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Springfield High School is committed to preparing students for life after high school – “Commencement is the beginning . . .!” Many of our graduates further their education by pursuing a post-secondary education at two- and four-year colleges and universities. Others enter military service, trade or technical schools or the work force, maybe even with certifications they have received from DCTS programs. Many of our graduates further their education and/or training in some manner which is why we recommend students develop their academic programming around a sequence of courses that will maximize the potential to pursue rigorous and challenging post-secondary education opportunities. This plan begins to take shape in 9th or 10th grade where students may have the opportunity to take specialized classes but most students focus in on a career path at the start of their junior year. To guide students through this decision-making process, SHS has adopted an Academy Model Program. Information about our Academy Model as well as information on course alignment can be found at www.ssdcougars.org/academy. Each Academy is designed to prepare students for enrollment in university, college or trade school programs.

### Course Request Guidelines

The course request and scheduling process is extremely important and plays a vital role in preparing students for their post-secondary endeavors. Course request and scheduling involve careful thought and planning, and is a collaborative effort between students and parents, and counselors, teachers and administrators. Counselors are available to students and families at any time throughout the school year. To arrange a meeting, call 610-938-6266 or email between the hours of 7:30 a.m. to 3:00 p.m. to schedule appointments during the school year. The High School Guidance Counselors and office personnel are:

<table>
<thead>
<tr>
<th>Counselor</th>
<th>Student Name Range</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cara Marchiano-Walls</td>
<td>Counseling Office Secretary</td>
<td>610-938-6266</td>
<td><a href="mailto:cara.marchianowalls@ssdcougars.org">cara.marchianowalls@ssdcougars.org</a></td>
</tr>
<tr>
<td>Kelly Pedrotty</td>
<td>Aa-De</td>
<td>610-938-6269</td>
<td><a href="mailto:kelly.pedrotty@ssdcougars.org">kelly.pedrotty@ssdcougars.org</a></td>
</tr>
<tr>
<td>Hilary Campbell</td>
<td>Df-Ke</td>
<td>610-938-6267</td>
<td><a href="mailto:hilary.campbell@ssdcougars.org">hilary.campbell@ssdcougars.org</a></td>
</tr>
<tr>
<td>Jamie Weaver</td>
<td>Kf-Ph</td>
<td>610-938-6271</td>
<td><a href="mailto:jamie.weaver@ssdcougars.org">jamie.weaver@ssdcougars.org</a></td>
</tr>
<tr>
<td>Jessica Houser</td>
<td>Pi-Zz</td>
<td>610-938-6268</td>
<td><a href="mailto:jessica.houser@ssdcougars.org">jessica.houser@ssdcougars.org</a></td>
</tr>
<tr>
<td>Kendra Campbell</td>
<td>College and Career</td>
<td>610-938-6074</td>
<td><a href="mailto:kendra.campbell@ssdcougars.org">kendra.campbell@ssdcougars.org</a></td>
</tr>
<tr>
<td>Christine Sulpizio</td>
<td>College &amp; Career Secretary</td>
<td>619-938-6265</td>
<td><a href="mailto:christine.sulpizio@ssdcougars.org">christine.sulpizio@ssdcougars.org</a></td>
</tr>
</tbody>
</table>

Springfield High School takes pride in offering a wide variety of academic and special area courses. Students can pursue college preparatory and more rigorous honors and advanced placement courses while exploring and experiencing many courses in the arts and technology application areas. Students are encouraged to take full advantage of these options. Throughout the course request and scheduling process, please read the course descriptions and expectations associated with each course carefully. In conjunction with a counselor, make sure the selected courses are in line with a comprehensive academic plan.
Choosing the right courses is one of the most significant tasks a student completes each year. Courses should be selected with these questions in mind:

- Will this course allow me to meet graduation requirements?
- Will this course help me to meet college entrance requirements?
- Will this course help me develop a skill to become employable after high school?
- Will this course introduce me to a new subject or experience?
- Is this course appropriate for my ability? Will it be a challenge?
- Do I have the prerequisite for this course?

Note: Requirements for graduation are on page 12. Students must be sure they have all required courses each year. Every effort will be made to schedule all students with seven (7) credits each school year.

**Considerations when completing the course request process:**

**Preparing Course Requests**

- Students should review their course transcripts and/or refer to their end-of-year report cards each year in high school to keep track of courses for which they have received credit.
  - HAC → Grades → Report and Transcript tabs
- As you begin the course request process, be sure to review these documents so that are not requesting courses for which you have, or will, received credit, or, select or plan to take courses you may still need to complete as prerequisites or graduation requirements.

**Course Sequencing**

- Course sequencing must be adhered to when planning your program of study.
  - It is important to review prerequisite course before requesting a course.
  - Students are also recommended for core classes that fulfill graduation requirements.

**Prerequisites**

- Prerequisites for courses should be carefully considered and adhered to when planning a program of study. Questions regarding appropriate placement related to prerequisites and qualifications should be directed to the student’s current teacher or a guidance counselor.
  - Most course descriptions, where appropriate, contain performance, or percentage, based prerequisites. Several require teacher recommendation. Please keep in mind that these percentages are the initial screener in determining if a student has demonstrated the academic rigor to be successful in these more rigorous courses.
  - Where appropriate, performance requirements above and beyond College Preparatory courses are identified. Please consider these requirements when making requests.
  - Before students complete the course request process, teachers will make recommendations based
on demonstrated academic ability and performance.

- In some instances, a student does not meet the course pre-requisites or display the recommended standards of academic performance, and as such does not receive a recommendation from the teacher for that course. If a student still desires to take the course under these circumstances, the student and parent must complete a Course Recommendation Waiver Form available through the guidance counselor.

**Course Offering Determination**

- Course offerings from year to year are determined not only by the number of student requests but also by the number of students who can be successfully rostered into those courses. As a standard for making these decisions, a course may not be offered of fewer than twelve (12) students can successfully be rostered into the course.

- Students selecting rigorous academic course work, including Advanced Placement (AP) and Honors courses, are reminded of the commitment of staffing and resources that the administration and Board of School Directors allocate to offer AP and Honors courses. Students are expected to honor their commitment to take these challenging courses. Please make sure that you are fully committed to these challenges because withdrawing from an Honors or AP will have a significant impact on the college application and college acceptance process. Teachers will make recommendations for Honors and AP courses based on student ability and performance. Counselors will guide students through the selection and commitment process so that they are confident in their decisions to pursue these courses.

  Note: Because some AP courses are specialized and sought after by a smaller number of students, a course may not be offered if there are not enough requests or if the number of students able to enroll in it is too low.

**The Master Schedule**

- Students are given opportunities to choose from a wide variety of courses. Every effort is made to fulfill these requests; however, it can be challenging difficult to enroll students in every course that the student requests. The development process of a master schedule considers many factors when determining which courses will be offered. Staffing, the number of students requesting a particular course, unique combinations of course requests, and school resources are among several factors that influence the course offerings. The HS administration and guidance counselors will work diligently and methodically to provide rich and varied academic experiences.

**Acceleration and Course Exemption**

Periodically, students wish to accelerate through a course sequence to advance to the next level. The guidelines for these opportunities are as follows:

1. A request to accelerate through a course by exam is to be initiated by parent and student in writing via email to the principal; the request must clearly state the reason or rationale for
accelerating. Exemption by exam must be requested prior to the start of the course. Permission to accelerate through a course and gain exemption by exam is granted at the principal's discretion.

2. Any costs associated with this process are to be funded by the student and/or parents, which may include the costs of assembling materials, and administering and scoring the exams.

3. The student must take the district designed Quarterly Assessments, or an approved alternative exam, for the course and achieve a score of 85% or better on each Quarterly Assessment because many of these exams may not be cumulative in nature and only cover a portion of the course content. These examinations need to be taken and evaluated at least 3 weeks before the start of the course.

4. No grade or credit will be assigned for an accelerated.

5. If the criteria in Step 3 are met, the course will be listed on the transcript as “Course by Exemption” and will be awarded a passing mark of “P”.

6. The scheduling of the examination dates will be arranged by the counselor in conjunction with administration and the corresponding department representative.

**Guidelines for Changing Scheduled Courses and Course Withdraw**

Student schedules will be reviewed and revised by counselors and students. Schedules will be available to students before the start of the 2021-2022 SY. Students requiring or requesting a schedule change must do so by accessing the On-Line Course Change Request form at https://apps.ssdcougars.org/public.php?app=courseSelection. This form will be the primary means by which counselors will review and make schedule changes. If this electronic form is not accessible, contact the Guidance Office at 610-938-6130. Parents/guardians and students should know that counselors may not check or reply to emails and phone messages during summer break. However, they do monitor the change request entries frequently, and may possibly reply and make changes before the start of the school year. With that in mind, all course request changes must be made using the on-line form. This system has proven to be very efficient and effective. It is not necessary or recommended that an email and/or phone message be left in addition to the on-line request. This creates redundant work for the counselors and may slow the process of making changes which impacts all students.

**Initial Drop/Add Period**

Students may make course change requests up to fourteen days (14) days before the start of a course. The student must present a logical and defensible rationale for the change request. Students are reminded that schedules are built to maximize earned credits, schedule students for a full school day, and strengthen transcripts. Students may periodically be placed in a course or courses that they did not request. Counselors or administrators may make these decisions based of course request themes, prior course requests, academy alignment or simply course availability.

Students recommended for and meeting the prerequisite academic standards to be enrolled in Advanced Placement courses must notify building Administration on or before July 1 if they no longer wish to remain in the AP course. Students enrolled in AP courses after this date will be maintained on the AP class list and must complete the course absent of any extenuating circumstances.
**Procedures for Course Withdrawals**

Periodically students request to withdraw from a course after the initial add/drop period (see details above). Students will be encouraged to remain in classes a minimum of two (2) weeks to provide ample time fully understand the course content, work expectations, and the benefit the course will have on the student’s academic transcript. If, at that time, the student wishes to withdraw, a written request must be submitted to the counselor and principal explicitly detailing a reasonable and defensible rationale for the withdraw request. It is also in the best interest of the student to ensure that they are meeting with expectation as details in 1(b) (1-4) below before submitting a withdraw request.

When these situations arise, the following steps must be taken prior to an administrator’s consideration of a course change:

1. Once the teacher and counselor have received and reviewed the withdraw request, the following will occur:
   a. The counselor will issue the student and the parent the Course Drop Procedure Form to insure they are aware of the request to drop the class unless the request was initiated by the parent
   b. The counselor will arrange a meeting with the student and the teacher to review the request and determine if the student is:
      1. Attending regularly and actively engaging in classwork
      2. Completing in-class work and HW assignments
      3. Maintaining an organized notebook and planner
      4. Exhibiting good study habits
   c. The teacher, counselor and student will develop a plan of action that must include at least a minimum of 5 documented before/after school sessions with the teacher or tutor over a 3 week period
   d. The teacher must contact the parent to discuss the situation
      1. The parent will be asked to share information about home study habits and efforts that will be made at home to address the issue
      2. Teacher will share efforts that have been made in the classroom with regards to instruction & assessment strategies, and interventions
   e. If all of these steps have been followed, the student is still not making adequate academic progress, and the drop request is still being proposed, then a meeting with the counselor and administrator must be arranged to review the situation. Once all information is reviewed, the counselor and administrator will arrange a meeting with the student, parent and teacher to present their recommendation. If the recommendation is to remain in the course and decision of the student and parent/guardian after this process is to move forward and withdraw from the course, a withdrawal code “W” will appear on the students transcripts based on the final recommendation.

*** Note: Additional measures will be taken for seniors and will include contacting a potential college or one for which acceptance has been granted.
Promotion Requirements

To be promoted to the 11th grade, students must have earned a minimum of 11 credits by the end of the 10th grade. Six (6) of these credits must be in the core academic areas of LA, SS, Math and Science. Students who do not meet the promotion requirement will remain with their guidance counselor and advisory and will be designated as a sophomore.

Repeating Courses and Summer School

If a student fails a core course, they have the option to repeat the course(s) the following school year or attend Summer School. Counselors will assess these situations and recommendation that which is in the student’s best interest academically. Repeating courses can be beneficial, especially with courses that build on prior knowledge. Sometimes scheduling constraints are such that repeating a course creates difficulty in scheduling. In these cases, the student is encouraged to attend Summer School. Please contact the Guidance Office for specifics regarding qualifications for summer school, grading procedures, available courses, dates, and tuition.

Failing any course may impede or jeopardize a student graduating within four (4) years. Students and parents/guardians are strongly encouraged to make necessary and appropriate arrangements in the event of a course failure.

Weighted Courses

A student can be enrolled in College Preparatory, Honors or Advanced Placement courses. Due to the higher academic rigor of Honors and AP courses, a weight is assigned to these courses when calculating a student’s GPA. College Prep courses carry a weight of 1.00, Honors a weight of 1.125 and AP a weight of 1.25.

GPA Calculation

All MP and Final grades will be recorded and reported as numerical values. Students can use the following method to calculate GPA:

- Determine Total Quality Points - sum of all points for each course attempted as determined by the following formula:

  \[
  \text{Quality Points per Course} = \% \text{ Grade earned in course} \times \text{Credit} \times \text{Weighted Value}
  \]

  \[
  \text{Overall GPA} = \frac{\text{Total Quality Points}}{\text{Credits Attempted}}
  \]

Class Rank

Class rank is calculated at the end of the school year and is based on the overall weighted GPA. Student MP Report Cards include class rank but this is an un-weighted calculation and is not a true indication of the student’s class rank.
National Honor Society

Requirements for consideration for elections in the NHS include:

- Junior or Senior
- 95.0000 weighted Cumulative GPA or higher the summer before Junior or Senior Year
- Enrolled in 3 or more AP/Honors/College in the High School courses during the school year in which application is made (invitations are mailed in August and applications are submitted in September)

More details will be shared in the invitation/application materials.

Delaware County Technical Schools Programs

A complete list of the courses offered by Delaware County Technical Schools is provided beginning on page 76. The Delaware County Technical Schools program is offered to 11th and 12th grade students at the Intermediate Unit Vocational Technical Schools. The training at the schools is extensive and demanding and provides a graduate with an excellent background for technical careers. The Technical Schools Program is offered as a half-day AM or PM program and the school district provides transportation to and from the Technical School. To enroll, students should meet with their guidance counselor to complete the Technical Schools application. Students and their parents are encouraged to contact and/or visit the Delaware County Technical Schools. Call for more information: Folcroft (610) 583-7620 or Aston (610) 459-3050.

Options for Academically Talented / Gifted Students

HONORS & ADVANCED PLACEMENT COURSES - Springfield High School offers intensive studies that require extensive independent preparation and a strong commitment to meeting high demands for critical, creative, and analytical work.

| Language Arts: | Honors Language Arts courses are offered at all grade levels to students interested in developing skills necessary to prepare for Advanced Placement (AP) English Language and Composition and/or AP English Literature and Composition. |
| Mathematics: | The accelerated student enrolls sequentially in the Honors Mathematics program which provides the necessary foundation to prepare students for enrollment in our Advanced Placement Statistics and Calculus courses. |
| Science: | Students interested in pursuing an intensive science program requiring extensive independent learning and preparations are encouraged to participate in the Science Academy. Students enter into an accelerated science program that culminates with the completion of multiple AP level courses. |
| Social Studies: | Honors Social Studies courses are offered at all grade levels to students interested in developing skills necessary to prepare for AP American History, AP European History, AP American Government and/or AP Psychology. |
| World Language: | Students with the appropriate level of exposure to a foreign language at the middle school level will be allowed to enroll in upper level language courses at the high school level and accelerate their progression through our course offerings. |
Advanced Placement Courses:

Springfield High School offers a wide variety of AP classes across various departments. These are rigorous, first-year college level courses whose descriptions and examinations are prepared and approved by the College Board. Through completion of the courses and the Advanced Placement Examinations offered in May, students can earn college credits or advanced standing in a college curriculum. Enrollment in an Advanced Placement course requires evidence of superior skills in reading comprehension, writing, listening, logic, and problem solving. Evidence of academic success, teacher recommendations, and in some cases preliminary assignments is required for placement in these courses. The pacing and workload in Advanced Placement courses require a high level of commitment from students.

**AP Potential**

College Board data indicates that hundreds of thousands of high school students have the potential to succeed in Advanced Placement courses but never take AP courses.

AP Potential is a free web-based tool used by schools to help identify students with the potential to achieve success in AP. Research indicates that PSAT scores predict performance on specific AP exams more accurately than more traditional methods.

There are many benefits to taking Advanced Placement courses while in high school. Students who take AP courses, regardless of exam score, are more likely to be successful their first year of college than students who have never taken an AP course. In addition, students who earn a 3 or higher on their AP exams are more likely to achieve success in college and graduate with a college degree. Advanced Placement courses give high school students a college course experience while they are still in high school and offer the rigor that is desired by colleges in the college admissions process. There is also the benefit of potentially earning college credit at a fraction of the cost of taking a college course in college.

Because we believe in the many benefits of the Advanced Placement program, students identified through their PSAT scores to be likely to achieve success in one or more Advanced Placement Programs will receive a letter from the College Board indicating this.

PSAT scores are only one indicator of success. Not receiving an AP Potential letter from the College Board does not mean a student will not be successful. We encourage all students to challenge themselves and take courses that will enrich their learning experience.
The National Collegiate Athletic Association (NCAA)

Divisions I & II Initial Eligibility Requirements

<table>
<thead>
<tr>
<th>DIVISION I</th>
<th>DIVISION II</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>16 Core Courses:</strong></td>
<td><strong>16 Core Courses</strong></td>
</tr>
<tr>
<td>4 years of English.</td>
<td>3 years of English</td>
</tr>
<tr>
<td>3 years of mathematics (Algebra I or higher).</td>
<td>2 years of mathematics (Algebra I or higher)</td>
</tr>
<tr>
<td>2 years of natural/physical science (1 year of lab)</td>
<td>2 years of natural/physical science (1 year of lab)</td>
</tr>
<tr>
<td>1 year of additional English, mathematics or natural/physical science.</td>
<td>3 years of additional English, mathematics or natural/physical science</td>
</tr>
<tr>
<td>2 years of social science.</td>
<td>2 years of social science.</td>
</tr>
<tr>
<td>4 years of additional courses (from any area above, foreign language or comparative religion/philosophy).</td>
<td>4 years of additional courses (from any area above, foreign language or comparative religion/philosophy).</td>
</tr>
</tbody>
</table>

* Beginning August 1, 2016, NCAA Division I will require 10 core courses to be completed prior to the seventh semester (seven of the 10 must be a combination of English, math or natural or physical science that meet the distribution requirements). These 10 courses become "locked in" at the start of the seventh semester and cannot be retaken for grade improvement.

For NCAA eligibility purposes, only NCAA designated “core courses” are used in the calculation of the NCAA GPA. This is an NCAA policy and is not related to Springfield High School Grading Policy. Be sure to look at your high school’s list of NCAA-approved core courses at [www.eligibilitycenter.org](http://www.eligibilitycenter.org) to make certain that you know which of your courses will be counted toward your NCAA GPA.

Division I GPA and SAT/ACT test score requirements are based on a sliding scale determined by the NCAA and can be found at [www.eligibilitycenter.org](http://www.eligibilitycenter.org). The Division II core GPA requirement is a minimum of 2.200. Division II requires a minimum SAT score of 920 (Math & Critical Reading only) or an ACT sum score of 70. Remember, the NCAA GPA is calculated using NCAA core courses only. Please refer to [www.eligibilitycenter.org](http://www.eligibilitycenter.org) for complete and updated information.

**CH** Courses with this code are NCAA Eligible and Clearing House Approved

***CHE** Courses with this code are Clearing House Equivalency for Springfield High School Only
In order to graduate and earn a diploma from Springfield HS, all students must meet the following requirements:

1. Successfully complete and earn credit for courses as detailed in the table below.
2. Students that do not demonstrate proficiency on the Algebra I, Biology, and Literature Exams will be scheduled into remediation courses to recover content and retake the corresponding exam.
3. Credits within the 24 for graduation must come from courses taught by SHS teachers with a prescribed curriculum. The following courses do not meet graduation credit requirements:
   a. Independent Study Courses
   b. Course Audits
   c. Online Courses
   d. Work Study or Internship Credits
   e. Dual Enrollment

<table>
<thead>
<tr>
<th>Graduation Credit Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Department</strong></td>
</tr>
<tr>
<td>Language Arts <em>(Language Arts I, II, III and IV minimum requirements)</em></td>
</tr>
<tr>
<td>Social Studies <em>(United Stated History and US Government required)</em></td>
</tr>
<tr>
<td>Science <em>(Keystone Biology and Chemistry required)</em></td>
</tr>
<tr>
<td>Math <em>(Keystone Algebra and Geometry/Math Analysis)</em></td>
</tr>
<tr>
<td>World Language <em>(2 years in same language preferred)</em></td>
</tr>
<tr>
<td>HE/PE <em>(Mandatory HE/PE in Grades 9 and 11)</em></td>
</tr>
<tr>
<td>Finance <em>(640, 958A, 963, 964, 981, 445)</em></td>
</tr>
<tr>
<td><strong>Core Requirements</strong></td>
</tr>
<tr>
<td><strong>Additional Coursework</strong></td>
</tr>
<tr>
<td><strong>Primary Academy</strong></td>
</tr>
<tr>
<td><strong>Minimum Credits Required to Graduate with SHS Diploma</strong></td>
</tr>
<tr>
<td><strong>Maximum Possible Earned Credits</strong></td>
</tr>
</tbody>
</table>
Springfield High School Comprehensive Course Offerings and Course Descriptions

2021-2022 School Year

This document contains all the potential course offerings for the 2021-2022 School Year. Students and parents should use this document to explore details about courses including the level, credit value, Department affiliation, grade level accessibility, prerequisites, fees, and course descriptions.

