIN PROSE – HONORS
1 Credit  Grades 10-12

Prerequisite: Latin II CP

In this course, students will be introduced to the more advanced topics of Latin grammar such as participles and various uses of the subjunctive in preparation for reading selections of Latin Prose. The course will focus on the life of Julius Caesar and his conquest of Gaul. In addition, students will learn about a variety of literary devices used by the author. Students will read portions of De Bello Gallico in Latin and in English. The importance of Caesar's place in Roman history will be examined as well as the social and political structure of Rome during Caesar's life.

6343 LATIN 302: LATIN POETRY – HONORS
1 Credit  Grades 10-12

Prerequisite: Latin II CP

In this course, students will be introduced to Latin Poetry, specifically the epic poem. The course will focus on the life of Virgil and his epic poem, The Aeneid. Students will learn about meter and scansion as well as various literary devices used in poetry. The importance of Virgil's place in Roman history will be examined as well as the social and political structure of Rome during Virgil's life.

6413 SPANISH I CP
1 Credit  Grades 9-12

Spanish I CP focuses on beginning grammar lessons, common vocabulary, and an introduction to Spanish-speaking culture. Instruction will be enhanced by materials and other realia. Verbal practice is stressed throughout the course, in addition to the skills of listening, reading, and writing.

6423 SPANISH II CP
1 Credit  Grades 9-12

Prerequisite: Spanish I

Spanish II CP stresses practical communication through various verbal activities, vocabulary acquisition and grammar. Instruction will be enhanced by materials, and other realia. There will be an emphasis on verbal and written interactions with continuous practice of listening, speaking, reading, and writing skills.
6433 SPANISH III – HONORS
1 Credit Grades 9-12

Prerequisite: Spanish II CP

Spanish III Honors is a study of the finer points of Spanish grammar, while continuing emphasis on oral proficiency, reading, and writing of the language. The semester includes a review of the grammar learned in Spanish II CP and the presentation of practical verb tenses. Communication using the target language is stressed.

6443 SPANISH IV – HONORS
1 Credit Grades 10-12

Prerequisite: Spanish III Honors

Spanish IV Honors will continue to develop the four basic language skills and stress analysis, interpretation and evaluation of advanced grammar. Practical vocabulary will be utilized for students to apply to everyday situations. Writing activities will consist of prepared and spontaneous assignments. Verbal proficiency is encouraged through reports, debates, and impromptu dialogues. At the conclusion of this course, students will be more prepared for conversation with native speakers and travel abroad.

6501 SPANISH 501: CINE HISPANO (HISPANIC HISTORY IN FILM) – HONORS
1 Credit Grades 10-12

Prerequisite: Spanish IV Honors or Spanish for Native Speakers*

This course is an in-depth study of social, cultural, and historical aspects of Spanish-speaking countries. High-interest films from Spanish-speaking countries are used to initiate daily classroom discussion in Spanish about a wide variety of situations and topics. While viewing the films, students will improve their listening skills and be exposed to how the Spanish language is spoken in different countries. Reading selections including interviews, magazine or newspaper articles, and selections from film scripts or literary pieces will accompany each film in order to further the study and discussion of the social, cultural, and historical issues. Daily journal entries will allow students to reflect on and connect to the films. In addition to the continued development of the four basic language skills (listening, speaking, reading, writing), analysis, interpretation, and evaluation are also stressed. Students are expected to communicate exclusively in Spanish on a daily basis.

6502-OL SPANISH 502: ESPAÑOL MÉDICO (SPANISH FOR HEALTH CARE) – HONORS (Online)
1 Credit Grades 10-12

Prerequisite: Spanish IV Honors or Spanish for Native Speakers*

This online course includes independent, online work by students. The course is designed for students who are planning to pursue health care-related fields in college or other post-secondary vocations. The course serves as a complement to previous learning by adding the ability to assist patients in a medical situation. Curriculum will include typical physical/anatomy vocabulary, patient history, patient intake, determining basic pain or physical conditions/ailments, basic health assessment, common conditions and illnesses, emergency procedures, intake and discharge procedures, prescription instructions, insurance procedures, and taking/making appointments. In addition to basic language skills, emphasis will be specifically placed on patient-professional communication which is encouraged through role-play, dialogues, situational conversations, spontaneous communication, interpretation situations, comprehension activities, and the like. There is also a focus on proper translation and interpretation practices in the healthcare setting. Students are expected to communicate exclusively in Spanish.
6503 SPANISH 503: ¡VIVA ESPAÑA! (SPANISH LIFE) – HONORS
1 Credit Grades 10-12

Prerequisite: Spanish IV Honors or Spanish for Native Speakers*

¡Viva España! is an in-depth study of the civilization of Spain designed to create an appreciation of the Spanish culture. This is achieved through historical and literary information, a study of social themes of each period of Spanish civilization, and an overview of Spanish artists. Students research topics such as the novel “Don Quijote,” the dictatorship of Francisco Franco, and the surrealism of Salvador Dali and present their reports and materials to the class. Development of the basic skills - listening, speaking, reading, and writing - is continued with an emphasis on verbal proficiency. The course will place specific focus on locations in Spain where HHS students might travel and study. Students are expected to communicate exclusively in Spanish.

6504 SPANISH 504: AVENTURAS EN LA AMÉRICA LATINA (ADVENTURES IN LATIN AMERICA) - HONORS
1 Credit Grades 10-12

Prerequisite: Spanish IV Honors or Spanish for Native Speakers*

Students will study the history and places of interest in South and Central America, controversial governments, and Spanish-speaking Caribbean countries. Current events will drive weekly class discussions while studying contemporary culture. Students will also develop an understanding of how Latin American communities have affected culture in the United States. Highlights will be literary masterpieces of Latin American authors and poets as well as a focus on contemporary musicians. Students will analyze the roles of influential Latin American women, and their continual impact on society. Development of the basic skills - listening, speaking, reading, and writing - is continued with an emphasis on verbal proficiency. Students are expected to communicate exclusively in Spanish.

6505 SPANISH 505: ESPAÑOL COMERCIAL (BUSINESS SPANISH) – HONORS
1 Credit Grades 10-12

Prerequisite: Spanish IV Honors or Spanish for Native Speakers*

This course is designed for students who would like to be able to use Spanish in the business world. Emphasis will be placed on proper business etiquette and correspondence in the Hispanic world. Vocabulary units include the structure of businesses, social services, sales, banking and finance, law enforcement, the legal system, customer service, and management. Students will also learn about the economies of Spain and Latin America. A continual review of Spanish grammar will also be incorporated into lessons, in order to improve fluency. Emphasis will be placed on using authentic materials for listening and reading and using Spanish to communicate effectively in practical business situations through role-play, dialogs and presentations. Students are expected to communicate exclusively in Spanish.

6505-OL SPANISH 505: ESPAÑOL COMERCIAL (BUSINESS SPANISH) – HONORS (Online)
1 Credit Grades 10-12

Prerequisite: Spanish IV Honors or Spanish for Native Speakers*

This online version of Spanish 505 Honors includes independent, online work by students to complete the Spanish 505 Honors curriculum (see above).

* Students leaving Spanish for Native Speakers must receive a final grade of C- or higher and be recommended by the teacher in order to register for a 500-level course.
Spanish for Native Speakers is offered to native speakers of Spanish who need to improve their basic language skills, such as reading, writing, spelling, and grammar. Students will expand their vocabulary through reading and writing.

Some class time will be devoted to addressing the differences between the English and Spanish languages and some class time will be devoted to cultural issues. The course will be taught exclusively in Spanish and students will be expected to communicate exclusively in Spanish in the class.

Upon successful completion of Spanish for Native Speakers, students may choose to register for any 500-level Spanish course.

Español para nativo hablantes es para aquella persona que habla español como primer idioma y necesita mejorar las técnicas básicas del lenguaje como la lectura, la escritura, el deletereo y la gramática. Los estudiantes van a desarrollar su vocabulario a través de la lectura y la escritura. Parte de la clase será dedicada a distinguir las diferencias entre el español y el inglés y parte será dedicada a temas culturales. La clase se enseñará exclusivamente en español y se requiere que los estudiantes se comuniquen exclusivamente en español.

Al terminar con éxito el curso de Español para nativo hablantes los estudiantes tienen la oportunidad de matricularse en cualquier curso de Español de nivel 500.
All students are required to pass two credits of Health & Physical Education during high school. (This would include .5 credits of PE in grades 9-11, and .5 credits of Health in grade 10.) During the junior and senior years, students may choose to take additional PE electives, however, there is not a requirement for seniors to take a Physical Education course if they have successfully completed the 2.0 credits of Health & Physical Education prior to their senior year.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester / Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
<th>Weighted Value Per Course</th>
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<td>S / A</td>
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<tr>
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<td>S</td>
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<td></td>
<td><strong>Driver Education is offered in an on-line format. There is a fee of $49.00 for this 0.25 credit course. There is no course number for this class.</strong></td>
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<td><strong>Behind-the-Wheel is an optional, no credit offering. (Fee based course, scheduled with private vendors.)</strong></td>
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<td></td>
<td><strong>Please see pages 104 and 105 for program details of these two offerings.</strong></td>
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<tr>
<td>7300</td>
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<td>11</td>
<td>S</td>
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<tr>
<td>7340</td>
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<tr>
<td>7341</td>
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<td>S</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Elective</td>
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<td></td>
<td></td>
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<td></td>
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<td>7431</td>
<td>Military Fitness</td>
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<td>A</td>
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<tr>
<td>7521</td>
<td>Advanced Strength Training &amp; Conditioning</td>
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</tr>
<tr>
<td>7531</td>
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<td>12</td>
<td>S</td>
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<tr>
<td></td>
<td>Elective</td>
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<tr>
<td>7543</td>
<td>Advanced Team Sports/Net Sports</td>
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<td>7600</td>
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<tr>
<td>7211-OL</td>
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<tr>
<td>7621</td>
<td>Sports Medicine</td>
<td>11-12</td>
<td>S</td>
<td>A</td>
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</tr>
</tbody>
</table>

During the Junior year, students must select either Fitness for Life, Personal Fitness Design, or Cardio-Conditioning. They may elect to take one or more of these courses if they wish. (One course would meet their 11th grade PE requirement, and the other would be an elective.) During the Senior year, there is not a required Physical Education course. However, students may select one (or more) of the 12th grade elective courses listed above.

* This course is conducted online and has additional technical requirements. Computer and Internet access at home are required to participate. Please visit [http://start.students.hempfieldsd.org](http://start.students.hempfieldsd.org) for complete details on what is required.

Course descriptions may be found on page 102-105.
7301 PERSONAL FITNESS DESIGN
0.5 Credit Grade 11

(Required for all 11th grade students, or choose either 7331 FFL, or 7341 Cardio-Conditioning)

The Personal Fitness Design course emphasizes that physical activity is an essential part of overall health throughout the lifespan. This course provides a solid foundation for learning the benefits of an active lifestyle. The students will learn concepts of cardiovascular fitness, resistance training, nutrition, and skill related fitness. Each student will develop and implement an individual personal fitness program to improve their fitness, participate in ongoing assessments, and evaluate his/her progress.

All 11th grade students must select 7301 Personal Fitness Design, 7331 Fitness for Life, or 7341 Cardio-Conditioning. Juniors who also wish to select an additional PE course as an elective, may choose any of the three.

7331 FITNESS FOR LIFE
0.5 Credit Grade 11

(Required for all 11th grade students, or choose either 7301 PFD, or 7341 Cardio-Conditioning)

This course will involve instruction in a variety of individual and lifetime sports. This class will enable the student to identify activities that can be pursued later in life as a means of dealing with stress and maintaining physical fitness, and for recreation or socialization. The course includes participation in such activities as aerobics, jogging, racquet sports, volleyball, archery, golf, mountain biking, and small scale games.

7341 CARDIO-CONDITIONING
0.5 Credit Grade 11 or 12

(Required for all 11th grade students, or choose either 7301 PFD, or 7331 FFL)

This course is designed for students who wish to participate in additional aerobic activities that will increase their heart rate to the desired target range for a minimal of twenty minutes. Activities and exercises will include, circuit training, games of ultimate frisbee, campus course jogging, speed walking, rope jumping, Tae Bo, bike riding, elliptical machines, stationary bike riding, stepper activities, music video participation, and creative exercises.

(This course may also serve as a 12th grade PE elective.)

7431 MILITARY FITNESS
0.5 Credit Grade 11 or 12

This course is available to Juniors or Seniors who anticipate applying for one of the U.S. Military Academies, or becoming a recruit for a branch of the military after high school. Preparation for the various physical fitness assessments will be a significant portion of the course. Instruction and practice for these tests will be done in class and students will be assisted as they develop their own training program to prepare them for a future career in the military.

(This course could be used in place of the other required HPE options for Juniors, or as an elective for Seniors.)
7601 HEALTH
0.5 Credit Grade 10

(Required for all 10th grade students)

This course provides the student with an investigation of current health issues and attendant problems from the student's personal, school, home, and community perspective. (Topics of instruction are based upon the PA State Standards for Public School Health Education.) The course provides students with learning experiences that enable them to effectively assimilate health information, and make discriminating decisions concerning their health and behavior as individuals, future parents, and community members.

This graduation requirement is taken during the sophomore year in conjunction with Introduction to Weight Training and Conditioning.

7601-OL HEALTH EDUCATION (Online)
0.5 Credit Grade 10

Health requirement for graduation.

“This course is only available as part of the open-campus initiative.”

This online course provides the student with an investigation of current health issues with an emphasis on healthful decision-making, long and short-term goal setting, and looking ahead to one's preferred quality of life. The course provides students with learning experiences that enable them to effectively assimilate health information and make discriminating decisions concerning their health and behavior as individuals, future parents, and community members. Students enrolling in this course must be capable of meeting and maintaining the academic rigor of this course as well as the technology based requirements, written assignments, content area readings, and the online assessments.

7211-OL PHYSICAL EDUCATION (Online/Hybrid)
0.5 Credit Grades 10-11

Meets the 10th or 11th grade PE requirement. Student may only take this course once.

“This course is only available as part of the open-campus initiative.”

Participation in this course will require students to travel to one of the participating Open Campus PA Schools. Hempfield students may be required to travel to Hempfield HS, Manheim Twp. HS, or Penn Manor HS, depending on which school is teaching the course.

This hybrid course emphasizes that physical activity is an essential part of overall health, not only during adolescence but also throughout the lifespan. Students will examine the components of fitness as well as the F.I.T.T. principle. Each student will be responsible for developing and implementing a personal fitness plan. This class is a HYBRID course combining self directed physical tasks, online journaling and assignments, and regular face-to-face physical assessments with the instructor. Students enrolling in this course must be capable of meeting and maintaining the physical rigor of this course as well as the technology based requirements of the online tasks, readings, written assignments, and all assessments. (PE students will meet for 1 hour every other week with the instructor for fitness assessments.)

7621 SPORTS MEDICINE
0.5 Credit Grades 11 and 12

Prerequisite: Health #7601

Sports Medicine is an elective course which studies the prevention, diagnosis and treatment of injuries sustained in sports or exercise-related activities. The course will enhance learning through hands on
demonstrations of prevention and treatment techniques for sport specific injuries. This course will benefit those students entering health related careers such as medicine, physical therapy, athletic training, nursing, exercise science, and physical education.

**7511 INTRODUCTION TO STRENGTH TRAINING AND CONDITIONING**

0.5 Credit  
Grade 10

This course consists of a systematic program of conditioning that includes: aerobics, running, weight training with free weights, and weight training with Hammer Strength equipment. It is recommended for students interested in a vigorous program leading to a high degree of physical development. Topics of instruction include goal setting, weight management, flexibility, types of training programs, and basic sports nutrition. (The focus in this class is based upon skill development and proper technique, not on lifting heavy weights.)

**7521 ADVANCED STRENGTH TRAINING & CONDITIONING**

0.5 Credit  
Grade 12

Suggested Prerequisite: Personal Fitness Design

This elective course provides opportunities for senior students to build fitness and exercise skills, and also enhance their understanding in the area of exercise science. The course focus is on strength training and conditioning. Concepts of proper exercise technique, spotting, and training methods will be assessed. Students will benefit from individual, partner, and group instruction, and experience various forms of progressive resistance training, aerobic and anerobic exercise, plyometrics, and the periodization of training. This is an ideal course for the elite athlete, fitness enthusiast, aspiring model, or students interested in a career in exercise science, Physical Education and/or Coaching.

**7531 NET SPORTS**

0.5 Credit  
Grade 12

This elective course provides an opportunity for senior students to build skills and additional understanding of the game strategies and rules in activities that involve the use of a net or a goal. Instruction and practice will occur in units such as Volleyball, Badminton, Ping Pong, “Pickle ball” and Tennis, Lacrosse, Tchoukball, Soccer, and other games involving the use of a net.

