# COURSE DESCRIPTION BOOK

## 2018-2019

## Armstrong Jr.-Sr. High School

300 Buffington Drive
Kittanning, PA 16201

## West Shamokin Jr.-Sr. High School

178 Wolfe Drive
Rural Valley, PA 16249

## MISSION STATEMENT

The Armstrong School District in partnership with our families and communities will graduate educationally prepared, productive, morally responsible individuals.

The Armstrong School District is an equal opportunity education institution and will not discriminate on the basis of race, color, national origin, age, gender or handicap in its activities, programs or employment practices in accordance with Federal and State statutes and regulation.

For information regarding civil rights, grievance procedures, services, activities and facilities that are accessible to and usable by handicapped persons contact: Office of Human Resources, Title IX and 504 Coordinator, at 181 Heritage Park Drive, Suite 2, Kittanning, PA 16201. Telephone: 724.548-6059.

## INTERNET INFORMATION

Armstrong School District home page.....www.asd.k12.pa.us
Information (school closings/delays)…….....http://iu28.org/schoolcast/

# SECONDARY SCHOOLS

## ARMSTRONG JUNIOR-SENIOR HIGH SCHOOL

300 Buffington Drive
Kittanning, PA 16201
Telephone: 724.548.7600

## WEST SHAMOKIN JUNIOR-SENIOR HIGH SCHOOL

178 Wolf Drive
Rural Valley, PA 16249
Telephone: 724.783.7040

## ARMSTRONG SCHOOL DISTRICT CYBER ACADEMY

178 Wolf Drive
Rural Valley, PA 16249
asd.k12.pa.us/asd/site/default.asp
724.783.7040

# ARMSTRONG SCHOOL DISTRICT

## TABLE OF CONTENTS

# *ARMSTRONG SCHOOL DISTRICT*

## ENGLISH LANGUAGE LEARNERS

English as a Second Language instruction is an academic discipline that is designed to teach English language learners social and academic language skills as well as the cultural aspects of the English language necessary to succeed in an academic environment and contribute to society. The Armstrong School District provides a program for each student whose dominant language is not English for the purpose of facilitating the student's achievement of English proficiency. Eligible students receive instruction in listening, speaking, reading, writing and comprehension at appropriate developmental and proficiency levels. Parents/guardians of ESL students are encouraged to actively participate on the District's ESL Advisory Committee. For additional information regarding these services, please contact the Armstrong School District at 724.548.7200.

# General Information Grades 7-12

## PERMANENT RECORD CARD/FOLDER FOR ARMSTRONG SCHOOL DISTRICT STUDENTS

Each student in the Armstrong School District has a permanent record card/folder, which is maintained confidentially in the high school office. This record may contain information and data including grades, class rank, test scores (achievement tests scores, the ASVAB results, college entry exams such as PSAT, SAT, and ACT scores), as well as other examination results from advanced placement testing. The permanent record may also include information about awards and honors students receive throughout their high school years. No information is released to an outside party without the student's and/or parent/guardian permission. Students should be aware that colleges, universities, other educational institutions, military personnel and employers often request information from the permanent record during the junior and senior years.

## SECONDARY SUMMER SCHOOL PROGRAM

The Armstrong School District annually conducts a Summer School Program for students who have failed courses during the regular school year. Those courses offered each year are based on sufficient enrollment according to student needs. Pupils have the opportunity to register for one or two classes and must successfully complete all assignments and instructional activities. Attendance at the first and last session is mandatory for all students, and the Armstrong School District discipline code is enforced at all times. Dismissal from the Summer School Program may occur due to failure to abide by these regulations. Appropriate grades and credits are granted to students at the conclusion of the four-week session, and when all requirements have been met and verified by the instructors.

Teachers in the Armstrong School District Summer School Program are certified in each specific content area or subject matter taught. These professionals are committed to helping students achieve goals and strengthen academic areas of weakness.

Building principals and guidance counselors assist students in completing registration forms and submitting necessary information to the District's Curriculum Department and Summer School Coordinator. Payment of the fee per course and all transportation arrangements are the responsibilities of the pupil(s) and parent(s).

Nonresident students may enroll in the Summer School Program depending on course availability and enrollment numbers. The Armstrong School District Guidance Departments and Curriculum Department can provide information to individuals who request materials pertaining to the Summer School Program.

## GUIDANCE DEPARTMENT

Guidance counselors are available to assist all students at the secondary level. Counselors work with the students in light of student interests, abilities, past achievements and teacher recommendations. Guidance counselors are certified, specially trained professionals who are available to help all students.

The counselor is also available to assist students with personal and social problems and to aid the students in resolving these problems by helping them make their own decisions. Counselors also assist students with career and occupational planning.

Parents are invited to contact the school office to make appointments to consult with a counselor privately or together with the student.

## TECHNOLOGY RESOURCES AND ACCEPTABLE USE GUIDELINES–(Policy 815)

Technology resources include telecommunications systems, computer networks (the ASD Network), Internet access, e-mail, computer hardware and software. The following serves as a policy of the Armstrong School District regarding the use and monitoring of the School District's technology resources. This policy is applicable both to internal ASD Network use as well as external communications. This policy will serve as a guide for acceptable use of District technology resources as well as an Internet Safety Policy (ISP). As a public school entity receiving federal funds, this Policy is also required for purposes of complying with the Child Internet Protections Act (CIPA) and regulations adopted by the Federal Communications Commission (FCC). This policy may be revised or amended subject to School Board approval.

## PRIVILEGE/NOT A RIGHT

1. The Armstrong School District established that use of technology resources is a privilege and not a right. Inappropriate, unauthorized and illegal use may result in cancellation of those privileges and/or appropriate disciplinary action.

2. Armstrong School District's technology resources are not a public forum.

## ACCEPTABLE USE GUIDELINES AND REQUIREMENTS

1. Technology resources will be used to support the functions of the Armstrong School District, its curriculum, the educational community, projects between schools, and communication and research for School District administrators, teachers and students.

2. Technology resources will not be used for illegal activity, transmitting offensive materials, hate mail, and discriminatory remarks or obtaining, transmitting or otherwise communicating indecent, profane, obscene or pornographic material, as well as material harmful to minors.

3. Technology resources will not be used for profit purposes, lobbying or advertising on behalf of any individual or employee of Armstrong School District without the express written consent of the Armstrong School District.

4. Use of technology resources for entertainment purposes is strictly prohibited. To minimize unnecessary bandwidth use: computers, the network and the Internet should not be used for playing or distributing games, downloading music, making travel arrangements nor for similar non-work related and non-educational purposes.

5. Use of technology resources for fraudulent or illegal copying, communication, taking or modification of material or any other activity in violation of copyright or other laws is prohibited and will be referred to the proper authorities.

6. Networks shall not be used to disrupt the work of others; hardware or software shall not be destroyed, modified or abused in any way.

7. Network accounts are to be used only by the authorized owner of the account only for purposes acceptable within this policy.

8. In order to maintain a high level of security on the Local Area Network (LAN), all network users must up-date their passwords at least once every six months.

9. Student users shall not use e-mail without receiving specific authorization from an administrator and Technology Department approval.

10. The use of software or network resources to "broadcast" messages is prohibited with the exception of network administrators.

11. The unauthorized disclosure, use or dissemination of personal information regarding yourself, others and minors is prohibited.

12. Accessing chat rooms by students, is strictly prohibited with exception of special teacher facilitated and monitored classroom activities pre-approved by the building principal.

13. As minors, student safety is always a priority. When communicating over the Internet, never provide others with personal information such as your real name, address, phone number or social security number.

14. Diligent effort must be made by District staff to delete mail daily from personal mail directories to avoid unnecessary use of file server disk space.

15. Diligent effort must be made by individual users to periodically delete obsolete files from their own network file server directory provided through their user name.

16. Hacking is strictly prohibited. Users shall not intentionally seek information, obtain copies of or modify files, other data, or passwords belonging to other users, or misrepresent other users in the network. Users shall likewise not attempt to access areas or resources on the network that the network systems administrator has not directly given them access to.

17. Uploading, downloading, installation, or use of unauthorized games, programs, files or other electronic media is prohibited.

18. Users are not permitted to store executable files (*.exe) within e-mails or user network directories in order to maintain a high level of anti-virus protection.
19. The illegal use of copyrighted software is prohibited. Any data uploaded to or downloaded from the network shall be subject to fair use guidelines.

20. Impersonation of another user, anonymity and pseudonyms is prohibited.

## MONITORING NOTIFICATION

1. There is no expectation of privacy for a user of Armstrong School District's technology resources, including Internet access and e-mail.

2. User shall have no expectation of privacy in anything created, stored, sent or received on a school computer.

3. Armstrong School District retains the right to randomly or specifically monitor without prior notice any person's use to ensure that the technology resources are being used properly, to ensure that they are used in compliance with CIPA, to prevent waste and misuse, for purposes of maintenance, and/or with reasonable cause to suspect misuse of the technology resources. This monitoring includes access in files and communications.

4. All communication systems, communications and stored information whether transmitted, received, or contained in the School District's information systems are the School District's property and are to be used solely for school or job-related purposes.

5. The Internet, District Networks and e-mail are not guaranteed to be private. People who operate the systems do have access to all e-mail and files. Messages relating to, or in support of, illegal activities may be reported to the authorities when appropriate.

6. The Armstrong School District, at its discretion, reserves the right to log Internet use in terms of time and content and to monitor file server disk space utilization by users.

7. From time to time, the Armstrong School District will make determination on whether specific uses of the Internet and Network are consistent with this policy and notify users of the same.

## SAFETY AND SECURITY

1. Security on any computer system is a high priority because there are so many users. If any network user identifies a security problem, he/she must notify the system administrator or a teacher at once without discussing it or showing it to another user.

2. Any user who receives threatening or unwelcome communications shall report such immediately to a teacher or administrator.

3. Any school computer or server utilized by a student or staff member shall be equipped with a technology protection measure that blocks or filters Internet access to materials that are obscene, child pornographic, or harmful to minors (as those terms are from time to time defined by CIPA).

4. Internet safety measures shall effectively address the following: A. Control of access by minors to inappropriate matter on the Internet and World Wide Web; B. Safety and security of minors when using electronic mail, and other forms of direct electronic communications; C. Prevention of unauthorized online access by minors, including "hacking" and other unlawful activities; D. Unauthorized disclosures, use and dissemination of personal information regarding minors; E. Restriction of minors' access to materials harmful to them.
5. The technology protection measure (filtering soft-ware) may be disabled by a member of the technology department for "bonafide" research purposes to be undertaken by an adult, provided the adult is not a secondary student.

6. A member of the technology department may over-ride the technology protection measure (filtering soft-ware) for a student to access a site with legitimate educational value that is blocked by the technology protection measure, provided access is not given to any obscene, child pornographic or other material harmful to minors.

## VIOLATIONS, LIMITATION OF LIABILITY AND ACKNOWLEDGEMENT

1. The user shall be responsible for any and all damages to the Armstrong School District's equipment, systems, and software resulting from deliberate or willful acts.

2. Failure to follow the procedures listed above by students of the Armstrong School District may result in suspension or loss of the right to access the Internet, to use the Armstrong School District's computer technology, and be subject to other disciplinary actions including, but not limited to, expulsion.

3. Violations of this policy and procedures by employees of the Armstrong School District may result in suspension or loss of the right to access the Internet, to use the Armstrong School District's computer technology, and be subject to discipline including, but not limited to, dismissal.

4. The following conduct may be reported to the appropriate legal authorities for prosecution: illegal use of the network, intentional deletion or damage to files or data belonging to others, copyright violations, or theft of services.