Many of these courses are available for selection on HAC Course Requests – HAC Access. However, several courses are by teacher recommendation only.

Each year we review course offerings and make revisions or add new courses the catalog. Any major revisions or additions are highlighted greed and bold face font. For example:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>820</td>
<td>Digital Art &amp; Animation (Replaces Digital Sketchbook and 734 Digital Painting &amp; Illustration)</td>
</tr>
<tr>
<td>650</td>
<td>Elements of Graphic Design (this course replaces Photoshop I and Graphic Arts I)</td>
</tr>
<tr>
<td>700</td>
<td>Principles of Engineering and Construction – Process and Design</td>
</tr>
</tbody>
</table>
The Language Arts program at Springfield High School integrates all the language arts skills—reading, writing, speaking, listening, thinking, and researching—into the curriculum and helps students apply these skills to meaningful tasks. Our program goal is to have students achieve high academic standards goals in the language arts: reading independently, reading critically, analyzing and responding to literature, writing in various forms for a variety of audiences, producing compositions of high quality, speaking proficiently, and using research skills. Students at all grade levels will be expected to know and meet district and state standards in reading, writing, speaking and listening. Technology is infused into each course in a deliberate and meaningful fashion.

**CH 110 Hn Language Arts (I): Foundations of Literature /Honors**

1.0 credit Language Arts Credit Grade: 9

Prerequisite: Teacher recommendation along with recommended standards of academic performance as follows:
- Grade of 84% or higher in 8th grade language arts plus or
- Grade of 94% or higher in 8th grade language arts

In Language Arts (I) Honors, students will be introduced to reading experiences from various genres of fiction and non-fiction, and they will learn the necessary skills specific to each type of reading. To enhance their understanding and appreciation of the literature, students will discover the relationship between the works and their respective time periods and cultures. In conjunction with and in addition to the reading, students will employ the writing process and write extensively in various modes, ranging from formal literary analysis to persuasion and poetic response. Reading and writing skills will be assessed daily for development with a goal of demonstration of mastery. Grammar and vocabulary development via the Sadlier Vocabulary Workshop program (Level E) are also stressed. In Honors level classes, students must be self-motivated, possess strong writing skills, and be able to work through challenging texts independently. Students will be required to read and write more extensively and in more depth. Additionally, a greater expectation is placed on outside preparation and work to be ready for a more rigorous classroom learning environment.

**Language Arts (I) Honors requires the following additions to/variants from the College Preparatory level:**

- A summer reading assignment for a required text.
- Two to three additional reading experiences.
- Two to three additional writing pieces or projects.
- Reading material with more mature subject matter and themes.

**CH 111 Language Arts (I): Survey of Literature /College Preparatory**

1.0 credit Language Arts Credit Grade: 9

In Language Arts (I) College Preparatory, students will be introduced to and study various genres of fiction and non-fiction, and they will learn the necessary skills specific to each type of reading. To enhance their understanding and appreciation of the literature, students will discover the relationship between the works and their respective time periods and cultures. In conjunction with and in addition to the reading, students will employ the writing process and write extensively in various modes, ranging from formal literary analysis to persuasion and poetic response. Reading and
writing skills will be assessed daily for development with a goal of demonstration of mastery. Grammar and vocabulary development via the Sadlier Vocabulary Workshop program (Level D) are also stressed.

<table>
<thead>
<tr>
<th>CH 120</th>
<th>Hn Language Arts (II): The American Experience /Honors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Language Arts Credit</td>
</tr>
<tr>
<td>credit</td>
<td>Grade: 10</td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>Teacher recommendation along with recommended standards of academic performance as follows:</td>
</tr>
<tr>
<td></td>
<td>Grade of 84% or higher in 110 or</td>
</tr>
<tr>
<td></td>
<td>Grade of 94% or higher in 111</td>
</tr>
</tbody>
</table>

In Language Arts (II) Honors, students will be introduced to reading experiences from American writers, examining how they represent and interpret the American experience through their works. The course intends to provide students with an exposure to the social, economic and cultural events that have shaped and defined our values and our goals as a nation. In addition to the study of literature, students will have opportunities to employ the writing process in a variety of writing modes. Grammar, usage, mechanics, and vocabulary via the Sadlier Vocabulary Workshop program (Level F) will be studied and developed. This course will place an emphasis in preparing students for taking the Keystone Literature Exam. Assessment methods vary and include oral, written, multi-media and group presentations. In Honors level classes, students must be self-motivated, possess strong writing skills, and be able to work through challenging texts independently. Students will be required to read and write more extensively and in more depth. Additionally, a greater expectation is placed on outside preparation and work to be ready for a more rigorous classroom learning environment.

Language Arts (II) Honors requires the following additions to/variations from the College Preparatory level:
- A summer reading assignment for a required text.
- Two to three additional reading experiences.
- Two to three additional writing pieces or projects.
- Reading material with more mature subject matter and themes.

<table>
<thead>
<tr>
<th>CH 121</th>
<th>Language Arts (II): The American Experience /College Preparatory</th>
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<tbody>
<tr>
<td>1.0</td>
<td>Language Arts Credit</td>
</tr>
<tr>
<td>credit</td>
<td>Grade: 10</td>
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Language Arts (II) College Preparatory will examine how American writers have represented and interpreted the American experience through their works. The course intends to provide students with an exposure to the social, economic and cultural events that have shaped and defined our values and our goals as a nation. The development of the course may be thematic or chronological as students read works by American authors. In addition to the study of literature, students will have the opportunity to employ the writing process in a variety of writing modes. This course will place a heavy emphasis in preparing students for taking the Keystone Literature Exam. Grammar, usage, mechanics, and vocabulary development via the Sadlier Vocabulary Workshop (Level E) will be studied. Assessment methods vary and include oral, written, multi-media and group presentations.
In Language Arts (III) Honors, students will build upon their 10th grade literature experience. This course moves students from an American outlook to a global perspective. Through this global exposure to modern world literature, students explore the human condition considering the cultural implications through reading experiences drawn from throughout the world, including the Middle East, Asia, Africa and Latin America. In addition to the study of literature, this course focuses on college preparation, including an emphasis on the development of college level writing and literary analysis, MLA format, vocabulary development via the Sadlier Vocabulary Workshop program (Level G), and independent reading and writing. Assessment methods vary and include written, multi-media and group presentations. In Honors level classes, students must be self-motivated, possess strong writing skills, and be able to work through challenging texts independently. Students will be required to read and write more extensively and in more depth. Additionally, a greater expectation is placed on outside preparation and work to be ready for a more rigorous classroom learning environment.

 Language Arts (III) Honors requires the following additions to/variations from the College Preparatory level:

- A summer reading assignment for a required text.
- Two to three additional reading experiences.
- Two to three additional writing pieces or projects.
- Reading material with more mature subject matter and themes.

Language Arts (III) College Preparatory builds upon the 10th grade literature experience. This course moves students from an American outlook on the 20th century to a global perspective. Through this global exposure to modern world literature, students explore the human condition considering the cultural implications found in novels, short stories, poetry, plays, and memoirs from throughout the world, including the Middle East, Asia, Africa and Latin America. In addition to the study of literature, students will employ the writing process in a variety of modes, including narrative, informational, and persuasive. Grammar, usage, mechanics, and vocabulary development via the Sadlier Vocabulary Workshop program (Level F) will be stressed. Assessment methods vary and include oral, written, multi-media and group presentations.
The AP English Language and Composition course is designed to help students become skilled readers of prose written in a variety of rhetorical contexts and to become skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer’s purposes, audience expectations, and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing. To this end, grammar instruction is a strong component of the course. Students will have opportunities to write about a variety of subjects and to demonstrate an awareness of audience and purpose. The overarching objective is to enable students to write effectively and confidently across the curriculum and in their professional and personal lives. Another purpose of the AP English Language and Composition course is to enable students to read complex texts from many disciplines and historical periods with understanding and to write prose of sufficient richness and complexity to communicate effectively with mature readers. To reflect the increasing importance of graphics and visual images in texts published in print and electronic media, students are asked to analyze how such images both relate to written texts and serve as alternative forms of texts themselves. Vocabulary development will be addressed via the Sadlier Vocabulary Workshop program (Level G).

CH 140  Hn Language Arts (IV): Epics, Classics & Contemporaries /Honors
1.0 credit Language Arts Credit Grade: 12
Prerequisite: Teacher recommendation along with recommended standards of academic performance as follows:
Grade of 84% or higher in 130 or
Grade of 94% or higher in 131

In Language Arts (IV) Honors, students will be introduced to reading experiences drawn from both classical and modern literature, along with a variety of supplementary texts. The course will center on various types of writing including argument, analysis, and evaluation. The students will engage in the writing process through critical analysis of a text, drafting an argument, and working through the revision process. Other areas of study include literary criticism, vocabulary acquisition via the Sadlier Vocabulary Workshop program (Level H), mechanical expression, and literary analysis. In Honors level classes, students must be self-motivated, possess strong writing skills, and be able to work through challenging texts independently. Students will be required to read and write more extensively and in more depth. Additionally, a greater expectation is placed on outside preparation and work to be ready for a more rigorous classroom learning environment.

Language Arts (IV) Honors requires the following additions to/variations from the College Preparatory level:
- A summer reading assignment for a required text.
- Two to three additional reading experiences.
- Two to three additional writing pieces or projects.
- Reading material with more mature subject matter and themes.

CH 141  CP Language Arts (IV): Epics, Classics & Contemporaries /College Preparatory
1.0 credit Language Arts Credit Grade: 12

In Language Arts (IV) College Preparatory, students will develop an understanding and appreciation of major works of classical and modern literature. Works may include Oedipus Rex, Antigone, A Doll’s House, Macbeth and/or Hamlet. The course will weave in a variety of supplementary texts that enhance student comprehension of core texts. The course will
center on various types of writing including argument, analysis, and evaluation. The students will engage in the writing process through critical analysis of the text, drafting an argument, and working through the revision process. Other areas of study include vocabulary acquisition via the Sadlier Vocabulary Workshop program (Level G), mechanical expression, and literary analysis.

**CH 149 Advanced Placement English Literature and Composition**

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<tr>
<th>1.0 credit</th>
<th>Language Arts Credit</th>
<th>Grade: 12</th>
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<tr>
<td>Prerequisite: Teacher recommendation along with recommended standards of academic performance as follows:</td>
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<tr>
<td>Grade of 85% or higher in 139 or</td>
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<td>Grade of 90% or higher in 130 or</td>
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<td>Grade of 97% or higher in 131</td>
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The purpose of this course is to give qualified students the opportunity to read, write, think, and speak about challenging works of literature in a seminar setting. The overall reading goal is to provide for the experience, interpretation, and evaluation of literature through extensive writing and discussion. We will supplement our core readings with independent readings and supplementary texts. As we read, we will look to identify common themes among the novels, plays, poems, stories, articles, and essays. Our reading and writing will be supported by work from the Sadlier Vocabulary Workshop program (Level H). The way we make learning real and lasting is through finding connections between the different texts we immerse ourselves in during class. We will not study texts in isolation; rather, we will put them in conversation with one another and use them as lenses for critically viewing each text. We will learn to use literary criticism to create meaning with texts. We will learn to apply Theory of Mind to challenging texts, grapple with issues of authorial choice as a threshold concept, and practice a variety of writing approaches from analytical to argumentative. The way we use the texts of this course will help to prepare students for the AP Literature and Composition exam in May and a college level English course. This course follows the AP curriculum.

In this AP course, students will be required to read and write more extensively and, in more depth, and can expect a greater demand for homework responsibilities and independent preparation. AP Literature and Composition requires more of the following than in the Language Arts (IV) Honors level:

- Three summer reading books and four assessments
- Extensive fiction and non-fiction reading navigated using note-taking strategies
- Emphasis on university-level writing that recognizes writing as a process; developing a mature and sophisticated writing style
- Expectation of interdisciplinary learning experiences (challenging course work) to draw upon in seminar setting
- More homework responsibilities
- Love of reading and writing and willingness to speak and contribute during seminar setting

**Additional Language Arts Course Offerings**

**150 News Media and Journalism**

<table>
<thead>
<tr>
<th>1.0 credit</th>
<th>Humanities, Technologies, and Arts</th>
<th>Grades: 10, 11, 12</th>
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<td>HAC Access</td>
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</table>
In News Media and Journalism, students will focus on the gathering and dissemination of newsworthy facts and explore multiple modes of news publications like traditional newspapers, online news publications, podcasts and other modern news platforms. Students will study the ethics of student journalism and engage in the interview process, feature and editorial writing, audio and digital reporting, photography, editing, and publishing. A focal point of the course will center on the news gathering process and explore the biases of current news media. This analytical approach will encourage students to craft their views and share events in a responsible and meaningful manner with their school community. All students will submit quarterly articles and help with the development of ideas and topics for the editorial staff of the SPRI HIAN. All students interested in an introduction to news media and journalism should consider taking this course.

151  Literature and Film
0.5 credit  Humanities, Technologies, & Arts  Grades: 10, 11, 12  HAC Access

In teaching both literary and filmmaking techniques, this course will use a variety of carefully chosen films as a medium for understanding the relationship between film and literature. Students will study the language of film and will focus on artistic techniques, such as the use of lighting, camera angles, music and sound, and editing to best evaluate a film’s success. Students will submit film reviews and complete presentations based on the techniques and devices studied and interpreted. All Language Arts academic standards will be met in this course with a heavy emphasis on persuasive writing.

152  Philosophy of Pop Culture
0.5 credit  Humanities, Technologies, & Arts  Grades: 10, 11, 12  HAC Access

Using the popular television show The Good Place as its foundation, this course will explore the philosophical underpinnings of popular movies, television, cartoons, and novels. From Star Wars to The Avengers, Stanger Things to Game of Thrones, The Simpsons to the Peanuts, The Hunger Games to Harry Potter, students will be introduced to philosophical concepts found in modern pop culture. Ultimately, students will explore a pop culture topic of their own choosing. Students should expect to read and write as a central component of this course.

CHE995  AP Seminar – Advanced Placement Seminar
1.0 credit  Humanities, Technologies, & Arts  Grades: 10, 11  HAC Access

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research-based written essays, and design and deliver oral and visual presentations, both individually and as a part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision to craft and communicate evidence-based arguments. AP Seminar is an interdisciplinary course; students may focus their research on topics of their choosing. NOTE WELL: AP Seminar is the first course in the AP Capstone™ program. More information about AP Capstone™ can be found at https://apcentral.collegeboard.org/courses/ap-capstone?course=ap-capstone-diploma-program
Communications Course Offerings (found in the CVP Department Course Listing on HAC)

150  News Media and Journalism

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<th>Credit</th>
<th>Department/Arts</th>
<th>Grades</th>
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<tbody>
<tr>
<td>1.0</td>
<td>Humanities, Technologies, and Arts</td>
<td>10, 11, 12</td>
<td>HAC Access</td>
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</table>

In News Media and Journalism, students will focus on the gathering and dissemination of newsworthy facts and explore multiple modes of news publications like traditional newspapers, online news publications, podcasts and other modern news platforms. Students will study the ethics of student journalism and engage in the interview process, feature and editorial writing, audio and digital reporting, photography, editing, and publishing. A focal point of the course will center on the news gathering process and explore the biases of current news media. This analytical approach will encourage students to craft their views and share events in a responsible and meaningful manner with their school community. All students will submit quarterly articles and help with the development of ideas and topics for the editorial staff of the SPRI HIAN. All students interested in an introduction to news media and journalism should consider taking this course.

839  Presenting in a Tech Driven World

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<th>Credit</th>
<th>Department/Arts</th>
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<tbody>
<tr>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>10, 11, 12</td>
<td>HAC Access</td>
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</table>

Advancements and innovations in technology and software applications are being integrated into presentations and public speaking to provide for a more robust and interactive experience for the audience and presenter alike. This course will introduce students to a variety of presentation platforms to complement the public speaking skills students will develop as they learn the language of communication, both verbal and nonverbal, when presenting to an audience. Students in this course will participate in a variety of speaking/presentation situations including informative, persuasive, and narrative while integrating technology to enhance the effectiveness of the presentation. Students will also evaluate presentations, express individual opinions, and work on presentation projects with peers. Presentation technology such as: Adobe InDesign, Adobe Spark, AniMaker, Cute Cut, Cyberlink Power Director, iMovie, PowToons, and Prezi will be explored.

840  Acting Workshop

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<th>Credit</th>
<th>Department/Arts</th>
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<tr>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>9, 10, 11</td>
<td>HAC Access</td>
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</table>

Students will develop self-confidence in this course, both as performers and as individuals. They will receive a general orientation to the Stanislavski "Method" of acting. Course activities include extensive work in improvisation, characterization, stage movement, monologues, and scene work. Class and teacher viewing of performances and class participation are included in the evaluation of students.

843  Behind The Curtain: An Introduction to Technical Theater

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<th>Credit</th>
<th>Department/Arts</th>
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<tr>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>09, 10, 11, 12</td>
<td>HAC Access</td>
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</table>

In this course, students will explore the backstage world of theater utilizing the technical equipment found in the high school theater. Students will participate in units of study focused on theatrical spaces, scenic design, beginning set construction, lighting design, costume design, sound design, prop design, and stage management. Assessment will
consist of a combination of hands-on projects, design simulations, and traditional written assessments. No prior technical experience necessary.
**Social Studies**

The Social Studies program at Springfield High School is designed to allow the student the option of becoming involved in specific aspects of the social sciences that parallel his/her specific interest. The program is designed to consider the development of the intellectual capabilities of each student which will in turn lead the student to become a more rational thinking being. Coupled with this is an emphasis on the application of the many higher order thinking processes including the various skills connected with decision making, problem solving, critical and creative thinking. The students will have the necessary knowledge, intellectual and social awareness, and communicative skills to function and develop in the 21st century.

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<tr>
<th>CH 210</th>
<th>Hn The Global Context: Voices of the People</th>
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<tr>
<td>1.0 Credit</td>
<td>Social Studies</td>
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</table>

Prerequisite: Teacher recommendation along with recommended standards of academic performance as follows:

Grade of 94% or higher in 8th grade Social Studies

This course is designed to expose the students to distant cultures of the world as viewed through indigenous narratives. Our units of study include an examination of the Middle East, Africa, South Asia, East Asia, and South America’s own histories and how these were impacted when encountering the colonialism of the Western world. In each unit, emphasis is placed on geography, culture, brief historical context, and current issues of the region. This course exposes students to a variety of cultures, and the patterns of civilizations as they evolve. A major focus will be placed on government, geography, society, customs, religion, global current events and economics. The aim is to give students a broad understanding of the world’s modern civilizations to help them participate in today’s global society. Within the Honors course students will be expected to challenge themselves to think deeply about the connections between the historical texts they encounter and global current events.

Students should expect class discussions, collaborative work, nightly assignments, simulations and direct instruction. Integrative technology is an important component to this course. Student’s geographic skills will be honed with in-depth map work. Special attention will be given to the development of higher-level writing skills.

<table>
<thead>
<tr>
<th>CH 211</th>
<th>The Global Context: Voices of the People</th>
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<tbody>
<tr>
<td>1.0 Credit</td>
<td>Social Studies</td>
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</table>

This course is designed to expose the students to distant cultures of the world as viewed through indigenous narratives. Our units of study include an examination of the Middle East, Africa, South Asia, East Asia, and South America’s own histories and how these were impacted when encountering the colonialism of the Western world. In each unit, emphasis is placed on geography, culture, brief historical context, and current issues of the region. This course exposes students to a variety of cultures, and the patterns of civilizations as they evolve. A major focus will be placed on government, geography, society, customs, religion, global current events and economics. The aim is to give students a broad understanding of the world’s modern civilizations to help them participate in today’s global society.
Students should expect a wide variety of classroom activities, including but not limited to: simulations, direct instruction, group work, computer projects, and independent assignments. Students will learn, review, and then implement basic geographic skills with unit specific map labeling. Current events are an important part of this class, and students will be expected to be aware of important global events.