**7541 ADVANCED TEAM SPORTS**

0.5 Credit  
Grade 12

This elective course provides additional opportunities for senior students to build skills and understanding in the concepts and strategies of a variety of team sports. Units will include activities such as “Razzle Dazzle Football,” Soccer, Softball, Ultimate Frisbee, Rugby, Basketball, Floor hockey, European team handball, and Volleyball. (Students will be given the opportunity to compete in class tournaments, and strive for fitness and skill development through team play.)

**7543 ADVANCED TEAM SPORTS & NET SPORTS**

1.0 Credit  
Grade 12

This course for seniors is a combination of the two separate .5 credit courses (listed above), and meets every day for a semester, and is worth a full credit as a PE elective.

**DRIVER EDUCATION**  (There is a fee of $49 for this 0.25 course.)

0.25 Credit  
Grades 10-12

Driver Education at Hempfield is not a requirement for graduation; however, it is offered for the convenience of our students and families and for the safety of all in the community. **Driver Education is offered in an on-line format.** The course will be offered both semesters during the school year and will also be offered in the summer. **Automobile insurance discounts are usually provided upon the successful completion of the Driver Education and Behind-the-Wheel classes.**
This is an on-line course accessible through the district website and provided by Virtual Drive of America. Students complete the ten (10) modules (approximately 32 hours of instruction) on their own time – at home, in the library, in one of the high school computer centers, or any other location where students have Internet access.

A written assessment is required at the conclusion of the course that will be administered in school during the final exam weeks. Students should pace themselves and work on the module throughout the semester. Students will be awarded credit upon the successful completion of the on-line requirements and passing the final exam. Any student interested in taking on-line Driver Education should visit the Hempfield website (www.hempfieldsd.org) for further information. Go to the high school Home link followed by the Student Programs and Organizations link.

**BEHIND-THE-WHEEL**

0 Credit

**There is a fee determined by the vendor for this 0 credit offering.** Students may also take behind-the-wheel training after they have obtained a Pennsylvania learner’s permit. The behind-the-wheel course is voluntary and is contracted by a local vendor(s) as a fee-for-service program. Behind-the-Wheel training provides six (6) hours of driving instruction and is designed to teach safe and efficient driving, through knowledge, habits, attitudes and respect for the law.
## MATHEMATICS COURSE OFFERINGS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester / Year</th>
<th>Alternate Days E / A</th>
<th>Units of Credit Per Year</th>
<th>Weighted Value Per Course</th>
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<tbody>
<tr>
<td>1911</td>
<td>Test Preparation: SAT/ACT</td>
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<td>S / Y</td>
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<td>3943A</td>
<td>Fundamentals of Math A</td>
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<td>S</td>
<td>E</td>
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<td>Value I</td>
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</table>

**Mathematics Graduation Requirements** - Four (4.0) Units of Credit. Courses 1911, 3631, 3733, and 3793 are considered math electives, and do not fulfill any of the requirements listed above.

Semester examinations are given in most courses in the Mathematics Department. For Computer Science courses, a required project will be evaluated and the grade substituted for the final examination. **CTC students, please see requirements on page 158.**

* This course is conducted online and has additional technical requirements. Computer and Internet access at home are required to participate. Please visit [http://start.students.hempfieldsd.org](http://start.students.hempfieldsd.org) for complete details on what is required.

Course descriptions may be found on pages 107-118
1911 TEST PREPARATION: SAT/ACT
0.5 Credit  Grades 10-12

**Prerequisites:** Geometry

This elective course is intended to provide additional instruction and practice with test-taking skills. The course is designed to meet the needs of students who desire extra practice and instruction in preparation for the PSATs, SATs, and ACTs. The focus of the course is on verbal, math, and writing skills.

*This course does not fulfill an English or a math credit for graduation requirements.*

3943A FUNDAMENTALS OF MATH A
1 Credit  Grades 9-12

**Requires:** Recommendation of the secondary special education coordinator and/or math department supervisor.

Students enrolled in Fundamentals of Math A will study the following topics:
- Area and perimeter of rectangles and triangles
- Equivalent fractions
- Beginning Algebra with 1 variable in equation
- 2 step equations
- Percents
- Learning how to solve word problems

3943B FUNDAMENTALS OF MATH B
1 Credit  Grades 9-12

**Prerequisite:** Fundamentals of Math A (3943A)

**Requires:** Recommendation of the secondary special education coordinator and/or math department supervisor.

Students enrolled in Fundamentals of Math B will study the following topics:
- Basic functions
- Coordinate plane
- Geometry: Circle (radius, diameter, and area), triangles
- Exponents: negative, adding, multiplying, dividing
- Word problems

3943C FUNDAMENTALS OF MATH C
1 Credit  Grades 10-12

**Prerequisite:** Fundamentals of Math B (3943B)

**Requires:** Recommendation of the secondary special education coordinator and/or math department supervisor.

Students enrolled in Fundamentals of Math C will study the following topics:
- Slope (positive and negative)
- Functions
- Square roots
- Simultaneous equations
- Pythagoras Theory
- Problem solving

3943D FUNDAMENTALS OF MATH D
1 Credit  Grades 10-12

**Prerequisite:** Fundamentals of Math C (3943C)
Requires: Recommendation of the secondary special education coordinator and/or math department supervisor.

Students enrolled in Fundamentals of Math D will study the following topics:

- Proportion of similar figures
- Graphing: rate, equations
- Percent increase or decrease
- Scientific Notation: ranking order, multiplying
- Geometry: surface area
- Problem solving

3043 FUNDAMENTALS OF PRE-ALGEBRA
1 Credit  Grades 9-12

Requires: Recommendation of the secondary special education coordinator and/or math department supervisor.

Students enrolled in Fundamentals of Pre-Algebra will study the following topics:

- Variable expressions
- Integers
- Rational numbers
- Solving equations and inequalities
- Factors
- Exponents
- Ratios and proportions
- Probability
- Percents
- Graphing linear functions

3143A FUNDAMENTALS OF ALGEBRA 1A
1 Credit  Grades 9-12

Prerequisite: Fundamentals of Pre-Algebra (3043)

Requires: Recommendation of the secondary special education coordinator and/or math department supervisor.

Students enrolled in Fundamentals of Algebra 1A will study the following topics:

- Properties of real numbers
- Writing and solving linear equations
- Graphing linear equations
- Solving equations and inequalities
- Functions
**3153B FOUNDATIONS OF ALGEBRA 1B**
1 Credit  Grade 10

**Prerequisite:** Foundations of Algebra 1A (3153A)

Students enrolled in Foundations of Algebra 1B will study the following topics:

- Exponents and exponential functions
- Quadratic equations and functions
- Polynomials and factoring
- Rational expressions and equations
- Radicals
- Connections to geometry

Students will take the Keystone Algebra Exam at the end of this course.

**3353 FOUNDATIONS OF GEOMETRY**
1 Credit  Grade 10

**Prerequisite:** Foundations of Algebra 1B (3153B)

Students enrolled in Foundations of Geometry will study the following topics:

- Patterns
- Segments
- Angles and triangles
- Parallel and perpendicular lines
- Circles

**3263A ALGEBRA 2A CP**
1 Credit  Grades 10-12

**Prerequisite:** Algebra 1B (3163B or 3173B)

Students enrolled in Algebra 2A will study the following topics:

- Families of functions
- Applications of functions
- Linear programming
- Systems of three equations
- Three-dimensional graphs
- Matrices
- Direct and inverse variation
- Complex number system
- Combinatorics
- Right triangle trigonometry

**3263B ALGEBRA 2B CP**
1 Credit  Grades 11-12

**Prerequisite:** Algebra 2A (3263A) and Geometry (3363)

Students enrolled in Algebra 2B will study the following topics:

- Rational exponents and functions
- Radical functions
- Exponential and logarithmic functions
- Conic sections
- Sequences and series
- Periodic functions and trigonometry
3273 ALGEBRA 2 CP
1 Credit Grades 10-12

Prerequisite: Algebra 1B (3173B)

Students enrolled in Algebra 2 will study the following topics:

- Advanced linear and nonlinear functions
- Quadratic functions and applications
- Analysis of functions
- Advanced systems of equations and inequalities
- Polynomials and polynomial functions
- Rational expressions and functions
- Complex number system
- Exponential and logarithmic functions

3273-OL ALGEBRA 2 CP (Online)
1 Credit Grades 10-12

Prerequisite: Algebra 1B (3173B)

Students enrolled in Algebra 2 will study the following topics:

- Advanced linear and nonlinear functions
- Quadratic functions and applications
- Analysis of functions
- Advanced systems of equations and inequalities
- Polynomials and polynomial functions
- Rational expressions and functions
- Complex number system
- Exponential and logarithmic functions

3363 GEOMETRY AND 3373 GEOMETRY CP
1 Credit Grade 10

Prerequisite: Algebra 1B (3163B or 3173B)

Students enrolled in Geometry will study the following topics:

- Reasoning and proof
- Lines in the plane
- Angles and triangles
- Congruence
- Parallel and perpendicular lines
- Polygons
- Similarity
- Plane and coordinate geometry
- Circles and sectors
- Pythagorean theorem
- Geometric solids
3373-OL GEOMETRY CP (Online)
1 Credit Grade 10

Prerequisite: 3173B

Students enrolled in Geometry will study the following topics:

- Reasoning and proof
- Lines in the plane
- Angles and triangles
- Congruence
- Parallel and perpendicular lines
- Polygons
- Similarity
- Plane and coordinate geometry
- Circles and sectors
- Pythagorean theorem
- Geometric solids

3273B INTRODUCTION TO PRECALCULUS CP
1 Credit Grades 11-12

Prerequisite: Algebra 2 (3273) and Geometry (3373)

Students enrolled in Introduction to Precalculus will study the following topics:

- Rational exponents and functions
- Radical functions
- Exponential and logarithmic functions
- Conic sections
- Sequences and series
- Periodic functions and trigonometry

3473 PRECALCULUS CP
1 Credit Grades 11-12

Prerequisites: 3273B or 3223 and 3323

Students enrolled in Precalculus will study the following topics:

- Analysis of functions
- Polynomial and rational functions
- Exponential and logarithmic functions
- Circular and trigonometric functions
- Complex number system
- Plane analytic geometry
- Trigonometric identities and equations

3473-OL PRECALCULUS CP (Online)
1 Credit Grades 11-12

Prerequisites: 3273B or 3223 and 3323

Students enrolled in Precalculus will study the following topics:

- Analysis of functions
- Polynomial and rational functions
- Exponential and logarithmic functions
- Circular and trigonometric functions
- Complex number system
• Plane analytic geometry
• Trigonometric identities and equations

3573 CALCULUS CP
1 Credit Grades 11-12

Prerequisite: Precalculus CP (3473) or Math Analysis (3483)

This course will introduce and develop fundamental calculus principles and techniques with an emphasis on the practical value of calculus. Students will encounter genuine, real-world problems in business, economics, life sciences, and a wide range of other fields. This course will not prepare students for the AP exam, but will give them a clear understanding of the ideas of calculus as a solid foundation for subsequent courses. Students enrolled in this course will study the following topics:

• Limits and derivatives
• Methods of differentiation and their applications
• Definite and indefinite integration
• Methods of integration and their application
• Differential Equations

3573-OL CALCULUS CP (Online)
1 Credit Grades 11-12

Prerequisite: Precalculus CP (3473) or Math Analysis (3483)

This course will introduce and develop fundamental calculus principles and techniques with an emphasis on the practical value of calculus. Students will encounter genuine, real-world problems in business, economics, life sciences, and a wide range of other fields. This course will not prepare students for the AP exam, but will give them a clear understanding of the ideas of calculus as a solid foundation for subsequent courses. Students enrolled in this course will study the following topics:

• Limits and derivatives
• Methods of differentiation and their applications
• Definite and indefinite integration
• Methods of integration and their application
• Differential Equations

3223 ADVANCED ALGEBRA 2
1 Credit Grades 10-11

Prerequisite: Algebra 1B Honors

Students enrolled in Advanced Algebra 2 will study the following topics:

• Advanced linear and nonlinear functions
• Quadratic functions and applications
• Analysis of functions
• Advanced systems of equations and inequalities
• Polynomials and polynomial functions
• Rational expressions and functions
• Complex number system
• Exponential and logarithmic functions
• Conic sections
3323 ADVANCED GEOMETRY
1 Credit  Grades 10-11

Prerequisite:  Algebra 1B Honors

Students enrolled in Advanced Geometry will study the following topics:

- Exact reasoning
- Lines in the plane
- Angles and triangles
- Congruence
- Proof
- Parallel and perpendicular lines
- Polygons
- Similarity
- Plane and coordinate geometry
- Circles and sectors
- Pythagorean theorem
- Geometric solids

3283 ALGEBRA 2 HONORS
1 Credit  Grades 9-10

Prerequisite:  Algebra 1B Honors (3183B)

Students enrolled in Algebra 2 Honors will study the following topics:

- Advanced linear and nonlinear functions
- Quadratic functions and applications
- Analysis of functions
- Advanced systems of equations and inequalities
- Polynomials and polynomial functions
- Rational expressions and functions
- Complex number system
- Exponential and logarithmic functions

3383 GEOMETRY HONORS
1 Credit  Grades 9-10

Prerequisite:  Algebra 1B Honors (3183B)

Students enrolled in Geometry Honors will study the following topics:

- Exact reasoning
- Lines in the plane
- Angles and triangles
- Congruence
- Proof
- Parallel and perpendicular lines
- Polygons
- Similarity
- Plane and coordinate geometry
- Circles and sectors
- Pythagorean theorem
- Geometric solids
3483 MATH ANALYSIS HONORS  
1 Credit Grades 10-11

Prerequisite: Algebra 2 Honors (3283) and Geometry Honors (3383)

Students enrolled in Math Analysis Honors will study the following topics:

- Analysis of functions and limits
- Polynomial and rational functions
- Exponential and logarithmic functions
- Circular and trigonometric functions
- Trigonometric identities and equations
- Complex number system
- Plane analytic geometry
- Sequences and series

3593A CALCULUS AB AP  
1 Credit Grades 11-12

Prerequisite: Math Analysis (3483) or ≥ 90% in CP Calculus (3573)

Calculus AB AP is equivalent to a freshmen college Calculus I course. Upon successful completion of the course, the student will be prepared for the AB level Advanced Placement Exam. It is recommended that students who enroll in AP Calculus have demonstrated a mastery of algebra, geometry, analytic geometry, and trigonometry. Students enrolled in this course will study the following topics:

- Limits and their application to derivatives
- Methods of differentiation and their applications
- Definite and indefinite integration
- Methods of integration and their application

3593B CALCULUS BC AP  
1 Credit Grades 11-12

Prerequisite: Calculus AB AP (3593A)

Upon completion of this course, the student will be prepared for the BC level Advance Placement Calculus Exam. Students will be expected to have a mastery of limits, derivatives and their applications, integral calculus, and differentiable equations. Students enrolled in the course will study the following topics:

- The Logistic Equation
- Calculus with Parametric Equations
- Areas and Lengths in Polar Coordinates
- Techniques of Integration
- Improper Integrals
- Infinite Sequences and Series
- Maclaurin and Taylor Polynomials

3631 INTRODUCTION TO STATISTICS  
0.5 Credit Grades 10-12

Prerequisite: Credit for, or enrollment in, Algebra 2 (3273)

This course does not fulfill a mathematics credit for graduation requirements.

This elective course will introduce and develop fundamental statistical concepts, principles, and techniques. Students will learn to analyze genuine data by doing in-class activities with the use of a graphing calculator. This course will not prepare students for the AP exam, but will serve as an excellent background for future courses beyond high school.

3673-OL STATISTICS CP (Online)  
1 Credit Grades 10-12
**Prerequisite: 3273, 3273B, or 3283**

This course is an introduction to the major concepts of data analysis, specifically exploring and describing univariate and bivariate data graphically and numerically, experimental design, anticipating patterns through probability, and statistical inference procedures. This class is recommended for any student who will need to take a Statistics course on the college level. Calculators and other online resources will be used to analyze data throughout the course. A TI-83+ or TI-84 graphing calculator is required.

**3693 STATISTICS AP**
1 Credit Grades 10-12

**Prerequisite: Credit for, or enrollment in, Math Analysis (3483) or a grade of 80% or higher in Precalculus CP (3473) or Advanced Algebra 2 (3223)**

Statistics AP is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. Upon successful completion of the course, the student will be prepared for the Advanced Placement Statistics Exam. Students taking this course are encouraged to take the AP exam, but it is not required. The purpose of the course is to introduce students to major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students enrolled in this course will be exposed to four broad conceptual themes:

- Exploring Data
- Planning a Study
- Producing Models Using Probability and Simulation
- Statistical Inference

**3733 INTRODUCTION TO PROGRAMMING**
1 Credit Grades 10-12

**Prerequisite: Geometry**

This course does not fulfill a mathematics credit for graduation requirements.