## DISCLAIMER

1. The electronic information available to students and staff does not imply endorsement by the School District of the content, nor does it imply the School District guarantee the accuracy of information received.

2. The School District shall not be responsible for any information that may be lost, damaged or unavailable when using the technology resources or for any information that is received via the Internet.

3. The School District shall not be responsible for any unauthorized charges or fees resulting from access to the Internet.

4. In no event shall the Armstrong School District be liable for any damage, whether direct or indirect, special or consequential, arising out of the use of the Internet, accuracy or correctness of databases or information contained therein, or related directly or indirectly to any failure or delay of access to the Internet and District technology resources.

5. The Armstrong School District may terminate the availability of the Internet and network accessibility at its sole discretion.

## USER AGREEMENT

1. All students who wish to use the technology resources and the internet must sign an acknowledgment of receipt and agreement with this policy. Student and parent/guardian signatures in the student handbook indicate both the student and parent(s)/guardian(s) agree to abide by the rules set forth by this policy and the acceptable use of technical resources throughout Armstrong School District. Handbook parent/guardian and student signatures will be maintained in the office suite of each individual building and/or homeroom teacher.

2. Employees wishing to use District technology resources and the Internet must sign an "Acceptable Use of Technology" agreement form, which will be kept on file in the Administration Building. Copies of this policy can be found in the employee handbook.

## CIPA COMPLIANCE STATEMENT

1. Pursuant to this policy, the School Board has established that any information that is obscene, child pornographic or harmful to minors, all is defined by the Child Internet Protections Act (CIPA), is inappropriate for access by minors.

2. The Superintendent or designee shall be responsible for implementing technology and procedures to determine whether the School's computers are being used for purposes prohibited by law or this Policy. The procedure shall include but not be limited to:

   A. Utilizing a technology protection measure that blocks or filters Internet access for minors and adults to certain visual depictions that are obscene, child porno-graphic, harmful to minors with respect to use by minors, or determined by the Board to be inappropriate for use by minors.

   B. Maintaining and securing a usage log.

   C. Monitoring online activities of minors.

## STUDENT E-MAIL REQUEST GUIDELINES

In order to facilitate classroom activities within some ASD courses, it may be at times necessary to provide students with e-mail access to communicate as part of the course requirements. On an individual basis, Armstrong School District may provide students with e-mail access provided e-mail accounts are used solely for the purposes outlined herein and below by the instructor.

1. Students are not permitted to subscribe to listserv's or use e-mail accounts for any purpose other than education.
2. Students are not permitted to send e-mail to distribution lists or use e-mail as a means for communicating personal views, disseminating information to user groups or divulging personal information.
3. Students are required to use acceptable language at all times.
4. Students are not permitted to accept or send any e-mail with attachments unless provided authorization by the supervising teacher.
5. Students sending or receiving an e-mail containing text and/or pictures that communicate obscenities, unacceptable visual depictions that are obscene or threatening, or pornography should report the inappropriate communications to the supervising teacher and principal immediately. Students and/or adults who authored such communication will be disciplined and/or prosecuted.
6. Privacy for a user of Armstrong School District's technology resources, including Internet access and e-mail, is not an expectation.
7. Armstrong School District reserves the right to randomly or specifically monitor without prior notice any person's use of technology resources including e-mail.
8. E-mail should not be considered private; its use and availability is a privilege and not a right. Armstrong School District reserves the right to terminate e-mail accounts or accessibility if it is determined or suspected that it is not being used for its intended educational purposes.

## CELL PHONE POLICY (Policy 237.1)

**Guidelines**

1. Instructional Day - During the instructional day, cellular telephones cannot be used on school property. The cellular telephone must be deactivated, and placed in a student locker. School property includes classrooms, gymnasium, cafeteria auxiliary areas (hallways, lobbies, restrooms, locker rooms, etc.) and outdoor school grounds.

2. Audio/Video Capabilities - During the non-instructional day, cellular telephones that have the capability to take photographs, to record audio and /or to record video, shall not be used by a student for such purposes on buses or other vehicles provided by the school, or while the student is participating in a school-sponsored activity, unless expressly authorized in advance by the Building Principal. Student spectators at a school sponsored activity are not considered to be participants. At all times, photographic, audio recording and/or video recording capabilities of a cellular telephone are strictly prohibited from being used in restrooms, locker rooms, or dressing areas.

**Exceptions**

1. Provided prior approval is obtained from the Building Principal or designee, the above restrictions and prohibitions contained in Section 1 of the Guidelines shall not apply to a student who is a member of a volunteer fire company, ambulance or rescue squad.
2. Principals and teachers may for good cause permit a student to utilize a cellular telephone during otherwise prohibited times or at a prohibited location.
3. Other reasons determined by the Superintendent or designee.

**If permission is granted, it shall be limited to using a cellular telephone that alerts the user to incoming calls by "vibration." Using the cellular telephone in the "ring" mode is not permitted.**

**Discipline**

Students who violate this policy shall be subject to appropriate disciplinary responses including but not limited to confiscation, warnings, in-school suspension, out-of-school suspension, temporary or permanent revocation of cellular telephone privileges, and/or confiscation of the cellular telephone. A confiscated cellular telephone shall be deactivated and returned at the end of the school day. Parents/guardians will be notified of any disciplinary action, including confiscation or denial of cellular telephone privileges. At the discretion of the Principal, confiscated devices may not be re-turned until a conference has been held with a parent/guardian. As in the case of other personal property, the school is not responsible for any financial losses incurred by a student or family if a cellular telephone is lost, stolen, damaged or misused.

## SECONDARY GRADING POLICY
## FOR ARMSTRONG SCHOOL DISTRICT STUDENTS

Teachers assign point values to each test, quiz, culminating project, class work, active participation, performance, homework assignment, lab activity, report or project and record the total possible points and points earned in the grade book. The quarter grade will be determined based upon Chart A. In each grading period, the student should have at least five non-homework recorded grades.

The following letter grades represent the specified percentages:
92% - 100% = A
83% - 91% = B
74% - 82% = C
65% - 73% = D

0% - 64% = U

The following letters indicate particular circumstances:

| | |
|---|---|
| I | Incomplete (temporary grade) |
| W | Withdrawn |
| E | Passing with effort |
| WF | Withdrawn/Fail |
| M | Medical |

The recorded grades will represent student assessment on work from the following categories. The percentages associated with each category are the maximum the category can count toward the quarter grade.

**Chart A**

| Grading Category | Maximum Percent |
|---|---|
| Evaluations<br>Tests<br>Quizzes<br>*Culminating Projects | 80% |
| Applications<br>Labs/Projects<br>Reports<br>Class work<br>Active Participation<br>Performances | 80% |
| Homework | 15% |

*This category pertains to the following courses: Band, Chorus, Tech Ed, & Art.

Final exams count as 10% of the final grade in any one subject. No individual band or chorus performance can be weighted greater than 20% of the nine-week grade.

Extra credit may be offered to students. The extra credit may only be worth a maximum of 2%.

## GRADE REPORTING

1. Percentages will be used for quarter grades. Final grades will be recorded as letter grades.
2. Special needs students who participate in regular education classes may need adaptive testing. Adaptive testing is a qualitative adjustment to the testing situation which meets the student's needs; the test and test-taking strategy may be adapted, but the same percent-age grading scale must be utilized.
3. Final Grade Calculations
   a. Each quarter will be assigned equal value in the calculations of a course final grade, which does not include a final exam.
   b. In all courses utilizing final exams, the final exam will be weighted to count as only 10% of the final grade.
   c. The result is that:

**Semester Courses** – Each quarter counts as 45% of the final grade and the final exam is 10% of the grade.

**Year Long Courses** – Each quarter will be weighted as 22.5% of the final grade and the final exam weighted as 10% of the grade.

4. Teachers are required to post/upload grades weekly to the Parent Portal.

## PROCEDURES FOR REPEATED COURSES

The course taken solely to improve a former passing grade will not be computed in a student's GPA or class rank. The latter occurs only to meet prerequisites for future courses. Both attempts will appear on the students' transcripts.

Credit will be earned only if a failing grade was received during the initial attempt of the course.

### Graduation/Promotion Requirements

Promotion and graduation of students shall be based upon the minimum requirements of the various curricular programs as established by the Board of School Directors of the Armstrong School District.

Starting with the 2014-2015 school year, students must earn the following cumulative credit totals to promote to the next appropriate grade level:

-Grade 9 - must earn 4 credits to promote to Grade 10
-Grade 10 - must earn 11 credits to promote to Grade 11
-Grade 11 - must earn 17 credits to promote to Grade 12

Beginning in grade 7, students have the opportunity to make up a maximum of two courses failed during the school year in summer school.

Students in grades 7 and 8 who have failed no more than three (3) full-year subjects or the equivalent at the conclusion of the school year or summer school will be assigned to the next grade and will be scheduled to repeat subjects failed.

Students in grades 7 and 8, who fail more than three (3) full-year subjects or the equivalent at the conclusion of the school year or summer school, will be retained.

To receive a diploma from the Armstrong School District, a student must satisfactorily complete the program and graduation requirements stipulated by the Commonwealth of Pennsylvania and the local Board of School Directors of the Armstrong School District.

## CLASS RANK AND HONOR ROLL DETERMINATION

The following courses are given weighted status when calculating grades for the honor roll and class rank:

Physics I & II
Chemistry I & II
Biology II
Advanced Placement Courses
Algebra III and Trigonometry
Anatomy and Physiology
Calculus I

French III & IV
Spanish III & IV
STEAM Art
Independent Study Courses*

Non-weighted courses carry point value of: **A** = 4*;* **B** = 3; **C** = 2; **D** = 1; and **U** = 0.

*Participation in an Independent Study Program may occur when the courses are natural extensions of courses in the normal curriculum. Credit will be granted to the student who is able to meet all course requirements outside the regular classroom. (See Independent Study Guidelines)

Honor roll and class rank calculations for weighted courses carry quality point values of A = 5; B = 4; C = 3; D = 2 and U = 0 points. The calculation of class rank includes all courses taken in grades nine through twelve. All students will be required to take a minimum of 7 credits each school year.

Calculations for Valedictorian and Salutatorian will be based on all courses in grades nine through twelve. Selection as either valedictorian or salutatorian shall be limited to students who have completed seventeen (17) credits as a student in the Armstrong School District. The student shall begin and complete the senior year in the ASD junior/senior high school in which they begin.

The District has two honor roll levels:

**DISTINGUISHED HONORS** – Grade point average of 3.8 or higher and cannot have a grade of 82% or less.

**HONORS** – Grade point average of 3.0 or higher can have one grade within the range of 74% through 82% and cannot have a grade less than 74%.

## CO-CURRICULAR DENIAL REQUEST FORMS

These forms are filled out at the school level when student's academic performance is below standards to participate in co-curricular events such as sports. The forms are mailed home to parents/guardians to verify the student's grades and whether he/she is on a probationary period or is ineligible to participate in the sport for the specified period of time as defined in this manual.

## PROGRESS REPORTS

Progress reports are available on the student portal in the middle of each grading period. These reports show the academic achievement or lack of achievement of the student during the nine-week grading period. Please be aware that a student who receives a near and/or failing progress report is in jeopardy of failure if improvement is not demonstrated. Parents/guardians should contact the school to discuss these reports with the guidance counselor. Progress reports require attention of the student and parent/guardian.

## STUDENT ASSISTANCE PROGRAM

Student support programs are available in each high school in the District. The school nurse, guidance counselor and administrators should be approached when specific problems occur or students are in need of help. A secondary Educational Student Assistance Program (SAP) exists in each school. Teams of teachers and administrators meet regularly to address individual student concerns as presented. Parent(s)/guardian(s) are contacted to meet with the team of educators whose primary focus is to assist the student.