**CH 220**

**Hn United States History: 1820-Present/Honors**

1.0 Credit  
Social Studies  
Grade: 10

Prerequisite: Teacher recommendation along with recommended standards of academic performance as follows:

- Grade of 84% or higher in Honors Global Context
- Grade of 94% or higher in CP Global Context

This course surveys American History from the Jacksonian to the present, highlighting some of the important political and cultural contributions by Pennsylvanians along the way. Important events, themes, and people are studied with an emphasis on their relationship to one another and their meaning to the present. The course examines the beneficiaries of the American Experience as well as those who were left out. It traces the extraordinary social, technological, economic and foreign policy transformations that have made us what we are as people. Students are challenged to analyze events while using primary and secondary sources that sometimes lead to various interpretations of the evidence. Above all, students are required to think about the meaning of this nation’s history in their lives. Reading, writing, discussing, and active involvement are the essential strategies used in this course. The internet also plays a vital role in accessing primary sources and varied interpretations.

The Honors course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in United States history. Students should learn to assess historical materials – their relevance to a given interpretive problem, their reliability, and their importance, and to weigh the evidence and interpretations presented in historical scholarship.

**CH 221**

**United States History: 1820-Present/College Prep**

1.0 Credit  
Social Studies  
Grade: 10

This course surveys American History from the Jacksonian period to the present, highlighting some of the important political and cultural contributions by Pennsylvanians along the way. Important events, themes, and people are studied with an emphasis on their relationship to one another and their meaning to the present. The course examines the beneficiaries of the American Experience as well as those who were left out. It traces the extraordinary social, technological, economic and foreign policy transformations that have made us what we are as people. Students are challenged to analyze events while using primary and secondary sources that sometimes lead to various interpretations of the evidence. Above all, students are required to think about the meaning of this nation’s history in their lives. Reading, writing, discussing, and role-playing are the essential strategies used in this course. The Internet also plays a vital role in accessing primary sources and varied interpretations.
CH 225  Advanced Placement United States History
1.0 Credit  Social Studies  Grade: 10
Prerequisite:  Teacher recommendation along with recommended standards of academic performance as follows:
Grade of 90% or higher in Honors Global Context
Grade of 94% or higher in CP Global Context

The Advanced Placement program in United States History is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in United States history from early settlement to the present. This course prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Student should learn to assess historical materials – their relevance to a given interpretive problem, their reliability, and their importance, and to weigh the evidence and interpretations presented in historical scholarship. The Internet also plays a vital role in accessing primary sources and varied interpretations for research projects. This course follows the AP curriculum.

CH 240  Hn United States Civics and Government/ Honors
1.0 Credit  Social Studies  Grade: 11
Prerequisite:  Teacher recommendation along with recommended standards of academic performance as follows:
Grade of 84% or higher in United States History H
Grade of 94% or higher in United States History CP

United States Civics and Government is designed to assist students in developing an understanding of the American political system and an appreciation for the important role that citizens play in our democratic republic. Units of study include the purpose and function of government, historical foundations and significant documents of American government, general processes of government, the interpretation and application of law, and the role of individual citizens and that of groups and organizations in our political system. Students will also compare and contrast the role of the federal government with that of the state of Pennsylvania. Internet research is used for simulations and problem-solving projects as well as to provide a consistent awareness of current events in Washington and Harrisburg.

Within the Honors classes students will be expected to challenge themselves to think deeply about the connections between the historical texts they encounter and current events that are unfolding within the United States today. Students will also be expected to take engage in various independent and collaborative research and writing initiatives.

CH 241  United States Civics and Government/ College Preparatory
1.0 Credit  Social Studies  Grade: 11

United States Civics and Government is designed to assist students in developing an understanding of the American political system and an appreciation for the important role that citizens play in our democratic republic. Units of study include the purpose and function of government and the historical foundations and significant documents of American government, the general processes of government, the interpretation and application of law, and the role of individual citizens and that of groups and organizations in our political system. Students will also compare and contrast the role of the federal government with that of the state of Pennsylvania. Internet research is used for simulations and problem-solving projects as well as to provide a consistent awareness of current events in Washington and Harrisburg.
### Advanced Placement United States Government & Politics

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<tr>
<th>CH 245</th>
<th><strong>Advanced Placement United States Government &amp; Politics</strong></th>
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<tbody>
<tr>
<td>1.0 Credit</td>
<td>Social Studies</td>
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<tr>
<td><strong>Prerequisite:</strong></td>
<td>Teacher recommendation along with recommended standards of academic performance as follows:</td>
</tr>
<tr>
<td></td>
<td>Grade of 90% or higher in Grade 10 Honors United States History</td>
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<tr>
<td></td>
<td>Grade of 94% or higher in Grade 10 CP United States History</td>
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</table>

The Advanced Placement American Government and Politics course is an intensive program of instruction and personal study focusing on the national level of government and politics. Students will critically examine five common areas and subjects normally covered in an introductory college political science course: the Constitution; underpinnings of Government, political parties and interest groups; institutions and policy processes of the national government; civil rights and civil liberties. The course uses web resources extensively in addition to textbook and primary source materials. Students with consistently high grades in social studies and teacher recommendations will be considered for the course. This course follows the AP curriculum.

### Social Studies – Additional Course Offerings

<table>
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<tr>
<th>CH 254</th>
<th><strong>Civil and Criminal Law</strong></th>
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<tbody>
<tr>
<td>0.5 Credit</td>
<td>Humanities, Technologies, &amp; Arts</td>
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The Civil and Criminal Law course offers the student an exciting hands-on experience in practical law using the Street Law Text and other Street Law materials. The major emphasis will be on practical application through student simulations, mock trials, moot court hearings, and presentations by legal experts. Students will be using the Internet to research past cases, precedents, and legal updates.

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<tr>
<th>CH 255</th>
<th><strong>Psychology</strong></th>
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<tr>
<td>0.5 Credit</td>
<td>Humanities, Technologies, &amp; Arts</td>
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The primary goal of this semester course is to expose students to some of the major topics and themes of the field of psychology. The course covers the history of psychology and the four major perspectives of psychology: biological, behavioral, psychodynamic, and humanistic, as well as a study of the brain, self-concept and advertising psychology, and social psychology and abnormal psychology. Students will participate in experiments and demonstrations to reinforce course concepts and as a result, gain a better understanding of the forces behind human behavior; their own and others.

<table>
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<tr>
<th>CH 258</th>
<th><strong>Constitutional Civil Rights</strong></th>
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<td>0.5 Credit</td>
<td>Humanities, Technologies, &amp; Arts</td>
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Anyone who has ever watched a cop drama knows that criminal suspects have certain rights, including the right to remain silent and the right to an attorney. People speak their minds freely on television and on the internet knowing that they have a right to free speech. These rights, and many more, are guaranteed and protected under the United States Constitution and the Bill of Rights. In this course, we will explore these rights in real life cases and analyze the Supreme Court’s role as protector and defender of the Constitution. Activities will include debates and simulations, as well as participation in an intensive moot Supreme Court hearing.
CHE 261 Sociology

0.5 Credit Humanities, Technologies, & Arts Grades: 11, 12 HAC access

Sociology is the study of social life, social change, and the social causes and consequences of human behavior. In this one semester course, students will focus on human behavior in families, religious groups, local communities, and in the broader society. Students will examine such topics as cultural conformity, adolescent socialization, racial and ethnic relations, and gender. Class discussions based on assigned readings will be the primary activity during this course, with several short reaction papers and examinations assigned throughout the semester. Students are also required to complete a culminating research project. Students must realize that a regimen of regular study and above average ability in reading and synthesizing skills are required to achieve success at this level.

Social Studies – Advanced Placement Course Offerings

Note: As a general guideline, unless otherwise specified by prerequisites, students pursuing SS AP additional course offerings should demonstrate an 84% or higher in both Language Arts and Social Studies courses to meet with the expected level of reading and writing rigor associated with SS AP level courses. Students not meeting with these general guidelines will be asked to complete a waiver form.

CH 235 Advanced Placement European History

1.0 Credit Humanities, Technologies, & Arts Grade: 12

Prerequisite: Teacher recommendation along with recommended standards of academic performance as follows:
Grade of 90% or higher in Honors United States Government and Politics, AP Gov, or AP U.S. History
Grade of 94% or higher in CP United States History

This course is designed as a college level course and students are expected to take the AP test in May. The scope of the course is from the Renaissance to present day and utilizes a college level text plus a variety of primary sources. Students will be expected to complete several research projects plus participate in historic simulations and class discussions. Analysis of material to determine patterns in history is a necessity in the course, as, is understanding how to write a complete persuasive historic essay. Students must become comfortable in using the internet for research and contacting other AP sites. This course follows the AP curriculum.

CH 256 Advanced Placement Psychology

1.0 Credit Humanities, Technologies, & Arts Grades: 11, 12 HAC access

Prerequisite: Grade of 90% or higher in honors level social studies courses
Grade of 84% or higher in AP level social studies courses

This is a rigorous college level course. By design, the course is patterned after a typical undergraduate introductory psychology course. A college-level text is used in the course. The course covers 14 designated topics: 1) History and Approaches; 2) Research Methods; 3) Biological Bases of Behavior; 4) Sensation and Perception; 5) States of Consciousness; 6) Learning; 7) Cognition; 8) Motivation and Emotion; 9) Developmental Psychology; 10) Personality; 11)

CH 265  AP Human Geography

1.0 Credit  Humanities, Technologies, & Arts  Grades: 09, 10, 11, 12  HAC Access

The AP Human Geography course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth’s surface. Students learn to employ spatial concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and application.

CH 982  Advanced Placement Macroeconomics

1.0 credit  Humanities, Technologies, & Arts  Grades: 11, 12  HAC Access

Pre requisite:  Successful completion of H/CP Algebra II

This college-level course complies with College Board guidelines and is the equivalent of an introductory-level university course in Macroeconomics. AP Macroeconomics provides students a thorough understanding of the principles of economics that apply to an economic system as a whole. Students learn about scarcity, national income, price determination, economic performance measures, the financial sector, stabilization policies, inflation, unemployment, economic growth, the business cycle, price indices, Classical Economics and Say’s Law, the fundamentals of aggregate supply, the fundamentals of aggregate demand, expenditure and tax multipliers, economic growth and productivity, Keynesian Economics, fiscal policy, and international economics.

CH 995  AP Seminar – Advanced Placement Seminar

1.0 credit  Humanities, Technologies, & Arts  Grades: 10, 11  HAC Access

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research-based written essays, and design and deliver oral and visual presentations, both individually and as a part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision to craft and communicate evidence-based arguments. AP Seminar is an interdisciplinary course; students may focus their research on topics of their choosing. NOTE WELL: AP Seminar is the first course in the AP Capstone™ program. More information about AP Capstone™ can be found at https://apcentral.collegeboard.org/courses/ap-capstone?course=ap-capstone-diploma-program
SHS Course #  **290  World Affairs
DCCC Course #  POL 200  World Affairs

(Honors Weight awarded with successful completion of Capstone Project)

1.0 Credit  Humanities, Technologies, & Arts  Grades: 11, 12
3.0 Credit  DCCC credit awarded for completion with a grade of 70% or higher.

This course deals with the theory and practice of international relations. Upon successful completion of the course, students should be able to analyze the role of power in international politics. Students will identify the major constraints a national state must deal with in the formulation and implementation of foreign policy, as well as assess the impact of the United Nations on the relations between national states in the contemporary world. Finally, students will plan developmentally and culturally appropriate strategies to address individual differences among political adversaries.
## Science

The Science program at Springfield High School is designed to allow the student the option of becoming involved in specific aspects of the Sciences that parallel her/his specific interest. From Biology to Advanced Placement (AP) Environmental Science, the Science curriculum is flexible enough to account for individual needs. The program is designed to consider the development of the intellectual capabilities of each student which will in turn, lead the student to become an articulate and rational thinker. Coupled with this, is an emphasis on the application of higher order thinking processes including the skills connected with decision making, problem solving, and critical and creative thinking. The students will gain the necessary knowledge, intellectual and social awareness, and communicative skills to function and succeed in the 21st century.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Grade(s)</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH 305</td>
<td>Hn Biology/Honors</td>
<td>1.0</td>
<td>9</td>
<td>Teacher recommendation along with recommended standards of academic performance as follows: Grade of 96% or higher in 8th grade science</td>
</tr>
</tbody>
</table>

Honors Biology is a rigorous and challenging course designed to explore the characteristics of the life. Course content includes the scientific method (summer work required), characteristics of living things, cell structure, function and transport, cellular reproduction, biochemistry, photosynthesis, cellular respiration, genetics, DNA, ecology and evolution. Students will be introduced to some of the techniques, equipment, and information used by biologists. In addition to in class lecture and lab activities, independent supplemental reading and enrichment activities will be assigned and completed outside of the classroom. Students will sit for their Keystone Biology Exam during this course. This course will have a summer assignment.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Grade(s)</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH 311</td>
<td>Biology /College Prep</td>
<td>1.0</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Biology is a course designed to explore the characteristics of the life. Course content includes the scientific method, characteristics of living things, cell structure and function, cellular reproduction, biochemistry, photosynthesis, cellular respiration, genetics, DNA, ecology and evolution. Students will be introduced to some of the techniques, equipment, and information used by biologists. Students will complete several labs and inquiry-based activities to reinforce the concepts and develop their technical writing skills. Current biological issues will also be explored. *Students will be take the Keystone Biology Exam in this course.*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Grade(s)</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH 320</td>
<td>Hn Chemistry /Honors</td>
<td>1.0</td>
<td>9, 10</td>
<td>Teacher recommendation along with recommended standards of academic performance as follows: Grade of 94% or higher in ETR Grade 8 Science Grade of 94% or higher in ETR Grade 8 Geometry</td>
</tr>
</tbody>
</table>

This honors science course is recommended for math and science students as evidenced by the prerequisites above. The major areas of study are atomic structure and mole concept, chemical bonding, kinetic molecular theory, solutions,
chemical reactions, reaction rates, acid/base chemistry, oxidation/reduction chemistry, and dynamic equilibrium. Students will develop skills in making observations, analyzing data, drawing conclusions, and problem solving. This course is recommended for students planning professional careers in science and medicine. This course will have a summer assignment.

<table>
<thead>
<tr>
<th>321</th>
<th>Chemistry /College Prep</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Credit</td>
<td>Science Credit</td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>Successful completion of CP Biology (311)</td>
</tr>
</tbody>
</table>

Chemistry is a laboratory course which emphasizes five major areas of study: atomic structure and mole concept, chemical bonding and chemical formulas, principles of chemical reactions, kinetic molecular theory, solutions and acid/base. Students will develop skills in making observations, analyzing data, drawing conclusions, and problem solving. The course involves use of calculators, simulations on the computer, and using the computer to produce lab reports.

<table>
<thead>
<tr>
<th>330</th>
<th>Hn Physics /Honors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Credit</td>
<td>Science Credit</td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>Teacher recommendation along with recommended standards of academic performance as follows:</td>
</tr>
<tr>
<td></td>
<td>Math</td>
</tr>
<tr>
<td></td>
<td>Grade of 90% or higher Honors Geometry</td>
</tr>
<tr>
<td></td>
<td>Grade of 94% or higher College Prep Geometry</td>
</tr>
</tbody>
</table>

This course focuses on understanding the basics laws of mechanics: motion, forces, momentum, energy, torque, rotation, and electricity. Skills of algebra, geometry, and trigonometry will be integrated freely and extensively in the course, both in the formulation of physical laws and in the solutions of problems. Students are expected to manipulate algebraic expressions involving multiple variables and should understand basic trigonometric functions. The student will be required to conduct experiments and compile data into lab reports. In addition, students in the honors physics course will be expected to:

- Compile 12-15 formal lab reports throughout the course,
- Conduct independent and group research

This course is ideal for students who have a career interest in the sciences, math, or engineering.

<table>
<thead>
<tr>
<th>331</th>
<th>Physics /College Prep</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Credit</td>
<td>Science Credit</td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>Teacher recommendation upon successful completion of 320 or 321 (CP or Hn Chemistry)</td>
</tr>
</tbody>
</table>

This course will focus on the laws of mechanics including motion, forces, momentum and energy. Wave behavior (sound and light) and electricity will also be addressed. Students taking the course will improve their problem-solving skills. Throughout the course, students will use lab equipment and computer-interface software to collect data and are expected to use mathematics to quantitatively discuss the concepts of physics, as well as be able to solve problems.
**CH 355 Advanced Placement Physics 1**

1.0 Credit  
Science Credit  
Grades: 11  
HAC Access

**Prerequisite:** Teacher recommendation along with recommended standards of academic performance as follows:

**Math**
- Grade of 90% or higher in Honors Pre-Calculus
- Grade of 94% or higher in College Prep Pre-Calculus

Students who have already completed Honors Physics 330 are not eligible for 354. This course is ideal for students who have a career interest in the sciences, math, or engineering. No prior physics education is required; however, this is a rigorous AP course for students who intend to pursue further honors and AP science electives. This course focuses on understanding the basics laws of mechanics and electricity: motion, forces, momentum, energy, torque, rotation. Skills of algebra, geometry, and trigonometry will be integrated freely and extensively in the course, both in the formulation of physical laws and in the solutions of problems. Students are expected to manipulate algebraic expressions involving multiple variables and should understand basic trigonometric functions. The student will be required to conduct experiments and compile data into lab reports. This course follows the AP curriculum and will prepare students for the AP Physics 1 exam.

**Science – Additional Course Offerings**

**CH 361 Planet Earth**

0.5 Credit  
Humanities and Elective Credit  
Grades: 10, 11  
HAC Access

Planet Earth is an introductory survey course broken into four units: Lithosphere, Hydrosphere, Atmosphere and Biosphere. It is designed to cover the following topics about our planet: the atmosphere, the oceans, its ecosystems, human population dynamics, its agriculture, water resources, biodiversity decline, energy challenges, atmospheric pollution, and climate change.

**CH 366A Human Anatomy and Physiology**

0.5 Credit  
Science Elective Credit  
Grades: 11, 12  
HAC Access

**Prerequisites:** Grade of 74% or higher in 305, 311, 320, 321

**Lab Fee:** $10

This course is a study of both human anatomy and physiology with an integral laboratory component. This course is designed to prepare students who are considering entering the medical, nursing, or allied health fields and as such is of a rigorous content level. The course will offer a survey of important anatomical terms as well as an overview of the body’s major organ systems. Students will have the opportunity to gain insight into various career options and the studies required for them.
CH 368  Genetics  
CH 368H Honors Genetics  

0.5 Credit  Humanities and Elective Credit  Grades: 11, 12  HAC Access  
Prerequisites: A Grade of 80 or Higher in Biology and a Score of Proficient or Advanced on the Biology Keystone.  
A Grade of 80 or Higher in Chemistry  

This course provides a study of genetics, most specifically human genetics. This course will specifically cover the biochemistry of DNA and chromosomes, human genetics, genetic diseases and disorders and genetic technologies. The course will include laboratory exercises, statistical analysis, and long-term projects.  

CH 369  Zoology  
CH 369  Honors Zoology  

0.5 Credit  Humanities and Elective Credit  Grades: 11, 12  HAC Access  
Prerequisites: A Grade of 80% or Higher in Biology and a Score of Proficient or Advanced on the Biology Keystone.  

This course provides an introductory study of all members of the animal kingdom. This course is designed to cover evolution as it applies to the animal kingdom and the taxonomy of the animal kingdom. The course will survey the animal kingdom from the simple invertebrates through mammals. The course will include lab work and cooperative projects.  

CH 373A  Meteorology  

1.0 Credit  Humanities and Elective Credit  Grades: 10, 11, 12  HAC Access  

This course is a study of the earth’s atmosphere and weather-related phenomena. Major principles of meteorology will be addressed by long-term study of real time data sources from the Internet. The students will study the structure of the atmosphere, basic meteorological principles, weather maps and severe weather systems. **Students will be expected to deliver “on-air” weather forecasts for the high school daily announcements.** This is a highly challenging, science course on par with introductory Meteorology courses taught at the college level. The curriculum presupposes students understand the gas laws, fundamental physics principles and excellent math skills.  

CH 374  Exploring the Cosmos  

0.5 Credit  Humanities and Elective Credit  Grades: 10, 11, 12  HAC Access  
Prerequisites: Algebra I  

This course introduces the field of astronomy designed to provide an overview of the subject, including basic physical concepts involving planets, stars, galaxies, and cosmological distances. The course is designed to emphasize conceptual understanding and an appreciation for the discovery process. Besides project-based classroom work, students will complete an observational experience as well as a current event presentation to the class.
**CH 379  Forensic Science**

0.5 Credit  Humanities and Elective Credit  Grades: 10, 11, 12  HAC Access

Prerequisites: Grade of 80% or higher in 305 or 311

This course will cover updated techniques, practices and procedures used in forensic science. Students will participate in forensic analysis and the proper procedures for collection and preservation of evidence at crime scenes. Students will investigate new technologies used by forensic scientists. Discussions of probabilities role in interpreting the significance of scientifically evaluated evidence will be incorporated in this course. Students will study actual cases to see the role of forensic science in criminal investigations.