This is a course for students who wish to learn the basics of computer programming; no prior programming experience is required. Introduction to Programming will introduce basic programming terminology, concepts, and best practices in a 3D-visual environment. Students will learn to design programs using such concepts as conditional statements, loops, variables, functions, and arrays. Students will be given a brief introduction to object-oriented and event-driven programming concepts. The processes of creating, editing, and testing a computer program will form the core of study. Once the basics are learned, students will begin to learn the Java programming language: Areas of study in Java will include:

- Introduction to Objects and Classes
- Fundamental Data Types
- Decisions
- Iteration
- Methods
- Arrays
- Graphical User Interfaces

Students who successfully complete Introduction to Programming will be prepared to take on the challenges offered in Hempfield’s AP Computer Science course.
3793 COMPUTER SCIENCE AP  
1 Credit Grades 10-12

Prerequisite: Introduction to Programming (3733)

*This course does not fulfill a mathematics credit for graduation requirements.*

This course is equivalent to a freshman college computer science course. It is designed to prepare the student to take the Advanced Placement Computer Science Exam. Students will further develop their skills in object-oriented programming with the JAVA programming language. Topics of study include:

- One- and two-dimensional arrays
- Array Lists
- Recursion
- Searching and Sorting Algorithms
- Designing, writing, modifying, testing and debugging computer-based solutions
- Exception Handling
- Interfaces and Polymorphism
- Inheritance
- Grid World Case Study
Recommendations for Sequencing of Mathematics Courses
Core courses are in gray boxes, possible electives are in white

**Fundamentals Sequence**

- **Fundamentals of Math A**
  - 3943A
  - Required
  - Grades 9-10

- **Fundamentals of Math B**
  - 3943B
  - Required
  - Grades 9-10

- **Fundamentals of Math C**
  - 3943C
  - Suggested
  - Grades 10-12

- **Fundamentals of Math D**
  - 3943D
  - Suggested
  - Grades 10-12

**Foundations Sequence**

- **Foundations of Pre-Algebra**
  - 3053
  - Required
  - Grade 9

- **Foundations of Algebra 1A**
  - 3153A
  - Required
  - Grade 9

- **Foundations of Algebra 1B**
  - 3153B
  - Required
  - Grade 10

- **Foundations of Geometry**
  - 3353
  - Required
  - Grade 10

- **Mathematics at CTC**
  - Suggested
  - Grades 11-12
Algebra IA H
3183A
Required  Grade 7-9

Algebra IB H
3183B
Required  Grade 8-9

For Algebra 2H and Geometry H, order is
interchangeable, but Geometry should be
taken in grade 10.

Algebra 2 H
3283
Required  Grade 9-11

Geometry H
3183
Required  Grade 10

Test Prep PSAT/SAT/ACT
Suggested  Grade 10 or 11

Statistics CP (non-AP)
1273
Suggested  Grade 10-12

Statistics AP
3413
Suggested  Grade 10-12

Math Analysis H
1483
Suggested  Grade 10 or 11

Computer Science AP
3791
Suggested  Grade 10-12

Calculus AB AP
3591A
Suggested  Grade 11 or 12

Calculus BC AP
3591B
Suggested  Grade 11 or 12

Dual Enrollment
Suggested  Grade 12
## MUSIC COURSE OFFERINGS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester / Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
<th>Weighted Value Per Course</th>
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<td>0551</td>
<td>Music Theory I</td>
<td>10-12</td>
<td>S</td>
<td>A</td>
<td>0.5</td>
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<td>Music Theory II - AP</td>
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<td>Value IV</td>
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<td>0641</td>
<td>Beginning Piano</td>
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<td>S</td>
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<td>*0754</td>
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<td>*0763</td>
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<td>*0764</td>
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<td>*0773</td>
<td>Bel Canto Singers</td>
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<td>A</td>
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</table>

* Designates classes that meet for an entire school year.

Students who elect to participate in all performance ensembles (bands, orchestras, and choirs) must either be recommended by their middle school director(s) or successfully perform a pre-assessment with the appropriate high school director(s).

Course descriptions may be found on pages 120-124.
0551 MUSIC THEORY I
0.5 Credit Grades 10-12

Prerequisite: This class is designed for students currently enrolled in Music Department performing groups and/or students who study music lessons privately. Students without significant music backgrounds are encouraged to enroll, but should be aware that they will be required to read, sing, chant, and notate musical examples.

This class is a comprehensive, technical study of the structural elements of music. Topics include: the history and development of musical symbols; Acoustics – the science of sound production, tuning, and perception; Audiation - aural recognition and classification of tonal and rhythm patterns; Solfeggio, sight-singing, and music dictation; Music Notation – staves, clefs, meters, keys, scales, intervals, chords; Music Composition – patterns used to create examples of Western Music; Computer Applications of music notation and sequencing; and Form and Analysis – the study of existing compositions to recognize tendencies and artistic elements of composition.

0561 MUSIC THEORY II – AP
0.5 Credit Grades 10-12

Prerequisite: Students must satisfactorily complete Music Theory I and be recommended by the instructor.

This AP-level class is designed as a continuation and extension of content and skills learned in Music Theory I, including the advanced technical study of the structural elements and compositional procedures in music. Students who successfully complete this course will be prepared to take the annual Advanced Placement Music Theory Test. Topics include: Advanced Musical Composition and Analysis using Counterpoint, Diatonic and Chromatic Harmony, Transposition, Modulation, periodic phrase structure, Augmented and Neapolitan chords, simple binary and ternary forms, imitative polyphony, and rudimentary orchestration techniques.

0571 MUSIC, TECHNOLOGY & THE RECORDING ARTS
0.5 Credit Grades 9-12

Prerequisite: Students should have a basic working knowledge of musical timbres, music notation, and basic keyboard skills. The class is appropriate for both students with and without backgrounds in music performance.

The primary focus of this class is for students to compose and arrange musical compositions, using MIDI applications and a variety of music software programs. Topics include: notating music, keyboard applications, MIDI concepts, multi-track recording, sound blending, and sequencing.

0611 BACH TO ROCK *
0.5 Credit Grades 9-12 (Alternate Years)

This class offers students a sample of important composers, styles, and genres from Western music history dating from the birth of opera in 1607 to the present day. This course is designed more for the serious music student who is interested in learning about historical style periods, prominent composers of art music, and listening to and analyzing significant genres and forms of music composition.

0621 MUSIC IN THE THEATER *
0.5 Credit Grades 9-12 (Alternate Years)

This class illustrates the history and development of theatrical music, including opera, ballet, minstrel shows, revues, vaudeville, musical comedies, concept musicals, and film scores. The major portion of the class is devoted to the study of the history and prominent creative personalities associated with Broadway and Hollywood Musicals. The class also requires listening to and observing significant audio-visual recorded examples of each genre.
0631 POP, ROCK, & JAZZ °
0.5 Credit Grades 9-12 (Alternate Years)

This class is recommended for students who enjoy listening to and learning about popular music styles and their relationship to contemporary culture. Students will learn about significant personalities associated with the development of each style and listen to a large amount or representative recordings. Topics include: minstrel shows, ragtime, blues, Dixieland jazz, swing, be-bop, Broadway, country-western, rhythm and blues, gospel, soul, rock and roll, commercial pop, various rock styles, disco, alternative, rap, heavy metal, MTV, and current trends in commercial and alternative music.

° Classes that will be offered on alternating years starting in the 2016-17 school year:

0611 BACH TO ROCK
0621 MUSIC IN THE THEATER
0631 POP, ROCK, & JAZZ
0941 ROCK MUSIC ENSEMBLE

0641 BEGINNING PIANO
0.5 Credit Grades 9-12

This class provides students with the opportunity to learn musical skills and repertoire through piano performance. The course is offered in a group setting and students are encouraged to advance at an individualized pace. Students are expected to learn to read and perform music at a reasonable, developmentally appropriate rate. Students are expected to purchase their instructional method book and are expected to practice outside of class.

0651 BEGINNING GUITAR
0.5 Credit Grades 9-12

Prerequisite: Students should provide their own acoustic guitar. A limited number of school-owned instruments are available for students to use in class.

This class provides students with the opportunity to learn musical skills and repertoire through guitar performance. The course is offered in a group setting and students are encouraged to advance at an individualized pace. Students are expected to learn to read and perform music at a reasonable, developmentally appropriate rate. Students are expected to purchase their instructional method book and are expected to practice outside of class.

0661 INTERMEDIATE PIANO
0.5 Credit Grades 9-12

Prerequisite: Students must satisfactorily complete Beginning Piano or have significant expertise from private study to be recommended by the music supervisor.

This class provides students with the opportunity to continue and expand their musical skill development and repertoire learned in Beginning Piano. The course is offered in a group setting and students are encouraged to advance at an individualized pace. Students are expected to learn to read and perform music at a more advanced rate. Students are expected to purchase their instructional method book and are expected to practice outside of class.

0671 INTERMEDIATE GUITAR
0.5 Credit Grades 9-12

Prerequisite: Students must satisfactorily complete Beginning Guitar or have significant expertise from private study to be recommended by the music supervisor. Students should also provide their own acoustic (non-electric) guitar. A limited number of school-owned instruments are available for students to use in class.

This class provides students with the opportunity to continue and expand their musical skill development and repertoire learned in Beginning Guitar. The course is offered in a group setting and students are encouraged to advance at an individualized pace. Students are expected to learn to read and
perform music at a more advanced rate. Students are expected to purchase their instructional method book and are expected to practice outside of class.

0703 CONCERT CHOIR
1 Credit  (Full Year)  Grade 9 (alternative scheduling option for Grades 10-12)

Prerequisite: Although no formal audition is required for enrollment in Concert Choir, students must either be recommended by their middle school director or demonstrate the ability to sing in tune and in tempo through an informal vocal pre-assessment for the director.

This choral ensemble, primarily for students in 9th grade and less experienced students with mixed voices, rehearses and performs appropriate music for annual scheduled concerts. Students are required to perform in all concerts, which provide the basis for summative assessments during each grading period. The director encourages select members of the choir to audition for County and District Chorus Festivals. All members are eligible to audition for the annual Spring Musical. Topics include: (a) basic to intermediate vocal technique, including range extension, resonance, diction, and breath support; (b) various styles of multi-cultural repertoire from all eras of music history; (c) basic to intermediate sight-singing skills using solfeggio; and (d) basic to intermediate levels of musicianship and emotional expression.

0754 CONCERT BAND / CONCERT CHOIR
2 Credits  (Full Year)  Grade 9 (alternative scheduling option for Grades 10-12)

Prerequisite: Students should have previous band and choral experience and must either be recommended by their middle school directors or perform a successful audition for the band director and a successful vocal pre-assessment with the choral director.

This course offering is for students who would like to enroll in both Concert Band and Concert choir. Please refer to individual Course Descriptions for more specific information regarding these separate performing ensembles.

0763 HEMPFIELD SINGERS
1 Credit (Full Year)  Grades 10-12

Prerequisite: Students should have previous choral experience and must perform a successful audition for the director.

This select choral ensemble for students with mixed voices rehearses and performs a variety of challenging music for annual scheduled concerts. This choir also regularly performs concerts in local churches and for civic and social organizations. Students are required to perform in all concerts, which provide the basis for summative assessments during each grading period. The director encourages select members of the choir to audition for County and District Chorus Festivals. All members are eligible to audition for the annual Spring Musical. Topics include: (a) advanced vocal technique, including range extension, resonance, diction, style distinction, linguistics, and breath support; (b) various styles of multi-cultural repertoire from all eras of music history; (c) advanced sight-singing skills using solfeggio; and (d) advanced levels of musicianship.

0764 SYMPHONIC BAND / HEMPFIELD SINGERS
2 Credits (Full Year)  Grades 10-12

Prerequisite: Students must have previous band and choral experience and must perform successful auditions for both directors.

This course offering is for students who would like to enroll in both Symphonic Band and Hempfield Singers. Please refer to individual Course Descriptions for more specific information regarding these separate performing ensembles.
0773 BEL CANTO SINGERS
1 Credit (Full Year) Grades 10-12

Prerequisite: Students must have previous choral experience and must perform a successful audition for the director.

This select choral ensemble for students with women's voices rehearses and performs a variety of challenging music for annual scheduled concerts. This choir also regularly performs concerts in local churches and for civic and social organizations. Students are required to perform in all concerts, which provide the basis for summative assessments during each grading period. The director encourages select members of the choir to audition for County and District Chorus Festivals. All members are eligible to audition for the annual Spring Musical. Topics include: (a) advanced vocal technique, including range extension, resonance, diction, style distinction, linguistics, and breath support; (b) various styles of multicultural repertoire from all eras of music history; (c) advanced sight-singing skills using solfeggio; and (d) advanced levels of musicianship and emotional expression.

0784 SYMPHONY STRINGS / HEMPFIELD SINGERS
2 Credits (Full Year) Grades 10-12

Prerequisite: Students must have previous string and choral experience and must perform successful auditions for both directors.

This course offering is for students who would like to enroll in both Symphony Strings and Hempfield Singers. Please refer to individual Course Descriptions for more specific information regarding these separate performing ensembles.

0823 CONCERT BAND
1 Credit (Full Year) Grade 9 (alternative scheduling option for Grades 10-12)

Prerequisite: Students must have previous band experience and must either be recommended by their middle school director or complete a successful pre-assessment for the director.

This ensemble, primarily for 9th graders and intermediate-level students who play band instruments, rehearses and performs separately from and together with the Symphonic Band for annual scheduled concerts. Students are required to perform in all concerts, which provide the basis for summative assessments during each grading period. The director encourages select members of the orchestra to audition for the County and District Band Festivals. Topics include: intermediate instrumental techniques, concentrating on repertoire, tone quality, tuning, blend, balance, rhythmic precision, articulation, emotional expression, interpretation, and musicality.

0833 SYMPHONIC BAND
1 Credit (Full Year) Grades 10-12

Prerequisite: Students must have previous band experience and must perform a successful audition for the director.

This ensemble for students who play woodwind, brass, and percussion instruments rehearses and performs for annual scheduled concerts and other performances as announced. Students are required to perform in all concerts, which provide the basis for summative assessments during each grading period. The director encourages select members of the band to audition for the District Band Festival and to be placed in County Band Festival. Selected members of the band perform with the Symphony Strings in the annual Holiday Concert, in the pit orchestra for the Spring Musical and in the Spring Orchestra Concert. Topics include: intermediate to advanced instrumental techniques, concentrating on repertoire, qualities of tone, tuning, blend, balance, rhythmic precision, articulation, emotional expression, interpretation, and musicality.
0933 SYMPHONY STRINGS
1 Credit (Full Year) Grades 10-12

**Prerequisite:** Students must have previous string experience and must complete a successful audition for the director.

This ensemble is for 10th, 11th, and 12th grade students who play bowed string instruments. Symphony Strings rehearses every other day and performs in annual scheduled concerts and other performances as announced. Students are required to perform in all concerts, which provide the basis for summative assessments during each grading period. During rehearsals, the emphasis is on ensemble skills, including tone quality, intonation, balance, rhythmic precision, articulation, emotional expression, and musical interpretation. In order to further develop these skills on an individual basis, students are strongly encouraged to study with a private teacher outside of the school day. Select members of Symphony Strings have the opportunity to audition for County and District Orchestra Festivals, and may be chosen to play in the pit orchestra for the Spring Musical.

0941 ROCK MUSIC ENSEMBLE °
0.5 Credit Grades 9-12 (Alternate Years)

**Prerequisite:** Students should have previous experience on instruments and/or with vocal styles associated with Rock music. Students must also perform a successful audition for the director.

This ensemble is designed for students who seek to perform rock music styles, providing them with opportunity to participate in a non-traditional, school-sponsored group. The director will rehearse the ensemble and determine appropriate performance opportunities each semester. Topics include: music notation literacy, appropriate lyrics and repertoire, tone quality, tuning, blend, balance, rhythmic precision, articulation, electronic production and manipulation of sound ideas, computer applications, emotional expression, interpretation, and musicianship.

° **Classes that will be offered on alternating years starting in the 2016-17 school year:**

- **0611 BACH TO ROCK**
- **0621 MUSIC IN THE THEATER**
- **0631 POP, ROCK, & JAZZ**
- **0941 ROCK MUSIC ENSEMBLE**

0681-OL POPULAR MUSIC IN AMERICA (Open Campus PA On-line Course)
0.5 Credit Grades 9-12

**Prerequisite:** None

Popular Music in America is designed for students who have an interest in music but may or may not be inclined toward musical performance. The lecture-based course will introduce the history and influence of American music within the broader context of American culture. The primary goal of the course is to forge connections between the world of contemporary pop music (with which most students are intensely involved) and the historical roots of this music (which most know very little about). Students will learn to distinguish between different styles and genres and will gain a solid understanding of how popular music is constructed and produced.