## EDUCATION FOR EXCEPTIONALSTUDENTS

The Armstrong School District provides all students with opportunities to learn and reach goals. Students who are eligible for special education services are provided with learning support and other services as identified on the Individualized Education Program (IEP). Parents, teachers, guidance counselors, administrators and students are involved in the decision-making process. Educational placement and specially designed instruction are determined by the IEP. Assistance is provided to students in need of learning, emotional or life skills support. Specially designed instruction may be provided through the regular education class, a resource learning room, or through social or functional skills instruction. Speech/Language, vision, and hearing services are also provided, as well as physical and/or occupational therapy, depending on the IEP information.

## HOMEBOUND INSTRUCTION

In case of illness, which requires a student to miss more than two weeks of school, arrangements can be made through the principal's office for homebound instruction. A physician's statement is required to provide homebound instruction.

## MODEL EDUCATION PROGRAMS

Students who experience extreme discipline problems in the traditional school setting may be recommended to attend model education programs, which exist through community support agencies. When repeated problems occur in the school, parents/guardians are contacted to participate in building-based meetings to assist the student in correcting problems which are related to poor attendance in school, poor behavior in the classroom or school, or demonstration of anger and physical assertiveness. Parent/guardian involvement in attending school meetings and communicating with school personnel is necessary to support the student's need and to provide him/her with advice and guidance. A student who completes his/her senior year at the Model Education Program will receive an Armstrong School District diploma but may not participate in graduation ceremonies.

## EDUCATIONAL SUPPORT RESOURCES

Students may also need support in locating information for research papers, assignments or projects. Each school library in the District is equipped with current technology. Students are encouraged to use the school library and guidance offices to seek information needed. School librarians, guidance counselors, business education/computer teachers and other instructors who are trained and experienced in using modern technology are available to assist students in using computers and other technological services.

## ENGLISH AS A SECOND LANGUAGE (ESL)

English as a Second Language instruction is an academic discipline that is designed to teach English language learners social and academic language skills as well as the cultural aspects of the English language necessary to succeed in an academic environment and contribute to society. The Armstrong School District provides a program for each student whose dominant language is not English for the purpose of facilitating the student's achievement of English proficiency. Eligible students receive instruction in listening, speaking, reading, writing and comprehension at appropriate developmental and proficiency levels. Parent(s)/guardian(s) of ESL students are encouraged to actively participate on the District's ESL Advisory Committee. For additional information regarding these services, please contact the Assistant Superintendent's Office.

## INDEPENDENT STUDY GUIDELINES FOR STUDENTS IN GRADE 11 AND/OR 12

Students may earn credit through independent study outside the regular classroom. Course requirements are the same as if the student attends the regularly scheduled class. The following procedure is defined for students requesting to complete an independent study course:

1. Independent Study may consist either of courses which are part of the normal curriculum and cannot possibly be scheduled by the student during the present or future school years or other areas of study which are not part of the normal curriculum but are important for the student's educational growth.

2. Independent Study is ordinarily reserved for eleventh and twelfth grade students.

3. An Independent Study Contract must be used for approval of all courses in the District. The information required includes the name of the course, length of the course (year/semester), and credit to be granted depending on the final project and rubric designed for the assessment.

4. The advisor / mentor teacher, guidance counselor, principal and student are responsible for developing the agreement required for the Independent Study Contract.

5. The Independent Study requires the signature of all parties involved in its development.

6. Grades/credit will be issued in the same manner as other courses. Programs of Independent Study must be completed within the time frame established in the Contract for grades/credit to be awarded.

7. A copy of the Independent Study Contract is filed in the student's cumulative folder. Credits and grades are reflected in all student information, class standing and academic reports.

8. An independent study-time log must be completed by the student.

## WORK EXPERIENCE PROGRAM

Students in grade twelve may wish to enroll in a work-study program if they can meet minimum graduation requirements by the end of their senior year. Students may request permission to be released in the morning or afternoon in order to report to a daily job with adult supervision. The employer will be asked to verify information throughout the school year regarding attendance and the student's performance. Students must take a course load of at least four periods per day in the school to participate in the work-study program.

Students who are interested in enrolling in a work-study program must have approval from principal, guidance counselor, parent/guardian and the employer. Additionally, all work study experiences will be arranged through the District Transition Coordinator. Students who quit jobs or are dismissed from the position will return to school and have a full-time schedule. Students may be requested to return to the school if the employer and/or professional staff determine that the work-study program is not appropriate and beneficial to the student. Students are responsible for notifying school personnel if their job is eliminated or status changes from when the application is completed. Babysitting, paper route delivery, lawn care such as mowing, or selling items door-to-door will not be approved. Work study jobs must support future career goals.

## REQUIREMENTS FOR PARTICIPATION IN GRADUATION CEREMONIES

Seniors must successfully meet specific requirements in order to participate in graduation ceremonies and are notified of their progress throughout the school year.

1. Seniors must be able to earn the required courses for graduation according to the specified grade and content areas. A total of 25 credits are required at the end of grade twelve.

2. Parents are encouraged to review their students' academic achievement regularly via the parent portal in Skyward. Parents will be notified at the middle of each nine week grading period that Student Progress Reports are available for review through the parent portal in Skyward.

3. The Guidance Counselors will notify parents/guardians at the mid-point of each nine week grading period of a student that is in danger of failing. The Students are also notified of the possibility of failing their senior year and should make arrangements with the counselor to discuss options.

4. All twelfth grade pupils in danger of failing and not being able to participate in graduation ceremonies will be notified by the Guidance Office.

5. Students who do not meet graduation requirements are not permitted to participate in the graduation ceremonies at the end of their senior year.

6. Students who are not eligible to graduate at the end of grade twelve, may attend Summer School and/or return to high school the following year to earn required credits for graduation. Students may participate in the following year's graduation ceremonies.

7. A student who completes his/her senior year at the Model Education Program will receive an Armstrong School District diploma but may not participate in graduation ceremonies.

## DUAL ENROLLMENT

Dual enrollment courses allow college-bound students to earn college-level credit for courses taken in high school. It also provides high school students who may be undecided about their future to have the opportunity to experience college, and decide whether it is the right option for them. The students' eligibility to take dual enrollment courses is determined by the higher education institution and the home school.

ASD partners with institutions of higher learning such as Indiana University of PA (IUP), Butler County Community College (BC3) and Clarion University of PA (CUP) to offer these courses.

Dual Enrollment courses in high school accelerate a student's college career by allowing qualified students to earn college credit. Taking dual enrollment courses in high school can be considered a real bargain because they are generally offered at a significantly lower rate than regular college courses.

Dual Enrollment courses must be scheduled around the student's high school schedule and do not replace high school requirements. See the guidance counselors for more details and how to find specific course offerings.

## PARTICIPATION IN SENIOR YEAR ACTIVITIES

All senior students are invited to participate in senior activities as scheduled and planned by pupils, teachers, advisors and the administration. The building principal determines the final decision of student's participation in activities when questions may occur due to reasons such as disciplinary

problems or the academic need to remain in classes to support graduation requirements. Seniors choosing to participate in ceremonies pertaining to graduation are required to attend all rehearsals unless an emergency arises and the principal has been contacted. Requests for absence from rehearsals must be presented in writing from the parent/guardian prior to the absence, unless extraordinary reasons exist. Those seniors absent without a written excuse and/or having had contacted the principal will not be permitted to participate in Baccalaureate or Commencement exercises.

Exceptions to these practices are addressed on an individual basis with involvement of the principal, guidance counselor, teachers and the class advisor. A meeting for all involved parties may be scheduled to discuss specific cases when participation in graduation activities is in doubt.

Students graduating from Lenape Technical School may participate in the graduation ceremonies of their home schools but are required to be present for all rehearsals. Lenape Technical School students receive a diploma from Lenape Technical School.

Armstrong School District seniors receive an Armstrong School District diploma from their high school only if all graduation requirements are satisfactorily completed.

## ATTENDANCE AND EXCUSES GRANTED TO HIGH SCHOOL STUDENTS

Attendance at school affects a student's grades and classroom performance. The Armstrong School District enforces compulsory attendance laws of the Common-wealth of Pennsylvania and according to procedures established for all schools. Students involved in college/university or other post-high school training visits must receive special permission for absences from school. Parent/guardians must submit a permission form for students to visit educational sites; this permission must be requested at least one full school day prior to the event. The principal must also grant the final approval for each student excused from classes on any given day when post-high school visits are involved.

## ATTENDANCE REGULATIONS AND MAKE-UP WORK IN SCHOOL

A student who misses or anticipates missing two or more consecutive days may request homework assignments through the principal's office. Students who are in attendance the day before an announced examination must take the exam the day of their return to school. Students must complete missed work within the number of days equal to their absence. Credit will not be given for work, which has not been completed according to the timeframe identified. Repeated violations will be cause for social probation and class failure. Specific rules regarding student attendance are explained in the Parent/Student Handbook.

## PREPARING FOR ENTRANCE TO COLLEGES/ UNIVERSITIES OR OTHER POST HIGH SCHOOL INSTITUTIONS

Students who are considering attending a college/university should be aware of the entry requirements for that educational school, since institutions of higher learning establish different expectations of pupils. Most colleges, however, review common information about entering students. The criteria most often evaluated are as follows:

- Class rank
- Recommendations of teachers
- Grades earned in high school
- College entrance test scores: PSAT, SAT, ACT
- Participation in athletic or extra-curricular activities
- Courses taken as college preparatory or advanced placement choices

- Honors or awards received
- Community service time and experiences
- Attendance records

***The Guidance Office informs students of dates, times and locations for college entry tests being administered. Students are responsible for being aware of information and registration for taking the PSAT, SAT, ACT, and other advanced level testing. Fees and/or charges for these exams are the responsibility of the student.***

The high school guidance counselor can assist students in the process of applying to a post-high school institution. For information about the correct procedures to follow, financial aid available and student loans offered through various organizations, visit the guidance counselor in the high school attended.

## EARLY ADMISSION TO COLLEGE

Regulations of the State Board of Education state that "exceptionally able students may leave high school prior to their senior year to attend approved colleges full time at the discretion of the School District." The high school diploma will be awarded to these students upon successful completion of the freshman year in college.

Armstrong School District students who complete their junior year in high school and choose to enroll in a college or university as a full-time student should meet with the guidance counselor and principal to discuss the procedures for enrolling in a university and exiting from the high school. Principals approve all requests for early admission to college once each student's case has been reviewed through the Assistant Superintendent.

Students are given the high school diploma from the home school once the freshman year in college is successfully completed and transcripts are provided for verification. Early admission to college students may participate in the graduation ceremony with their class if all rehearsal requirements have been met.

## CYBER ACADEMY AT ARMSTRONG SCHOOL DISTRICT

The Cyber Academy at Armstrong School District is an initiative that gives children a blend of home-based learning combined with rich opportunities to participate in high school activities. Courses will be offered to students in grades K - 12. Armstrong School District teachers offer instruction across all core subjects as well as numerous electives, including world languages.

**Advantages:**

- The freedom for your child to learn when they like. Teachers may do occasional lessons in real time using online chat or Web conferencing, but mostly, the student sets their own schedule.

- Most courses will be taught by Armstrong School District teachers.

- Bi-weekly feedback on student progress, with opportunities for face-to-face meetings with teachers.

- Opportunities to take dual-enrollment courses and get college credit, all while paying Armstrong School District's discounted tuition rate.