**CH 380  The Great Diseases**

0.5 Credit  Humanities and Elective Credit  Grades: 11, 12  HAC Access

Engaging students in the biomedical sciences while they are still in high school is a critical first step toward educating a scientifically literate citizenry. Great diseases is an inquiry-based curriculum that focuses on biomedical research in the context of five "great diseases" that challenge global health – infectious, neurological, cardiovascular, cancer and diabetes. This course uses a case-based study approach that presents pertinent information to teenagers, such as H1N1 flu, obesity, and cardiac arrest in elite athletes. The Great Diseases curriculum presents complex global health issues in ways that engage high school students. This course is designed for 11th and 12th grade students who have successfully completed both biology and chemistry.

**Science - Advanced Placement Course Offerings**

**CH 350BI  Advanced Placement Biology**

1.5 Credits  Science Credit  Grades: 11, 12  HAC Access

Prerequisite: Teacher recommendation along with recommended standards of academic performance as follows:
Grade of 87% or higher in 305 & 320 (H Biology & H Chemistry)
Grade of 94% or higher in 311 & 321 (CP Biology & CP Chemistry)
Grade of 84% to 93% in 311 or 321 requires teacher recommendations

This course is designed to be the equivalent of a first-year college course in Biology, and has been developed according to the new guidelines of the College Board. In-depth topics of study include molecular genetics and evolution, cell structure and energy transformation, population ecology, plants, and animals. The required lab component of the course includes investigations and technologies in areas such as recombinant DNA technology, aquatic productivity, botany and biochemistry, and comparative vertebrate dissections, will help students improve written and oral communication skills. This course follows the AP curriculum. This course will have a summer assignment.
Advanced Placement Chemistry

CH 351CH  
1.5 Credits  
Science Credit  
Grades: 10, 11, 12  
HAC Access  
Prerequisite:  
Teacher recommendation along with recommended standards of academic performance as follows:  

- **Science**  
  - Grade of 94% 320 or 321  
  - Grade of 84% to 93% 320 or 321 requires teacher recommendations  

- **Math**  
  - Grade of 90% or higher in 430, 420 or 458  

This course is designed to be the equivalent of a first-year college course. In AP Chemistry students will master fundamental principles of chemistry and develop competence in problem solving. The areas of study include a highly rigorous treatment of the structure of matter, the status of matter, chemical reactions, and descriptive chemistry. There is also a strong laboratory component for the course. This course will have a summer assignment.

Advanced Placement Physics C: Mechanics

CH 352  
1.0 Credit  
Humanities and Elective Credit  
Grades: 12  
HAC Access  
Prerequisite:  
Teacher recommendation along with recommended standards of academic performance as follows:  

- Grade of 94% or higher in 330  
- Grade of 84%-93% in 330 or 331 w/ teacher recommendation  
- Grade of 84% or higher in 355; 84% or lower requires teacher recommendation  
- Concurrently taking or successful completion of 460 or 461 (AP Calc AB or BC)  

An advanced mechanics course offered to students who already completed a semester of physics (honors preferred). Taking AP Calculus concurrently, or in the past is also recommended. The course will take a calculus-based approach to exploring the topics covered in introductory physics including: kinematics, dynamics, work & energy, momentum, rotation, gravitation, and oscillations.

Advanced Placement Physics 2

CH 356  
1.0 Credit  
Humanities and Elective Credit  
Grades: 12  
HAC Access  
Prerequisite:  
Teacher recommendation along with recommended standards of academic performance as follows:  

- **Science**  
  - Grade of 94% or higher in 330 or 355  
  - Grade of 84-93% in 330 or 355 with teacher recommendation  

- **Math**  
  - Grade of 90% or higher in Honors Pre-Calculus  

This is an AP physics course serving as an algebra-based survey of classical mechanics, electricity & magnetism, thermodynamics, fluids, waves, optics, & nuclear physics. Skills of algebra, geometry, and trigonometry will be integrated freely and extensively in the course, both in the formulation of physical laws and in the solutions of problems. Students are expected to manipulate algebraic expressions involving multiple variables and should understand basic
trigonometric functions. The student will be required to conduct experiments and compile data into lab reports. This course follows the AP curriculum and will prepare students for the AP Physics 2 exam.

CH 362  Advanced Placement Environmental Science

1.0 Credit  Humanities and Elective Credit  Grades: 11, 12  HAC Access
Prerequisite: Teacher recommendation along with recommended standards of academic performance as follows:
- Grade of 94% or higher in 305/306, 311, 320 or 321
- Grade of 84-93% in 305, 306, 311, 320 or 321 requires teacher recommendation

This course will provide scientific principles, concepts, and methodologies required to understand the interrelationship of the natural world, to identify and analyze environmental problems, to evaluate risks associated with these problems and to examine alternative solutions. This class includes a strong lab component. Topics include energy flow, the biosphere, the human population, renewable and nonrenewable resources, environmental quality, and global change. This course follows the AP curriculum. This course will have a summer assignment.

CHE 995  AP Seminar – Advanced Placement Seminar (found in Miscellaneous Department in HAC)

1.0 credit  Humanities, Technologies, & Arts  Grades: 10, 11  HAC Access

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research-based written essays, and design and deliver oral and visual presentations, both individually and as a part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision to craft and communicate evidence-based arguments. AP Seminar is an interdisciplinary course; students may focus their research on topics of their choosing. NOTE WELL: AP Seminar is the first course in the AP Capstone™ program. More information about AP Capstone™ can be found at https://apcentral.collegeboard.org/courses/ap-capstone?course=ap-capstone-diploma-program
SHS Course # 370 Introduction to Astronomy

DCCC Course # ESS 102 Introduction to Astronomy

ESS 103 Introduction to Astronomy Laboratory (Optional)

1.0 Credit SHS Humanities, Technologies, & Arts Grades: 11, 12 HAC Access

4.0 Credit DCCC credit awarded for completion with a grade of 70% or higher.

Prerequisites: Satisfactory score on the Accuplacer exam or SAT, 75% average in Chemistry, and Algebra 2.

This college-level course is designed to introduce students to the science of astronomy, its history, and its importance as an influence on our view of humankind. Students will conduct astronomical observations using software, telescopes, and star charts to study objects in the night sky. Practical observational activities are designed to foster a conceptual understanding of how objects from great distances are studied from the earth. This is a rigorous textbook driven course intended for non-science majors to satisfy one of their college science credit requirements. This is a College Academic Learning Goal (CALG) designated course for Scientific Inquiry through DCCC.

This course is designed to introduce students to the science of astronomy, its history, and its importance as an influence on our view of humankind. The course is intended for non-science majors. Upon successful completion of this course, students should be able to: describe the night sky, trace the history of astronomy, describe the important properties of stars, describe the general characteristics of the solar system, discuss the discovery and nature of the Milky Way Galaxy and different types of galaxies, and discuss the possibility of life existing elsewhere in the universe.

SHS Course # 390 Humans and the Environment

DCCC Course # BIO 102 Humans and the Environment

(Honors Weight awarded with successful completion of Capstone Project)

1.0 Credit Humanities, Technologies, & Arts Grades: 11, 12 HAC Access

3.0 Credit DCCC credit awarded for completion with a grade of 70% or higher.

This course provides an introduction to the study of the design of the natural world and interactions between humans and their environment. It includes an investigation of the impact of human activities on biodiversity, natural resources, availability of energy, and contamination of the environment. The scientific, economic, and social issues that contribute to environmental problems are also examined. Sustainability principles, policies, and programs are explored on the local, national and global level. This course is designed for non-science majors.
The Springfield High School Mathematics department offers programs that will provide students with mathematics courses appropriate to their future goals. From Algebra I to Advanced Placement (AP) Calculus, the mathematics curriculum has offerings to meet each student's specific needs. All courses are designed to prepare students to use mathematics effectively in today's world. The critical skills of problem-solving, logical reasoning and decision-making are incorporated and developed in all courses. Recognizing the importance of technology in today's world, the department emphasizes the use of technology in all courses to enable students to develop superior skills in this area.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Grade Levels</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH 411</td>
<td>Algebra I /College Preparatory</td>
<td>1.0</td>
<td>9</td>
<td>Successful completion of Math at ETR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Students not completing Math at ETR to a satisfactory level may be required to take a math support class in conjunction with Algebra II.</td>
</tr>
</tbody>
</table>

The goal of this course is to develop algebraic skills and concepts and to enhance problem solving ability that every student needs to succeed in college, technical school, or the working world. A secure foundation in basic mathematical skills, fractions, and decimals is essential for success. Topics covered in this course include: number theory, polynomial expressions and equations, products and factors of polynomials, coordinate graphing, graphing linear equations, determining and analyzing the slope of lines, probability, and radical and rational expressions. Algebra skills and concepts needed to solve equations, inequalities and systems of equations will be developed. Algebraic problem-solving techniques will be employed to solve relevant applications. Graphing calculator technology will be introduced. All topics in this course will prepare students for successful completion of the Algebra I Keystone exam. A TI Graphing Calculator is recommended.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Grade Levels</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH 430</td>
<td>Hn Algebra II /Honors</td>
<td>1.0</td>
<td>9, 10</td>
<td>Teacher recommendation along with recommended standards of academic performance as follows:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Students at ETR:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>84% or higher in Geometry</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>96% or higher in Algebra I</td>
</tr>
</tbody>
</table>

The fast-paced nature of the honors level course relies on students possessing strong, independent work habits. In order to sharpen employability skills, students will have opportunities to collaborate with peers and present solutions to the class. Students will experience a fast paced, challenging investigation of many topics including transformations of linear, quadratic, and polynomial functions, modeling with linear, quadratic, polynomial, exponential, and logarithmic functions, solving linear and non-linear systems, operations with polynomial functions, exploring radical functions, working with sequences and series, and investigating probability including permutations and combinations. The Honors course will also include study of trigonometric ratios and functions. Graphing calculator technology will accompany...
students throughout the course. Topics will be covered in more depth than in the CP level course, 431. All topics covered in this course will prepare students for successful completion of the Algebra I Keystone exam.

<table>
<thead>
<tr>
<th>CH 431</th>
<th>Algebra II /College Preparatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Credit</td>
<td>Mathematics Credit</td>
</tr>
<tr>
<td>Grades: 09, 10</td>
<td></td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>Successful completion of High School level Algebra I.</td>
</tr>
<tr>
<td>Students at ETR:</td>
<td>&lt;83% in Geometry</td>
</tr>
<tr>
<td>84% to 95% in Algebra I</td>
<td></td>
</tr>
<tr>
<td>&lt;84% in Algebra I may be recommended to repeat Alg I in 9th Grade</td>
<td></td>
</tr>
</tbody>
</table>

Algebra II is a demanding course designed to challenge the student through a more thorough investigation of many topics, including transformations of linear, quadratic, and polynomial functions, modeling with linear, quadratic, polynomial, exponential, and logarithmic functions, solving linear and non-linear systems, operations with polynomial functions, exploring radical functions, working with sequences, and investigating probability. Graphing calculator technology will accompany students throughout the course. Graphing calculator technology is a course requirement. All topics covered in this course will prepare students for successful completion of the Algebra I Keystone exam.

<table>
<thead>
<tr>
<th>CH 420</th>
<th>Hn Geometry and Math Analysis – New Course Title and Revised Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Credit</td>
<td>Mathematics credit</td>
</tr>
<tr>
<td>Grades: 10, 11, 12</td>
<td></td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>Teacher recommendation along with recommended standards of academic performance as follows:</td>
</tr>
<tr>
<td>Grade of 84% or higher in 430</td>
<td></td>
</tr>
<tr>
<td>Grade of 94% or higher in 431(84% to 93% with teacher recommendation)</td>
<td></td>
</tr>
</tbody>
</table>

This course is recommended for those students who have completed Honors Algebra II or who have completed Algebra II in high school and are looking for a rigorous course. Students are expected to have a solid understanding of algebraic processes. This course provides a well-rounded mathematical experience that exposes students to a variety of rigorous topics across multiple disciplines. Among these, students will explore advanced quantitative concepts connected to algebraic and graphical representations, learn to describe the relationships between variables in linear, quadratic, and exponential models, and empower them to manipulate and analyze advanced mathematical expressions. A survey of data analysis follows including investigations of relationships between two variables, probability calculations, parameter estimation, measures of center, and scrutiny of data collection methods. The course culminates with a thorough investigation of Geometry - including, but not limited to properties of polygons, triangles, quadrilaterals, circles, perpendicular and parallel lines, bisectors, congruence transformations, similarity transformations, perimeters, areas, and volumes. Successful completion of the class will leave the students well prepared for advanced pre-calculus and/or statistics coursework.
### CH 421  Geometry and Math Analysis

**1.0 Credit**  
**Mathematics credit**  
**Grades: 10, 11, 12**  

**Prerequisite:**  
- Successful completion of 430 or 431  
- Students with <84% in 430 (H Alg II) will be recommended for 421

This course provides a well-rounded mathematical experience that exposes students to a variety of rigorous topics across multiple disciplines. Among these, students will explore advanced quantitative concepts connected to algebraic and graphical representations, learn to describe the relationships between variables in linear, quadratic, and exponential models, and empower them to manipulate and analyze advanced mathematical expressions. A survey of data analysis follows including investigations of relationships between two variables, probability calculations, parameter estimation, measures of center, and scrutiny of data collection methods. The course culminates with a thorough investigation of Geometry - including, but not limited to properties of polygons, triangles, quadrilaterals, circles, perpendicular and parallel lines, bisectors, congruence transformations, similarity transformations, perimeters, areas, and volumes. Successful completion of the class will leave the students well prepared for advanced pre-calculus and/or statistics coursework.

### CH 442  Hn Differential Calculus

**1.0 Credit**  
**Mathematics Credit**  
**Grades: 11, 12**  

**HAC Access**  

**Prerequisite:**  
- Teacher recommendation and consultation with teacher and counselor: Grade within the 84% to 93% in Honors Pre-Calculus

This course is recommended for those students who have completed Honors Pre-Calc who seek exposure to calculus in a non-AP environment. In this course students will continue their daily experience with graphing calculator technology. Class time will be split between an initial deep review of Pre-Calculus topics and an introduction to Differential Calculus concepts. Pre-Calculus review topics will include: polynomials, the Fundamental Theorem of Algebra, imaginary numbers, polar coordinates, unit circle trigonometry and trigonometric identities, and proofs with trigonometric identities. Calculus topics will include limits and continuity, derivatives, applications of derivatives, chain rule, and mean value theorem.

### CH 445  Hn Probability and Statistics/College Prep

**1.0 credit**  
**Mathematics Credit**  
**Grades: 11, 12**  

**HAC Access**  

**Prerequisite:**  
- Teacher recommendation along with recommended standards of academic performance as follows:  
  - Students in Grade 10 or 11 completing CP or H Geometry:  
    - < 74% in CP Geometry  
    - < 84% in Honors Geometry  
  - Students in Grade 10 or 11 completing CP or H Pre-Calculus.  
    - < 74% in CP Pre-Calculus  
    - < 84% in Honors Pre-Calculus

This course is designed to meet the mathematical and research needs of students who plan to enter such fields as economics, business, education, psychology, sociology, biology and medicine, as well as science and mathematics. It is considered excellent preparation for usual college courses offered in these fields. The topics covered in the course...
include measurement scales, sampling techniques, study design, measures of center and dispersion, probability, estimation of confidence intervals, normal, binomial, geometric, and Poisson distributions, sampling distributions, hypothesis testing, linear regression, chi-square tests of independence and goodness of fit, one-way analysis of variance, and tests of homogeneity of variance.

### CH 458 Hn Pre-Calculus/ Honors

<table>
<thead>
<tr>
<th>Credit</th>
<th>Mathematics Credit</th>
<th>Grades: 10, 11, 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Teacher recommendation along with recommended standards of academic performance as follows:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grade of 84% or higher in Honors Algebra II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grade of 94% or higher in CP Algebra II, AND</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grade of 84% or higher in Honors Geometry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grade of 94% or higher in CP Geometry</td>
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</tr>
</tbody>
</table>

**NOTE:** Students entering Honors Pre-Calculus from CP Geometry and/or CP Algebra II will be required to meet with the Honors Pre-Calculus teacher and complete summer work before enrolling in the class.

This course is recommended for mathematics students who have completed Honors Algebra II and Honors Geometry. In this course students will have daily experience with graphing calculator technology in the investigation of such topics as functions and models, trigonometric functions and their inverses, trigonometric identities, explicit and recursive formulas of sequences, Pascal’s Triangle and the Binomial Theorem, ellipses and hyperbolas, and the logic of solving inequalities.

Due to the nature of this Honors course, in-depth discussions, proofs, and extension of certain topics and additional projects and/or assignments will be evident throughout the course. Upon successful completion of this course, students will be prepared to take AP Calculus.

### CH 459 Pre-Calculus/College Prep

<table>
<thead>
<tr>
<th>Credit</th>
<th>Mathematics Credit</th>
<th>Grades: 10, 11, 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Teacher recommendation along with recommended standards of academic performance as follows:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grade of 74% or higher in CP Geometry</td>
<td></td>
</tr>
</tbody>
</table>

This course is recommended for those math students who have completed CP Algebra II and CP Geometry. In this course students will have daily experience with graphing calculator technology in the investigation of such topics as functions and models, trigonometric functions and their inverses, trigonometric identities, explicit and recursive formulas for sequences, Pascal’s Triangle and the Binomial Theorem, and the logic of solving inequalities.
Mathematics – Advanced Placement Course Offerings

CH 450 Advanced Placement Statistics
1.0 Credit  Mathematics Credit  Grades: 11, 12  HAC Access
Prerequisite: Teacher recommendation along with recommended standards of academic performance as follows:
84% or higher in Honors Mathematics classes in grades 9-11
94% or higher in CP Mathematics classes in grades 9-11

This is a rigorous, time-consuming, advanced placement course, which introduces the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The topics for AP Statistics are divided into four major themes: exploratory analysis, planning a study, probability, and statistical inference. This course follows the AP curriculum. Students engaged in the college admission process should understand that prospective colleges want to see high school students enrolled in AP mathematics courses as evidence that the student is taking a challenging, rigorous course load.

CH 460 Advanced Placement Calculus AB
1.0 Credit  Mathematics Credit  Grades: 11, 12
Prerequisite: Teacher recommendation along with recommended standards of academic performance as follows:
Grade of 84% or higher in 442 of 458

This rigorous advanced placement course follows the College Board Advanced Placement (AP) Curriculum Framework.

Big Idea 1  Enduring understanding
Limits  The concept of a limit can be used to understand the behavior of functions.

Big Idea 2  Enduring understanding
Derivatives  The derivative of a function is defined as the limit of a difference quotient and can be determined using a variety of strategies. A function’s derivative, which itself is a function, can be used to understand the behavior of the function. The derivative has multiple interpretations and applications including those that involve instantaneous rates of change. The Mean Value Theorem connects the behavior of a differentiable function over an interval to the behavior of the derivative of that function at a point on the interval.

Big Idea 3  Enduring understanding
Integrals and the Fundamental Theorem of Calculus

Anti-differentiation is the inverse process of differentiation. The definite integral of a function over an interval is the limit of a Riemann sum over that interval and can be calculated using a variety of strategies. The Fundamental Theorem of Calculus, which has two distinct formulations, connects differentiation and integration. The definite integral of a function over an interval is a mathematical tool with many interpretations and applications involving accumulation. Anti-differentiation is an underlying concept involved in solving separable differential equations. Solving separable differential involves determining a function or relation given its rate of change.
Students engaged in the college admission process should understand that prospective colleges want to see high school students enrolled in AP mathematics courses as evidence that the student is taking a challenging, rigorous course load.

**CH 461 Advanced Placement Calculus BC**

<table>
<thead>
<tr>
<th>1.0 Credit</th>
<th>Mathematics Credit</th>
<th>Grades: 11, 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite:</td>
<td>Teacher recommendation along with recommended standards of academic performance as follows:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grade of 94% or higher in 442 or 458</td>
<td></td>
</tr>
</tbody>
</table>

This rigorous advanced placement course follows the College Board Advanced Placement (AP) Curriculum Framework.

**Big Idea 1**  
**Enduring understanding**

*Limits*  
The concept of a limit can be used to understand the behavior of functions.