**Students who have scheduling concerns due to membership in multiple performing ensembles should consult with the music supervisor.**
## SCIENCE COURSE OFFERINGS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Recommended Grade</th>
<th>Semester / Year</th>
<th>Everyday / Alternate Days</th>
<th>Units of Credit Per Year</th>
<th>Weighted Value Per Course</th>
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### Science Graduation Requirements

Students must complete three (3.0) units of credit including general science, biology, and one additional science course. Additionally, students must achieve a score of proficient or advanced on the Biology Keystone Exam, or successfully complete the Biology Keystone Project Based Assessment.

Students who do not score proficient or advanced on the Biology Keystone Exam will be placed into Current Topics in Science (4353) where they will receive remediation for the Biology Keystone Exam. Students who have completed Current Topics in Science (4353) and received remediation but who do not achieve a combined score of proficient or advanced on the Biology Keystone Exam a second time will be placed into General Science II and will complete the Keystone Biology Project Based Assessment during the fall of their senior year.

(Science Course Offerings continued on the next page)
*** Being recommended for a fourth year science does not mean that students are obligated to take a fourth science course. Graduation requirements only demand three years of science. However, students considering a four-year college experience should consult with institutions in which they are interested in attending regarding science requirements for admission.

* This course is conducted online or in a hybrid configuration with some classroom instruction and has additional technical requirements. Computer and Internet access at home are required to participate. Please visit [http://start.students.hempfieldsd.org](http://start.students.hempfieldsd.org) for complete details on what is required.

Course descriptions may be found on pages 127-134.
SCIENCE DEPARTMENT

4103 EXPERIMENTAL RESEARCH & DESIGN
1 Credit  Grades 9-12 (Alternate Years)

This is a science elective for students interested in independent science research. The course is designed to provide students with skills necessary to develop a science research thesis statement and carry out an independent research project. Emphasis will be placed upon 1) location and evaluation of background information, 2) methodologies, 3) appropriate statistical analysis, and 4) development of results and conclusions. The course culminates with students developing an independent research project.

° This course is offered on a rotating basis. “Experimental Research & Design” will be offered for the 2016-2017 school year.

4253 FOUNDATIONS OF BIOLOGY
1 Credit  Grade 10

This course is a survey in life science. Topics will include: a survey of plants and animals, reproduction, cells, structures and functions of living things, inheritance, and ecology. The students will have the opportunity to participate in demonstrations, activities and laboratory exercises and will have related reading and writing assignments.

4273 BIOLOGY CP
1 Credit  Grades 9-10

Biology is designed to have students master key concepts and content in biochemistry, cellular biology, cellular energetics, genetics, evolution, ecology, and taxonomy. Emphasis will be placed on science as a process and the application of scientific concepts to everyday life. Students will have an opportunity to work in laboratory situations and do research projects.

4273-OL BIOLOGY CP (Online/Hybrid)
1 Credit  Grades 9-10

Available during second semester only.

Participation in this course will require students to travel to one of the participating Open Campus PA Schools. Hempfield students may be required to travel to Hempfield HS, Manheim Twp. HS, or Penn Manor HS, depending on which school is teaching the course.

Laboratory experiences will occur both on-campus and via simulation. On-campus time will occur twice weekly in two separate 78-minute blocks during the student day. Major assessments will be administered during the on-campus time. This course will utilize a variety of online tools and applications.

This course will cover such topics as: biochemistry, bioenergetics, homeostasis and transport, genetics, biotechnologies, evolution, and ecology. Students will complete laboratory investigations, research projects and participate in online discussions that will apply biological concepts.

4283 BIOLOGY HONORS
1 Credit  Grades 9-10

Biology Honors utilizes an evolutionary/ ecological approach. The major sections of the course include: molecular and cellular biology, organismal biology, and population and community biology. Each section will include a variety of topics selected on the basis of their centrality to modern biology and their interest and appeal to students. Students will have the opportunity to work in laboratory situations. Students will be required to do a research based project in ecology.
4213 BIOLOGY II HONORS
1 Credit Grades 11-12

Prerequisite: Completion of courses 4273 or 4283. Concurrent scheduling or prior completion of 4373 or 4383. Concurrent scheduling or prior completion of a Physics course is recommended.

This course is designed as a lab science for students interested in post-secondary study in any area of the biological sciences or for any student who has a strong interest in the biological sciences in general. This course will build on and extend the concepts learned in Biology helping students to develop a conceptual framework for biology and gain an appreciation of science as a process. Students will be participating in several field studies as a part of this course.

4293 BIOLOGY I AP
1 Credit (First Semester) Grades 11-12

Prerequisites: Completion of Biology 4283 or 4273, Chemistry 4383 or 4373, and Algebra 2; and teacher recommendation. Concurrent scheduling or prior completion of a Physics course is recommended.

The Biology I AP course is an advanced laboratory biology course designed for students interested in post-secondary study in any area of the biological sciences. The two main goals are: to help students develop a conceptual framework for modern biology and to help students gain an appreciation of science as a process. The topic areas covered are: molecular and cellular biology, energetics, genetics, and evolution. Students planning to take the AP exam in Biology should schedule both Biology I AP and Biology II AP.

4203 BIOLOGY II AP
1 Credit (Second Semester) Grades 11-12

Prerequisites: Completion of Biology 4283 or 4273, Chemistry 4383, or 4373, and Algebra 2; and teacher recommendation. Concurrent scheduling or prior completion of a Physics course is recommended.

The Biology II AP course is an advanced laboratory biology course designed for students interested in post-secondary study in any area of the biological sciences. The two main goals are: to help students develop a conceptual framework for modern biology and to help students gain an appreciation of science as a process. The topic areas covered are: taxonomy, phylogeny, and anatomy and physiology of plants and animals; and ecology. Students planning to take the AP exam in Biology should schedule both Biology I AP and Biology II AP.

4593 ENVIRONMENTAL SCIENCE AP
1 Credit (Second Semester) Grades 11-12

Prerequisite: Completion of Biology Honors and Chemistry Honors, or Biology CP (4273) and Chemistry CP (4373) with permission of the department supervisor. Concurrent scheduling or prior completion of a Physics course is recommended.

The Environmental Science AP course is designed to be the equivalent of a one semester, introductory college course in environmental science. The course is a rigorous science course that stresses scientific principles and analysis and includes a laboratory component; as such it is intended to enable students to undertake, as first-year college students, a more advanced study of topics in environmental science. The goal of the course is to provide students with the scientific principles, concepts and methodologies required to understand the inter-relationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, to examine alternative solutions for resolving and/or preventing them, and to develop and focus on their own role within society and the environment. Students will do field work within our campus outdoor study centers and on local field trips.
4353 CURRENT TOPICS IN SCIENCE
1 Credit   Grades 11-12

Prerequisites: General Science 4153 and Biology 4253 or recommendation of the science department supervisor.

This is a science course for students needing to complete science graduation requirements including remediation for the Biology Keystone exam. This course is designed to provide students with remediation for the Biology Keystone exam and practical, applicable knowledge base to better understand the world around them and to foster good thinking and decision-making skills. Contemporary issues in science will be discussed along with science topics that relate to everyday life. In addition, a variety of chemistry concepts will be taught.

4363 CHEMISTRY
1 Credit   Grades 10-12

Prerequisite: Successful completion of General Science 4163 or 4173.

This is a laboratory oriented course covering such topics as: matter and its classification, chemical symbols and formulas, atomic structure, periodic classification of the elements, bonding, the gas laws and molecular theories, stoichiometry, solutions, acids, bases, and salts.

4373 CHEMISTRY CP
1 Credit   Grades 10-12

Prerequisite: Successful completion of Algebra 1B (3173B). A solid understanding of algebraic principles is required, including rearranging equations with 3 variables, order of operations, and exponents. Completion of General Science and Biology.

This is a laboratory oriented course covering such topics as: matter and its classification, chemical symbols and formulas, atomic structure, periodic classification of the elements, bonding, the gas laws and molecular theories, stoichiometry, solutions, acids, bases, and salts.

4373-OL CHEMISTRY CP (Online/Hybrid)
1 Credit   Grades 10-12

Prerequisite: Successful completion of General/Physical Science, Biology, and Algebra 1. A solid understanding of algebraic principles is required, including rearranging equations with 3 variables, order of operations, and exponents.

Participation in this course will require students to travel to one of the participating Open Campus PA Schools. Hempfield students may be required to travel to Hempfield HS, Manheim Twp. HS, or Penn Manor HS, depending on which school is teaching the course.

Laboratory experiences will occur both on-campus and via simulation. On-campus time will occur twice weekly in two separate 78-minute blocks during the student day. Major assessments will be administered during the on-campus time. This course will utilize a variety of online tools and applications.

This course will cover such topics as: matter and its classification, chemical symbols and formulas, atomic structure, periodic classification of the elements, bonding, the gas laws and molecular theories, stoichiometry, solutions, acids, bases, and salts.
4383 CHEMISTRY HONORS
1 Credit Grades 10-12

Prerequisite: Minimum grade of “B-” in Algebra 1. The above minimum grades is waived if the student is recommended for and presently enrolled in Math Analysis Honors (3483). Completion of General Science and Biology.

The chemistry honors course presents all of the basic ideas of chemistry employing a laboratory-centered approach. The students develop the chemical principles as an outgrowth of student experiments, teacher demonstrations, or class lectures. Topics presented are: atomic structure, solids, liquids, gases, bonding, chemical equations, solutions, stoichiometry, energy of reactions, equilibrium, acid-base theory. The course is recommended to students with a science-related vocational aim and who have a strong mathematical background. Students will be required to develop an experimental design based upon a research topic, conduct the experiment and complete the data analysis.

4393 CHEMISTRY I AP
1 Credit (Fall Semester) Grades 11-12

Prerequisites: Completion of Chemistry Honors 4383, and teacher recommendation. Current enrollment in, or satisfactory completion of, Math Analysis Honors (3483), or Precalculus CP (3473). Concurrent scheduling or prior completion of a Physics course is recommended.

Chemistry I AP is designed for the student who is interested in furthering their study of chemistry, with an emphasis on laboratory skills. Topics covered are: Nature of Matter, Stoichiometry, Ionic and Molecular Compounds, Types of Reactions, Gases, Condensed Phases and Phase Transitions, Chemical Equilibrium, Dissolution and Precipitation Equilibrium. Students planning to take the AP exam in Chemistry should schedule both Chemistry I AP and Chemistry II AP.

4303 CHEMISTRY II AP
1 Credit (Spring Semester) Grades 11-12

Prerequisites: Completion of Chemistry I AP. Concurrent scheduling or prior completion of a Physics course is recommended.

Chemistry II AP is a continuation of Chemistry I AP. Emphasis in this semester will be on preparing for the AP exam. Topics covered are: Thermochemistry, Spontaneous Change and Equilibrium, Redox Reactions and Electro-chemistry, Electrochemistry and Cell Voltage, Chemical Kinetics, Nuclear Chemistry, and Organic Chemistry. Students planning to take the AP exam in Chemistry should schedule both Chemistry I AP and Chemistry II AP.

4623 CHEMISTRY II HONORS
1 Credit Grades 11-12

Prerequisite: Successful completion of course (4373 or 4383). Concurrent scheduling or prior completion of a Physics course is recommended.

This course includes a slower pace than Chemistry AP, but will serve as a lab science for college acceptance to any institute of higher learning. Additional topics for study presented in this course include Redox Reactions, Acids/ Bases, molecular equilibria, electrochemistry, complexions, chemical bonding and organic chemistry. A major component of the course is maintaining an appropriate laboratory notebook. This is a challenging course involving mathematical reasoning of a mid-curriculum Algebra 2 level.
4463 PRINCIPLES OF SCIENCE & TECHNOLOGY
1 Credit Grades 11-12

Prerequisite: Successful completion of General Science 4163 or 4173, Biology 4263 or 4273, and two credits, in math including Algebra 1A (3163A or 3173A).

Principles of Science & Technology is a laboratory-based course. It is designed to meet the needs of a student looking to pursue a technical, mechanical or health related profession. The main thrust of the program will be to utilize math and science principles while applying them to real world situations. The theory will be reinforced with extensive “hands on” lab experiences. Students will study the concepts of: force, work, rate, resistance, energy and power as related to mechanical, fluid, electrical, and thermal systems. Students will work with hand and power tools, electronics, and computers. This is an excellent program for any student interested in HVAC, plumbing, electrical, and a health tech profession.

4473 PHYSICS CP
1 Credit Grades 11-12

Prerequisite: Algebra 2 and Geometry or Algebra 2A CP (3273A) formerly Algebra C. (Students who have taken, or are taking, Math Analysis and/or Calculus should take 4483, or 4491 and 4492, NOT 4473.)

Physics CP (4473) is offered for those students who are not planning to enter a math, science or engineering-related field, but would like to obtain a foundational understanding of the fundamental concepts in Physics. Topics covered include: kinematics, dynamics, electricity, and electronics. Algebra will be utilized in the solving of problems. The necessary concepts of algebra will be reviewed as part of the course. Various projects will be required throughout the year.

4473-OL PHYSICS CP (Online/Hybrid)
1 Credit Grades 11-12

Prerequisite: Algebra 2, Geometry or Pre-Calculus. A solid understanding of algebraic principles is required, including rearranging equations with 3 variables, order of operations and exponents.

Physics (4473) is offered for those students who are not planning to enter a math, science, or engineering-related field, but would like to obtain a foundational understanding of the fundamental concepts in physics.

Participation in this course will require students to travel to one of the participating Open Campus PA Schools. Hempfield students may be required to travel to Hempfield HS, Manheim Twp. HS, or Penn Manor HS, depending on which school is teaching the course.

Laboratory experiences will occur both on-campus and via simulation. On-campus time will occur twice weekly in two separate 78-minute blocks during the student day. Major assessments will be administered during the on-campus time. This course will utilize a variety of online tools and applications.

This course will cover such topics as: kinematics, dynamics, electricity, and electronics. Various group projects will be required throughout the year.

4483 PHYSICS HONORS
1 Credit Grades 11-12

Prerequisite: Pre-calculus CP (3473), Math Analysis (3483)

Physics (Honors) is a survey course of the fundamental concepts of: kinematics, dynamics, electricity and electronics. Trigonometry will be utilized in the solving of two-dimensional problems. This course is offered for students interested in pursuing a math, science-related or engineering-related field of study. Physics Honors differs from the 4473 Physics CP courses in the quantity and depth to which an area is studied. This course utilizes a college physics text. Various projects will be required throughout the year.
4493 PHYSICS AP – MECHANICS
1 Credit (Fall Semester) Grades 11-12

Prerequisite: Completion of, or concurrent scheduling of, Calculus AB AP (3593A).

The Mechanics AP course is a calculus based physics course in classical mechanics. It is a course for students who may be interested in a science or engineering related field. The course will prepare students who wish to take the AP exam for college credit. It is also designed to prepare students to take a calculus based physics course in college. The following topics will be included: kinematics and dynamics of point masses, interactions of particles (mass, momentum and force), energy and work, laws of gravitation and orbiting bodies. The Mechanics AP course will be taught as a problem-solving course with the expectation that many of the theoretical laws will be learned in the process of problem solving.

4413 PHYSICS AP – ELECTRICITY AND MAGNETISM
1 Credit (Spring Semester) Grades 11-12

Prerequisite: AP Mechanics

The Electricity and Magnetism AP course is a calculus based physics course in classical electromagnetism. It is a course for students who may be interested in a science or engineering related field. The course will prepare students who wish to take the AP exam for college credit. It is also designed to prepare students to take a calculus based physics course in college. The following topics will be included: electrostatics, electro-dynamics and magnetism. The Electricity and Magnetism AP course will be taught as a problem solving course with the expectation that many of the theoretical laws will be learned in the process of problem solving.

4803 ANATOMY & PHYSIOLOGY HONORS
1 Credit Grade 12

Prerequisites: Completion of Biology CP 4273, 4283 or 4263 with a teacher recommendation. Concurrent scheduling or prior completion of Chemistry CP 4373 or 4383 is recommended.

Anatomy and Physiology is designed as a lab science for students interested in post-secondary study in any area of the biological sciences or for any student who has a strong interest in pursuing a career in areas related to medicine, nursing, physical education, physical therapy, or cosmetology. Students will gain depth of understanding in reproduction, developmental biology, physiology regulation of homeostasis, gross anatomy. Students will be required to dissect a cat as part of this elective course.

4703-OL ASTRONOMY (Online)
1 Credit Grades 11-12

Prerequisites: Completion of Physics, Pre-calculus or Math Analysis, and a solid understanding of algebraic principles is required, including rearranging equations with 3 variables, order of operations, and exponents.

Laboratory experiences will occur solely online via activities and simulations. There will be no on-campus time, however, nighttime activities will be required. Assessments will be administered and implemented online. This course will utilize a variety of online tools and applications.