- The opportunity to attend, in person, any Armstrong School District course offered in grades 7-12, in addition to your home-based education through the Cyber Academy. For example, your child could be driven to school to take art, family and consumer science, wood technology or any other elective

offered at your nearest high school and would get school credit and classroom experiences while doing so.

- An open invitation to participate in sports, band and any extracurricular activities, opening the door to the benefits of peer friendships and the valuable lessons of team experiences.

- The convenience of state testing at the District's two high schools.

- Eventual progression to an Armstrong School District diploma upon graduation.

- Equipment is installed in your home by an Armstrong School District technician prior to the start of the school year.

For more information, please contact the Cyber School Coordinator, Ms. Rhonda Reed, at 724-783-7040 or rreed@asd.k12.pa.us.

## APPROVED NON-DISTRICT INSTRUCTED ON-LINE COURSES

**Financial Responsibility:**
Some courses (some elective courses) are **not** taught by Armstrong School District instructors. Therefore, students may have the option of enrolling in courses offered by approved out-of-district vendors. When this happens, it is the **responsibility of the parent/student** to pay the Armstrong School District prior to the start of class the full costs of any on-line course(s) not taught by an Armstrong School District instructor.

**Tuition Explanations:**
The tuition fee for virtual/online courses will be the ***responsibility*** of the ***school district*** under the following conditions:
- A legitimate course conflict exists.
- The virtual/online course is one of the eight (8) maximum credits in which a student may enroll during the school year. Exception to the eight (8) credit maximum may be granted by the principal.
- Limited to Armstrong School District courses.
- The student/parent is responsible for initial payment of tuition and associated costs. The District will reimburse the student/parent said costs if the student completes and passes the course.

The tuition fee for virtual/online courses will be the ***responsibility*** of the ***student/parent*** under the following conditions:
- The course is considered enrichment and not offered by the Armstrong School District.
- The course is remedial and/or taken due to a failure of the same or similar course.
- The course does not replace an Armstrong School District course.
- The course is considered for credit recovery.

## ACADEMIC RELEASE (Third Party Vendors)

The online instructors may contact schools and teachers in order to better serve students' needs. Schools require parental permission in order to share academic information regarding a student. The information shared may include, but is not limited to grades, test results, vision screening and IEP reports. This information may be shared verbally, in writing, or in face-to-face conversations during school visits. Information will be shared only with the online service provider, the course instructor, and participating instructors from blendedschools.net member school districts.

## ATHLETIC SCHOLARSHIPS AND NCAA CLEARINGHOUSE

## ***NCAA Web Site: www.eligibilitycenter.org***

To qualify for an athletic scholarship or eligibility for a Division I or Division II college or university, a student must meet the eligibility requirements and provisions of the National Collegiate Athlete Association's Proposition 48. For students who are planning to enroll in college as a freshman and who wish to participate in Division I or Division II athletics, the NCAA Clearinghouse must certify initial eligibility. The Clearinghouse ensures consistent application of NCAA initial eligibility requirements for all prospective student athletes at all member institutions.

Students considering athletic participation at a Division I or II University or college are responsible for completing and submitting certain documents, as well as satisfactorily completing certain academic requirements. Student Release Forms which are available free of charge from the high school guidance counselor must be completed and submitted to the Clearinghouse before graduation from high school; after graduation, students are required to send to the Clearinghouse a copy of the official transcript as released from the high school.

Attention to the NCAA information is very important to students who are considering entrance to college and participating in athletic programs. If interested, students should begin to consider the NCAA Clearinghouse process as early as their freshman year in high school to allow for proper and successful course completion and academic eligibility criteria for Division I or II schools. For registration, visit: www.eligibilitycenter.org. Note that courses in grades 9-12 are reviewed for eligibility. For information on eligibility, visit: www.2point3.ncaa.org.

## ELIGIBILITY TO PARTICIPATE IN ATHLETIC/CO-CURRICULAR ACTIVITIES

All students desiring to participate in a co-curricular activity must have passing grades in all subjects and approval of the principal in citizenship. Eligibility shall be cumulative from the beginning of a grading period and shall be reported on a weekly basis. During each grading period, students failing no more than one subject will be permitted a one-week probationary period. Students failing more than one subject will be ineligible to participate in the activity.

Unacceptable performance is documented on the "Co-Curricular Denial Request" form and submit-ted to the building principal on Thursday of each week. The period of denial begins on Monday of the following week and concludes the following Sunday. The building principal informs students and staff members of the eligibility status.

On days of a denial, a student is declared ineligible for participation in the activity. Because of safety and conditioning considerations, members of athletic teams may participate in practice sessions during the denial period.

When a student is absent from school for a partial or full day of an event or the last school day before the event, participation in the event is dependent upon the following factors:

- If a student is absent in the afternoon or for the whole day because of illness, participation will not be permitted unless a certified physician gives written permission.

- For other reasons of absence, approval must be granted in advance by the building principal.

Responsibility for the decision on participation is under the jurisdiction of the building principal or his designee after consultation with the head coach or supervisor of the activity.

## SUSPENSION FROM PARTICIPATION IN ATHLETIC/CO-CURRICULAR ACTIVITIES

All school-sponsored programs are subject to the approval of the principal. Students are subject to all rules and regulations of the Armstrong School District.

Suspension of a student from a co-curricular program in operation during non-school hours must be consistent with school suspension policies. A coach/sponsor may recommend to the principal/assistant principal that a student be suspended from the program. Suspensions may result because of, but is not limited to, the following infractions:

a. Violating coach/sponsor's rules, approved in advance by the principal
b. Disrespect, including using abusive language or profanity
c. Insubordination
d. Fighting
e. Excessive absence from practices, performances, or events
f. Use of prohibited drugs or alcoholic beverages whether or not on non- school time at a gathering or event, which is not related to the school through name or funding

A student who has been suspended from the program will not be permitted to practice, be in uniform, or participate in any performance or event during non-school hours through the term of suspension.

# COURSE DESCRIPTIONS AND INFORMATION GRADES 7-12

## SCHEDULING PROCESS IN THE ARMSTRONG SCHOOL DISTRICT

The scheduling process is an important matter and requires attention to planning and considering future interests and career opportunities. Students and parents must communicate with each other to discuss these plans and interests in order for sound educational decisions to be reached and course selections to match college/university entry requirements or career goals. Students and parents should also plan for graduation requirements to be achieved at the expected time in the high school years. The scheduling process for each school year begins at the beginning of the spring semester. Students are to review course descriptions and offerings at the high school level and design their graduation plan according to the graduation requirements. Student schedule requests will be made available for parent review through the parent portal in Skyward. Guidance counselors meet with students to assist them in scheduling the necessary courses. The schedule is then designed and prepared for students to have available prior to the next school year. Schedule changes must be made by the designated date. The following procedures are to be followed to request a schedule change:

- Complete a schedule change request form
- Secure signatures on the form from parents/guardians, the counselor and the principal
- Return the schedule change to the school office by the designated date
- Schedule changes may only be made prior to the start of the school year
- All students should have a copy of their schedule by the first day of the new school year

## DROPPING OR ADDING COURSES

Students may request to drop or add a course for specific reasons. Only in emergency circumstance will schedule changes be considered once the new school year begins. In the event that a request is denied, the student may request a meeting with the principal, guidance counselor, teacher of the course requested to be added or dropped, and parent (if requested by the student). The principal makes the final decision regarding students dropping or adding a course. The dropping of a course during the regular school year will be handled on an individual basis. Students should be prepared to receive a "W/F" or "U" grade for failing if the course is dropped.

## SECONDARY CURRICULUM COURSE OFFERINGS

Students in grades nine through twelve must take the minimum equivalent of 6.5 credits that meet daily plus physical education for a complete school term. Any deviation from this requirement must be approved by the building principal. **A minimum of 25 credits is required for graduation**, which must include: 4 credits in English, 3 credits in Science, 4 credits in Social Science and 4 credits in Math. Fractional unit credit is given for each 30 clock hours below and above 120 clock hours. Students may be accelerated with the principal's approval. All secondary schools shall meet the Curriculum Requirements as adopted by the State Board of Education (22 Pa. Code, Chapter 4, ACADEMIC STANDARDS & ASSESSMENT). Required credits for Armstrong School District graduation are listed below:

### GRADE 7

English 7
Developmental Reading 7 or READ 180 ***(Based on assessment results)***
Geography/Civics 7
Principles of Mathematics 7 or Accelerated Pre-Algebra
Science 7 – You and the Earth
Physical Education
Keyboarding/Microsoft Office Word/Power Point (semester)
Technology Systems
Band - elective
Chorus - elective

### GRADE 8

English 8
Developmental Reading 8 or READ 180 ***(Based on assessment results)***
United States History I
Mathematics – Pre-Algebra, Paced Algebra I Part A or Algebra I ***(Based on assessment results)***
Science 8 – Matter and Energy
Health 8 (semester)
Physical Education
Visual Art Design and Production-elective
Band - elective
Chorus - elective
Spanish I - elective
French I – elective
Multimedia Basics - elective
Technology Systems/Technology Exploration—elective
Family & Consumer Science 8—elective

The following classes are required semester-length introductory courses scheduled for all students in the junior high school curriculum during grades seven or eight:
Art
Family & Consumer Sciences
Music
Technology Education

| GRADE 9 | CREDITS |
|---|---|
| English 9 | 1.0 |
| Mathematics Course | 1.0 |

*(based on assessment results/student performance, student need)*

| | |
|---|---|
| Science Course/Science 9 | 1.0 |
| United States History II | 1.0 |
| Physical Education 9 | .5 |
| Computer Science 9 | .5 |
| Reading *(based on assessment results/student performance)* | 1.0 |
| Family and Consumer Science 9 | .5 |

**Electives** - see pages 25-28

| **GRADE 10** | **CREDITS** |
|---|---|
| English 10 | 1.0 |
| Mathematics Course | 1.0 |
| Science Course/Biology I | 1.0 |
| American Government | 1.0 |
| Physical Education 10 (sem.) | .5 |
| ~Driver Education Theory | .3 |
| **Required Electives** | |
| + Public Speaking (sem.) | .5 |
| + Living on Your Own (sem.) | .5 |

**Electives** - see pages 25-28

| **GRADE 11** | **CREDITS** |
|---|---|
| English 11 | 1.0 |
| Mathematics course | 1.0 |
| Science course*-elective (as scheduled) | 1.0/1.4 |
| World History | 1.0 |
| Physical Education 11 (sem.) | .5 |
| Health 11 (sem.) | .5 |
| **Required Electives** | |
| +Public Speaking (sem.) | .5 |
| +Living on Your Own (sem.) | .5 |

**Electives** - see pages 25-28

| **GRADE 12** | **CREDITS** |
|---|---|
| English 12 | 1.0 |
| Mathematics course | 1.0 |
| Economics (sem.) | .5 |
| Social Sciences - elective (sem.) | .5 |
| Physical Education 12 (sem.) | .5 |
| **Required Electives** | |
| +Public Speaking (sem.) | .5 |
| +Living on Your Own (sem.) | .5 |

**Electives** - see pages 25-28

~Driver Education Theory is scheduled in grade ten as a **required** course. Behind-the-wheel driving lessons (six total hours) may be scheduled during non-school hours and after the Driver Education Theory course is completed. A $155 fee is charged for behind-the-wheel lessons. All scheduling is finalized at the building level.

**+Public Speaking and Family & Consumer Sciences** are **required** semester courses which **may be scheduled in grades ten, eleven or twelve.**

*Science credit requirements may be completed during the student's junior or senior year in high school.