**Big Idea 2**  
**Enduring understanding**

*Derivatives*  
The derivative of a function is defined as the limit of a difference quotient and can be determined using a variety of strategies. A function’s derivative, which itself is a function, can be used to understand the behavior of the function. The derivative has multiple interpretations and applications including those that involve instantaneous rates of change. The Mean Value Theorem connects the behavior of a differentiable function over an interval to the behavior of the derivative of that function at a point on the interval.

**Big Idea 3**  
**Enduring understanding**

*Integrals and the Fundamental Theorem of Calculus*

Anti-differentiation is the inverse process of differentiation.

**CHE 995 AP Seminar – Advanced Placement Seminar**  
(found in Miscellaneous Department in HAC)

| 1.0 credit | Humanities, Technologies, & Arts | Grades: 10, 11 | HAC Access |

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research-based written essays, and design and deliver oral and visual presentations, both individually and as a part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision to craft and communicate evidence-based arguments. AP Seminar is an interdisciplinary course; students may focus their research on topics of their choosing. **NOTE WELL:** AP Seminar is the first course in the AP Capstone™ program. More information about AP Capstone™ can be found at [https://apcentral.collegeboard.org/courses/ap-capstone?course=ap-capstone-diploma-program](https://apcentral.collegeboard.org/courses/ap-capstone?course=ap-capstone-diploma-program)
The need for all learners to become competent in their ability to communicate with people of other countries is increasingly apparent due to instantaneous worldwide communication networks and an economy that is globally interconnected. Proficiency in languages other than one’s own is a definite asset to the workplace, and for personal enrichment, especially when traveling. The World Language Department offers first and second level courses in Spanish, German, American Sign Language, along with higher levels of Spanish and German. Latin is offered as a one level elective course. With each additional year of study, students improve their linguistic fluency and grammatical accuracy, and continue to gain insight into the culture and literature of the language they are studying.

**CH 521 Spanish I**

1.0 Credit

World Language

Grades: 9, 10, 11, 12

HAC Access

The purpose of this course is to begin to develop fundamental speaking, listening comprehension, reading, and writing skills. Students will gain a knowledge of and sensitivity towards the culture of the Spanish-speaking peoples of the world. Activities in this course will help the student master basic vocabulary, use questions and answers, develop listening comprehension skills, read elementary selections, and study the customs of Spanish-speaking countries. Audio selections, videos, and on-line resources will aid in furthering competency. Spanish I is intended for students who have never taken Spanish or for those who have had a minimal exposure. Students successfully completing the ETR Spanish I program should enroll in Spanish II.

**CH 522 Spanish II**

1.0 Credit

World Language

Grades: 9, 10, 11

HAC Access

Prerequisite: Successful completion of 521

This course is intended for students who have successfully completed Spanish I. In order to continue the development of basic speaking, listening, reading, and writing skills, students will learn to use the vocabulary appropriate to their level in meaningful spoken and written sentences and brief conversations. Through the reading of a short novel and cultural readings from the textbook, discussions, and projects, students will be better able to understand some of the cultural aspects of the various Spanish-speaking peoples. On-line resources, videos, and an audio program are integral parts of this course.

**CH 523 Spanish III**

1.0 Credit

World Language

Grades: 10, 11, 12

HAC Access

Prerequisite: Successful completion of 522

The purpose of this course is to enable Spanish students to increase proficiency in conversation and writing. A continued development of fundamental vocabulary, listening comprehension, reading, and writing skills will be stressed. Students will read short stories and cultural selections in Spanish. Special projects will be assigned to promote speaking and writing proficiency. On-line resources and an audio program are integral parts of the course.
CH 525  Honors Spanish IV
1.0 Credit  World Language  Grades: 11, 12  HAC Access
Prerequisite:  Completion of 523 and a grade of 84% or better are recommended

In this course students will work on continuing to develop advanced listening, reading, speaking, and writing skills, with an emphasis on both oral and written communication skills. Gaining fluency in the language using cultural readings, situational vocabulary, and more advanced structures will continue to be the primary focus of the course. Students will create multi-media projects and write extensively. A variety of teaching techniques and materials will be used, on-line resources, audio recordings, and video resources will aid in furthering competency in listening comprehension, speaking and cultural awareness.

CH 526  Advanced Placement Spanish Language
1.0 Credit  World Language  Grades: 12  HAC Access
Prerequisite:  Grade of 84% or higher in 525

The Advanced Placement Spanish course is an intensive course of instruction that follows the AP Spanish Language curriculum and continues to develop all four communication skills. Using vocabulary enrichment, varied reading materials, and discussion on a variety of topics, students will be able to communicate more effectively in written and spoken Spanish. Audio and video tapes, as well as on-line resources will aid in furthering competency in listening comprehension, speaking, and cultural awareness. Students must take the Advanced Placement Exam to earn the AP grade weight.

CH 532  German II
1.0 Credit  World Language  Grades: 10, 11  HAC Access
Prerequisite:  Successful completion of 531

Students will continue to develop their communicative proficiency through storytelling, role-playing, readings, and interacting with the teacher and their classmates, as well as through use of a strongly integrated audio, video, and software program. Grammar and vocabulary will be expanded as students cover topics such as giving directions, shopping for gifts, talking about past vacations, and food and physical activities as they relate to health. Students will exchange letters with e-pals in German speaking countries to expand their understanding of the culture more personally.

CH 533  German III
1.0 Credit  World Language  Grades: 10, 11, 12  HAC Access
Prerequisite:  Successful completion of 532

*It is strongly recommended that German II was completed with a minimum grade of 84% to be successful in this course.*

Students will continue to develop their communicative proficiency through storytelling, role-playing, and interacting with the teacher and their classmates, as well as through use of a strongly integrated audio, video, and software program. Emphasis will be placed on practicing real-life situations one might encounter on a trip to a German speaking
nation. Students will read traditional folk and fairy tales, as well as more contemporary stories. An additional video series will help students hone their listening and speaking skills, and gain an ever-growing awareness of the culture and customs of the people.

**CH 534  German IV**

1.0 Credit  World Language  Grades: 11, 12  HAC Access

Prerequisite: Successful completion of 533

*It is strongly recommended that German III was completed with a minimum grade of 84% to be successful in this course.*

**CH 561  Latin**

1.0 Credit  World Language  Grades: 10, 11, 12  HAC Access

This course is intended to introduce the students to the structure and syntax of the Latin language, and to examine the parallels between Latin and English syntax, structure, and vocabulary. This course will enable students to translate and compose introductory Latin. Students will be guided through the reading of elementary passages, as well as in the preparation of projects. Latin is the foundational language of the sciences, medicine and law; students pursuing these fields after high school should consider Latin a prerequisite. This course will also benefit students taking the SAT and ACT.

**CH 570  American Sign Language I**

1.0 Credit  World Language  Grades: 09, 10, 11  HAC Access

The purpose of this course is to begin to develop basic ASL skills. Students are taught basic grammar, vocabulary, fingerspelling, numbers and cultural information related to the Deaf Community. Videos and on-line resources will aid in furthering competency. ASL 1 is intended for students who have never taken ASL or for those who had a minimal exposure.

**CH 572  American Sign Language II**

1.0 Credit  World Language  Grades: 10, 11, 12  HAC Access

This course is designed as a continuation course for students who successfully completed ASL 1 and is designed to continue development of ASL expressive and receptive skills, grammar, vocabulary, fingerspelling, cultural awareness and related terminology. Videos and on-line resources will aid in furthering competency. Prerequisite: ASL 1
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Academic Area</th>
<th>Grades</th>
<th>Access</th>
<th>Lab Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>601</td>
<td>Fundamentals of Foods and Nutrition</td>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>9, 10, 11</td>
<td>HAC Access</td>
<td>$25</td>
</tr>
</tbody>
</table>

This course introduces students to the art and science of cooking. Students will learn how to prepare foods focusing on the areas of dairy, vegetable, meats and grains as well as foods from many different cultures. Students will also be participating in the original recipe competition at Celebration of the Arts. The final exam will help focus on how current food choices will affect their health today as well as in the future. Students can explore careers in the foods and nutrition industry.

<table>
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<tr>
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<th>Access</th>
<th>Lab Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>602</td>
<td>Focus on Foods and Nutrition</td>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>10, 11, 12</td>
<td>HAC Access</td>
<td>$25</td>
</tr>
</tbody>
</table>

In this course, students use up-to-date technologies such as the food processor, microwave and convection oven to prepare both familiar and new dishes. Culinary principles will be applied to foods including eggs, chicken and Fruit. Students will prepare traditional and interesting foods such as chicken parmesan, Hungarian goulash and baked Alaska. Using sophisticated diet analysis software, students will evaluate numerous foods as well as their overall nutritional health. Students can explore careers in the foods and nutrition industry.

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<th>Academic Area</th>
<th>Grades</th>
<th>Access</th>
<th>Lab Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>603</td>
<td>Advanced Food Preparation</td>
<td>1.0</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>11, 12</td>
<td>HAC Access</td>
<td>$35</td>
</tr>
</tbody>
</table>

Prerequisite: Successful completion of 601 or 602

Advanced Food Preparation is for any student who wants to learn the tricks involved in making even a simple meal look exciting and complicated. This course includes the study of advanced cooking techniques used in the preparation of such foods as soups, sauces, gingerbread houses and much more. Home cooking projects utilize complex diet analysis software to aid in meal planning. Regional cuisines including French, Italian, Chinese, and American will be examined in detail. Test your skills by designing and creating a piece of edible art for the cake decorating competition at Celebration of the Arts.

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<tr>
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<th>Grades</th>
<th>Access</th>
<th>Lab Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>605A</td>
<td>The Science of Food through the Lifespan</td>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>10, 11, 12</td>
<td>HAC Access</td>
<td>$35</td>
</tr>
</tbody>
</table>

Prerequisite: Successful completion of 601 or 602

Travel your life span on culinary terms. How should you eat to maintain a healthy body? What foods should be consumed or avoided during pregnancy? What foods help an infant thrive? How do you feed yourself well when you are...
on very tight budget? How do nutritional needs change as we age? Learn the answers to these questions as well as many others such as the science behind candy making and how our environment affects our food needs and choices.

**611 Interior Design**

| 0.5 credit | Humanities, Technologies, & Arts | Grades: 10, 11, 12 | HAC Access |

In this course students will study the elements of interior design and learn how to use them in various living environments. Students will design floor plans and analyze room usage and traffic patterns to determine the best ways to utilize the space and furnishings. Color schemes as well as both personal experimentation and computer will examine furniture styles, selection and placement. Major projects include a personal home improvement project and a dream room design and presentation board.

**620 Child Development**

| 0.5 credit | Humanities, Technologies, & Arts | Grades: 9, 10, 11 | HAC Access |

This course deals with the development of a child and the issues s/he may face as they grow up. The influence of the family and the impact of the way basic needs are met early in life are examined. Differences between boys and girls will be observed and analyzed as well as each facet of how a child development. Developmental milestones (skills/abilities that should be achieved by a certain age) will be identified and discussed. Special relevant issues such as pregnancy, labor and childbirth, the impact of technology and the building of good self-esteem will be examined. This is a valuable course for those interested in career areas such as early childhood/elementary or secondary education, special education, day care supervision, social work, child psychology, pediatric medicine and parenting.

**625 Methods of Teaching: Elementary and Secondary Education**

| 0.5 credit | Humanities, Technologies, & Arts | Grades: 10, 11, 12 | HAC Access |

**Prerequisite:** Successful completion of Child Development is beneficial but not required.

This course is designed for students who are considering a career in teaching or early childhood education, or simply want to learn more about the field of education. The course content will explore various aspects of teaching including lesson design elements, an overview of learning style differences and learning disabilities, learning differences between age groups and grade levels, establishing a positive learning environment, and instructional strategies including the use of technology. Students will have the opportunity to design and create hands-on projects and lessons to teach specific concepts. The course will cover Pre-K through Grade 12 teaching methods mainly focusing on elementary age children to equip students with various skill sets to serve as teaching assistants in elementary classrooms or Pre-K programs.
Life on your own will be the focus of this course. Managing your own checkbook, establishing good credit, determining costs for major life events (wedding, buying a house, having a baby) will all be examined as well as learning to handle paying monthly bills while balancing personal and family life. The psychology of relationships and higher-level communication skills are the focus while integrating all parts of financial matters during the life cycle. Practical, hands-on methods are applied for successful learning. Research strategies are developed and curriculum directed projects are worked on in cooperative groups.

This course is strongly recommended for all freshmen. The design of this course is to introduce students to the fundamentals of communication and the psychology of relationships. The emphasis is on verbal and nonverbal communication and relationship intelligence. Several practical exercises in public speaking will provide the students with oratorical experience needed in post-secondary education and the world of work. The essential elements of this course revolve around *The 7 Habits of Highly Effective Teens*. The students will investigate a career path, write a resume, practice interviewing techniques, and learn fundamental relationship skills to better communicate with family, teachers, peers, bosses, and coworkers. These components are designed to meet the individual needs of all students as they pursue their high school education.

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**CHE 640  Personal Finance**

| 0.5 credit | Humanities, Technologies, & Arts | Grades: 10, 11, 12 | HAC Access |

*This course fulfills the Personal Finance or Money Management requirement.*

**641 Core Communication and Future Planning Skills**

| 0.5 credit | Humanities, Technologies, & Arts |

This course is strongly recommended for all freshmen. The design of this course is to introduce students to the fundamentals of communication and the psychology of relationships. The emphasis is on verbal and nonverbal communication and relationship intelligence. Several practical exercises in public speaking will provide the students with oratorical experience needed in post-secondary education and the world of work. The essential elements of this course revolve around *The 7 Habits of Highly Effective Teens*. The students will investigate a career path, write a resume, practice interviewing techniques, and learn fundamental relationship skills to better communicate with family, teachers, peers, bosses, and coworkers. These components are designed to meet the individual needs of all students as they pursue their high school education.
The Business and Administrative Technology Department at Springfield High School is designed to provide students the option of becoming involved in specific aspects of the business and technology world that parallels their personal and career interests. Students can develop the knowledge and skills needed to succeed in business and to function more efficiently in the technologically driven 21st Century. The program develops lifelong learning skills that foster flexible career paths and confidence in adapting to a workplace that demands constant retooling.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
<th>Department</th>
<th>Grade(s)</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>630</td>
<td>Introduction to Web Design</td>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>9, 10</td>
<td>HAC Access</td>
</tr>
</tbody>
</table>

This course assumes no previous experience in web design. Students learn to identify the components and characteristics of high-quality sites and how to create them. The class covers file structure and organization, basic graphic editing as well as color and design strategies. We also explore some creative and fun features including Flash animation, sound and interaction. The class culminates with the creation of an all-inclusive web site displaying all their work in this class.

<table>
<thead>
<tr>
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<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 631</td>
<td>Web Design II</td>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>10, 11, 12</td>
<td>HAC Access</td>
</tr>
</tbody>
</table>

Prerequisite: Successful completion of 630

Web Design 2 takes students to the next level in web design. Students can explore their different areas of interest and develop skills in those areas. While the first few classes are review and refresher exercises, we then move onto lessons on problem solving, team building and design. Later lessons are specific to the group's interests. Some topics you might want to explore include: editing HTML5 code, Dreamweaver, CSS, Flash websites, Flash animation, Flash Games and debugging JavaScripts.

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>650</td>
<td>Elements of Graphic Design (this course replaces Photoshop I and Graphic Arts I)</td>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>9, 10, 11</td>
<td>HAC Access</td>
</tr>
</tbody>
</table>

This course explores graphic communication through the understanding of the elements and principles of design as well as the design process from idea development through the final execution of a document. Professionals use the concepts explored in this course in the following commercial based disciplines: advertising, graphic design, web design, illustration, broadcast design, photography and game design and many others. Software training includes use of Adobe Illustrator and Photoshop.
Applications of Graphic Design (this course replaces Photoshop II and Graphic Arts II)

<table>
<thead>
<tr>
<th>651</th>
<th>Applications of Graphic Design (this course replaces Photoshop II and Graphic Arts II)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.5 credit Humanities, Technologies, &amp; Arts Grades: 10, 11, 12 HAC Access</td>
</tr>
<tr>
<td>Prerequisite: Teacher recommendation or approval based on prior course experience. Interested students should first inform their guidance counselor.</td>
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</tr>
</tbody>
</table>

This course effectively pairs the basics of graphic design with real world projects and applications. Through a project-based production approach, students learn to research and analyze all components of the design process and set the stage for independent design projects. Students are exposed to more advanced digital techniques using Adobe Illustrator and Photoshop including but not limited to: image manipulation through masking and layers, multiple selection methods, saving and exporting, scanning, retouching, pen tool, and cutting-edge techniques used in industry today.

Computer Applications

<table>
<thead>
<tr>
<th>904A</th>
<th>Computer Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 credit Humanities, Technologies, &amp; Arts Grades: 9, 10 HAC Access</td>
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</tbody>
</table>

Computer Applications is designed to develop microcomputer skills using Microsoft Office applications. Software programs covered in the course include word processing, database development, spreadsheets, and presentation development. Specifically, students can apply their skills to school assignments for their academic courses in Microsoft Office Word, Excel, PowerPoint, and Access.

Fundamentals of Programming

<table>
<thead>
<tr>
<th>945</th>
<th>Fundamentals of Programming</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 credit Humanities, Technologies, &amp; Arts Grades: 10, 11 HAC Access</td>
<td></td>
</tr>
<tr>
<td>Prerequisite: Eligible students will have demonstrated standards of academic performance as follows: &gt;94% in CP Algebra II &gt;84% in Hn Algebra II</td>
<td></td>
</tr>
</tbody>
</table>

This course is designed to build foundational skills in programming to prepare students for AP Computer Science A. Students will learn to design and implement computer programs that solve relevant, real-world problems. This course will emphasize problem-solving and the development of algorithms. The use of hands-on experiences and examples for students to apply programming tools and solve complex problems will be utilized as students learn Java programming language.

Emerging Technologies/Tech Support

<table>
<thead>
<tr>
<th>951</th>
<th>Emerging Technologies/Tech Support</th>
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<tbody>
<tr>
<td>0.5 credit Humanities, Technologies, &amp; Arts Grades: 10, 11, 12 HAC Access</td>
<td></td>
</tr>
<tr>
<td>Prerequisite: Students will indicate interest through HAC and teacher will grant final approval.</td>
<td></td>
</tr>
</tbody>
</table>

This class is for those individuals who have a serious interest in computers and technology and are considering a career in IT. This class will focus on troubleshooting hardware/software issues throughout the building while working in conjunction with the High School and District Tech Departments. When students are not troubleshooting or assisting others in the building, they will have an opportunity to complete self-guided certification programs (Google, Cisco, Microsoft, etc.).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Department</th>
<th>Grade Levels</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 955A</td>
<td>Introduction to Business</td>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>Grades: 10, 11</td>
<td>HAC Access</td>
</tr>
</tbody>
</table>

This course introduces students to the world of business: how they are planned, organized, created, and make or lose money in our economic system. Students learn about the different fields of study within business and the career opportunities that exist in each field. In addition to the textbook, students discuss real business issues and current events directly related to business the economy and consumers.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Department</th>
<th>Grade Levels</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 956</td>
<td>Marketing</td>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>Grades: 11, 12</td>
<td>HAC Access</td>
</tr>
</tbody>
</table>

This course presents marketing as a set of skills and knowledge combined with economics, finance, and career planning to create strategic plans. Students learn the foundations and functions needed to successfully market goods, services, and ideas to consumers. Professional development, customer service, and technology are presented as keys to students' success. While students study business, economics, selling, human relations, communications, distribution, promotion, product planning, and pricing, they also see marketing as a career choice. Marketing is recommended for students considering a university major in Business Administration, Marketing and Communications.

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Grade Levels</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 958A</td>
<td>Money Management</td>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>Grades: 10, 11, 12</td>
<td>HAC Access</td>
</tr>
</tbody>
</table>

Students will discover how career choices affect future income. They will explore income sources as well as purchasing power. They will manage money by using a checking account and keeping good financial records. Students will create a financial plan and review the steps of an effective buying plan. They will look at sources, benefits, and costs of credit. At the completion of the course, students should be able to make wise financial choices. **This course fulfills the Personal Finance & Money Management credit requirement.**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
<th>Department</th>
<th>Grade Levels</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 963</td>
<td>Accounting I</td>
<td>1.0</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>Grades: 10, 11, 12</td>
<td>HAC Access</td>
</tr>
</tbody>
</table>

Students will learn to maintain financial records using basic accounting procedures. Included is instruction in the full accounting cycle of a sole proprietorship, as well as a corporation, with the significance of accounting on management decisions. Students will explore accounting as a career and adapt accounting procedures to personal finances. Accounting is recommended for those who are considering a university major in business or accounting. **This course fulfills the Personal Finance & Money Management credit requirement.**

<table>
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<tr>
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<th>Credits</th>
<th>Department</th>
<th>Grade Levels</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 964</td>
<td>Honors Accounting II</td>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>Grades: 11, 12</td>
<td>HAC Access</td>
</tr>
</tbody>
</table>

Prerequisite: Successful completion of 963
This course offers proficiency in basic and complex accounting procedures for corporations. Principles of a merchandising business and corporation structures will be approached realistically. This course is designed for students who hope to own a business or follow a career in accounting.