Students will attempt to discover just how big the universe truly is using an array of celestial objects that exist around us. Students will explore our night sky, constellations, solar system, galaxy, and what lies beyond the far reaches of space. In addition, students will learn about past and current projects for space exploration, as well as future ideas for space travel.

This course will cover such topics as: black holes, quasars, supernovas, brown dwarfs, the lifecycles of stars, string theory, making observations from earth, and the mechanics of the tools that aid us in exploring the night sky.
COLLEGE PREP SEQUENCE

General Science 4173 CP 4173-OL CP

Biology 4273 CP or 4273-OL CP

Chemistry 4353, 4363, 4373 CP or 4373-OL CP

Biology II Honors 4213 Anatomy & Physiology Honors 4803

Physics 4463, 4473 CP or 4473-OL CP

Chemistry II Honors 4623 Astronomy CP 4703-OL

FOUNDATIONS SEQUENCE

General Science 4153

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**SOCIAL STUDIES COURSE OFFERINGS**

Four (4.0) Units of Credit (American History, World History, Government and Economics, selective) or approved electives.

**CTC students, please see requirements on page 158.**

- This course is conducted online and has additional technical requirements. Computer and Internet access at home are required to participate. Please visit [http://start.students.hempfieldsd.org](http://start.students.hempfieldsd.org) for complete details on what is required.

- This course can be used as a Selective only if it is NOT taken while the student is in 9th grade.

- College in the high school course. (Description on page 156.)

Course descriptions may be found on pages 136-145.

**Social Studies Foundations**

**Sequence for Class of 2017 and Beyond**

135
The flow chart below represents the progression of a student who is taking Foundations courses in Social Studies. Students are required to take a minimum of four (4) credits in Social Studies for graduation.

Social Studies Electives for 9th, 10th, and 11th Grade
Rights and Events in a Modern World # 2553

Additional Selective courses taken beyond the required one will count as elective credits.

Pennsylvania and Local History 2543

Courses may be added to this list in future school years.
Social Studies College Prep
Sequence for Classes of 2017 and Beyond

The flow chart below represents the progression of a student who wishes to take College Preparatory courses in Social Studies. Students are required to take a minimum of four (4) credits in Social Studies.

Social Studies Electives for 9th Grade
- Rights and Events in a Modern World # 2553

Social Studies Electives for 10th, 11th, and 12th Grade
- Principles of American Law* 2563
- Psychology 2573
- Rights and Events in a Modern World 2553
- Pennsylvania and Local History* 2543
- 20th Century Europe* 2583
  * Can also be used as Selective Course
  Courses may be added during future school years

American History 9 - 2173
American History 9 - 2173-OL (Online)

World History 2373
Required
Grade 10

Government and Economics 2473
Required
Grade 11

Grade 12 - Selectives
Each student is required to take at least one social studies course in 12th grade. The course must be one of the Selective courses from the list below. Additional Selective courses taken beyond the required one will count as elective credits. The courses listed below carry the weight College Preparatory value. If you wish to take a selective that is a higher weighted course than College Preparatory, refer to the Honors/Advanced Placement Sequence chart.

- 20th Century Europe 2583
- Pennsylvania and Local History 2543
- Principles of American Law 2563
Social Studies Honors / Advanced Placement Sequence for Classes of 2017 and Beyond

The flow chart below represents the progression of a student who wishes to take Honors or Advanced Placement courses in Social Studies. Note that there are no AP level electives available to grade 9 students in Social Studies. Students are required to take a minimum of four (4) credits in Social Studies for graduation.

Social Studies Electives for 9th Grade
Rights and Events in a Modern World # 2553
# Courses are given college prep weight

Honors American History 9 - 2183 or A.P. American History - 2593
Grade 9

Honors World History
Course 2383
Grade 10

Social Studies Electives for 10th, 11th, and 12th Grade
AP Micro-Economics 2693
AP Comparative Government 2893
AP Psychology 2993
AP U.S. History* 2593
History of the US I & II* Hist. 103-104
* Can also be used as Selective Course
Courses may be added during future school years

Honors Government and Economics 2483 or A.P. U.S. Government and Politics 2493

Grade 12 - Selectives
Each student is required to take at least one Social Studies in 12th grade. The course must be one of the Selectives from the list below. Additional Selective courses taken beyond the required one will count as elective credits. The courses listed below carry the weight of Honors or AP value. If you wish to take a selective that is not of Honors or AP value please check lists on the other sequence charts.

AP U.S. History 2593
History of the U.S. I & II HIST. 103-104
AP Micro-Economics 2693
AP Comparative Government 2893

Courses may be added to this list in future school years.
SOCIAL STUDIES DEPARTMENT

Grade 10

2353 FOUNDATIONS OF WORLD HISTORY
1 Credit Grade 10

Emphasis in this course will be on the relation-ship of the course content to the professional and work life of the student in an environment of technological change and development. An understanding of world cultures and history including: Western Europe, Middle East, India, China, and Africa from 1450 to present. The course focuses on current issues that reflect upon historical and cultural trends.

2373 WORLD HISTORY CP
1 Credit Grade 10

This course is an overview of world cultures and history. An understanding of the basic elements of culture serves as the introduction to the course. The geography, history, socio-cultural, economic and political characteristics and the development of Western Civilization, Middle East, India, China, and Africa from 1450 to present are components of the course content. The course focuses on current issues that reflect upon historical and cultural trends. Components of this course include students completing library assignments and Internet research projects.

2373-OL WORLD HISTORY CP (Online)
1 Credit Grade 10

This online course is an overview of world cultures and history. An understanding of the basic elements of culture serves as the introduction to the course. The geography, history, socio-cultural, economic and political characteristics and the development of Western Civilization, Middle East, India, China, Latin America, and Africa from 1450 to present are components of the course content. The course focuses on current issues that reflect upon historical and cultural trends. Components of this course include students completing Internet research projects along with discussions and summaries on current events and issues.

2383 WORLD HISTORY HONORS
1 Credit Grade 10

In this course students will do several outside readings, Internet research, a research paper, and/or oral reports while learning about the development of western civilization. Various cultures and histories including an understanding of world cultures and history including: Western Europe, Middle East, India, China, and Africa from 1450 to present. The course focuses on current issues that reflect upon historical and cultural trends.

GRADE 10 SOCIAL STUDIES – ELECTIVES

Some of the courses below qualify as Selectives and would count as your 12th Grade Social Studies course. Those classes are noted with the phrase (qualifies as Selective) under the title.

2543 PENNSYLVANIA AND LOCAL HISTORY
1 Credit 10-12th Grade Elective (qualifies as Selective)

Why do millions of people visit Lancaster County every year? How do the Amish live? This course will help students develop an understanding of what it means to live in Pennsylvania and Lancaster County. Course concepts include the history and geography of Pennsylvania, Lancaster County, and the Hempfield School District. In addition, the course will focus on the economic trends, social and cultural aspects of Pennsylvania and Lancaster. Students will explore resources to develop an understanding of their place in Pennsylvania and Lancaster County and will have an opportunity to experience oral history to help them further develop their understanding of the core concepts of the course.
2563 PRINCIPLES OF AMERICAN LAW  
1 Credit 10-12th Grade Elective (qualifies as Selective)

Citizens of the United States are fortunate to live in a country where the rights and liberties of individuals are valued and protected. Through the use of case studies and scenarios students will learn how our legal system operates and how to be a participant in a legal action. Students will participate in several discussions and debates throughout the course.

2583 20th CENTURY EUROPEAN HISTORY  
1 Credit 10-12th Grade Elective (qualifies as Selective)

Prerequisite: 2173, 2183, or 2593

This course is an analysis of 20th century civilization focusing upon Europe as a frame of reference. This course is intended to strengthen the student's background of modern European history. It will include a study of Europe during World War I, 1920's, Rise of Fascism, Nazism, and Communism, World War II, post-war reconstruction, Cold War Europe, and the post-Soviet world. Two multimedia projects and a novelette reading are required.

2593 AMERICAN HISTORY AP  
1 Credit 10-12th Grade Elective (qualifies as Selective)

This course CANNOT be used as a Selective if it was taken in grade 9.

Prerequisite: B+ or higher in 2183 or 2383, and permission of teacher or the approval of the Department Supervisor.

American History AP - the introductory college American History course. The course is designed to study the history of the United States chronologically with emphasis on historical interpretations and analysis of events that shaped the course of our nation's history. Students will be required to write descriptive and analytical essays on a regular basis. The course will prepare students to take the Advanced Placement Test in American History given by the College Board.

The following courses are electives that students in Grade 10 or beyond may elect to take. These courses do NOT count towards the Selective requirement for the classes of 2017 and beyond.

2553 RIGHTS AND EVENTS IN A MODERN WORLD  
1 Credit 9-12th Grade Elective

This course integrates domestic and worldwide events with the study of rights and their evolution in today's world. Through a thematic analysis of current issues, we will analyze the evolution of rights as well as the connection between rights, culture, and a nation's political system. Skills emphasized within the course will include inquiry, analysis, and the integration of technology.

**GRADES 11 AND 12**

Due to curriculum changes, students in both grades 11 and 12 will take Government and Economics during the 2015-2016 school year.

Students graduating in 2016 or 2017 are required to take Government and Economics (regular or online). If you are graduating in 2016 you may take AP U.S. or Comparative Government and/or AP Micro Economics to replace the Government and Economics Course. There are NO replacement courses for Government and Economics courses for those who are graduating in 2016 and beyond.
Emphasis in this course will be on the relationship of the course content to the professional and work life of the student in an environment of technological change and development. The content of the course will focus on a study of the structure and functions of the United States’ political and economic systems.

**2463 GOVERNMENT & ECONOMICS**

**2473 GOVERNMENT & ECONOMICS CP**

1 Credit  Grades 11-12

Government and Economics is required of All Seniors (regular or online) - Except those taking AP U.S. or Comparative Government and/or AP Micro or Macro Economics.

This course is designed to give the student a comprehensive study of the structure and functions of the United States’ political and economic systems. The student will develop the inquiry and analytical skills necessary to better understand our political and economic systems. The systems will be studied through ideology, institutions, leadership, role of the citizen, and the decision making process. Awareness and examination of current events and issues is an integral component of this course. Students will complete outside readings, reports, and/or projects.

**2473-OL GOVERNMENT & ECONOMICS CP (Online)**

1 Credit  Grades 11-12

Government and Economics is required of All Seniors (regular or online) - Except those taking AP U.S. or Comparative Government and/or AP Micro or Macro Economics.

This online course is designed to give the student a comprehensive study of the structure and functions of the United States’ political and economic systems. The student will develop the inquiry and analytical skills necessary to better understand our political and economic systems. The systems will be studied through ideology, institutions, leadership, role of the citizen, and the decision making process. Awareness and examination of current events topics through various online issues is an integral component of this course.

**2483 GOVERNMENT & ECONOMICS HONORS**

1 Credit  Grades 11-12

This course is designed to give the student a comprehensive study of the structure and functions of the United States’ political and economic systems. The student will develop the inquiry and analytical skills necessary to better understand our political and economic systems. The systems will be studied through ideology, institutions, leadership, role of the citizen, and the decision making process. Awareness and examination of current events and issues is an integral component of this course.

In this course, students will do several outside readings, a research paper, oral reports, and/or projects.

**2493 U.S. GOVERNMENT & POLITICS AP**

1 Credit  11th & 12th Grade Elective

**Prerequisite:** B+ or higher in 2183, 2283, and 2383, and permission of teacher or the approval of the Department Supervisor.

U.S. Government and Politics AP is a one-semester introductory college course. This course provides students the opportunity to develop a critical perspective on government and politics in the United States. It includes the concepts and structures used to interpret American politics and the analysis of significant case studies. Students examine various institutions, groups, beliefs, and ideas that shape the American political system. This course also incorporates a unit on introductory economic concepts, principles and functions.
Students will have the option to take the national Advanced Placement examination in U.S. Government and Politics for possible college credit.

**Classes of 2015 and 2016 – U.S. Government and Politics AP may be taken in lieu of Government and Economics Honors (2483).**

**GRADE 11 SOCIAL STUDIES – ELECTIVES AND SELECTIVES**

Some of the courses below qualify as Selectives and would count as your 12th Grade Social Studies course. Those classes are noted with the phrase (qualifies as Selective) under the title.

**2543 PENNSYLVANIA AND LOCAL HISTORY**
1 Credit 11-12th Grade Elective (qualifies as Selective)

Why do millions of people visit Lancaster County every year? How do the Amish live? This course will help students develop an understanding of what it means to live in Pennsylvania and Lancaster County. Course concepts include the history and geography of Pennsylvania, Lancaster County, and the Hempfield School District. In addition, the course will focus on the economic trends, social and cultural aspects of Pennsylvania and Lancaster. Students will explore resources to develop an understanding of their place in Pennsylvania and Lancaster County and will have an opportunity to experience oral history to help them further develop their understanding of the core concepts of the course.

**2563 PRINCIPLES OF AMERICAN LAW**
1 Credit 11-12th Grade Elective (qualifies as Selective)

Citizens of the United States are fortunate to live in a country where the rights and liberties of individuals are valued and protected. Through the use of case studies and scenarios students will learn how our legal system operates and how to be a participant in a legal action. Students will participate in several discussions and debates throughout the course.

**2583 20th CENTURY EUROPEAN HISTORY**
1 Credit 10th, 11th, and 12th Grade Elective (qualifies as Selective)

**Prerequisite:** 2173, 2183, or 2593

This course is an analysis of 20th century civilization focusing upon Europe as a frame of reference. This course is intended to strengthen the student's background of modern European history. It will include a study of Europe during World War I, 1920's, Rise of Fascism, Nazism, and Communism, World War II, post-war reconstruction, Cold War Europe, and the post-Soviet world. Two multimedia projects and a novelette reading are required.

**2593 AMERICAN HISTORY AP**
1 Credit 11-12th Grade Elective (qualifies as Selective)

**Prerequisite:** B+ or higher in 2183 or 2383, and permission of teacher or the approval of the Department Supervisor.

American History AP - the introductory college American History course. The course is designed to study the history of the United States chronologically with emphasis on historical interpretations and analysis of events that shaped the course of our nation’s history. Students will be required to write descriptive and analytical essays on a regular basis. The course will prepare students to take the Advanced Placement Test in American History given by the College Board.
2553 RIGHTS AND EVENTS IN A MODERN WORLD
1 Credit 9-12th Grade Elective (does NOT qualify as a Selective)

This course integrates domestic and worldwide events with the study of rights and their evolution in today's world. Through a thematic analysis of current issues, we will analyze the evolution of rights as well as the connection between rights, culture, and a nation's political system. Skills emphasized within the course will include inquiry, analysis, and the integration of technology.

2693 MICRO ECONOMICS AP *
1 Credit 11th & 12th Grade Elective (qualifies as Selective)

Prerequisite: B+ or higher in 2183, 2283, and 2383, and permission of teacher or the approval of the Department Supervisor.

The AP course in micro economics develops a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of markets, and the role of government in promoting greater efficiency and equity in the economy. Students are required to complete extensive reading and writing assignments that involve research and rigorous analytical and mathematical problem-solving skills. This course also incorporates a unit that extends the student’s understanding of American and comparative government structures, functions and policy impact.

Students will have the option to take the national Advanced Placement examination in Micro Economics for possible college credit.

2793 MACRO ECONOMICS AP ○
1 Credit 11th & 12th Grade Elective (qualifies as Selective)

Prerequisite: B+ in 2183, 2283, and 2383, and permission of teacher or the approval of the Department Supervisor.

The AP course in Macro Economics develops a thorough understanding of the principles of economics that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination, and also develops students’ familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students are required to complete extensive reading and writing assignments that involve research and rigorous analytical and mathematical problem-solving skills. This course also incorporates a unit that extends the student’s understanding of American and comparative government structures, functions and policy impact.

Students will have the option to take the national Advanced Placement examination in Macro Economics for possible college credit.

○ These courses are offered on a rotating basis. “Micro Economics – AP” is being offered for the 2015-2016 school year. “Macro Economics – AP” will be offered for the 2016-2017 school year.

2573 PSYCHOLOGY CP
1 Credit 11th and 12th Grade Elective (does NOT qualify as a Selective)

Prerequisite: C or higher in 2273 and 2373 or permission from the Department Supervisor

This course is an introduction to the behavioral sciences. The first half is an introduction to Psychology. The second half is an introduction to Sociology. The basic principles of human behavior and the theories which support current schools of thought are examined. The inquiry and analytical skills required for the study of human behavior will be a sound basis for college study and will provide students with the insights to better understand him/herself and others.

2993 PSYCHOLOGY AP
1 Credit 11th & 12th Grade Elective (does NOT qualify as a Selective)
Prerequisite: B+ or higher in 2183, 2283, and 2383, and permission of teacher or the approval of the Department Supervisor.