There are eight periods per day or 40 periods per week scheduled in grades 9-12. Students are required to schedule a minimum of 7 periods per day or 35 periods per week in grades 9-12. No student is permitted to schedule more than 5 study periods in a week. Deviations in this scheduling may occur only when the student has achieved graduation requirements and/or with prior approval during the scheduling process.

Graduation requirements are representative of minimum expectations for students. Pupils are encouraged to enroll in courses beyond requirements for graduation and according to career or personal interests and goals.

Student scheduling is a process, which involves the guidance counselor, students, teachers and parents/guardians making appropriate decisions regarding goals for success in school and the future. Students' grades, classroom achievement and progress indicated on tests are reviewed during the scheduling process when determining those classes, which will help him/her, be successful in school. Parents/guardians are requested to play an active role in their child's scheduling of classes in the junior high/middle school.

Scheduling of courses is subject to meeting prerequisites.

## SECONDARY CURRICULUM COURSE OFFERINGS
## CURRICULUM ELECTIVES FOR GRADES 9-12

All courses should be taken sequentially unless approved by the principal.

| **ART** | **CREDITS** |
|---|---|
| * Studio Art 9 | .5 |
| * Studio Art I | 1.0 |
| * Studio Art II | 1.0 |
| * Studio Art III | 1.0 |
| * STEAM Art | 1.0 (weighted) |

| **BUSINESS** | |
|---|---|
| Accounting I | 1.0 |
| **** Business Communications | 1.0 |
| Law & Justice (sem.) | .5 |
| Career Essentials (sem.) | .5 |
| Multi-Media & Digital Design (sem.) | .5 |
| Business Math/Personal Finance | 1.0 |
| Entrepreneurship (sem.) | .5 |
| Microsoft Office Excel/Access (sem.) | .5 |
| Intro to Business (sem.) | .5 |

**COMPUTER**

| | |
|---|---|
| Programming I: Intro to Computer Programming Using Alice (sem.) | .5 |
| Programming II: Computer Programming Using Alice and JAVA (sem.) | .5 |
| AP Computer Science | 1.0 (weighted) |
| Programming IV: Independent Study | 1.0 |
| STEM Robotics | 1.0 |
| Web Page Design I | .5 |
| Web Page Design II | .5 |

**ENGLISH**

| | |
|---|---|
| * Literary Studies (sem.) | .5 |
| * Creative Writing (sem.) | .5 |
| * Television Production/Broadcasting | 1.0 |
| Media Literacy | .5 |
| Introduction to Television and Video Production | .5 |
| Media Studies and Filmmaking/TV | 1.0 |

**FAMILY & CONSUMER SCIENCES**

| | |
|---|---|
| * Family & Consumer Science 9 | .5 |
| * Child Development I (sem.) | .5 |
| * Child Development II Preschool Lab (sem.) | .5 |
| * Child Development III (sem.) | .5 |
| * Food and Nutrition (sem.) | .5 |
| * Culinary Arts (sem.) | .5 |
| * Fashion and Design I (sem.) | .5 |
| * Fashion and Design II (sem.) | .5 |
| * Living on Your Own (sem.) | .5 |
| * Integrated Family & Consumer Sciences | .5 |

**HEALTH**

| | |
|---|---|
| Anatomy and Physiology | 1.0 (weighted) |

**MATHEMATICS**

| | |
|---|---|
| Paced Algebra I (Part A) | 1.0 |
| Paced Algebra I (Part B) | 1.0 |
| Algebra I | 1.0 |
| Basic Geometry | 1.0 |
| Combination Geometry | 1.0 |
| Algebra I Essentials | .5 or 1.0 |
| Algebra II | 1.0 |
| Algebra III / Trigonometry | 1.0 (weighted) |
| Mathematical Analysis | 1.0 |
| Consumer Mathematics | 1.0 |
| Advanced Math | 1.0 |
| Calculus I | 1.0 (weighted) |
| AP Calculus | 1.0 (weighted) |
| AP Statistics | 1.0 (weighted) |

**MUSIC**

| | |
|---|---|
| * Music Appreciation (sem.) | .5 |
| * Music Theory (sem.) | .5 |
| * Introduction to Guitar (sem.) | .5 |
| * Senior High Band | 1.0/as scheduled |
| * Senior High Chorus | 1.0/as scheduled |

**SCIENCE**

| | |
|---|---|
| *** Biology II | 1.4 (weighted) |
| AP Biology | 1.4 (weighted) |
| *** Chemistry I | 1.4 (weighted) |
| Chemistry II | 1.0 (weighted) |
| *** Physics I | 1.4 (weighted) |
| Physics II | 1.0 (weighted) |
| Principles of Science | 1.0 |
| Astronomy | 1.0 |

**SOCIAL SCIENCES**

| | |
|---|---|
| * Sociology (sem.) | .5 |
| * Psychology/Human Behavior (sem.) | .5 |
| * AP Economics | 1.0 (weighted) |
| * AP United States History | 1.0 (weighted) |
| * World Geography (sem.) | .5 |
| * American Geo-Political Conflict (sem.) | .5 |

**COMMUNITY SERVICE LEARNING**: Voluntary - Grades 9-12 - .25 Credit
(see Guidance Counselor)

**TECHNOLOGY EDUCATION**

| | |
|---|---|
| * Manufacturing Engineering 9 | .5 |
| * Manufacturing Engineering I, II, & III | 1.0 (per course) |
| * Materials Engineering 9 | .5 |
| * Materials Engineering I, II, & III | 1.0 (per course) |
| * Engineering Design and Development 9 | .5 |
| * Engineering Design and Development I, II, & III | 1.0 (per course) |
| * Communication Systems 9 | .5 |
| * Communication Systems I, II, & III | 1.0 (per course) |
| * Robotics Engineering | 1.0 |
| * IT Essentials I | 1.0 |

**WORLD LANGUAGE (French/Spanish/Mandarin Chinese)**

| | |
|---|---|
| * World Language I | 1.0 |
| * World Language II | 1.0 |
| * World Language III | 1.0 (weighted) |
| * World Language IV | 1.0 (weighted) |
| * AP World Language | 1.0 (weighted) |

**ADVANCED PLACEMENT COURSES**

| | |
|---|---|
| *** Biology | 1.4 (weighted) |
| Calculus | 1.0 |
| English Literature | 1.0 |

| | |
|---|---|
| English Language | 1.0 |
| Economics | 1.0 |
| Statistics | 1.0 |
| United States History | 1.0 |
| French | 1.0 |
| Spanish | 1.0 |
| Computer Science | 1.0 |

Advanced Placement courses and AP exams are worth it. There is strong evidence of benefits to students who participate in both AP courses and exams in terms of higher GPAs, credit hours earned and four-year graduation rates at the college level. AP Courses and Exams are predictive of student performance at the college level. Students that score high enough on exams may have the opportunity to receive college credit for introductory courses accelerating their path towards a college degree. Based on these factors, Advanced Placement courses will be taught at the college level with a high level of rigor. Additionally, students **will be required** to take the Advanced Placement exam(s) for each Advanced Placement course in which they are enrolled, unless otherwise noted in the course description.

**NOTE:** Starting with the 2018-19 school year, students will be required to contribute up to $30 towards the cost of each AP Exam. The District will help defray the cost of the exam or pay for the exam in full for students in need.

**SYMBOLS KEY:**
* Subject offering qualifies for the graduation requirement in Arts and Humanities.
** Subject offering may be used to meet one of the four math credits required for graduation.
*** These offerings will include two laboratory periods in addition to the regular five class periods.
**** Subject offering may be used to meet one of the four English credits required for graduation.

## SECONDARY ART DEPARTMENT COURSE OFFERINGS

### 500 – VISUAL ART FOUNDATIONS (Required)
Grades: 7 or 8
1 semester
.5 credits

The Visual Art Foundations Course is designed for the study and exploration of the basic techniques and concepts in the art curriculum. Students will be required to participate in hands-on experience in a studio atmosphere. The learning and activities will focus around movements in Art including Renaissance, Realism, Impression, and Post-Impressionism but may also include movements, which might be integral to other curriculum areas.

Assessment will be done on an individual basis using the following areas: project quality and craftsmanship, effort, work habits, effective use of class time, and project critiques either verbal and/or written.

### 501 – VISUAL ART DESIGN AND PRODUCTION (Elective)
Grade: 8
1 semester
.5 credits

This course is designed for students who have demonstrated the ability and/or interest in art beyond the Foundations level. The content of this course will include work in aesthetics, philosophy of art, art criticism, and art history with an emphasis on art production. Assessment will be done on an individual basis using the following areas: project quality and craftsmanship, effort, work habits, effective use of class time, and project critiques either verbal and/or written.

### 502 – STUDIO ART 9 (Elective)

Grade: 9
1 semester
.5 credits

This is the entry level course for Studio Arts I and will be a prerequisite for all other Art Courses for all students. It will provide a technical foundation and knowledge base for artistic expression. The emphasis for this semester long course is Studio Production: concentrating on both two-dimensional and three-dimensional design in areas such as drawing, design, painting, crafts, ceramics, sculpture, printmaking and art history in a studio environment. Assessment will be conducted on an individual basis using the following criteria: project quality and craftsmanship, effort, work habits, effective use of class time, project critiques with verbal or written evaluation.

### 503 – STUDIO ART I: ART FUNDAMENTALS (Elective)

Grades: 10-12
1 year
1.0 credit

The student will be exposed to advanced art concepts. Media exploration and originality is emphasized with work produced in a studio atmosphere. Focus is placed on individual and creative vision as well as the development of personal and professional artistic skills. Aesthetics, art criticism, art history and research will be implemented. Assessment will be conducted on an individual basis using the following criteria: project quality and craftsmanship, effort, work ethic, use of class time, project critiques, verbal and written evaluation.

### 504 – STUDIO ART II – EXPLORATION OF VISUAL ARTS MEDIA AND TECHNIQUES (Elective)

Grades: 10-12
1 year
1.0 credit
Prerequisite: Grade of a “C” or higher in course 503

Building on the foundations developed in Studio Art I. This course will further advance techniques and skills. During this year, students will work within design elements and media techniques to solve problems in their individual two-dimensional and three-dimensional work; originality is stressed.

Class is structured for more individual instruction and development in a studio atmosphere. Students will be given the opportunity to take an active and creative role in expanding the direction of his/her procedural and technical knowledge base. Time will be taken to develop formal work presentations, create portfolios and practice their performance in critique and interviews.

Assessment will be conducted on an individual basis using the following criteria: project quality and craftsmanship, effort, work ethic, use of class time, project critiques, verbal and written evaluation

### 505 – STUDIO ART III – EXPLORATION OF VISUAL ARTS MEDIA AND TECHNIQUES (Elective)

Grades: 11-12
1 year
1.0 credit
Prerequisite: Grade of a "C" or higher in course 504

This mastery level course allows the students to continue growth in artistic proficiency and complete their high school portfolio. Students will explore career, higher education, and opportunities available in the arts.

Students' personal styles and techniques are developed along with a greater understanding of aesthetics and art criticism. Also covered will be art periods spanning ancient history to contemporary times as well as from various cultures and regions. The advanced course stresses in-depth concepts and techniques in art. Students will be involved in the planning and evaluation of their projects individually and with the teacher. Portfolios should be documented through slides, video, photographs and web pages.
Assessment will be conducted on an individual basis using the following criteria: project quality and craftsmanship, effort, work habits, effective use of class time, and project critiques with verbal or written evaluation.