**CHE 965  Honors Business II**

0.5 credit  Humanities, Technologies, & Arts  Grades: 11, 12  HAC Access

This course continues our exploration of business; different fields of study within business and careers possible for young people with an understanding of business. In addition to the textbook, students discuss real business issues and current events directly related to business the economy and consumers. To add a little more fun to the class, students buy and sell stocks in the online Simulated Stock Market game where the winners walk away with small prizes and big bragging rights.

<table>
<thead>
<tr>
<th>SHS Course #</th>
<th>990</th>
<th>Fundamentals of Game Design</th>
<th>HAC Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCCC Course #</td>
<td>DPR 117</td>
<td>Fundamental of Game Design Theory and Practice</td>
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</table>

**SHS Course # 990  Fundamentals of Game Design**

This course introduces students to the theory and practical aspects of the computer game development process. Students brainstorm a game idea, establish focus, determine the storytelling mode, and document the design. Upon successful completion of this course, students should be able to: demonstrate understanding of the vocabulary of game design theory and practice, identify the techniques of top game designers, analyze and identify the elements that make successful games, and apply the computer game development process to create a design document.

| CHE 983  Advanced Placement Computer Science Principles (CSP) |
|-----------|---------------------------------------------------|
| 1.0 credit  Humanities, Technologies & Arts  Grades: 10, 11, 12  HAC Access |

Prerequisite: Eligible students will have demonstrated standards of academic performance as follows:

- >84% in CP Algebra II
- >74% in Hn Algebra II

Computer Science Principles is a course that exposes students to the core concepts of computer science. Students will gain a broad base of knowledge and skill from a framework encompassing the big ideas of computing; creativity, abstraction, data and information, algorithms, programming, the internet, and global impact. Students also learn computer programming with an emphasis on problem-solving and logic development using computational tools in data analysis. Most projects are open-ended and students will be working individually and collaboratively in pairs. Students create projects requiring written reflection reports and narration of design specification.
From the oldest cave paintings made thousands of years ago to the technologically advanced Information Age in which we currently reside, we see evidence of humans working to develop new, more sophisticated, and broader means of communication. This course will provide students with an overview of the wide range of mass communications methods used in modern society. They will examine the history and evolution of mass communication. In addition, the students will explore the current and future career paths in the field of mass communication. Students in this course will research the various forms and functions of mass communication, sample and critique content from each of those formats, discuss and evaluate the role and impact media has on our society, and will map various career paths in the field of mass communication. Students will learn how to become more discerning consumers of media, practice safe and responsible digital citizenship, and have a better understanding of how to produce and distribute their own content. This class would be beneficial for students who have a general interest in media and communications, but want to gain a deeper understanding of the various opportunities in the field so they can make more informed decisions regarding their future academic and career plans.

This course is the recommended entry-level video production course. It will cover the fundamentals of video production and will work in both the studio/multi-camera format, as well as the film-style/single-camera format. Students will develop the skills needed to function in all aspects of the Production Cycle, and will learn how to produce live multi-camera segments, as well as how to use Adobe Premiere Pro for non-linear video editing. Over the course of the semester, students will work in large and small groups to produce a series of videos. As their skills develop, some projects may be produced for broadcast on our morning announcement programs or SETV.

Much of today's video production equipment is portable; therefore, many productions are shot on location. The course teaches students to create videos that are shot on location and edited in the studio. Emphasis is placed on the writing of treatments, scripts, and storyboards, single camera shooting, and non-linear editing techniques. Students will work in small teams and produce a series of videos including (but not limited to) a stop-motion animation, a Public Service Announcement, a music video, and a short film. Students who have taken this class will have the opportunity to participate in the recording and broadcast of special televised events such as COTA and the Dance Marathon.

*** Students will need to provide their own 16GB or 32GB card. More details will be provided through the course syllabus.
### 773 Broadcast Journalism

<table>
<thead>
<tr>
<th>Credit</th>
<th>Department</th>
<th>Grade</th>
<th>Prerequisite</th>
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<tbody>
<tr>
<td>1.0</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>11</td>
<td>Successful completion of 770, 771, or 744 AND teacher recommendation.</td>
</tr>
</tbody>
</table>

In Broadcast Journalism, students will be taught the skills of story selection, news writing and delivery, along with basic and advanced TV Production skills. The class will produce both daily announcements (The Cougar Pause), and a monthly thematic news magazine program (The Growl) for the high school delivered via the web. In addition, students will produce a series of news reports on various subjects that will be shown in the high school, and on SETv. Students in this class will be assigned a specific job or leadership role based on their abilities and experience, and will treat their time in the class like a work day in a television news studio. Students who have taken this class will have the opportunity to participate in the recording and broadcast of special televised events such as COTA and the Dance Marathon.

*** Students will need to provide their own 16GB or 32GB card. More details will be provided through the course syllabus. ***

### 776 Documentary Video Production

<table>
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<tr>
<th>Credit</th>
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<th>Grades</th>
<th>Prerequisite</th>
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</thead>
<tbody>
<tr>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>10, 11, 12</td>
<td>Successful completion of 770 or 771 or 773</td>
</tr>
</tbody>
</table>

Documentary Video Production is an advanced-level video production course that allows students to work individually on three documentary videos of increasing length. The choice of subject matter is completely the prerogative of the student. Students will work through the entire process of developing an idea, doing research, collecting interviews, storyboarding, writing, shooting, and editing. All completed videos will be considered for broadcast on SETv, and eligible for available contests. This is a perfect class for a creative, tech-savvy student who wants the opportunity to work individually, and produce projects that could be used as a portfolio piece or demo reel in the future.

*** Students will need to provide their own 16GB or 32GB card. More details will be provided through the course syllabus. ***

### 778 Broadcast Journalism II

<table>
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<th>Prerequisite</th>
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</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>12</td>
<td>This course if for seniors and available only by Teacher Recommendation.</td>
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</tbody>
</table>

### 839 Presenting in a Tech Driven World

<table>
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<th>Credit</th>
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</tr>
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<tbody>
<tr>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>10, 11, 12</td>
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</table>

Advancements and innovations in technology and software applications are being integrated into presentations and public speaking to provide for a more robust and interactive experience for the audience and presenter alike. This course will introduce students to a variety of presentation platforms to complement the public speaking skills students will develop as they learn the language of communication, both verbal and nonverbal, when presenting to an audience. Students in this course will participate in a variety of speaking/presentation situations including informative, persuasive, and narrative while integrating technology to enhance the effectiveness of the presentation. Students will also evaluate presentations, express individual opinions, and work on presentation projects with peers.
Presentation technology such as: Adobe InDesign, Adobe Spark, AniMaker, Cute Cut, Cyberlink Power Director, iMovie, PowToons, and Prezi will be explored.

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<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>840</td>
<td>Acting Workshop</td>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>9, 10, 11</td>
<td>HAC Access</td>
</tr>
</tbody>
</table>

Students will develop self-confidence in this course, both as performers and as individuals. They will receive a general orientation to the Stanislavski "Method" of acting. Course activities include extensive work in improvisation, characterization, stage movement, monologues, and scene work. Class and teacher viewing of performances and class participation are included in the evaluation of students.

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</tr>
</thead>
<tbody>
<tr>
<td>843</td>
<td>Behind the Curtain: An Introduction to Technical Theater</td>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>9, 10, 11, 12</td>
<td>HAC Access</td>
</tr>
</tbody>
</table>

In this course, students will explore the backstage world of theater utilizing the technical equipment found in the high school theater. Students will participate in units of study focused on theatrical spaces, scenic design, beginning set construction, lighting design, costume design, sound design, prop design, and stage management. Assessment will consist of a combination of hands-on projects, design simulations, and traditional written assessments. No prior technical experience necessary.
The Industrial Materials program is described as “Creativity through Problem Solving.” Students have every opportunity to design and create amazing pieces of decorative and functional art from beautiful woods. Students will develop an appreciation for fine quality and attention to detail through their creations. Industrial Materials I is just the first of four levels that students can experience in the program – many families have a house full of beautiful furniture built entirely by hand from these courses. Take this first-level course to gain the expertise and hopefully have your creations published nationally as many students have already achieved. Design examples include detailed jewelry boxes, clocks, small pieces of furniture, or anything that your mind can create! Even if you have absolutely no experience, you should expect success and be prepared to take home pieces you will be extremely proud to display. Evaluation is based on safe lab procedures and work habits. Emphasis is placed on meeting individual needs, working safely, and preparing for “Celebration of the Arts” to showcase student work. Please view over 100 student creations at www.ssdcougars.org/webpage/gtroot and be amazed!

In Industrial Materials II, students will refine their problem-solving and creative skills practiced in Industrial Materials I and work on advanced techniques such as creating intricate moldings, carvings, or any design their minds can create as part of their artistic masterpiece. Students have virtually no limitations in their designs and can receive advanced instruction through open lab work sessions after school and in the evenings. Our students have designed nearly every piece of furniture imaginable over the past 28 years and have been featured in 33 national and international publications, as well as displayed at the Philadelphia Furniture Show. Projects include complete bedroom and dining room sets, pool tables, sideboards, armoires, pianos, harpsichords, Victorian desks, and even a Model –T truck. Course activities will require students to design and create a major piece of furniture...or more! Evaluation is based on lab procedures, safe work habits, and preparation for the “Celebration of the Arts” to showcase student work to the public. Please view over 100 student creations at www.ssdcougars.org/webpages/gtroot and be amazed! These advanced students are responsible for their chosen materials.

Industrial Materials III is designed to provide the opportunity for students who truly wish to make the most incredible artistic creations possible! View www.ssdcougars.org/webpages/gtroot highly motivated students may exceed 1.0 credits per year if their schedule permits. These advanced students are responsible for their chosen materials.
### 700 Principles of Engineering and Construction – Process and Design

0.5 credit  
**Humanities, Technologies, & Arts**  
**Grades:** 9, 10, 11, 12  
**HAC Access**

This course is designed for students interested in beginning or furthering their knowledge and skills in the areas of Engineering, Architecture and Robotics. The Engineering Design Process will help guide the project-based learning in our fully functioning design lab, giving students hands-on experience in each field. Creativity in design will be emphasized and students will be exposed to industry standard equipment and software like 3D printers, laser engraver, AutoCAD, Revit, Google SketchUp, 3D Modeling and Robotics. This course is the foundation for exploring and developing your technical skills.

### 710 Architectural Design

0.5 credit  
**Humanities, Technologies, & Arts**  
**Grades:** 10, 11, 12  
**HAC Access**

In this course, students will focus on Architectural and Engineering Design concepts. Students will 3D model their “Dream House” using Revit, AutoCAD and Google SketchUp to bring theory to reality, as students construct their ¼ inch scale balsa wood model. The use of industry standard software and equipment will allow students to build a home from the ground up. From the floor plan configurations, traffic flow patterns, electrical plans, all the way to elevation drawings, landscape design, site plans and renderings. Technical sketches will allow practice in measurement and accuracy of their drawings. Models and Technical Sketches will be put on display and judged at the annual Celebration of the Arts.

### 715 Engineering: Structural Design

0.5 Credit  
**Humanities, Technologies, & Arts**  
**Grades:** 9, 10, 11, 12  
**HAC Access**  
**Lab Fee:** $35

This course offers students opportunities to explore pre-engineering and design concepts. The Engineering Design Process, Design Challenges and Engineering Notebooks will aid students in documenting their work and developing many iterations of their designs, through both models and prototypes. The project-based curriculum will expose students to different fields of study in Engineering. Areas of study include technical drawing by hand and AutoCAD, 3D modeling/printing, structural bridge design, ergonomic designs and the ethics of the engineering profession. This class would be beneficial for students who have a general interest in engineering and want to gain a deeper understanding of the various opportunities in the field so they can make more informed decisions regarding their future academic and career plans.

### 716 Robotics

0.5 Credit  
**Humanities, Technologies, & Arts**  
**Grades:** 10, 11, 12  
**HAC Access**  
**Lab Fee:** $35

This course offers students opportunities to explore pre-engineering concepts in robotics. Using Lego Mindstormer EV3s and VEX Virtual Reality Robots, students will develop computational thinking skills and will transition from block coding to Python programming. Design briefs and challenges are used to describe real life situations and to provide an authentic learning experience. VEXcode VR and engaging robotics-based activities will be used to learn about project
flow, loops, conditionals, algorithms, and more. Learning coding will help students develop 21st-century job skills. Most of today’s professional math and science fields have a computational component. Additionally, skills such as the ability to analyze and solve unstructured problems and to work with new information are extremely valuable in today’s knowledge economy. This course will help students become creators, not just consumers, of technology.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Department</th>
<th>Grade Levels</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>801 Studio Art</td>
<td>Studio Art</td>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>Grades: 9, 10, 11</td>
<td>$10 Lab Fee</td>
</tr>
<tr>
<td>803 Drawing and Design</td>
<td>Drawing and Design</td>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>Grades: 10, 11, 12</td>
<td>$10 Lab Fee</td>
</tr>
<tr>
<td>805 Painting and Drawing</td>
<td>Painting and Drawing</td>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>Grades: 9, 10, 11</td>
<td>$10 Lab Fee</td>
</tr>
</tbody>
</table>
contemporary artists. Students are required to supply an artist’s sketchbook and are required to enter at least one piece of their artwork in the Celebration of the Arts exhibit.

811 Functional Ceramics
0.5 credit Humanities, Technologies, & Arts Grades: 9, 10, 11 HAC Access
Lab Fee: $20

Ever look around your home and notice all the functional objects made of clay? Plates, cups, mugs, pitchers, platters, vases, salt and pepper shakers, bowls... Ever wish you could learn to make pottery on the potter’s wheel? Here’s your chance to create some amazingly beautiful and functional pottery for your own use. Is it easy? Not always. Will you get dirty? Yes. Will it be worth all the effort and the dirt? Absolutely! You’ll have the opportunity to create original designs for your own functional pottery, while learning about contemporary ceramic artists and cultural artistic heritage. In this professional ceramic studio, you will learn a variety of hand building techniques and the potter’s wheel in a supportive community atmosphere. Digital portfolios are used to document your progress, processes and problem-solving strategies. All students are required to enter at least one piece in the Celebration of the Arts exhibit. **There is an $18 lab fee for this course.

813 Sculptural Ceramics
0.5 credit Humanities, Technologies, & Arts Grades: 9, 10, 11 HAC Access
Lab Fee: $20

At the core of this course are the basic questions of any artist: How does your sculpture reflect who you are, what you think and what you feel? As a sculptor, how do I communicate meaning? You will have the unique opportunity to explore the world of sculptural ceramics – by studying contemporary ceramic sculptors such as Victor Spinski, Beth Sylvia Hyman, John Brickels and Cristina Cordova. This project-based course links studio work and critiques to the exciting world of contemporary ceramic artists and their historic predecessors. Students will focus on meaning and symbolism in art as it relates to their artwork and to the artwork of professional artists; continually asking themselves how their in-class learning connects with their lives and to the larger world of art. Students will work in a professional ceramic studio and actively participate in this unique artistic community. The Internet is used as a research tool. Using a digital portfolio, students will document their progress and problem-solving strategies. Students are required to enter at least one piece in the Celebration of the Arts exhibit. **There is an $18 lab fee for this course.

815 Tile Making: Impression and Expression
0.5 credit Humanities, Technologies, & Arts Grades: 10, 11 HAC Access
Lab Fee: $20

A unique combination of drawing and ceramics, the tile artwork at Celebration of the Arts never fails to delight and inspire viewers. Students learn several techniques for creating tiles, including stamping, mold making, picture mosaics and traditional mosaics. All the phases of tile making, including creating an original design, working with clay, glazing, gluing and grouting, will be experienced firsthand. This exciting course focuses on personal expression as it is linked to contemporary art and artistic and cultural heritage – specifically Pennsylvania tile artists - and on participation in studio work and critiques. Students will work in a professional ceramic studio and actively participate in this unique artistic
community. The Internet is used as a research tool. Using a digital portfolio, students will document their progress and problem-solving strategies. Students are required to enter at least one piece in the Celebration of the Arts exhibit. **There is an $18 lab fee for this course.

### 817 Primitive Ceramics: Earth, Air, Fire and Water

<table>
<thead>
<tr>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>10, 11, 12</td>
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</table>

Lab Fee: $20

We go seriously old school in Primitive Ceramics. By experimenting with primitive techniques including: creating your own clay bodies (meaning we will walk to the creek and dig up and process our own clay), burnishing, smoke-firing, traditional and horsehair raku, and alternative finishes (we often use fire as a tool in this course). The results are often unpredictable and always beautiful. Focusing on independent research and design; students meet indigenous people’s both historic and contemporary and their hand-constructed ceramic techniques. Students will work in a professional ceramic studio and actively participate in this unique artistic community. The Internet is used as a research tool. Using a digital portfolio, students will document their progress and problem-solving strategies. Students are required to enter at least one piece in the Celebration of the Arts exhibit. **There is an $18 lab fee for this course.

### 819 Sculpture

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
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</table>

Lab Fee: $20

How often in your lifetime are you going to get the opportunity to carve stone?! Here’s your chance to take on an unusual challenge. This rigorous and exciting course provides the opportunity for students to explore the fine art of sculpture. Areas of study include sculptural aesthetics, history, contemporary art, criticism and production. Students will explore major principles, concepts, techniques, materials, and tools of the sculptor. While the main project in this course is a stone carving using alabaster or soapstone, we also use a variety of other materials such as plaster, Pariscraft, found objects, clay, paper and wood on smaller projects. In this project-based course, students do independent online research and create original designs for their sculptures. Students will work in a professional sculpture studio and actively participate in this unique artistic community. Using a digital portfolio, students will document their progress and problem-solving strategies. Students are required to enter at least one piece in the Celebration of the Arts exhibit. **There is an $18 lab fee for this course.

### 820 Digital Art & Animation (Replaces Digital Sketchbook and 734 Digital Painting & Illustration)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>0.5</td>
<td>Humanities, Technologies, &amp; Arts</td>
<td>11, 12</td>
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</table>

Lab Fee: $15

Drawing technology and digital art have changed drastically to fit the speed of the 21st century artist and this course will give students the opportunity and training needed to push their creative potential without limitations. Digital Sketchbook’s curriculum allows students the opportunity to create dynamic, thought provoking images using current professional tools such as the Wacom’s Mobile Studio Pro pen and touch interface, Autodesk’s Sketchbook Pro “user friendly” drawing and painting software, and Sketchup’s 3D modeling capabilities. Tools that will allow art to be created directly on a computer screen with speed and precision. Wacom and Sketchbook pro are considered the creative
industry's standard digital art software and hardware combination that is used by creative professionals around the world in 2D/3D animation studios, visual effects departments, comics, and photography. Companies such as Pixar, Disney, Ford, Blue Sky, Dreamworks, BMW, and countless other industries utilize these tools in some capacity. Students will draw, compose images correctly, explore animation techniques, manipulate perspective tools, create in a 3D space, develop narrative drawings such as comics and children’s book illustrations, and modify their own drawings instantly just as the leading professionals.

- Time management of deadlines, utilizing on screen note taking with Microsoft OneNote, creative problem solving, managing a digital workflow are also a dedicated part of the curriculum.

Resources:
https://www.sketchbook.com/?locale=en
https://www.sketchup.com/

824 Special Effects Photography
0.5 credit Humanities, Technologies, & Arts Grades: 10, 11, 12
Lab Fee: $25

Special Effects allows students to experiment with specialized photography techniques not taught in the Digital or Portrait Photography courses. Techniques such as; Bokeh, Double Exposure, Long Exposure, Composite, and High Dynamic Range photography. Students will have the opportunity to use Canon DSLR cameras with a variety of detachable lens at their disposal. Along with photographing with professional grade equipment students will work directly on screen with Wacom Mobile Studio Pro 13 tablet computers while editing in the industry standard digital imagery editing suites Adobe Photoshop and Lightroom.

- Time management of deadlines, utilizing on screen note taking with Microsoft OneNote, creative problem solving, managing a digital workflow are also a dedicated part of the curriculum.
- Students may sign out equipment from the photography department while enrolled in the course.
- Please visit Mr. Mann’s class page for information and examples of photography projects.
- Similar to all art courses student work will be proudly displayed at Celebration of the Arts.
- This course utilizes Google Classroom and other Google applications

Resources:
https://lightroom.adobe.com/
Portrait Photography

0.5 credit
Lab Fee: $25

Portrait photography is a course designed to teach students how to take photographs of people. Students will photograph their classmates, friends, family, and themselves to practice basic techniques involving depth of field, flash photography, managing a group, candid portraits, posing, working with telephoto lens to capture athletes in live athletic events, and learn how to photograph pets for extra credit. Utilize the most basic concepts of photography even the more advanced students will take on a series of challenges that utilize their creativity and prior experiences. Students will have the opportunity to use Canon DSLR cameras with a variety of detachable lens and pivot external flashes at their disposal. Along with photographing with professional grade equipment students will work directly on screen with Wacom Mobile Studio Pro 13 tablet computers while editing in the industry standard digital imagery editing suites Adobe Photoshop and Lightroom.