Advanced Placement Psychology is an in-depth study of human behavior. Topics such as learning, personality, abnormal psychology, therapy and human development will be studied. Students will be expected to complete a special topics project/presentation. Textbooks are college-level and students will be expected to read independently. Analysis and synthesis will be demonstrated through the writing of essays and participation in discussion. College credit and/or advanced placement may be obtained by achieving a satisfactory score on the standardized Advanced Placement Psychology exam. This course will be offered annually.

2993-OL PSYCHOLOGY AP (Online)
1 Credit 11th & 12th Grade Elective (does NOT qualify as a Selective)

Prerequisite: B+ or higher in 2183, 2283, and 2383, and permission of teacher or the approval of the Department Supervisor.

This online class is an in-depth study of human behavior. Topics such as learning, personality, abnormal psychology, therapy and human development will be studied. Students will be expected to complete a special topics project/presentation. Textbooks are college-level and students will be expected to read independently. Analysis and synthesis will be demonstrated through the writing of essays and participation in discussion. College credit and/or advanced placement may be obtained by achieving a satisfactory score on the standardized Advanced Placement Psychology exam.

GRADE 12 ELECTIVES

The courses listed below are electives for the graduating class of 2016.

2893 COMPARATIVE GOVERNMENT & POLITICS AP
1 Credit 11th and 12th Grade Elective

Prerequisite: B+ or higher in 2183, 2283, and 2383, and permission of teacher or the approval of the Department Supervisor.

Comparative Government & Politics AP is a one-semester introductory college course. This course provides students the opportunity to develop a critical perspective on the similarities and differences among national governments and political systems. It includes the concepts and structures used to interpret governmental and political systems, and will include the study of the governmental systems of Great Britain, China, Mexico, Nigeria, and Russia. This course also incorporates a unit on introductory economic concepts, principles and functions.

Students will have the option to take the national Advanced Placement examination in Comparative Government & Politics for possible college credit.

Classes of 2015 and 2016 – Comparative Government and Politics may be taken in lieu of Honors Government and Economics (2483).

2693 MICRO ECONOMICS AP
1 Credit 11th & 12th Grade Elective (qualifies as Selective)

Prerequisite: B+ or higher in 2183, 2283, and 2383, and permission of teacher or the approval of the Department Supervisor.

The AP course in micro economics develops a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of markets, and the role of government in
promoting greater efficiency and equity in the economy. Students are required to complete extensive reading and writing assignments that involve research and rigorous analytical and mathematical problem-solving skills. This course also incorporates a unit that extends the student's understanding of American and comparative government structures, functions and policy impact.

Students will have the option to take the national Advanced Placement examination in Micro Economics for possible college credit.

Classes of 2015 and 2016 – Micro Economics AP may be taken in lieu of Government and Economics Honors (2483).

2993 PSYCHOLOGY AP
1 Credit 11th & 12th Grade Elective

Prerequisite: B+ or higher in 2183, 2283, and 2383, and permission of teacher or the approval of the Department Supervisor.

Advanced Placement Psychology is an in-depth study of human behavior. Topics such as learning, personality, abnormal psychology, therapy and human development will be studied. Students will be expected to complete a special topics project/presentation. Textbooks are college-level and students will be expected to read independently. Analysis and synthesis will be demonstrated through the writing of essays and participation in discussion. College credit and/or advanced placement may be obtained by achieving a satisfactory score on the standardized Advanced Placement Psychology exam. This course will be offered annually.

2993-OL PSYCHOLOGY AP (Online)
1 Credit 11th & 12th Grade Elective

Prerequisite: B+ or higher in 2183, 2283, and 2383, and permission of teacher or the approval of the Department Supervisor.

This online class is an in-depth study of human behavior. Topics such as learning, personality, abnormal psychology, therapy and human development will be studied. Students will be expected to complete a special topics project/presentation. Textbooks are college-level and students will be expected to read independently. Analysis and synthesis will be demonstrated through the writing of essays and participation in discussion. College credit and/or advanced placement may be obtained by achieving a satisfactory score on the standardized Advanced Placement Psychology exam.

HIST 103 & HIST 104 HISTORY OF THE U.S. I and II
1 Credit Grades 11-12

Prerequisite: B+ or higher in 2183, 2283, and 2383, and permission of teacher or the approval of the Department Supervisor.

History of persons and events that have contributed to the American way of life are studied. Topics include settlement of the new continent, the American Revolution, construction of a constitution and government, development of an economy, reconciling differences among various groups in relation to the Civil War, Reconstruction and the South, building an industrialized America (1865-1898), the Progressive Era of Theodore Roosevelt and Woodrow Wilson, World War I, the uncontrolled Twenties, the Great Depression, World War II, rebuilding a tired America (1945-1961), and the New America (1961 to the present).
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<td>Introduction to Engineering Design</td>
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<td>* 8293</td>
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<td>* 8393</td>
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* Project Lead the Way (PLTW) Course. PLTW is a National High School Pre-Engineering Curriculum (Partnership with Bucknell University). See complete description below.

**Project Lead the Way (PLTW)**

**National High School Pre-Engineering Curriculum (Partnership with Bucknell University)**

This is a four-year sequence of courses developed by engineers, Bucknell University faculty, and associated organizations. The curriculum, when combined with traditional mathematics and science courses in the high school, introduces students to the scope, rigor and discipline of engineering prior to entering college. The program is part of an articulation agreement with Bucknell University and other affiliated colleges where students can earn up to eleven (11) college credits in Mechanical or Electrical Engineering Technology.

Introduction to Engineering Design (8093) is the entry course in the PLTW program. Follow-up courses in Principles of Engineering (8193), Digital Electronics (8293), Civil Engineering & Architecture (8393), and Computer Integrated Manufacturing are also offered. Additional courses will follow in subsequent years.

Course descriptions may be found on pages 147-153.
TECHNOLOGY & ENGINEERING EDUCATION DEPARTMENT

8093 INTRODUCTION TO ENGINEERING DESIGN (PLTW)
1 Credit Grades 9-12

Math Prerequisites/Co-requisites: Algebra 1A or Algebra 1

(This is the first course in the Project Lead the Way program.)

Ever try to design something new or draw up an idea you wanted to share with your friends and wondered how you could communicate your idea? Or, have you wondered how someone designed that new MP3 player or sleek new phone? Then Introduction to Engineering Design is the course for you. The major focus of the course is learning how to take an idea through a design process that will eventually be manufactured or produced. As you learn about various aspects of engineering and engineering design, such as how engineers communicate through drawing, you will apply what you learn through various activities, projects, and problems. For example, after learning about the different techniques engineers use in determining how to design a product, you and your teacher will have the flexibility to explore the design and engineering processes to solve problems that are of interest to you. The course covers the following:

- The Role of an Engineer
- The Design Process
- Product Design
- Product Analysis and Improvement
- Designing as an Engineer

In addition, you will use Inventor, which is a state of the art 3-D design software package from AutoDesk, to help you design solutions to different design projects. Working in teams, you will learn about documenting your solutions, solving problems, and communicating your solutions to other students and members of the professional engineering community.

8193 PRINCIPLES OF ENGINEERING (PLTW)
1 Credit Grades 10-12

Prerequisite: Student must have completed Introduction to Engineering Design (8093) and maintained a “B” average or higher.

Math Prerequisite/Co-requisite: Geometry

The main purpose of this course is to experience, through theory and hands-on problem solving activities, what engineering is all about and to answer the question: “Is a career in engineering or engineering technology for me?” By exploring various technological systems and manufacturing processes, students learn how engineers and technicians use math, science, and technology in an engineering problem solving process to benefit people. Units of study include the process of design, types of engineering systems, material properties, and engineering dynamics.

8293 DIGITAL ELECTRONICS (PLTW)
1 Credit Grades 10-12

Prerequisite: Student must have completed Introduction to Engineering Design (8093) and/or Electronics I (8113). Each student must have specific approval from the instructor.

This is a course in applied logic as it is used in electronic circuits and devices. Computer simulation software, bread-boarding, and actual wiring are used to design and test digital circuitry. This course requires the student to have a solid background in Algebra. The rules, laws, and theorems of Boolean algebra and truth tables will be used to manipulate and simplify logic expressions. Topics to be covered include: basic electron theory, simple circuits, Ohms Law, capacitance, frequency, number systems, logic gates, combinational circuit design, binary addition, flip-flops, shift registers & counters, and microprocessors.
8393 CIVIL ENGINEERING & ARCHITECTURE (PLTW)
1 Credit  Grades 10-12

Prerequisite: Student must have completed: Introduction to Engineering Design (8093), Principles of Engineering (8193), and Digital Electronics (8293); OR Architectural Drawing (8623), Algebra 2A or Algebra 2. Each student must have specific approval from the instructor.

Ever think about building a house, a store, a restaurant, and wondered how to go about it? Then Civil Engineering and Architecture is the course for you. This overview of the fields of civil engineering and architecture emphasizes the inter-relationship and mutual dependence of both fields. Students use state-of-the-art software to solve real world problems and apply knowledge to hands-on projects and activities. By developing and implementing plans for a play-ground/park or vacation home for example, students experience firsthand the job responsibilities of architects and civil engineers. By the end of the course, students are able to give a complete presentation to the client including three-dimensional renderings of buildings and improvements, zoning and ordnance constraints, infrastructure requirements, and other essential project plans.

The course covers the following:

- The Roles of Civil Engineers and Architects
- Project Planning
- Site Planning
- Building Design
- Project Documentation and Presentation

In addition, you will use Revit, which is a state of the art 3-D design software package from AutoDesk, to help you design solutions to solve your major course project. Working in teams, you will learn about documenting your project, solving problems, and communicating your solutions to other students and members of the professional community of civil engineering and architecture.

8493 COMPUTER INTEGRATED MANUFACTURING (PLTW)
1 Credit  Grades 10-12

Prerequisite: Student must have completed: Introduction to Engineering Design (8093) and Principles of Engineering (8193). Each student must have specific approval from the instructor.

Computer Integrated Manufacturing (CIM) is the study of manufacturing planning, integration, and implementation of automation. The course explores manufacturing history, individual processes, systems, and careers. In addition to technical concepts, the course incorporates finance, ethics, and engineering design. This reflects an integrated approach that leading manufacturers have adopted to improve safety, quality, and efficiency.

Computer Integrated Manufacturing addresses four major concept areas:

1. **Principles of Manufacturing** – Learn how manufacturing has evolved and current concepts associated with modern manufacturing. Examples include Computer Integrated Manufacturing, Just in Time, Kaizen, and Lean Manufacturing. Students will use the VEX kit to investigate sensory inputs, flowcharting, and create programs in RobotC to control an automated guided vehicle and a transfer system.
2. **Manufacturing Processes** – Learn how to program and operate a computer controlled milling center with both basic codes (G code) and also with modern EdgeCAM software. Students will design and fabricate several prototype pieces on the CNC mill.
3. **Elements of Automation** – Learn how to program a robot. Students will learn how to program a robot to perform pick and place, palletizing, and loading/unloading tasks and also to interact with other machines through a process called “handshaking.” The processes taught in this unit allow students to create systems of machines that are able to communicate with each other during a manufacturing process.
4. **Integration of Manufacturing** – Create a fully automated factory simulation. Students will use VEX kits, Lynxmotion robotic arms, the CNC milling center, and other components to create a fully automated factory system that produces a product. Machines must use sensory inputs and
handshaking procedures to communicate with each other during the production of this product.

The course applies and concurrently develops secondary-level knowledge and skills in mathematics, science, and technology.

**8113 ELECTRONICS I**

1 Credit  
Grades 9-12

Students interested in careers related to electronics, computer science or engineering should elect to take electronics. Success in our present world has become highly dependent upon an understanding of electronics technology. This introductory course will help you understand how many of the devices that we use every day actually work. This is a “hands-on” class where you can develop skills with tools, machines, and electronic test equipment. During the course, each student will actually construct a variety of electronic circuits, while developing skills in: reading schematics, identifying and soldering components, wiring, enclosure design, and basic troubleshooting. Topics covered include introduction to basic component characteristics, sources of electricity, circuits and power, Ohm’s law, magnetism, and simple D.C. electrical circuits. Computers are used to design circuit boards, draw schematics and enclosure drawings, simulate circuit functions, and perform experiments. A culminating project is required at the end of the course to demonstrate the student’s understanding of the course content. The major goal of this course is to provide a successful introductory experience with electronics that can serve as a foundation for further study.

**8123 ELECTRONICS II**

1 Credit  
Grades 10-12

Prerequisite: Student must have completed Electronics I (8113) and/or Digital Electronics (8293).

Any student who plans to pursue a career in electronics, computers, science, or engineering will benefit from this course. Students will learn about a wide variety of electronic components and circuits while continuing to develop hands-on skills with tools, machines, and electronic test equipment. Topics of this course will focus on applications of electronic circuits used for communications systems and processing methods for sound, video, and digital information. An introduction into A.C. electrical circuits is presented. Students advance into a more detailed study of electronic components with emphasis on solid-state components and circuits. Computers are used extensively for computer-aided circuit design, circuit simulation, individualized instruction, and drawing of enclosure designs and schematics. Student built projects will reinforce concepts and develop individual skills. A project is required at the end of the course to demonstrate the student’s understanding of the course content. Field trips to the local electronics industry are included in this course to better acquaint students with opportunities associated in the electronics field.

**8143 ELECTRONICS – INDEPENDENT STUDY**

1 Credit  
Grades 11-12

Prerequisite: Student must have completed Electronics II (8123) and maintained a “B” average or higher. Each student must have specific approval from the instructor.

Independent study courses are designed for the exemplary Technology Education student who has the ability and desire to pursue an in-depth study of a specific area in which they have proven themselves to be proficient. A conference should be held with the instructor to determine course content, requirements, and eligibility.

**8263 PHOTOGRAPHY**

1 Credit  
Grades 10-12

Photography is a study of traditional black and white (b/w), silver-print photography used as a means to visually communicate ideas. Students are taught skills to compose and shoot b/w photos using a 35mm camera and will explore camera parts and function, darkroom procedures and proper safety procedures. Students will develop b/w film, create negatives, and use these negatives to produce b/w prints. Course
content also includes the study of portrait and landscape photography along with concepts of exposure control using shutter speed and aperture. Supplementary course work includes still life/lighting, special processes, and available light photography. Students will also learn how to dry-mount and mat photos for display.

This is a hands-on, performance-based course: students will gain knowledge and understanding by attempting all operations discussed in class lectures and demonstrations. It is highly recommended that students have access to a 35mm film camera. There will be a limited number of loaner cameras available for short duration sign-out periods.

8303 MANUFACTURING TECHNOLOGY I
1 Credit Grades 9-12

Designed as an introductory course, students will learn about the design, engineering and manufacturing of products. All students will gain experience working with a variety of manufacturing processes such as machining, welding fabrication, bending and forming, metal casting and computer aided manufacturing. Students will work individually and in teams to construct products made from plastics and metals. This course is an opportunity for students to design and construct individual projects as well as participate in team projects. Team projects provide many opportunities for design and problem solving. Examples of previous team projects include the construction of a pneumatic arm wrestling machine, an air hockey game, and an all terrain go-kart. This course is valuable for learning about careers related to manufacturing and will provide all students with practical knowledge about the common materials, tools, machines and processes used in our technological world today.

8313 MANUFACTURING TECHNOLOGY II
1 Credit Grades 10-12

Prerequisite: Manufacturing Technology I

This class is an exciting opportunity for students to pursue advanced level topics in the Manufacturing Lab. Central units of instruction will be advanced welding and cutting processes such as TIG, Plasma and Stick. Students will work with both metallic and plastics and will learn about milling and lathe turning, both manual and CNC, metal casting and forming.

Students will be able to design and fabricate individual projects or be a part of team projects such as Robo Hockey, Rollerball and robotic vehicles. Laboratory projects and “hands on” experience will be a major emphasis of this course. This class is highly recommended for students entering the work force or for students who are pursuing post-secondary training.

8323 MANUFACTURING TECHNOLOGY - INDEPENDENT STUDY
1 Credit Grades 11-12

Prerequisite: Student must have completed Manufacturing Technology II (8313) and maintained a “B” average or higher. Each student must have specific approval from the instructor.

This class is an exciting opportunity for students to pursue advanced level topics in the Manufacturing Lab. Throughout the semester, students can design and fabricate challenging projects or participate in group design activities such as Robo Hockey, Rollerball or Robotics competitions. Students will learn about post secondary technical training options. This class encourages personal creativity and ingenuity and provides experiences that reinforce the rest of the educational curriculum at the high school. It is highly recommended for students entering the work force or for students who are pursuing post-secondary training.

8413 POWER TECHNOLOGY
1 Credit Grades 9-12

Power Technology course content includes alternative energy sources, gasoline engines, mechanical power, fluid power, electrical control systems, and automation. Learning activities include designing a solar home and vehicle, constructing hydroelectric and wind turbines, rebuilding a small gasoline engine, utilizing various power train components, and constructing pneumatic circuits. Students will also learn
how to use electrical control devices to control both pneumatic and mechanical systems. The course concludes with an opportunity to work in teams to create final design projects utilizing technologies taught throughout the course. Examples include Battle-Bots and remote controlled hovercrafts. This class is an excellent opportunity to learn about our automated world.