### 506 – STEAM ART

Grades: 11-12
1 year
1.0 credit (weighted)
Prerequisites: Grade of a "B" or higher in course work in Studio Arts or Science Course

This is the first STEAM course written for the Armstrong School District. STEAM stands for Science, Technology, Engineering, Art and Math. This is designed for students interested in engineering, architecture, design, etc. This class focuses closely on the relationship between the visual arts and science of biology and nature. Bio-creativity is an activity that combines these subjects through content, purpose, craft, or materials. Students will create a piece of art that is a scientific visualization. They will use creative expression to help communicate science to the public and student body through community or school related art projects by working with the Crooked Creek Environmental Learning Center in our local area. Students will develop and share their project with students in the District. Students will choose a concept to develop or generate an individual idea based on environmental science as it relates to school or community, biological science as it relates to self or student body, earth science, etc. Students will use advanced skills in technology. Students will become familiar with a variety of visual mediums.

## BUSINESS EDUCATION DEPARTMENT COURSE OFFERINGS

### 400 – KEYBOARDING/MICROSOFT OFFICE WORD/ POWERPOINT (Required)

Grade: 7
1 semester
.5 credits

Keyboarding is a required course that helps students' develop skills using the computer keyboard. In order to operate a computer efficiently, students must be able to quickly and accurately input and retrieve data. Keyboarding, therefore, develops fundamental touch inputting skills in the operation of alphabetic, numeric, and symbolic keys, as well as in the operation of a ten-key numeric pad.

Students will create, proofread and edit simple documents. In addition, basic Internet research skills will be explored.

Students will develop word processing and presentation skills utilizing Word and PowerPoint. Students will key, edit, format and print various documents including reports, letters, tables and charts. They work with font changes, clip art, word art, callouts and border designs to enhance documents. Knowledge gained in Word is transferred to the PowerPoint applications as students design professional, informative slide shows that are orally presented to the group. Quality work is emphasized.

### 401 – MULTIMEDIA BASICS (Elective)

Grade: 8
1 semester
.5 credits

Multimedia Basics is an introductory course to develop basic publishing and presentation skills using Word, PowerPoint and Publisher. Further development of keyboarding and Internet research skills will be incorporated. Students will design cards, calendars, and signs. In addition, they will create basic PowerPoint presentations on topics researched.

### 402 – INTRO TO BUSINESS (Elective)

Grades: 9-10
1 semester
.5 credits

This course is designed to introduce students to the world of business and help prepare them for the economic roles of consumer, worker and citizen. The course will serve as a background to assist with consumer decision making, to prepare for future employment and to help perform responsibilities as a citizen. Students will learn trends and issues faced by today's businesses while exploring the new technology that is changing the way business operates and its effects on the global workplace. Students will plan, create, advertise and operate an actual business selling a product for fun and profit.

### 404 – BUSINESS COMMUNICATIONS (Elective)

Grade: 12
1 year
1.0 credit (may be used as an English credit)

Business Communications is designed to develop strong language arts skills to be utilized in both verbal and written business communications. Grammar, punctuation and vocabulary will be used in public speaking, telecommunications, business-oriented research papers, and routine letter and memo composition. Reading comprehension activities will require students to analyze and interpret text.

### 405 – LAW AND JUSTICE (Elective)

Grades: 10-12
1 semester
.5 credits

This course is a survey of the American justice system, including the civil and criminal codes, the court system, constitutional law, a history of law, and contract law. The rights and responsibilities of individuals within our legal system, contemporary issues in society, and current court rulings are the

basis for study and research. Instructional activities include outside speakers, field trips, writing, library/Internet research, and presentations.

### 406 – BUSINESS MATH/PERSONAL FINANCE (Elective)

Grade: 12
1 year
1.0 credit

Business Math teaches mathematical and critical thinking skills that will help students be smart shoppers, informed citizens, and valued employees. Emphasis is placed on financial decision making, payroll calculations, taxes, product pricing, personal finance, loans, checking and savings accounts, investment and retirement planning, charge cards and credit, housing and auto costs and purchasing power. Content of PA Standards in Mathematics will be applied so that skills and strategies maximize academic achievement.

### 407 – ACCOUNTING I (Elective)

Grades: 10-12
1 year
1.0 credit

Accounting I is the study of generally accepted principles of accounting for sole proprietorship, partnership forms of ownership for service and merchandising businesses. In addition to manual accounting, computer accounting software is utilized to record transactions and generate financial reports. The course is designed for students seeking employment, planning further education in accounting or related business fields and applying accounting principles for their personal use.

### 409 – ENTREPRENEURSHIP (Elective)

Grades: 10-12
1 semester
.5 credits

This course will focus on owning and managing a business. Students will concentrate on skills essential to entrepreneurs – identifying a market, understanding business organization, planning and financing a business, using technology, hiring and managing, avoiding legal problems, and meeting ethical and social obligations. Creative strategies will be used in developing marketing and advertising techniques to promote the sale of products or services. A team project will be required that includes the creation of a business plan, business cards, letterheads, advertising brochures, and a television commercial.

### 410 – CAREER ESSENTIALS (Elective)

Grades: 10-12
1 semester
.5 credits

Do you have the competitive edge? Success starts here! Develop and experience skills in dining and drinking etiquette, wardrobe budgeting and shopping, personal grooming, resume and interviewing techniques, cultural diversity, ethical decision-making, and business protocol. Acquire this knowledge through classroom discussion, presentations, and field trips. This course is recommended for all seniors.

### 414 – MICROSOFT OFFICE EXCEL / ACCESS (Elective)

Grades: 10-12
1 semester
.5 credits

This course utilizes Microsoft Office Excel and Access to develop skills in spreadsheet and database applications. Students will generate spreadsheets that contain formulas, charts, and pictures. Excel features of conditional formatting; filters, sorting, and if/then statements will be explored. Students will generate, edit, and append databases. Access features of creating tables, queries, forms, reports, and macros will be explored. Skills learned can be applied to science and math.

### 421 – MULTIMEDIA AND DIGITAL DESIGN (Elective)

Grades: 10-12
1 semester
.5 credits

Use your creativity in desktop publishing to create brochures, pamphlets, collages, etc., combining text and graphics on a computer. Design and burn a CD and DVD utilizing digital equipment. There is an immediate and growing future for people with these skills. The skills developed in this course will provide students with an advantage for employment in writing, graphic arts, journalism, and word processing.

## COMPUTER SCIENCE DEPARTMENT COURSE OFFERINGS

### 450 – COMPUTER SCIENCE 9 (Required)

Grade: 9
1 semester
.5 credits

Successful completion of Computer Science 9 is a requirement for graduation. This course provides an overview of computer hardware through the study of the four components of a computer system: input devices, processing hardware, storage and retrieval equipment and output devices. Students explore various types of software. Presentations, discussions, computer exercises, and projects provide exposure to system software, computer programming languages and application software. Other computer related topics, such as security issues, ethics, networking and the Internet will be included. Course content will be presented in a blended learning format. The course will provide the necessary background for students to enter the computer programming course cycle, beginning with the first programming course - Programming I: Introduction to Computer Programming Using Alice (Elective).

### 451 – PROGRAMMING I: INTRODUCTION TO COMPUTER PROGRAMMING USING ALICE (Elective)

Grades: 10-12
1 semester
.5 credits
Prerequisites: "C" or better in Computer Science 9 and Algebra background

This Introduction to Programming using Alice course is a one-semester elective for any student in grades 10-12. This course is designed for students who have had no previous programming experience. The Alice development environment uses 3D graphics to introduce students to computer

programming. Topics to be covered include program design and problem solving, objects and classes, fields, methods and parameters, basic data types and defined operators, control structures (selection and loops), and lists.

### 452 – PROGRAMMING II: COMPUTER PROGRAMMING USING ALICE AND JAVA (Elective)

Grades: 10-12
1 semester
.5 credits
Prerequisite: "C" or better in Programming I

This course continues to develop programming knowledge and skills by transitioning from the Alice development environment to a text-based Java development environment. Topics will include classes and objects, inheritance, scoping of variables and parameters, and a more realistic Java language display mode. Students will write both Alice and Java programs throughout the course.

### 453 – PROGRAMMING III: AP COMPUTER SCIENCE (Elective)

Grades: 11-12
1 year
1.0 credit (weighted)
Prerequisite: "C" or better in Programming II

The AP Computer Science course is an introductory course in computer science. Because the design and implementation of computer programs to solve problems involve skills that are fundamental to the study of computer science, a large part of the course is built around the development of computer programs that correctly solve a given problem. These programs should be understandable, adaptable, and when appropriate, reusable. At the same time, the design and implementation of computer programs is used as a context for introducing other important aspects of computer science, including the development and analysis of algorithms, the development and use of fundamental data structures, the study of standard algorithms and typical applications, and the use of logic and formal methods. In addition, the responsible use of these systems is an integral part of the course. The Advanced Placement exam is required of all students enrolled in this course. The District will help defray the cost of the exam. Please see page 28, ADVANCED PLACEMENT COURSES.

### 454 – PROGRAMMING IV: INDEPENDENT STUDY (Elective)

Grade: 12
1 year
1.0 credit
Prerequisite: "C" or better in Programming III

This independent study course will build upon the programming skills and concepts learned during Programming III. Students will have the opportunity to explore high level programming languages and various programming platforms using a project based approach. Languages will include, but will not be limited to C++, Python and Java. Platforms will include, but will not be limited to mobile devices, the web and robotics. This course is designed to be flexible and meet the needs of the individual learner.

### 390 – STEM ROBOTICS

Grades: 11-12
1 year
1.0 credit

The purpose of this course is to help students' master science, technology, engineering and mathematics principles while building critical thinking skills and creative problems solving skills that will serve them for a lifetime. STEM Robotics teaches 21st century skill sets like time management, resource allocation, teamwork, and communications. Students will be encouraged to explore their talents and to work hands-on to master STEM skills through practical experience, integrating the LEGO MINDSTORMS NXT robotics building systems, and Robot C, an industry-standard programming language developed by Carnegie Mellon University. Students will have the opportunity to build and program robots to solve real-world problems and compete in an in-class robotics competition.

### 456 – WEB PAGE DESIGN I (Elective)

Grades: 10-12
1 semester
.5 credits
Prerequisite: "C" or better in Computer Science 9

Web Page Design I offers the advanced computer student the necessary background to design and create appealing and effective web pages. Students will create web pages with the use of a combination of Macromedia Suite MX at the beginning of the course and later incorporate HTML and JavaScript. Students will have the opportunity to become a member of the high school web page team to continuously revise and update the school's web page.

### 457 – WEB PAGE DESIGN II (Elective)

Grades: 10-12
1 semester
.5 credits
Prerequisite: "C" or better in Web Page Design I

Web Page Design II offers the advanced computer student the necessary background to design and create appealing and effective web pages. As a continuation of Web Page Design I, students will create web pages with the use of a combination of Macromedia Suite MX applications and HTML programming. Web Page Design II places a greater emphasis on the exploration and use of HTML and JavaScript. In this course, students will also have the opportunity to become a member of the high school web page team to continuously revise and update the school's web page.

## DRIVER EDUCATION DEPARTMENT COURSE OFFERING

### 750 – DRIVER EDUCATION THEORY (Required)

Grade: 10
30 classroom hours of attendance
.3 credits

Driver Education Theory is required of all tenth grade students for a total of 30 classroom hours. The classroom phase of driver training instruction includes the study of: defensive driving, drug,; rules and regulations of PA Motor Vehicle Code, driving environments, vehicle emergencies, vehicle purchasing, maintenance, insurance, map reading, entry and exiting procedure of vehicle, perception and observation, and licensing process. An optional six hours of behind-the-wheel driving lessons may be scheduled with the driver education instructor once the theory class has been completed with 30 hours and the student is sixteen years of age or older. A fee of $155 is charged for the driving lessons. All lessons are scheduled during non-school hours.