- Time management of deadlines, utilizing on screen note taking with Microsoft OneNote, creative problem solving, managing a digital workflow are also a dedicated part of the curriculum.
- Students may sign out equipment from the photography department while enrolled in the course.
- Please visit Mr. Mann’s class page for information and examples of photography projects.
- Similar to all art courses student work will be proudly displayed at Celebration of the Arts.
- This course utilizes Google Classroom and other Google applications

Resources:
https://lightroom.adobe.com/

Digital Photography

0.5 credit
Lab Fee: $25

Digital Photography is a course dedicated to the ever-changing technological advances in the world of photography and design. Students will have the opportunity to learn the benefits of digital imagery, how to manipulate their cell phone’s camera, and why photography has become so popular. Macro, Still Life, Panoramic, Architectural, and Lowlight photographic techniques are the foundation of digital photography. They provide anyone with an excellent intro experience to camera and tripod techniques while providing knowledge for future course in the SHS photography program. Students will have the opportunity to use Canon DSLR cameras with a variety of detachable lens at their disposal. Along with photographing with professional grade equipment students will work directly on screen with Wacom Mobile Studio Pro 13 tablet computers while editing in the industry standard digital imagery editing suites Adobe Photoshop and Lightroom.

- Time management of deadlines, utilizing on screen note taking with Microsoft OneNote, creative problem solving, managing a digital workflow are also a dedicated part of the curriculum.
• Students may sign out equipment from the photography department while enrolled in the course.
• Please visit Mr. Mann’s class page for information and examples of photography projects.
• Similar to all art courses student work will be proudly displayed at Celebration of the Arts.
• This course utilizes Google Classroom and other Google applications

Resources:
https://lightroom.adobe.com/

Honors Level Courses

**CHE 807 Honors Art**
1.0 credit  Humanities, Technologies, & Art  Grades: 11, 12  Teacher Rec.
Prerequisite:  Successful completion of two of the following courses: 801, 803, or 805

***Students express interest through HAC Course Request with teacher review and final approval.***

Considering a career in the arts? This class is for you. You will experience a variety of formal, technical, and expressive means available to the professional artist. Exploring career opportunities in art, you will have the opportunity to talk with art school representatives. You will highly refine your observation skills, learn to work independently as you research art historical movements and artists - and become familiar with contemporary artists. Hanging your work at Celebration of the Arts is the culmination of a year of intense work. Open Studio sessions are available for advanced instruction opportunities. Students planning to take Advanced Placement Art Senior year will use this class to begin developing the Breadth sections of their Advanced Placement Portfolio. **There is no Lab Fee for this course; students are expected to purchase the following items for the course: A large portfolio (at least 18” X 24”), an 18” X 24” drawing pad and a small sketchbook (9” x 12”) are used for required independent homework projects.

**CHE 829 Advanced Placement 2D Art & Design Portfolio – Photography, Design and Graphics**
1.0 credit  Humanities, Technologies, & Arts  Grades: 11, 12  Teacher Rec.
Prerequisite:  Successful completion of the following courses: 829, 824, 826, and 827

Teacher Recommendation Only

Lab Fee:  $65

This course is for the highly motivated photography, animation, digital illustration, and/or graphic design student who wants to perform at a college level while still in high school. This course requires independent work, goal setting, planning skills, constructive evaluation, and ongoing communication with the 2D design instructor. The 15 images created will fill the College Board Advanced Placement 2D Design Portfolio requirements while building a professional portfolio for college reviews and possible internship opportunities. The portfolio will be based on their chosen medium and personal concept. During the creation of the portfolio students will develop increased skills in various artistic methods; including comprehensive technical knowledge of their media, professional use of Adobe software, printing output methods, creative problem solving, thematic design, personal evaluation, and the creation of a “Visual Idea.” The
course culminates with a presentation of the student’s portfolio on a visual installation called a “Wall” at Celebration of the Arts.

This course provides the opportunity for students to earn honors weight by fulfilling additional requirements outside of the school day. See director for more information.

- Students must have their own photography equipment, unless focus is non-photography driven.
- Please visit Mr. Mann’s class page for information and examples of photography projects.
- Students that complete the work in this course receive a “wall” at Celebration of the Arts.
- $90 dollar Advance Placement testing fee

Resources:
https://lightroom.adobe.com/
https://apcentral.collegeboard.org/courses/ap-studio-art-2-d-design?course=ap-studio-art-2-d-design

Advance Placement Courses

**CHE 829 Advanced Placement 2D Design Portfolio: Photography & Design**

<table>
<thead>
<tr>
<th>Credit</th>
<th>Humanities, Technologies, &amp; Arts</th>
<th>Grades: 11, 12</th>
<th>Teacher Rec.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Prerequisite: Successful completion of the following courses: 829, 824, 826, and 827

**Teacher Recommendation Only**

Lab Fee: $65

This course is for the highly motivated 2D design (photography, animation, character design, & graphic artist) student who wants to perform at a college level while still in high school. This will require independent work, goal setting, planning skills, and ongoing communication with the teacher. The 29 images created will fill the required “Quality,” “Concentration.” and “Breadth” sections of the College Board Advanced Placement 2D Design Portfolio. Students will strengthen their design and photographic skills, including comprehensive technical knowledge of their chosen 2D media, professional use of software such as Adobe Photoshop and Lightroom, Autodesk Sketchbook Pro, Illustrator, and/or Sketch-up. They will also explore printing output options, as well as solving creative problems via design principles. Much of the thematic design of their portfolio will be self-assigned, based on their proposed “Visual Idea”. The course culminates with presentation of the student’s portfolio on a visual installation called a “Wall” at Celebration of the Arts.

This course provides the opportunity for students to earn honors weight by fulfilling additional requirements outside of the school day. See director for more information.

- Students must have their own photography equipment, unless focus is non-photography driven.
- Please visit Mr. Mann’s class page for information and examples of photography projects.
- Students that complete the work in this course receive a “wall” at Celebration of the Arts.
- $90 dollar Advance Placement testing fee
**CHE 831 Advanced Placement Studio Art: Drawing**

1.0 credit  Humanities, Technologies, & Arts  Grades: 11, 12  Teacher Rec

Prerequisite:  Successful completion of two of the following courses (801 803, 805) and 807

Teacher Recommendation Only

Are you a highly motivated student? Are you headed to art school and a career in the arts? This course allows you to perform at the college level while still in high school. AP students work all year and in-depth exploring a personal artistic theme. These works will represent the required Quality and Concentration sections in the Advanced Placement Portfolio submitted in early May. Through the intense study of the human figure, you will strengthen your drawing skills. Various media will be explored in black & white and color based upon your thematic series. Work ranges from photo-realism to imaginative compositions; small oilstick paintings to larger-than-life drawings. You will practice and develop the ability to document and explain your thinking, creative processes, research arc, and your developing understandings of how all these areas work together towards your own personal and artistic growth. This practice will further develop your artistic voice and your ability to explain what has influenced and changed it. In addition to learning how to appreciate and evaluate your own work and that of others, all AP students will be encouraged to stretch and explore their own work and share it with an audience through mandatory weekly Peer Critical Review sessions. All course participants will need to submit an AP portfolio in May and exhibit their work in Celebration of the Arts. Open Studio sessions are available for advanced instruction opportunities.

**There is no Lab Fee for this course. Students will need to purchase the following items for the course: a large portfolio (at least 18” x 24”), an 18” X 24” sketchbook, a small sketchbook used for required independent homework projects and any materials needed outside of what is available in the studio to complete their portfolio pieces.**
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Grade Levels</th>
<th>Course Fee</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>845</td>
<td><strong>Music: Film and Media</strong></td>
<td>0.5</td>
<td>9, 10, 11</td>
<td>$5</td>
<td>This introductory course is designed to allow students the opportunity to learn, discuss, and create music as it is found in: Film, Television, Broadcasting, Video Games, Podcasts, Commercials, Advertising, and much more. No prior musical experience necessary, just an interest in music.</td>
</tr>
<tr>
<td>847</td>
<td><strong>Digital Music Production</strong></td>
<td>0.5</td>
<td>9, 10, 11, 12</td>
<td>$5</td>
<td>With today's technology, anyone can create and produce music! This course will teach you the skills needed to use what is readily available to get your song “out there.” You need no prior musical experience, just the love of learning in a new way and being creative. We will explore the features of GarageBand and learn about sound production, mixing tracks and beats, creating your own songs, basic recording, using FX, and creating music for video. This project-based class is designed to get students engaged in the technology used for music and to inspire them to continue to develop their skills beyond the classroom door on their way to the Grammys!</td>
</tr>
<tr>
<td>849</td>
<td><strong>Guitar and Ukulele</strong></td>
<td>0.5</td>
<td>9, 10, 11, 12</td>
<td>$10</td>
<td>This beginner course is designed to allow students the opportunity to pick up an instrument and learn to play. Basic technique, note reading, and musical interpretation are at the center of this course. Students will learn songs and techniques for both guitar and ukulele. No prior instrumental background needed.</td>
</tr>
<tr>
<td>851</td>
<td><strong>Introduction to Music Theory</strong></td>
<td>0.5</td>
<td>10, 11</td>
<td></td>
<td>This introductory course is designed to help understand the fundamental concepts of music. All music is created from the same elements: pitch, rhythm, time, and expression. With these elements in mind, the course takes you from basic music reading through to analyzing the chords of famous pieces of music to allow us to understand the music better.</td>
</tr>
<tr>
<td>880</td>
<td><strong>AP Music Theory</strong></td>
<td>1.0</td>
<td>11, 12</td>
<td></td>
<td>The goal of an AP Music Theory course is to develop a student's ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. The achievement of these goals may best be approached by initially addressing fundamental aural, analytical, and compositional skills using both listening and analyses.</td>
</tr>
</tbody>
</table>
written exercises. Building on this foundation, the course should progress to include more creative tasks, such as the harmonization of a melody by selecting appropriate chords, composing a musical bass line to provide two-voice counterpoint, or the realization of figured-bass notation.

**Performance Ensembles**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>855</td>
<td>Symphonic Band</td>
</tr>
<tr>
<td>857</td>
<td>Orchestra</td>
</tr>
<tr>
<td>860</td>
<td>Concert Choir</td>
</tr>
<tr>
<td>861</td>
<td>Springfield Singers</td>
</tr>
</tbody>
</table>

**Symphonic Band**

- **Code**: 855
- **Credit**: 1.0
- **Departments**: Humanities, Technologies, & Arts
- **Grades**: 9, 10, 11, 12
- **Access**: HAC Access

Symphonic Band is a performance, academic, and co-curricular ensemble open to Woodwind, Brass, and Percussion students in Grades 9 through 12. Students study and rehearse Band literature of various styles and difficulty in this class. Students refine performance technique and ensemble playing. Performances, concerts, and rehearsals outside of the school day are required. Students are encouraged to study privately on their individual instruments. As a co-curricular class, students enrolled in Symphonic Band participate in marching band at football games and parades. Participation fees are required to cover uniform and activity expenses.

**Orchestra**

- **Code**: 857
- **Credit**: 1.0
- **Departments**: Humanities, Technologies, & Arts
- **Grades**: 9, 10, 11, 12
- **Access**: HAC Access

Orchestra is an ensemble of performers who play stringed instruments. String players are eligible for inclusion by participation in the middle school program or by audition with the instructor. Standard orchestral literature and lighter selections are rehearsed and performed to gain an understanding of various periods and styles of music. Required concerts and performances are presented in the evenings throughout the school year. There is a uniform cleaning fee.

**Concert Choir**

- **Code**: 860
- **Credit**: 1.0
- **Departments**: Humanities or Music Credit
- **Grades**: 9, 10, 11, 12
- **Access**: HAC Access

Every student will be given the opportunity, encouragement, and assistance to develop the fundamental skills essential for achieving a high standard of vocal performance: good tone quality, accurate intonation, correct breathing, clear diction, and an awareness and sensitivity for artistic interpretation. Required concerts and performances are the Winter Concert, Spring Concert and one other concert each year. In addition to regular class time, every student will be required to attend evening rehearsals prior to each concert as listed on the yearly Choral Department Calendar and in the Choral Department Handbook.

**Springfield Singers**

- **Code**: 861
- **Credit**: 1.0
- **Departments**: Humanities, Technologies, & Arts
- **Grades**: 9, 10, 11, 12
- **Access**: Teacher Rec.
- **Prerequisite**: Audition Only

The Springfield Singers is a select group whose membership is by audition only. The fundamental skills essential in achieving a high standard of vocal performance will be stressed. Emphasis will be on ear training, sight singing and application of basic music theory. A higher level of difficulty of choral literature will be learned. Required concerts and performances are listed on the yearly Choral Department Calendar and in the Choral Department Handbook (including: Winter Concert, Spring Concert, Graduation). In addition to regular class time, every student will be required to attend evening rehearsals prior to each concert. There is a nominal uniform cleaning fee.
### Physical Education and Health/Wellness

<table>
<thead>
<tr>
<th>Code</th>
<th>Grade</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>035</td>
<td>Grade 9</td>
<td>Health &amp; Wellness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.5 credit Health/Physical Education Credit HAC Access</td>
</tr>
</tbody>
</table>

Health and Physical Education is a 1 Credit requirement. The P.E. component is intended to improve the individual’s level of physical fitness, increase enjoyment of physical activity, and encourage more extensive strategies in a variety of sports. Students will develop skills in lifetime, team, and cooperative sports which may include tennis, golf, volleyball, badminton, pickleball, physical conditioning, table tennis, ultimate games, handball, indoor soccer, base games, speedball, and floor hockey. All students are required to wear a regulation gym uniform and sneakers. To receive full credit, students must be prepared with a gym uniform, attend class regularly, and participate in class activities. The Health component is designed to help students make healthy choices throughout their lifetime. Age appropriate topics related to phases of human development will be covered concerning social, emotional and physical well-being of the individual.

<table>
<thead>
<tr>
<th>Code</th>
<th>Grade 11</th>
<th>11th Grade Health &amp; Wellness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0.5 credit Health/Physical Education Credit HAC Access</td>
</tr>
</tbody>
</table>

Health and Physical Education is a 2 year requirement. The P.E. component is intended to improve the individual’s level of physical fitness, increase enjoyment of physical activity, and encourage more extensive strategies in a variety of sports. Students will develop skills in lifetime, team, and cooperative sports which may include tennis, golf, volleyball, badminton, pickleball, physical conditioning, table tennis, ultimate games, handball, indoor soccer, base games, speedball, and floor hockey. All students are required to wear a regulation gym uniform and sneakers. To receive full credit, students must be prepared with a gym uniform, attend class regularly, and participate in class activities. The Health component is designed to help students make healthy choices throughout their lifetime. Age appropriate topics related to phases of human development will be covered concerning social, emotional and physical well-being of the individual.

<table>
<thead>
<tr>
<th>Code</th>
<th>Grade</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>042</td>
<td></td>
<td>Live Fit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.5 Credit Humanities, Technologies, &amp; Arts Grades: 10, 11, 12 HAC Access</td>
</tr>
</tbody>
</table>

Students will be able to identify the major muscles of the body, design and implement a self-created individualized fitness program. All students will receive instruction on proper exercise technique, identification of lifting stations and names of exercises, spotting and safety protocols utilized when working out, fitness terminology, fitness concepts (overload, specificity, cross training, variation), warm up/cool down activities, phases of strength training (endurance, strength, power, sport specific), plyometric exercises, agilities, flexibility, rest and sports nutrition.
**043  Live Fit II**

0.5 Credit  Humanities, Technologies, & Arts  Grades: 11, 12  Teacher Rec.

Prerequisite: Successful completion of 042 Live Fit along with teacher recommendation.

This course is designed to extend the experience of Live Fit to a more rigorous and more individualized personal physical fitness level and plan. Students will build on their knowledge of exercise and fitness techniques and practices to tailor and customize their own fitness program.

**044  Advanced Studies in Competitive Sports**

0.5 Credit  Humanities, Technologies, & Arts  Grades: 10, 11, 12  HAC Access

Take your knowledge and skills of a variety of sports to the next level. This co-ed course is designed for those seeking a higher level of competition learning more about rules and regulations while at the same time maintaining fitness and skill levels. Students will learn the rules and regulations associated with school, PIAA and Youth AA related sports such as Baseball/Softball, Basketball, Soccer, and Lacrosse, and explore a variety of other sports such as Ultimate Frisbee, Frisbee Golf, Flag Football, Tennis, Badminton, Volleyball, Pickleball, etc. Interested students will have the opportunity to independently explore certifications to officiate Youth AA and PIAA sporting events while refereeing their peers on the field of competition.
Online Course Offerings

In addition to the diverse and student-centered classroom-based learning opportunities and experiences, Springfield High School also offers students the opportunity to experience learning in an asynchronous online learning environment. Interested and approved students can choose from a variety of online learning courses not currently offered at SHS. These courses will appear on a student’s schedule as being offered during the school day and students will be assigned a location where they can work. Course will be taken for credit and can fulfill credit requirements outside the 24 compulsory credits needed to earn a SHS diploma. Grades are assigned and will be part of GPA calculations. All courses carry a CP course weight. A SHS teacher will monitor student progress and maintain communication with students on weekly basis. Please see the courses listed below and inform your counselor if you are interested in pursuing this option for the upcoming school year.

<table>
<thead>
<tr>
<th>Career and Technical Education Electives</th>
<th>Core Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Medical Terminology A/B</td>
<td>Art History &amp; Appreciation</td>
</tr>
<tr>
<td>Computing for College &amp; Careers A/B</td>
<td>Introduction to Anthropology</td>
</tr>
<tr>
<td>Digital &amp; Interactive Media A/B</td>
<td>Introduction to Archaeology</td>
</tr>
<tr>
<td>Health Science 1 A/B</td>
<td>Introduction to Marine Biology</td>
</tr>
<tr>
<td>Health Science 2 A/B</td>
<td>Introduction to Veterinary Science</td>
</tr>
<tr>
<td>Introduction to Cybersecurity</td>
<td>Introduction to Visual Arts</td>
</tr>
<tr>
<td>Introduction to Finance</td>
<td>Sociology</td>
</tr>
<tr>
<td>Introduction to iOS Mobile App Development</td>
<td>Theater, Cinema &amp; Film Production</td>
</tr>
<tr>
<td>Principles of Government &amp; Public Administration A/B</td>
<td>Principles of Agriculture, Food, &amp; Natural Resources A/B</td>
</tr>
<tr>
<td>Culinary Arts A/B</td>
<td>Principles of Arts, Audio/Video Technology, &amp; Communications A/B</td>
</tr>
<tr>
<td>Electronic Communication Skills</td>
<td>Principles of Education &amp; Training A/B</td>
</tr>
<tr>
<td>Entrepreneurship A/B</td>
<td>Principles of Agriculture, Food, &amp; Natural Resources A/B</td>
</tr>
<tr>
<td>Essential Career Skills</td>
<td>Principles of Arts, Audio/Video Technology, &amp; Communications A/B</td>
</tr>
<tr>
<td>International Business</td>
<td>Principles of Agriculture, Food, &amp; Natural Resources A/B</td>
</tr>
<tr>
<td>Introduction to Android Mobile App Development</td>
<td>Principles of Agriculture, Food, &amp; Natural Resources A/B</td>
</tr>
<tr>
<td>Introduction to Criminology</td>
<td>Revolutionary Ideas in Science</td>
</tr>
<tr>
<td>Principles of Hospitality &amp; Tourism A/B</td>
<td>Social Issues</td>
</tr>
<tr>
<td>Principles of Human Services A/B</td>
<td>Structure of Writing</td>
</tr>
<tr>
<td>Principles of Information Technology A/B</td>
<td>Women’s Studies</td>
</tr>
<tr>
<td>Principles of Law, Public Safety, Corrections, &amp; Security A/B</td>
<td></td>
</tr>
<tr>
<td>Principles of Law, Public Safety, Corrections, &amp; Security A/B</td>
<td></td>
</tr>
<tr>
<td>Professional Communications</td>
<td></td>
</tr>
<tr>
<td>Sports &amp; Entertainment Marketing</td>
<td></td>
</tr>
</tbody>
</table>
Delaware County Community College - Dual Enrollment Courses

Tuition and deadlines are as follows:

<table>
<thead>
<tr>
<th>Standard Rate</th>
<th>Dual Enrollment Rate</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>$552 - $582</td>
<td>$165 per course</td>
<td>Up to 71%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Application Deadlines</th>
</tr>
</thead>
</table>
| Fall Semester – August 1 | Spring Semester – December 1 | Summer 1 – May 1  
|                       |                                | Summer 2 – June 1 |

Popular DE courses at Springfield HS:

- Medical Terminology
- Construction First Aid & Safety
- Engineering Topics Seminar
- Introduction to Teaching

The Delaware County Community College course catalog can be accessed at the DCCC Web Site.