**8503 MATERIALS & PROCESSES I**
1 Credit Grades 9-12

This introductory class is designed to introduce students to woodworking production experiences. Students will learn how to safely use wood-working tools and power equipment to explore the properties and characteristics of wood by constructing various student centered projects. Additionally, students will complete several problem-solving activities (The Penny Launcher is an example of this type of activity). Students will have the opportunity to use the computer controlled router (CNC) and laser engraver. Basic skills in math and mechanical drawing will be helpful for project planning.

**8513 MATERIALS & PROCESSES II**
1 Credit Grades 10-12

**Prerequisite:** Materials & Processes I

Students will have an opportunity to further develop and apply skills in the areas of wood-working and wood production. Students will explore specialized methods of safe machine operation, project planning, and project development in a hands-on, student-centered lab environment. Problem solving activities will be introduced to develop higher level thinking skills. The CNC router, laser engraver and other technological developments in the area of wood-working will also be further studied. Students are expected to work and learn both independently and cooperatively in order to be successful.

**8533 MATERIALS & PROCESSES – INDEPENDENT STUDY**
1 Credit Grades 10-12

**Prerequisite:** Student must have completed Materials & Processes II (8513) and maintained a “B” average or higher. Each student must have specific approval from the instructor.

Independent study courses are designed for the exemplary Technology Education student who has the ability and desire to pursue an in-depth study of a specific area in which they have proven themselves to be proficient. A conference should be held with the instructor to determine course content, requirements, and eligibility.

**8603 INTRO TO DRAFTING & DESIGN**
1 Credit Grades 9-12

If you are interested in a career in engineering or architecture, this is the class for you. This class is designed as an introduction to drafting and design techniques and software. It will stress the importance of drafting to industry and technology education. Traditional topics will include: measurement and geometric construction. Computer-Aided-Drafting (CAD) will be introduced and used for the bulk of the student work in this class. AutoCAD will be used for 2D CAD work including the study of orthographic projection, dimensioning, section views, isometric projection, and pattern development. Autodesk Inventor will be used for the 3D Solid modeling portion of this course. Students will learn to model parts, create assemblies, animate assemblies and create drawing views of their models. The final project for this course is a reverse engineering assignment. Students will examine a product visually, structurally, and functionally. After understanding the function and geometry of the product they will model and animate the products’ parts using Autodesk Inventor. Evaluation will be based on completion of projects and assignments.
**8613 ENGINEERING DRAFTING & DESIGN**  
1 Credit  Grades 10-12

**Prerequisite:** Intro to Drafting & Design

This course is designed to help students understand how to effectively communicate designs through 2D drawings and 3D modeling. This course will include a review of AutoCAD drafting techniques for 2D drawings including; orthographic projection, auxiliary views, isometric projection, section views and solid intersections. Autodesk Inventor will be used for the bulk of the course to create 3D solid models, assemble and animate designs, and create annotated drawings. Computer-Aided-Manufacturing (CAM) will be introduced and students will use AutoCAD and the laser cutter to cut parts for hands on design and problem solving activities including; a hydraulically powered robotic arm and scale model of a drawbridge all designed and built by the students. Evaluation will be based on completion of projects and assignments.

**8623 ARCHITECTURAL DRAFTING & DESIGN**  
1 Credit  Grades 10-12

**Prerequisite:** Intro to Drafting & Design

This course will introduce the student to residential home construction and planning. Topics of study will include: sketching, scale, room/area planning, architectural styles, influential architects, plot planning, foundations systems, wall and truss construction, model construction and architectural design software. After learning the design process, students will use Autodesk Revit to model their designs. Autodesk Revit creates a 3D “Building Information Model” (BIM) which allows architects to export 2D plans, schedules, rendered images and walk-throughs from 3D computer models. Students will leave with a full set on home plans including, a presentation sheet, a plot plan, floor plan(s), foundation plan, elevations, and section/detail sheet(s). The final project for this course is a scale model of the student’s residential home design. Students will learn how to export their 3D Revit model into 2D AutoCAD and use the geometry to cut scale models of their design on the laser cutter/engraver. Evaluation will be based on a final portfolio of plans, models, and completion of in class projects and assignments.

**8643 DRAFTING & DESIGN - INDEPENDENT STUDY**  
1 Credit  Grades 10-12

**Prerequisite:** Student must have completed Engineering Drafting & Design (8613) or Architectural Drafting & Design (8623) and maintained a “B” average or higher. Each student must have specific approval from the instructor.

Independent study courses are designed for the exemplary Technology Education student who has the ability and desire to pursue an in-depth study of a specific area in which they have proven themselves to be proficient. A conference should be held with the instructor to determine course content, requirements, and eligibility.

**8653 STAGE DESIGN**  
1 Credit  Grades 9-12

The Stage Design course introduces students to a variety of "behind the scenes" activities as they design, construct, paint, and light sets for Hempfield’s stage productions. Course content includes scale drawing and modeling, computer-aided design, set construction techniques, scenic painting, and lighting design. Theater sound is also addressed briefly. Learning activities include construction of stock scenic pieces, student-designed paint projects, 3-D computer set models, and student designed lighting areas using real equipment. Students will learn safe conduct both on the stage and in the scene shop. The course offers many optional extracurricular opportunities for those who wish to pursue further involvement in the theater.
8663 DESKTOP PUBLISHING I
1 Credit  Grades 9-12

Desktop Publishing focuses on communicating effective messages through the use of design and layout. Student activities concentrate on design, digital imaging, and using related software applications efficiently. Students transfer their knowledge of other disciplines as they relate to class projects. Design and layout skills will be introduced and strengthened as an integral segment of computer technology. All students will have the opportunity to utilize the Internet, which serves as an important tool for obtaining relevant information. How related technologies impact our society will be discussed. Performance based assessment will be used and portfolios will count as the student’s final exam grade. Students may have the opportunity to meet representatives from post-secondary institutions.

8673 DESKTOP PUBLISHING II
1 Credit  Grades 10-12

Prerequisite:  Students must have successfully completed Desktop Publishing I.

As a continuation of the introductory course, students will participate in more advanced techniques and activities. Areas of concentration will be design and layout, digital imaging, and software applications. Students will have the opportunity to research techniques and relate them to particular applications. Performance based assessment will be used and portfolios will count as the student’s final exam grade. Students may have the opportunity to meet representatives from post-secondary institutions.

8281 DIGITAL PHOTOGRAPHY
0.50 Credit  Grades 9-12

Digital Photography is a fast-paced, exploratory course in digital imaging and editing. Students will be required to use outside class time to complete a specific number of shooting assignments. Some of the topics focus on composition and the manipulation of camera settings. Students will use computer software to enhance, restore and manipulate their digital photos. Image scanning techniques will also be covered along with the moral, ethical, and responsibility issues surrounding digital imaging. Students are not required to provide a digital camera for the course; a limited number of loaner cameras will be available per section.

8683 INTRODUCTION TO VIDEO GAME DESIGN
1 Credit  Grades 10-12

Prerequisite:  Students must have successfully completed Desktop Publishing I.

Take what you know about playing video games to the next level and create your own. Introduction to Video Game Design is a course that introduces students to the many aspects of the gaming industry. Students will learn how to design and create basic video games. A background in design will be required and helpful as students learn how to incorporate multiple applications toward a common outcome. The curriculum uses concepts of science, technology, engineering, and math as a foundation. Throughout the course, students will apply information learned from various disciplines and strengthen core basics.

8683-OL INTRODUCTION TO VIDEO GAME DESIGN
1 Credit  Grades 10-12

Prerequisite:  Students must have successfully completed Desktop Publishing I.

This online course provides you with an opportunity for you to take what you know about playing video games to the next level and create your own. Video Game Design is an introductory course that allows students to learn how to design and create basic video games using Games Factory 2 and Scratch software. A background in design will be helpful as students learn how to incorporate multiple applications for a common outcome. The curriculum uses science, technology, engineering, and math (STEM) as a foundation. Throughout the course, students will apply information learned from various disciplines and strengthen core basics.
SENIOR OPTION

0004 THE SENIOR OPTION (fall)
0005 THE SENIOR OPTION (spring)

The Senior Option is a privilege for twelfth grade students who are in good academic and discipline standing at the high school. Students who select and qualify for this option will be permitted to come to school after period 1 or leave after period 4, depending on when they are scheduled for this offering. Students who select The Senior Option are not required to register for the full eight (8) credits of course work in grade 12. These students may register for between six (6) and seven and one-half (7.5) credits their senior year. Seniors in this program must schedule a minimum of 3 credits each semester.

Student Requirements/Criteria for The Senior Option:
- Successfully complete a minimum of 21-credits by the end of the junior year.
- Have a minimum cumulative grade point average (GPA) of 2.0.
- Have his/her own transportation to and/or from school.
- Administrative approval following a review of student discipline and attendance records.

** Registering for The Senior Option and meeting the above requirements/criteria does not ensure admittance. Required classes may need to be scheduled during periods 1 and 5 that would prevent a student from scheduling The Senior Option.

OFF CAMPUS
AND
CONCURRENT COLLEGE ENROLLMENT OPPORTUNITIES

DUAL ENROLLMENT
99901 AND 999012 (First Semester)
99902 AND 999022 (Second Semester)
1 Credit (AP Weight) Grades 11-12

This course will allow students to travel to area colleges/technical schools and take courses that will count toward post-secondary goals. Students may select to attend a variety of programs at area colleges and technical schools to get a jump-start on their post-secondary education. **Students are responsible for providing reliable transportation and are responsible for fees associated with the course.**

The course grade earned at the post-secondary partner school will be duplicated and awarded upon successful completion of the course. The letter grade provided to us on the college transcript from the partner college/university is what will be reported on the Hempfield transcript. Not all colleges grade the same way. (ex: A student may earn a 99% in the Dual Enrollment class, but the college reports it on their transcript as an A, not an A+.) There are no exceptions with reporting grades for Dual Enrollment.

- Students with a 3.0 GPA or higher may enroll in 1-2 college courses per semester.
- Participating colleges include:
  - Harrisburg Area Community College (Lancaster Campus)
  - Elizabethtown College
  - Penn State York
  - Millersville University
  - Pennsylvania College of Health Sciences (seniors only)
A. **Objective**

The Career Internship Program is intended to provide Hempfield High School juniors and seniors with the opportunity to participate in on-site observations of business and professional organizations. This program will provide students with the opportunity to interact with, observe, and assist individuals who are employed in a variety of professions. The intent of the internship is to provide activities that will enable the student to make informed career decisions based on significant knowledge and insights developed during participation.

B. **Criteria**

1. Students must be achieving a 2.0 GPA.
2. The student is responsible for initiating and securing the career internship experience.
3. A student contract must be completed and signed by the site supervisor, parent and student.
4. Students applying for a Career Internship must demonstrate a positive attitude and have a good disciplinary record (no out of school suspensions during the school year prior to the internship).
5. Students may not be paid for the internship experience.
6. Students must spend a minimum of five school hours each week participating in the internship.
7. Students will schedule the career internship during course selection.
8. Internships will be one semester in length. A student may take a total of two internships per year (one each semester). It is recommended that the second semester be at a different site.
9. A grade of A-F will be awarded for the Career Internship with 1.00 credit noted on the high school transcript per semester.
10. Students will evaluate themselves and share their portfolio as end of semester project.
11. Student will participate in a 1-hour internship seminar before starting internship.
12. Grades will include:
   a. Time Log - weekly
   b. Journals
   c. 2 Supervisor Evaluations – mid-point and end
   d. Portfolio

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9021A AND 9022A SCHOOL TO CAREER EXPERIENCE

A. **Objective**

The School to Career Experience is intended to provide Hempfield High School students with opportunities to develop requisite skills needed in the transition from high school to the world of work. This program will provide students with the opportunity to gain entry-level employment skills through academic coursework and apply those skills in an extended work experience.

B. **Criteria**

1. Students applying for School to Career must demonstrate positive attendance and
disciplinary record.

2. Students must be on track for graduation based on credits earned.

3. The student is responsible for securing a paid position with a local business. Signed contracts must be submitted to the guidance office no later than August 1st for the fall semester and January 1st for the spring semester.

4. Students will be employed in the afternoon hours no later than a 1:30 start time.

5. Students will spend a minimum of five hours each week prior to the completion of the school day (3:00 p.m.) participating in the School to Career Experience.

6. A work experience grade of A – F will be awarded with 1.0 credit noted on the high school transcript per semester.

7. Grades will include:
   a. Monthly time sheet
   b. Journal
   c. Work site supervisor evaluation

**COLLEGE IN THE HIGH SCHOOL**

**HIST 103-104 History of the United States I & II**

1 Hempfield Credit (AP weight) Grades 11-12
6 HACC College Credits

Harrisburg Area Community College’s (HACC) College in the High School (CHS) program enables qualified, capable high school students to enroll in college-level courses that are taught at their high school.

College in the High School students earn dual enrollment credits from both HACC and their high school for approved HACC courses that may satisfy high school graduation requirements. These course credits become part of the student’s permanent HACC record and can count towards a HACC degree program or can be transferred to a number of colleges and universities.

These courses are combined into one semester. Students will receive one HHS credit and 6 HACC credits. **The cost per credit is only $30.00.** Students must sign up for both courses during course selection as well as complete an official HACC application through Mrs. Romero, Special Programs Counselor. **This course is for elective credit, not a required social studies course.**

Please refer to the Social Studies’ course offerings’ sections in the Curriculum Guide for detailed descriptions of these courses.
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<td>Transportation Cluster</td>
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<tr>
<td>9029C</td>
<td>Electrical Construction Technology</td>
<td>9073C</td>
<td>Veterinary Assistant</td>
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<td>9048C</td>
<td>Electro-Mechanical Engineering Technology</td>
<td>9558C</td>
<td>Visual Communications Cluster</td>
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<tr>
<td>9557C</td>
<td>Health Care Cluster</td>
<td>9050C</td>
<td>Welding Technology</td>
</tr>
</tbody>
</table>

Course descriptions may be found on pages 158-166.
PLANNING
TO ENROLL FOR THE FULL TIME PROGRAM

Students must have earned a minimum of the following credits:

**English** - 3 credits
- English 9
- English 10
- English 11

**Social Studies** - 3 credits
- American History 9
- World History
- Government and Economics

**Math** - 3 credits
- Math Electives

**Science** - 3 credits
- General Science
- Biology
- Science Elective

**Physical Education** - 1.50 credits
- Grade 9
- Grade 10
- Grade 11

**Health** - 0.50 credit

**Arts or Humanities Electives** - 2 credits

**Fundamentals of Family & Consumer Sciences** - 0.50 Credit

**Grade 12 Sequence**

**Career and Technology Center** - 8 credits

Students will attend the Career and Technology Center for the entire day.
The Carl D. Perkins Career and Technical Education Act of 2006 requires the development and implementation of career and technical Programs of Study (POS). The Lancaster County Career and Technology Center, under the Act, is now required to offer the relevant academic and technical courses as they relate to the POS. Programs of Study are very similar to, and build on, positive initiatives, such as Tech Prep, career pathways, career academies and career clusters, already underway in career and technical education in Pennsylvania.

Beginning with the class of 2013 priority admissions considerations will be in place for LCCTC programs. These considerations will include submission of an LCCTC application within the designated time period and the student’s successful completion of POS secondary academic courses. These academic courses include:

- 4 Years of College Prep English (4th yr at LCCTC);
- 3 years of College Prep math including Algebra I, Geometry, Algebra II and a higher level math;
- 3 years of science including Biology, Chemistry and Physics or Physical Science; and
- 3 years of social studies including US and World History, with attention given to civic learning.