## SECONDARY ENGLISH DEPARTMENT COURSE OFFERINGS

### 100-102 – ENGLISH 7

Grade: 7
1 year
1.0 credit

Seventh grade English is a required course for all seventh grade students. Literary appreciation and understanding are stressed. Literature instruction concentrates on short stories and poetry and also includes some drama, novel and non-fiction. Grammar instruction includes: parts of speech, sentence structure, usage and mechanics of punctuation. Spelling and vocabulary are developed through readings and structured lessons. Writing activities concentrate on narration and description, including some extended composition, letter writing and technical writing.

### 105-107 – ENGLISH 8

Grade: 8
1 year
1.0 credit

Eighth grade English is a comprehensive study of language required of all eighth grade students. Literature instruction involves study of the short story, poetry, drama, novel, and non-fiction. Grammar instruction includes: parts of speech, sentence structure (emphasizing compound parts), usage and mechanics of punctuation and capitalization. Spelling and vocabulary are also developed. Writing activities encompass paragraph writing, letter writing, and the rudiments of research paper writing. Some teaching of technical writing will also be included. The course content is divided to equal one semester of grammar study and one semester of literature study. Writing assignments will be correlated to both grammar and literature study.

### 110-111 – ENGLISH 9 COLLEGE PREP

Grade: 9
1 year
1.0 credit

This course stresses writing and the introduction of the composition form. The students will create sound thesis statements. To develop fundamentals for research writing, students will be reinforced in the use of internal citations, correct grammar and the MLA style. Students will be exposed to diverse forms of literature, further expanding their vocabulary and make verbal presentations in conjunction with reading and writing project.

## 112 – ENGLISH 9 GIFTED HONORS

Grade: 9
1 year
1.0 credit
Prerequisite: "A" grade in English 8

This course stresses writing and the mastery of the composition form. While writing, the students will exhibit creative efforts to enhance their critical thinking skills. To develop fundamentals for research writing, students will be reinforced in the use of internal citations, MLA style and thesis statements. Students will consistently incorporate their vocabulary expertise. They will make verbal presentations in conjunction with reading and writing projects. *Summer reading in preparation for English 9 GH may be required.*

## 115-116 – ENGLISH 10 COLLEGE PREP

Grade: 10
1 year
1.0 credit

This course combines paragraph and essay writing with a variety of approaches to literature and a special concentration on drama, the novel, poetry, mythology and including some multi-cultural literature. Building on the grammar and paragraph introduction from the ninth grade year, students work toward fluency in essays, writing about the literature read and about their own experiences. Library research skill and vocabulary study are integrated into the course of study. The students will make verbal presentation in conjunction with reading and writing projects.

## 117 – ENGLISH 10 GIFTED/HONORS

Grade: 10
1 year
1.0 credit
Prerequisite: "A" grade in English 9
This course combines paragraph and essay writing with a variety of approaches to literature and a special concentration on drama, the novel, poetry, mythology and includes some multi-cultural literature. Building on to grammar and paragraph introduction from the ninth grade year, students work toward fluency in essays, writing about the literature read and about their own experiences. Library research skill and vocabulary study are integrated into the course of study. Reinforcement of the organization of the multi-paragraph essay and of the research skills necessary for a documented paper using the MLA style is the writing focus. Vocabulary study is based on preparation for the SAT and ACT with an emphasis on Latin and Greek roots and foreign words commonly used in English. The students will make verbal presentations in conjunction with reading and writing projects. *Summer reading in preparation for English 10 GH may be required.*

## 120-121 – ENGLISH 11 COLLEGE PREP

Grade: 11
1 year
1.0 credit

This course, which is designed for the college bound student, traces the development of American literature. Students will read works of major American writers with an emphasis on historic and cultural influences. Assignments are designed to sharpen reading comprehension, multi-paragraph essay writing and research methods. The MLA style research paper is a major focus of this curriculum.

## 122 – ENGLISH 11 – AP LITERATURE AND COMPOSITION

Grade: 11
1 year
1.0 credit (weighted)
Prerequisites: "B" or better in English 10 Gifted/Honors **OR**
"A" grade in English 10 College Prep

This course focuses primarily on world literature and the influence of history and culture on major writers. Students will analyze a variety of literary texts through the use of discussions, oral and written presentations. A major focus of this curriculum is a research paper following the MLA format. This class is intended to lay a foundation for the required AP American Literature and Composition exam to be taken at the end of the junior year and to provide an opportunity to earn college credits. Summer reading in preparation for 11AP is required. More information can be found at http://www.collegeboard.com/ap/students/literature/. The Advanced Placement exam is required of all students enrolled in this course. The District will help defray the cost of the exam. Please see page 28, ADVANCED PLACEMENT COURSES.

## 126-127 – ENGLISH 12 COLLEGE PREP

Grade: 12
1 year
1.0 credit

The students will explore the development of British writing and literary forms including the novel, poetry, epic, drama and non-fiction works. Students will sharpen reading comprehension skills through a variety of challenging assignments which will include written critical analysis, research projects based on the MLA style, academic essays and oral presentations, discussions and formal speeches as preparation for the college level experience.

## 128 – ENGLISH 12 AP LANGUAGE AND COMPOSITION

Grade: 12
1 year
1.0 credit (weighted)
Prerequisites: "B" or better in English 11 Advanced Placement **OR**
"A" grade in English 11 College Prep

Students in this college-level course read and carefully analyze a broad and challenging range of selections, deepening their awareness of rhetoric and how language works. Through close reading and frequent writing, students develop their ability to work with language and text with a greater awareness of purpose and strategy, while strengthening their own composing abilities and application of the writing process. Course reading features expository, analytical, personal and argumentative

texts from a variety of authors and historical contexts. Using MLA format, this course assigns writing projects which go beyond the parameters of a traditional research paper. This class provides preparation for the required AP exam in English Language and Composition and an opportunity to earn college credit. Summer reading in preparation for English 12 AP is required. More information can be found at http://www.collegeboard.com/ap/students/language and composition/. The Advanced Placement exam is required of all students enrolled in this course. The District will help defray the cost of the exam. Please see page 28, ADVANCED PLACEMENT COURSES.

### 132 – LITERARY STUDIES (Elective)

Grades: 10-12
1 semester
.5 credits

Literary Studies is an elective semester course for those who enjoy reading and discussing literary works and for those who wish to broaden their knowledge of outstanding authors representing different nations and literary genre. Course work includes formal and informal class discussions, critical analysis of works, examination of the historical significance of the works, research into the lives and times of authors and the production of original works related to the themes discussed. This course is recommended for the high achieving student who enjoys reading, discussing literature and writing.

### 133 – PUBLIC SPEAKING I (Required)

Grades: 10-12
1 semester
.5 credits

This required course for graduation stresses the improvement of oral communication skills (both speaking and listening) in public speaking situations. Its primary focus is to improve any communication, be it one-on-one conversation, job interviews or performance in front of a group. Students are introduced to the use of the voice and the effective use of body movements to reinforce communications. Audience awareness is addressed and feed-back and audience responses are expected.

### 135 – CREATIVE WRITING (Elective)

Grades: 10-12
1 semester
.5 credits

Creative Writing is an elective course designed to meet the needs of many types of students. First, it is a possible ladder for those students who like to write yet need some constructive help or encouragement. Additionally, the course provides the opportunity to gain writing experience for students planning to further their education. It can also be a telescope revealing hidden creative talent, some of which all students possess. This course will provide openings to the short story, the essay, poetry, news item, drama and editorials.

## 136 – TELEVISION PRODUCTION/ BROADCASTING (Elective)

Grades: 11-12
1 Year
1.0 credit
Prerequisite: "C" grade or better in Public Speaking I
(May be taken concurrently with Public Speaking with teacher recommendation)

This year long, 1 credit course will provide students with a basic understanding of the technology & creativity behind video/TV as an informational and cultural medium and some of the production techniques used to achieve a desired effect on an audience. Upon completion, students should have an understanding of the media and be able to demonstrate production skills and techniques as it relates to producing a variety of video formats. Class size will have to be dependent on equipment available. It is a suggestion of 6-12 students per session.

## 137 – MEDIA STUDIES & FILMMAKING (Elective)

Grade: 12
1 Year
1.0 credit
Prerequisite: "C" or better in Television Production/Broadcasting plus teacher recommendation based on evaluation of student applications

This year long, 1 credit course will provide students who have completed the Television Production/Broadcasting course an opportunity to refine and extend the skills acquired in the TV Production course. This class will focus on advanced editing, cinema performance, educational programming, scriptwriting, documentary research & production, media & culture & live feeds.

## 138- MEDIA LITERACY (Elective)

Grade: 10
1 semester
.5 credits

Media literacy is a skill that is paramount to the twenty-first student. Young people, as well as adults, are bombarded by media with little guidance in how to interact with it or navigate through it. Students will gain an advantage through developing a working understanding of media technologies, and also gain the sills required to recognize media bias across multiple mediums. Armed with knowledge and understanding of how media technology is used to shape information for the masses will create critical thinkers who can then make better informed decisions that will benefit society.

## 139- INTRODUCTION TO TELEVISION AND VIDEO PRODUCTION

Grade: 10
1 semester
.5 credits
Prerequisite: "C" grade or better in Media Literacy

Intro to video production is an entry-level course that will serve as an introduction to basic video/film/audio production. The course will introduce students to the basic equipment and technology used in the field with a focus on how these tools are used in accordance with the ideas and elements presented in Media Literacy. The goal of the course is for the student to develop the ability to capture great video images and audio, and to be able to edit those two elements together to tell a story.

# FAMILY AND CONSUMER SCIENCES DEPARTMENT
# COURSE OFFERINGS

## 600 – FAMILY & CONSUMER SCIENCES JUNIOR HIGH (Required)

Grade: 7
1 semester
.5 credits

Welcome to Family & Consumer Sciences Junior High! This semester course provides hands-on experiences in the Family & Consumer Sciences realm of food science, clothing, and childcare. Topics include: nutrition, wellness, food preparation, safety, clothing care, fibers, fabrics, sewing machine operation, baby sitting and consumer education, with an emphasis of incorporating Science, Technology, Engineering, and Math into learning. This course will introduce students to STEM concepts through identifying fibers and fabrics, calculating recipe and fabric measurements, small machine and appliance operation, and problem solving skills. Units taught give students the 21st Century communication, critical thinking, inquiry, and collaboration skills needed to succeed in today's society

## 601 – FAMILY & CONSUMER SCIENCES 8 (Elective)

Grade: 8
1 semester
.5 credits

This semester class builds on topics taught with hands-on experiences in food science and clothing laboratories. Students will be out of their chairs and actively participating in multiple projects such as: baking competitions, seasonal food labs, construction of shorts/pants, hand-sewing projects, and various child care activities. Students will be experiencing practical 21st Century Science, Technology, Engineering, and Math skills through project based learning activities in food preparation, nutrition, clothing construction, consumer education, child care, and child health. Application of real-world STEAM experiences include: revelation of Science skills in the cause and effect relationship of food laboratories, implementing Technology daily, Engineering skills that focus attention to details, and Mathematical skills for calculations and measurements.