Sample DE courses aligned with SHS Career Academy Model:

*Please note that course offerings may be subject to enrollment trends and professor eligibility. The following list is merely an example, not a guarantee of course offerings. Students must also meet prerequisite requirements and/or pass the Accuplacer Exams.

**Engineering, Mathematics, Science, and Technology**

**BIO 115: Field Ecology**

Field Ecology is designed primarily for majors in biology, natural science, and related fields, yet is open to students of all majors. This course introduces students to the general principles of field ecology pertaining to terrestrial, aquatic, and marine habitats. Emphasis will be placed upon regional conservation issues, biodiversity concepts, plant and animal interactions and adaptations, effects of human disturbance on native flora and fauna, and field research techniques.

Students are expected to develop and apply skills in field research and utilizing the scientific method.

**DPR 234: Introduction to Computer Game Programming**

This course teaches students the concepts of programming using the C++ language and DirectX. This course will introduce students to C++ Object oriented Programming, as well as, DirectX and its components. Students will create
2D and 3D objects, program animation sequences, add sound effects to games, create a virtual game world and program a full-featured role-playing game.

**TCC 112: CADD Graphics**

This course provides students with the concepts and skills necessary to form the basis of object visualization and documentation inherent to the creation and conveying of technical designs and drawings. Appropriate drafting concepts and skills are developed through use of both free-hand sketching and computer-assisted drafting. Instruction in the use of CADD systems is integrated with graphic theory throughout the course. The course covers theoretical and applied drafting concepts appropriate for conveying graphical representation of objects and designs in a variety of technical environments including manufacturing and construction, as well as architectural, mechanical and civil engineering design.

**TDD 216: Three-Dimensional CADD**

This course provides instruction in advanced computer-aided design and drafting (CADD) techniques in addition to creation of three-dimensional drawings. Students progress from two-dimensional projection to wireframe, surface modeling, solids modeling and rendering techniques. Emphasis will be placed on maximizing a personal computer-based CADD system to develop a series of increasingly difficult drafting assignments and ending with a presentation quality final project and portfolio of completed drawings.

**AHM 233 Medical Terminology**

This course is designed to introduce the skills and knowledge needed to develop an understanding of the language of medicine. The mechanism of building a medical vocabulary, utilizing roots, prefixes, suffixes, and the combining forms, and the pronunciation are emphasized. A workbook/text, audiotapes, and computer software are used to give the student hands-on experience in the use of the language of medicine. *This course is required for the EMT certificate*

**Business**

**BUS 215: Human Resource Management**

This course presents an in-depth study of the principles of human resource management. The course presents both the theoretical and practical aspects of the broad human resource functions which managers must understand in order to develop an effective and productive workforce. Computer simulations and exercises are used to introduce students to the practical aspects of human resource management.

**BUS 105: Introduction to Entrepreneurship**

This class is an introduction entrepreneurial class for students interested in starting their own business. The ultimate goal of the class is to improve management, leadership, accounting and overall business skills and knowledge base for our entrepreneur students.
HRM 100: Introduction to Hospitality

This course introduces students to the vast lodging and food service industry. The origins and history of the modern American hotel/motel business and the enormous growth of the food industries are presented in the context of global tourism. Supervisory duties including organizational theory, resource management of the prime cost associated with these businesses, and asset control processes are introduced. Career opportunities are examined as an essential part of the course.

PLG 100 Introduction to Paralegal

This course focuses on four specific areas of the paralegal profession: (1) the role of the paralegal in the legal profession, (2) the legal and ethical rules that determine unauthorized practice, (3) an understanding of the judicial system at the federal, state and local level, and (4) the various areas of law-civil and criminal with emphasis on the legal terminology associated with each area. *Prepares students to enter into the paralegal AAS degree program

Arts

HUM 100: Introduction to Visual Arts

This course is designed to introduce students, through a broad overview, to the nature of art, the people who make art, the various forms art takes and to the importance of art in our everyday lives. Students consider the role of the artist in society and how that role changes historically. Issues such as aesthetics, creativity and perception, and what it means to be a visually literate patron of the arts will be explored. A thorough introduction to the visual elements and principles of design will help students to form some guidelines for analysis and criticism in such areas as drawing, painting, photography, film, video, sculpture, architecture, crafts, environmental design, theater, dance and music.

Humanities

HUM 141: Film Language

This course is intended to engage students in analysis of the film medium, to help them relate the art of film to their lives and their language and to stimulate their appreciation of the visible world. The course includes a brief survey of film history, a study of the subject matter and bias of the documentary film and visible forms of poetry in the art film.

HUM 180: Aspiration and Dissonance--A Global Interdisciplinary Study of History, Literature and Religion

This course considers the persistent separation between humanity’s greatest ideals (defined as our “aspirations”) and the reality of history (defined as “dissonance”) through selected historical, literary, and mystical works from all over the world. This inter-disciplinary, co-taught course is designed to make the student think about the purpose and value of these aspirations, the skepticism that results from their enduring failure, and the changes that a global education may bring to this situation.
HUM 205: Latin American Studies

This course provides an overview of the Latino-American cultural heritage. Based on elements from anthropology, culture (both folk and popular), film, folklore, language and linguistics, theater and drama, and literature, the course examines various cultural traditions within Latino-American society.

Liberal Arts

ARB 101 Elementary Arabic I

This course introduces students to Arabic alphabets, articulation of sounds, basic grammar, reading and writing. Vocabulary words for cultural and social settings are introduced. Listening and speaking are emphasized in class and laboratory settings.

CHI 101: Elementary Chinese

This course introduces students to the fundamentals of Chinese Language by focusing on the development of functional competence in the four skills (listening, speaking, reading and writing), as well as Chinese cultural knowledge. Students completing this course will master Chinese pronunciation system (Hanyu Pinyin), basic Chinese Characters writing skill, basic Chinese grammar. The emphasis is placed on actual verbal communication.

HIS 251: History of Modern China

This course is an introductory study of the history of China from the seventeenth century to the present. Specifically, the course seeks to analyze how China has been able to build a dynamic and growing civilization amidst rebellion, reform, and revolution. Political, economic, and social issues will be discussed to gain a greater understanding and appreciation of Chinese civilization. Three major themes in the course will deal with imperialism, nationalism, and modernization. An effort will be made to understand the political, economic, and social “self-strengthening” experiments in China within a global perspective. The final portion of the course will examine contemporary Chinese society.

MAT 120: Modern College Mathematics

This course is designed to give students in the non-science fields an appreciation of and experience in using the concepts, logical reasoning and problem-solving techniques involved in various fields of mathematics. It fulfills the mathematics elective for liberal arts, administration of justice, early childhood education, fire-science technology and general education majors at the College.

RUS 101: Elementary Russian

This course introduces students to the Russian language by focusing on the development of functional competence in the four skills (listening, speaking, reading, and writing), as well as the expansion of cultural knowledge. Students completing this course will learn about the basic structure of Russian grammar and writing as well as become familiar with elementary conversational skills.

Additional opportunities through Delaware County Community College:
**SWO 101: Introduction to Social Work and Human Services**

This is a one semester introduction to human services and the major policies and practices that are used to understand human strengths and challenges. The course explores the skills, values and knowledge based needed to effectively work as a culturally competent, human service professional in a multidisciplinary setting.

**Skilled Trades:**

**TCS 141 Construction First Aid/Safety**

Emergency first-aid and accident-prevention instruction for construction employees and managers. OSHA requirements are stressed in this course. Administrative aspects of recordkeeping requirements, rights and responsibilities, standards, safety program development and implementation are covered. Safety training includes identification and elimination of accident and health hazards, inspection techniques and administration of first-aid and CPR. *Required for most associate’s degrees and certificates in the skilled trades (construction, plumbing, electrical, etc)

**WLD 100 Introduction to Welding**

Classroom instruction includes the proper selection of A.C and D.C. power sources and their applications. Oxy-fuel welding and cutting equipment and safety procedures are covered. Also discussed is proper set-up, use of GMAW and GTAW power sources and how to correctly set up and use them. All requirements and safety procedures are covered.

**WLD 101 Introduction to Oxy-Fuel Welding and Cutting**

Course emphasis is on fuel gases, welding, and cutting equipment. Upon successful completion of this course, students should be able to: List the major advantages and disadvantages of different fuel gases, maintain an oxy-fuel welding set, demonstrate lighting, adjusting, and extinguishing an oxy-fuel flare, and use an oxy-fuel cutting.

**Emergency & Protective Services EMER 105: Incident Management**

This course is designed to provide the student with an overview of the Incident Command-Unified Command Structure. Additionally, a look at incident management from various perspectives such as local fire departments, industrial settings, the Oklahoma City bombing, and others will be discussed. The student will work in an interactive program to prepare for future roles and responsibilities as those charged with a management role in incident command, control or mitigation.

Moreover, the student will learn from the experiences of others, sharpening their understanding skills relative to the dimensions of emergency incident management.
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Semesters</th>
<th>Description</th>
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<tbody>
<tr>
<td>960AH</td>
<td>Health Sciences</td>
<td>3.0</td>
<td>2</td>
<td>This course includes anatomy and physiology, medical terminology, nutrition, medical procedures, emergency and clinical care, and health care issues. The Health Sciences curriculum is a foundation for all health career pathways in which students may choose to train for a Clinical Medical Assisting certification or a Nursing Assistant certification in their senior year. This program provides opportunities to gain experience in real life situations. Students can learn to feed, bathe, care for patients and monitor patient vitals.</td>
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<tr>
<td>960AT</td>
<td>Automotive Technology</td>
<td>3.0</td>
<td>2</td>
<td>DCTS has the distinction of being among a small number of schools and colleges to be selected to participate in the AYES program, a partnership with General Motors, Daimler Chrysler, BMW, Honda, Hyundai, Subaru, Toyota, Mitsubishi Motors, Nissan, Volkswagen, Audi and Mercedes Benz corporations. This program gives DCTS students a competitive edge by allowing them to work directly on new cars with technicians experienced in the field and at dealerships.</td>
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<tr>
<td>960BM</td>
<td>Biomedical Technology &amp; Laboratory Sciences</td>
<td>2 or 3</td>
<td></td>
<td>This program is for students interested in pursuing careers in pathology, biomedical engineering, genetics, medical technology, molecular and cellular biology. This program provides students with the knowledge and hands on experience necessary to be successful in medical technology and laboratory science careers. Students will use state of the art equipment to learn the principles of scientific investigation and how it is applied to agriculture, environmental health, forensics, genetic engineering and medicine. An emphasis will be placed on DNA fingerprinting, polymerase chain reaction, microbiology and immunology. Student leaving this program will have the strong foundation necessary to pursue post-secondary and career opportunities.</td>
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<tr>
<td>960BT</td>
<td>Building Trades</td>
<td>3.0</td>
<td>2</td>
<td>Practical experience and classroom training prepare students enrolled in the Building Trades program to find employment in the construction field or enter a post-secondary institution. Students are taught carpentry, masonry, plumbing, roofing, drywall application, painting and framing/finishing.</td>
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<tr>
<td>960CA</td>
<td>Culinary Arts</td>
<td>3.0</td>
<td>2</td>
<td>Culinary Arts prepares students for success in our nation's number one employer, the food service and hospitality industry. Students are taught food preparation, dining service, inventory control, safety, sanitation and management skills. Our students also learn food nutrition, healthy cooking, equipment identification, use of hand tools and culinary vocabulary.</td>
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<tr>
<td>960CM</td>
<td>Cosmetology</td>
<td>3.0</td>
<td>2</td>
<td>The Cosmetology Program is a three-year standards-based education program. The 1250 hours required for this course are earned when a score of 80% or above is achieved for each individual unit, which includes both theoretical and hands-on training. Students learn haircutting, coloring, manicuring, facials, hairstyling, and shampoo techniques and treatments.</td>
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<tr>
<td>960CN</td>
<td>Computer Network and Digital Forensics</td>
<td>3.0</td>
<td>2</td>
<td>This course is designed to provide a broad background in the nature of electricity, the operation and application of electric circuits, and the physics of electric current flow.</td>
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<tr>
<td>960CP</td>
<td>Carpentry</td>
<td>3.0</td>
<td>2</td>
<td>The Carpentry program prepares students for employment in residential home remodeling and light commercial construction industries. The curriculum covers the use of hand and power tools, blueprint reading, estimating and scheduling of construction operations. Students are introduced to concrete form building, placing, reinforcing and finishing.</td>
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<tr>
<td>Code</td>
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<td>Description</td>
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<tr>
<td>960CR</td>
<td>Collision Repair</td>
<td>DCTS's Collision Repair Technology course is based on an occupational analysis of the auto body field and reflects the job requirements of ICAR (Inter-Industry Conference on Auto Collision Repair) and the Automotive Collision Technology standards. Using state-of-the-art equipment, students are taught MIG welding/cutting, metal repair, corrosion protection, masking, refinishing, undercoating, unibody inspection and detailing.</td>
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<tr>
<td>960DO</td>
<td>Dental Occupations</td>
<td>Students who enroll in the Dental Occupations Program learn a variety of skills that will enable them to become a dental assistant, dental laboratory technician, and/ or pursue a career as an Expanded Function Dental Assistant (EFDA), or dentist. There is a focus on patient centered care in support of improving oral health as a key to personal health and well-being. The major areas of study in this program include: dental radiology, oral pathology, chair-side dental assisting, anatomy and physiology, dental materials, sterilization, and dental office business procedures. Students will be introduced to Dental Anatomy, Dental Charting Systems, Infection Control Procedures, Dental Instruments and Procedures for General Dentistry, Chairside Assisting Techniques, and Radiology Basics. As students continue in this program, they receive more lectures on advanced dental anatomy, dental software programs, dental specialties, prep for certified dental assisting and radiology Board Exams.</td>
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<td>960EC</td>
<td>Early Childhood Education</td>
<td>The Early Childhood Education (ECE) program prepares students to work with young children in a variety of settings that require an understanding of how children grow, learn and develop. The curriculum is aligned with the National Child Care Association's core of 15 &quot;Professional Abilities.&quot;</td>
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<tr>
<td>960EP</td>
<td>Emergency and Protective Services</td>
<td>The Emergency and Protective Services (EPS) program offers a comprehensive public safety education to students interested in pursuing a career or volunteering in the emergency medical, law enforcement, fire, security, industrial safety or emergency management services.</td>
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<tr>
<td>960ER</td>
<td>Engineering and Robotics</td>
<td>This program prepares students for high-demand, life sustaining, STEM careers in the engineering and advanced manufacturing fields. Students have the opportunity to take an invention from concept to design to production by utilizing hi-tech equipment such as 3D printers and after Computer Numerical Control (CNC) machine. This comprehensive curriculum covers topics such as engineering philosophy, principles, ethics, safety and quality control. Students learn a variety of topics, including computer-aided design, electronics, hydraulics, mechanical drawing, robotics, and precision measurement.</td>
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<tr>
<td>960ETS</td>
<td>Exercise Therapy/ Sports Science</td>
<td>This program provides both a theoretical and lab component and is designed for those students whose career objective includes college and a career within the Sports Medicine, Athletic Training, Physical Therapy, Occupational Therapy, Exercise Physiology, Fitness Training, and/ or Nutrition fields. Program graduates are prepared to pursue postsecondary education, while developing a foundation of technical knowledge.</td>
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<tr>
<td>960HV</td>
<td>Heating, Ventilation, Air Conditioning and Plumbing</td>
<td>This course prepares students to apply the technical knowledge and skills necessary to install, repair and maintain commercial, industrial and residential heating, air conditioning and refrigeration systems. The course is taught in compliance with the standards established by the National Association for Testing Excellence (NATE) and the Air Conditioning Contractors of America (ACCA).</td>
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<tr>
<td>960IM</td>
<td>Advertising, Design, and Commercial Art</td>
<td>3.0</td>
<td>2</td>
<td>This program introduces students to visual design, graphic design, and the interaction design industry. In a world where commercial art has never been more relevant, DCTS Advertising Design and Commercial Art offers students a community in which to develop the conceptual foundation and skills needed for admission to a post-secondary institution to refine their skills. Students learn the fundamentals to finish each project at an entry level. They are introduced to the Adobe Creative Cloud and explore media messages in print, electronic, and film. Students learn the fundamentals to finish each project at a beginner level. They explore graphic design, advertising, print design, illustration, interior design, digital photography, and game art &amp; design. Students gain an exceptional amount of knowledge and understanding of creative software such as Photoshop and Illustrator.</td>
</tr>
<tr>
<td>960IR</td>
<td>Electrical Construction Technology</td>
<td>3.0</td>
<td>2</td>
<td>The Electrical Construction Technology program introduces students to the basic concepts of residential and commercial wiring. Students install circuits, switches, conductors, circuit breakers and other electrical devices. Skills are taught in compliance with the National Electrical Code (NEC) industry standards.</td>
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<tr>
<td>960LM</td>
<td>Logistic and Inventory Management</td>
<td>3.0</td>
<td>2</td>
<td>Materials and Inventory Control introduces students to the distribution service industry. The course curriculum prepares students to work in distribution centers, warehouses, and supply rooms.</td>
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<tr>
<td>960LS</td>
<td>Environmental Landscape and Equipment Operations</td>
<td>3.0</td>
<td>2</td>
<td>As a member of the Landscape &amp; Greenhouse Operations class, students learn the principles and skills that lead to successful careers in the fields of landscape design/maintenance, nursery and greenhouse production/operations, and floral arts.</td>
</tr>
<tr>
<td>960MIS</td>
<td>Management Information Systems</td>
<td>3.0</td>
<td>2</td>
<td>Management Information Systems is a series of methods of collecting, compiling, and analyzing large quantities of data to satisfy our society’s ever-increasing need for information. The students utilize a state-of-the-art network computer system and its associated peripheral equipment to work on live problems, utilizing business software and object-oriented integrated development environments. Concepts delivered provide the basis of understanding in the area of computer programming and are applicable to business applications, mobile applications, and video gaming. Students will create a relational database, receive instruction in a variety of computer programming languages including writing, testing and debugging code; writing related system user documentation; demonstrating an understanding of core computer concepts to include the internet and the basic functions of business desktop applications; and analyzing common hardware, software and network processes.</td>
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<tr>
<td>960WT</td>
<td>Welding Technology</td>
<td>3.0</td>
<td>2</td>
<td>This program prepares students to apply technical knowledge and skills in gas, arc, shielded and nonshielded metal arc, brazing, flame cutting and plastic welding. Hand, semiautomatic and automatic welding processes are also included in the instruction. Students learn safety practices and types and uses of electrodes and welding rods; properties of metals; blueprint reading; electrical principles; welding symbols and mechanical drawing; use of equipment for testing welds by ultrasonic methods and destruction and hardness testing; use of manuals and specification charts; use of portable grinders and chemical baths for surface cleaning; positioning and clamping; and welding standards established by the American Welding Society.</td>
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<tr>
<td>966</td>
<td>Honors Medical Careers</td>
<td>This course is a perfect match for the student interested in the healthcare field, and would like to learn more about available options. In this program the hospital becomes the classroom. Crozer Keystone Health Systems will offer a clinical rotation through different departments. Students will work alongside medical professionals to learn the importance of communication with patients. Classroom instruction will be given on the study of body systems, anatomy, infection control, and process of illnesses and injury. Medical terminology and core patient care skills such as taking vital signs, assisting with activities of daily living, and sterile techniques will be taught. This course carries an honors weighted grade.</td>
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<tr>
<td>3.0 Credits</td>
<td>2 Semesters</td>
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### Delaware County Community College Technology Programs

| 961AT | Automotive Technology | The Early College Automotive program is designed to allow interested students to earn a certificate in Automotive Technology upon graduation from high school. Students who choose to continue in the program will earn the Associate in Applied Science in the Skilled Trades with one additional year of full-time study. Please see the attached flier for more information about the course sequence for the Automotive Technology program. Students who earn the certificate in Automotive Technology can access an entry level position in automotive maintenance and repair. Students who earn the associate’s degree can access higher level management jobs or a career as a mechanic with brands such as BMW, Lexus, and/or Mercedes-Benz. |
| 961ET | Electro-Mechanical Technology | The Early College Electromechanical program is designed to allow interested students to earn a certificate in Electromechanical Technology upon graduation from high school. Students who choose to continue in the program will earn the Associate in Applied Science with one additional year of full-time study. Please see the attached flier for more information about careers in the Electro-Mechanical field. |