### “Programs of Study” Secondary Scope and Sequence

<table>
<thead>
<tr>
<th>Grade 9</th>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elective(s)</strong></td>
<td><strong>Elective(s)</strong></td>
<td><strong>Elective(s)</strong></td>
<td><strong>LCCTC Full Day Program</strong></td>
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<tr>
<td>Communications Tech I</td>
<td>Accounting</td>
<td>Accounting B</td>
<td><strong>Required</strong></td>
</tr>
<tr>
<td>Public Speaking</td>
<td>Creative Writing</td>
<td>Communications Tech, Indep. Study</td>
<td><strong>Health Center Students Only</strong></td>
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<tr>
<td>Foreign Language Level 1</td>
<td>History of American Film</td>
<td>Anatomy and Physiology</td>
<td><strong>BIO 105 Medical Terminology 3 Cr.</strong></td>
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<tr>
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<td>Communications Tech II</td>
<td>Foreign Language Level 2</td>
<td><strong>AH 140 Intro to Allied Health</strong> 4 Cr.</td>
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<tr>
<td></td>
<td>Events, Issues, People in the News</td>
<td>Foreign Language Level 3</td>
<td><strong>LG College of Nursing</strong></td>
</tr>
<tr>
<td></td>
<td>The Right to Remain Silent</td>
<td>Foreign Language Level 4</td>
<td><strong>BIO 175 Anatomy &amp; Physiology P 3 Cr.</strong></td>
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<tr>
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<td><strong>English</strong></td>
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</tr>
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<td>English 9 College Prep or</td>
<td>English 10 College Prep or</td>
<td>English 11 College Prep or</td>
<td><strong>BIO 175 Anatomy &amp; Physiology P 3 Cr.</strong></td>
</tr>
<tr>
<td>English 9 Tech Prep</td>
<td>English 10 Tech Prep</td>
<td>English 11 Tech Prep</td>
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<td><strong>Math</strong></td>
<td><strong>Required</strong></td>
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<td>Algebra I College Prep or</td>
<td>Discovering Geometry College Prep or</td>
<td>Algebra II or</td>
<td><strong>Health Center Students Only</strong></td>
</tr>
<tr>
<td>Advanced Algebra I or</td>
<td>Advanced Geometry</td>
<td>Algebra C College Prep or</td>
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<tr>
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<td></td>
<td>Algebra C Tech Prep or</td>
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<tr>
<td>Algebra B Tech Prep or</td>
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<td>Advanced Algebra II</td>
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</tr>
<tr>
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<td></td>
<td>Pre-Calculus or</td>
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<tr>
<td>Algebra B College Prep</td>
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<td>Calculus</td>
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<tr>
<td><strong>Science</strong></td>
<td><strong>Science</strong></td>
<td><strong>Science</strong></td>
<td><strong>Required</strong></td>
</tr>
<tr>
<td>General Science College Prep or</td>
<td>Biology College Prep with Lab</td>
<td>Chemistry College Prep or</td>
<td><strong>Health Center Students Only</strong></td>
</tr>
<tr>
<td>General Science Tech Prep</td>
<td>Biology Tech Prep with Lab</td>
<td>Applied Chemistry or</td>
<td><strong>BIO 105 Medical Terminology 3 Cr.</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applied Physics or</td>
<td><strong>AH 140 Intro to Allied Health</strong> 4 Cr.</td>
</tr>
<tr>
<td></td>
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<td>General Physics or</td>
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<tr>
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<td></td>
<td>Physics College Prep</td>
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<td><strong>Social Studies</strong></td>
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<td>American Cultures II College Prep or</td>
<td>World Cultures College Prep or</td>
<td><strong>BIO 105 Medical Terminology 3 Cr.</strong></td>
</tr>
<tr>
<td>American Cultures Tech Prep</td>
<td>American Cultures II Tech Prep</td>
<td>World Cultures Tech Prep</td>
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<tr>
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<td></td>
<td>Policy/Economics College Prep</td>
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<tr>
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<td>Policy/Economics Tech Prep</td>
<td><strong>BIO 175 Anatomy &amp; Physiology P 3 Cr.</strong></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td><strong>BIO 175 Anatomy &amp; Physiology P 3 Cr.</strong></td>
</tr>
</tbody>
</table>

*Health Center Students Only*
# Lancaster County Career & Technology Center Program Offerings

## Senior Programs - Grade 12

### Brownstown Campus
- Construction Technologies Center
  - Architectural CAD / Design
  - Cabinetmaking & Wood Technology
  - Electrical Construction Technology
  - Heavy Equipment Operations & Basic Maintenance
  - HVAC/R
  - Masonry
  - Painting / Ceramic Tile & Vinyl Plumbing
- Information Technology Center
  - Computer Systems Technology
- Visual Communications Center
  - Commercial Art
  - Digital Design/Print Media
  - Photography & Digital Imaging
- Part Day
  - Introduction to Health Careers

### Mount Joy Campus
- Advanced Manufacturing Center
  - Electro-Mechanical Engineering Technology
  - Sheet Metal Technology
  - Welding Technology
- Construction Technologies Center
  - Commercial Construction/Management
  - Residential Carpentry
- Consumer Services Center
  - Cosmetology
  - Early Childhood Education
- Culinary Arts Center
  - Baking & Pastry Arts
  - Culinary Arts/Chef
  - Event Planning & Tourism Services Management
- Protective Services Center (at the Lancaster County Public Safety Training Center)
  - Protective Services
- Part Day
  - Introduction to Health Careers

### Willow Street Campus
- Agriscience Center
  - Animal Production Science & Technology
  - Veterinary Assistant
- Consumer Services Center
  - Cosmetology
- Health Care Center
  - Clinical Care Assistant
  - Dental Assistant
  - Medical Administrative Assistant
  - Medical Assistant
  - Nursing Assistant/Home Health Aide
  - Sports Medicine / Rehabilitation Technician
- Transportation Technologies Center
  - Automotive Mechanics
  - Automotive Technology
  - Collision Repair
  - Diesel Equipment Technology
  - RV & Outdoor Power Equipment
- Part Day
  - Introduction to Health Careers

## Part Day Programs - Grades 11 & 10

### Grades 11 & 10
- Construction Cluster
- Culinary Cluster
- Health Care Cluster
- Manufacturing Cluster
- Transportation Cluster
- Visual Communications Cluster

### Grades 11 & 10
- Construction Cluster
- Culinary Cluster
- Health Care Cluster
- Manufacturing Cluster
- Transportation Cluster

## General Information:

### Senior Programs – Grade 12
High school seniors spend the day at one of the three Lancaster County Career & Technology Centers, Brownstown, Mount Joy or Willow Street Campus. Students participate in a comprehensive technical or career-oriented program. The full-day program allows more usable time for instruction and enables students to gain insight into daily work patterns. In full-day programs an LCCTC student may earn college credits toward an associate degree at two year colleges. Through partnerships with area colleges, LCCTC provides a variety of dual enrollment courses. The LCCTC also has articulation agreements with 2-year colleges and technical schools. Dual enrollment and articulation offer college-level segments that give students an additional head start toward their future career and life long learning.

### Part Day Programs – Grades 11 & 10
Part day programs enable college bound seniors and students in grades 10 & 11 the opportunity to explore different aspects of a career field. The senior part day programs enable students to explore a career area for a few hours during each school day. Since the programs meet for only a part of a day, students can gain technical skills at LCCTC while meeting academic requirements for college at their sending schools. The 10th and 11th grade programs allow students to explore a variety of careers within an occupational cluster and are designed for students who plan to apply for one of the full-time Lancaster County Career & Technology Programs during their senior year.

More information about Lancaster County Career & Technology and its programs can be found at www.lcctc.org. For enrollment and application information, please contact your school counselor.
**advanced manufacturing center**

**Electro-Mechanical Engineering Technology**
- Design, invent, and develop a vast array of electro-mechanical simulations for a dynamic experience.
- Interactive lab provides an opportunity to use robotics, hydraulic, pneumatic, and electrical technology systems.
- Analyze, diagnose, maintain, and repair electro-mechanical systems.

**Sheet Metal Technology**
- Create and fabricate custom metal work.
- Build and troubleshoot advanced sheet metal systems.
- Operate state of the art metal-shaping equipment.

**Welding Technology**
- Perform a wide range of welding processes using advanced welding techniques.
- Assemble and fabricate specialized metal products.
- Practice welds needed for weld certification, use modern power tools/equipment, and interpret fabrication blueprints.

**agriscience center**

**Animal Production Science & Technology**
- Explore the care, management, evaluation, treatment and marketing of agricultural production animals such as beef, dairy, swine, poultry, sheep, goats, and horses.
- Experience the passion of working with animals in a variety of farm settings.
- Interact with experts in the field through job shadowing, clinical experience, co-op opportunities, and FFA membership.

**Veterinary Assistant**
- Experience the reward of caring for animals in a clinical setting.
- Practice customer service and professional ethics when interacting with patients, clients and coworkers.
- Actively participate in live surgical clinics weekly as part of a professional veterinary team.
Architectural CAD / Design
- Work with experienced home and building designers.
- Create, design and produce complex working drawings from conception to completion.
- Use advanced state of the art software and hardware identical to what professional architects and engineers use.

Cabinetmaking & Wood Technology
- Design and layout scale drawings and projects with industry-related equipment.
- Utilize numerous assembly techniques such as glues and adhesives and plastic laminates. Learn procedures for assembly and installation of finished product.
- Demonstrate the Skill Standards set forth by the woodworking industry to obtain industry-recognized credentials.

Commercial Construction/Management
- Construct building projects from site prep and layout to roofing and finish work.
- Operate the latest industry tools and equipment, including hand and power tools, excavation equipment, and safety gear.
- Develop valuable industry certifications in safety, tools, and equipment operations as well as apprenticeship.

Electrical Construction Technology
- Interact with electrical industry experts.
- Develop skills and knowledge needed to build electrical systems.
- Design and construct electrical systems in homes and businesses.

Heavy Equipment Operations & Basic Maintenance
- Operate, trouble-shoot, and maintain heavy equipment.
- Interpret blueprints and site plans for site development.
- Collaborate and perform heavy equipment related activities in a team setting.

HVAC/R
- Work side by side with experienced HVAC industry professionals.
- Analyze and upgrade climate control systems to the ever changing HVAC field.
- Install, maintain, and repair air conditioning and heating equipment.

Masonry
- Develop practical masonry skills through lab practice and actual construction projects in the community.
- Participate in an Employability Program enabling job procurement, retention, and career satisfaction.

Painting / Ceramic Tile & Vinyl
- Apply professional painting skills to provide property upgrades.
- Install ceramic tile and vinyl flooring utilizing professional hand and power tools.
- Operate various types of “state of the art” spray equipment.

Plumbing
- Interact with plumbing industry experts.
- Perform plumbing systems installation in homes and businesses.
- Interpret and construct plumbing systems in homes and businesses.

Residential Carpentry
- Experience the construction of a new home using green technology.
- Develop the skills and knowledge needed to interpret and construct current building systems.
- Operate a wide range of hand, power and air tools.
consumer services center

Cosmetology
- Interact with professional cosmetologists to develop the skills needed in preparation for state licensing exam and continuing education.
- Express individual creativity by providing a wide range of hair, nail, and skin care experiences.
- Experience and manage professional full service interactive salon environment.

Early Childhood Education
- Explore the early childhood profession by interacting with infants, toddlers, preschoolers and elementary school children in our modern daycare center.
- Create a professional portfolio for college and careers in early childhood education.
- Design, develop, and deliver early learning activities.

culinary arts center

Baking & Pastry Arts
- Work in a state of the art facility with professional pastry chefs.
- Combine creativity and skills to design specialty cakes and pastries.
- Produce baked goods and plated desserts for our restaurant, store, and catering events.

Culinary Arts/Chef
- Plan, prepare and serve meals for upscale catered events and casual-to-fine dining restaurant service.
- Work side by side with professional chefs starting in the school kitchens and moving into professional placements.
- Prepare for job opportunities locally, abroad, and in exotic locations within the diverse culinary and hospitality industry.

Event Planning & Tourism Services Management
- Deliver superior customer service to hotel and event guests.
- Team with industry professionals to plan and assemble upscale events and experiences.
- Design promotional flyers and presentations.

health care center

Clinical Care Assistant
- Be a driving force on a professional healthcare team delivering high quality patient care.
- Deliver basic patient care and perform therapeutic and diagnostic procedures in a hospital setting, physician’s office or home health agency.
- Practice ethical standards, confidentiality, and professionalism when interacting with patients, clients and co-workers.

Dental Assistant
- Experience the satisfaction of providing high quality patient care in a team-oriented, modern dental office environment.
- Perform a wide variety of dental office duties with other dental professionals that include taking x-rays, mixing materials, passing instruments, sterilization and receptionist duties.
- Work alongside other dental professionals to ensure patients receive the highest quality dental care.

Introduction to Health Careers (Part Day)
- Shadow health care professionals in a variety of clinical settings to observe patient care.
- Practice ethical standards, confidentiality, leadership, and professionalism when interacting with patients, clients, and coworkers.
- Develop student interest in a health care profession by using college level curriculum.
Medical Administrative Assistant
- Perform computerized medical office operations in scheduling, billing, and medical records.
- Be a driving force on a professional healthcare team by delivering high quality customer service while performing clerical and other administrative duties in medical centers, physician offices, and hospitals.
- Practice ethical standards, confidentiality, and professionalism when interacting with patients, coworkers, and other medical professionals.

Medical Assistant
- Apply advanced diagnostic procedures to patient care such as phlebotomy and pharmacology; assist in minor office surgeries.
- Participate in a 7 week medical assistant externship in a medical facility.
- Be a driving force on a professional healthcare team delivering high quality patient care.

Nursing Assistant / Home Health Aide
- Experience the passion of providing high quality patient care in a long term care facility and private home setting.
- Perform a wide range of basic nursing skills, personal care skills, and enhanced dining experiences in a classroom and real world setting.
- Work with various healthcare team members providing direct patient care.

Sports Medicine / Rehabilitation Technician
- Motivate students to continue their education such as athletic training, physical therapy, occupational therapy, sports medicine and other related fields.
- Perform a wide variety of duties with other professionals to aid in the successful treatment of patients.
- Strive to be a driving force on a professional healthcare team to deliver high-quality patient care.

Computer Systems Technology
- Build, upgrade, maintain and repair desktop and laptop computers.
- Design, install, and troubleshoot computer network configurations.
- Perform custom work for clients; individuals, schools, and businesses.

Protective Services Academy
- Experience the thrill and pride of saving lives and protecting the community.
- Use the latest technology and equipment available by operating fire engines, ambulances, computer crime scene mapping systems, Segways, and more.
- Engage in lifesaving emergency medical treatment, firefighting/rescue techniques, and law enforcement operations.
transportation technologies center

Automotive Mechanics
- Work on today's high tech vehicles’ electronic, computerized, and mechanical systems.
- Develop the skills to be successful in a constantly changing automotive industry.
- Analyze, diagnose, maintain, and repair basic and advanced automotive systems.

Automotive Technology
- Work side by side with experienced Automotive Technicians.
- Experience the thrill of diagnosing today's vehicle's complex computer programs and mechanical systems.
- Develop the skills needed to become a part of the Automotive Technology Team!

Collision Repair
- Perform necessary processes using state-of-the art welding, refinishing, and painting equipment.
- Diagnose damage and estimate repairs to frame, unibody, and suspension.
- Experience the thrill of repairing real vehicles to a pre-accident condition.

Diesel Equipment Technology
- Use the same advanced diagnostic equipment and repair equipment as master technicians to troubleshoot and repair commercial vehicle systems.
- Perform preventative maintenance and inspection on medium and heavy duty trucks.
- Maintain and operate today's high tech vehicle's computer systems.

RV & Outdoor Power Equipment
- Diagnose, maintain and repair a wide range of lawn and garden tractors and equipment from motorcycles to ATVs.
- Use same advanced diagnostic and repair equipment as a master technician uses to troubleshoot complex systems.
- Work on any outdoor power equipment and recreational vehicle in a rapidly changing industry using a full systems approach.

visual communications center

Commercial Art
- Work directly with Advertising and Design Professionals.
- Experience the same hardware/software as professional illustrators, graphic designers, and art directors.
- Create high-impact art using traditional drawing tools and professional applications for advertising and marketing materials.

Digital Design/Print Media
- Work side by side with graphics industry professionals.
- Create projects and art works on state of the art equipment.
- Design printing works using various techniques.

Photography & Digital Imaging
- Shoot photos like a professional photographer.
- Creatively enhance photos with Adobe Photoshop.
- Work side by side with established industry professionals.
Construction Cluster
- Experience the basic construction trades.
- Operate professional hand and power tools.
- Perform basic carpentry, masonry, plumbing, and electrical skills and more!

Culinary Cluster
- Create desserts from traditional recipes such as cookies and cheesecakes to pastries with artistic presentation.
- Experience the latest trends in food preparation such as Asian cuisine, barbecue, and vegetarian dishes as well as traditional cuisine.
- Plan, prepare, and serve meals for special events.

Health Care Cluster
- Perform a wide range of medical skills in various health care careers.
- Use medical equipment in exploring the human body.
- Practice ethical standards, confidentiality, leadership and professionalism when interacting with patients, clients, and co-workers.

Manufacturing Cluster
- Fabricate and build custom metal projects.
- Operate the same welding and cutting equipment as industry professionals.
- Design, invent and develop electrical and robotic systems.

Transportation Cluster
- Develop the skills to diagnose and troubleshoot today’s hi-tech vehicles and equipment.
- Explore and experience the operating systems and repair procedures for a wide range of vehicles.
- Interact with Trade Professionals from Transportation Industry.

Visual Communications Cluster
- Experience drawing, computer graphics, and photography to deliver powerful visual arts.
- Capture photographs with current digital cameras.
- Create and design reproductions utilizing the same hardware and design software as professional graphic artists and commercial print ers.