## 602 – FAMILY & CONSUMER SCIENCES 9 (Required)

Grade: 9
1 semester
.5 credits

This course provides students with essential life skills. FCS 9 is a semester long comprehensive course in which learning and participating in class activities prepares students for living in the 21st Century. Students will develop skills in food and nutrition, child development, fabric construction, consumerism, SMART goals, decision-making, healthy relationships, personal responsibilities, careers and housing. Hands on Science, Technology, Engineering, Art, and Math (STEAM) skills will be integrated through: machine and hand sewing projects, scrumptious food preparation labs, E-

banking, child safety, web-based career exploration, and consumerism. This STEM course is designed to prepare students with applicable knowledge to meet daily life challenges. ***(This course will meet the state standard for graduation. Students who elect to take this course and receive a passing grade, will not be required to schedule LIVING ON YOUR OWN in grades 10, 11 and 12. Students who have taken the previous FCS1 and FCS2 also meet their state requirement.)***

### 603 – CHILD DEVELOPMENT I: From Conception to Age 2 (Elective)

Grades: 10-12
1 semester
.5 credits

This semester long course is paramount for those with an interest in learning about children and childcare. Students will explore the science of growth and development from conception and pregnancy through age two. Various developmental theories will be discussed along with the responsibilities of parenthood, prenatal care, development, birth defects, labor, delivery, child health, child care, and safety. Discussion will include the physical, intellectual, emotional and social development of Infants and Toddlers. Science, Technology, Engineering, Art, and Mathematical (STEAM) activities and projects include: Science of conception, prenatal growth and fetal development, implementing Technology through the Real Care Baby Simulation and the Empathy Belly, the Engineering of child products and their advancements, and Mathematical computations and formulas used when raising a child. The cause and effect relationship between positive and negative parental behaviors and child development will be analyzed.

### 6030 – CHILD DEVELOPMENT II: PRESCHOOL LAB – From ages 2 to 5 (Elective)

Grades: 10-12
1 semester
.5 credits
Prerequisite: Child Development I-83% average

This is a must have course for anyone interested in child related careers and parenting skills. Students will actively utilize the principles of physical, intellectual, emotional, and social development of Toddlers and Preschoolers while engaging children in play. Students will analyze developmentally appropriate practices to design and execute lessons, develop activities, and create snacks in a preschool lab. This course will include the following topics: classroom management, observation and recording procedures, safe learning environments, and wellness. Science, Technology, Engineering, Art, and Mathematical (STEAM) Activities and Projects include: Scientific development and theories of toddlers and preschoolers, Technological advancements of childcare tools, Engineering of age appropriate child products, and Mathematical computations and formulas used when caring for children at home and in a childcare setting.

***Strict standards are enforced and students must be willing to be dedicated, confidential, work collaboratively with each other, and attend school.*** ***Written department approval required for repeat.***

## 6031-CHILD DEVELOPMENT III (Elective)

Grade:
1 semester
.5 credits
Prerequisites: Child Development I-83% & Child Development II-83%
*(Written department approval required for repeat)*

This course is designed for students that want to focus their studies for a career or entrepreneurial opportunity in early childhood education. Child Development 3 is designed to prepare students for working with children in a childcare and/or educational setting. The primary focus of this class is to gain hands-on, on-site early childhood training experiences. Students will learn about and research developmentally appropriate practices with children's learning activities, play, and literacy development. Students will be planning, preparing, and presenting activities appropriate for preschool and school age children. Activities include: developing a unit plan; preparing, implementing, and evaluating learning experiences; and engaging with children in a safe and healthy environment. Science, Technology, Engineering, and Mathematical (STEM) Activities/Projects include: creating an early childhood center floor plan for educating children and researching adaptive education resources and technology for special needs students.

***Strict standards are enforced and students must be willing to be dedicated, confidential, work collaboratively with each other, and attend school.***

## 604 – FASHION AND DESIGN (Elective)

Grades: 9-12
1 semester
.5 credits

Investigate the world of fashion and design in this semester long course. Students will create and decorate from head to toe and floor to ceiling as they explore the exciting world of design. This course will introduce students to famous designers and influential architects in this billion dollar industry. Fashion and housing topics in both industrial and domestic fields include design, styles, and history. Experiences will involve: student selected projects, pattern creation, universal design, Upcycling, GREEN products, and exploration of home design. Science, Technology, Engineering, Art, and Mathematics (STEAM) projects include: the Science of fibers and fabrics, Technological advancements in the textile and housing industries, the Engineering of SMART Houses and Green products, and Mathematical calculations of linear measurements. This course will focus on entrepreneurial opportunities and careers in clothing, fashion, housing, and interior design.

## 6041-FASHION AND DESIGN II (Elective)

Grades:
1 semester
.5 credits
Prerequisites: Fashion & Design I-83% average
(Written department approval required for repeat)

This course is designed for those that want to advance their understanding of fashion and interior design by using their artistic abilities and applying their knowledge of clothing, fabrics, and fashion to a variety of projects. Students will demonstrate multiple stitching techniques, hems, and applications.

Projects include researching a chosen fashion or design company, creating a Design Board, and an apparel or accessory item(s) using various sewing techniques. Students will use Science, Technology, Engineering, and Math skills in the classroom to create an original design, produce it, and utilize it in a design project.

### 605 – FOOD AND NUTRITION (Elective)

Grades: 10-12
1 semester
.5 credits

This class focuses on preparing food that not only tastes good, but is good for you. A strong foundation will be laid to understand how nutrients are used in the body, as well as the cause and effect relationship between eating habits and disease prevention. Food Science and Nutrition topics will include: food preparation and contamination, meal planning, ethnic foods, dietary concerns, fad diets, consumer skills, and overall nutrition and wellbeing. The study and application of nutrition, sanitation, food sciences and technology in this course provides students with laboratory-based experiences that encompass Science, Technology, Engineering, Art, and Math (STEAM) education. STEAM projects include: scientific principles of the food industry, absorption and breakdown of nutrients, and mathematical computations on the nutritional components of a meal. This course teaches specific principles and how those principles can be applied to improve the health of individuals and families.

### 606 – INTEGRATED FAMILY & CONSUMER SCIENCES (Elective)

Grades: 9-12
1 semester
.5 credits

This hands-on activity based elective, prepares students for future success. Topics studied include: multiple meal preparations based on MyPlate, student selected textile projects, personal development, identifying healthy relationships and family issues. Students gain valuable 21st Century Science, Technology, Engineering, Art, and Mathematical (STEAM) skills in the areas of nutrition, textiles, families, and personal relationships while applying team work and time management skills. This course enables students to recognize healthy choices and their impact by applying STEM principles. Emphasis is placed on students taking personal responsibility for life.

### 607 – LIVING ON YOUR OWN (Required)

Grades: 10-12
1 semester
.5 credits

This semester long course is designed to help prepare students for living independently. Topics for successful living in the 21st Century include: meal planning, career development, utilizing online services, E-banking, personal finance, fraud, housing, communication, technology etiquette, healthy relationships, parenting, child care and child health. Science, Technology, Engineering, Art, and Math (STEAM) concepts will be incorporated by connecting scientific knowledge to practical applications throughout this course.

STEAM topics include: the Scientific process to identify cause and effect relationships, Technology to explore current scientific findings and breakthroughs, utilizing Engineering skills as students assemble a working portfolio, and Mathematic calculations for budgeting. Each student will make educated and responsible decisions independently throughout life.

### 608 – CULINARY ARTS (Elective)

Grades: 10-12
1 semester
.5 credits

From farm to table, backyard to halfway around the world, this course will emphasize the fundamentals of cooking, baking, plating, and the art of presentation. Culinary Arts is a hands-on cooking course for the everyday chef. Students will enjoy preparing and tasting an assortment of foods, both regional and foreign. Topics include: kitchen technology, smart meal planning, food and entertaining, cutting and preparation techniques, and meal appeal. Students will apply the concepts of Science, Technology, Engineering, Art, and Mathematics (STEAM) through food chemistry, linear measurements and conversions, analyzing kitchen design and usage, and utilizing problem solving skills while working in the laboratory. Serve Safe practices will be highlighted in regards to safety and sanitation.

## SECONDARY HEALTH /PHYSICAL EDUCATION DEPARTMENT COURSE OFFERINGS

### 700 – HEALTH 8 (Required)

Grade: 8
1 semester
.5 credits

Health 8 is a required course for students in the Armstrong School District. The course includes discussion of such topics as physical, social and mental health; consumer education; diet; nutrition and digestion; growth and development; drugs, alcohol, and tobacco; infectious and noninfectious diseases; first aid and safety; and environment and pollution.

### 701 – HEALTH 11 (Required)

Grade: 11
1 semester
.5 credits

Health 11 is a required course for students in the Armstrong School District. The course includes discussion of such topics as personality and mental health, including drug, alcohol, and tobacco use and abuse; the body systems; communicable disease and chronic illness; nutrition; fitness; consumer education; first aid and safety education; age and aging; death and dying; and human sexuality.

### 703- HUMAN ANATOMY AND PHYSIOLOGY (Elective)

Grade: 12
1 year
1.0 credit (weighted)

Human Anatomy and Physiology is an elective course intended for college-bound students who are interested in pursuing advanced studies in a medical, health-related field. The course is designed to give students a background in the structures (anatomy) and functions (physiology) of the human body simultaneously. During this course, students will learn about the basic organization of the human body through an understanding of anatomical terminology, the planes of dissection, cells, tissues, and various organ systems. Students will gain an understanding of the human body by studying the skeletal, muscular, nervous, cardiovascular, respiratory, digestive, and reproductive systems. Students will acquire this knowledge through lecture, class discussions, hands-on-labs and activities, diagrams, body system projects, videos, field trips and much more. This course is valuable as a stepping stone to higher levels of accomplishment at the collegiate level.

### 740-741 / 745-746 – PHYSICAL EDUCATION (Required)

Grades: 7-12
Semester equivalency
.5 credits

Physical Education includes development of strength, flexibility, endurance, agility, cardiovascular conditioning, coordination, teamwork and good sportsmanship. To promote and develop these desirable traits, a varied program of instruction in both individual and team sports and in overall conditioning is offered. Some activities are presented on a co-educational basis. Students in grades nine through twelve who fail the course must pass each grade level of physical education in order to fulfill requirements for graduation.

### 715-716 – ADAPTIVE PHYSICAL EDUCATION (Required)

Grades: 7-12
As scheduled
.5 credits

This co-educational course is designed for those students who are physically unable to participate in a regular activity class. Individual needs for adaptive physical education may be specified on IEPs or by direction from physician(s) and/or physical therapist(s). Participation in adaptive physical education will be indicated on individual report cards. Activities will be developed according to the student's capabilities and physician recommendation.

## SECONDARY MATHEMATICS DEPARTMENT COURSE OFFERINGS

Students' study of mathematics during 7th, 8th, and 9th grade is critical to their long term success in mathematics. During this time, most students will complete their study of Algebra 1. The National Common Core Standards for mathematics from which the PA Common Core Mathematics Standards were created, suggest most students take a full course in Algebra 1 in 9th grade, and recommend an option for students who are exceptional in mathematics to take Algebra 1 in 8th grade. Armstrong School District recognizes Algebra I as a gateway math course for students. A fundamental

understanding of Algebraic concepts is critical to the future understanding and success of students in mathematics. The District has redesigned the scope and sequence of mathematics courses in grades 7 through 12 in order to meet the needs of students by providing courses in a sequence with appropriate prerequisites that are structured to facilitate a deep understanding of Algebraic concepts developed across the mid-level grades.

## 201 – PRINCIPLES OF MATHEMATICS 7

Grade: 7
1 year
1.0 credit

Principles of Mathematics 7 is designed to meet the seventh grade Pennsylvania standards in mathematics. Four critical areas are the focus of the course: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume, and (4) drawing inferences about populations based on samples.

## 202 – ACCELERATED PRE-ALGEBRA

Grade: 7
1 year
1.0 credit
Prerequisites:

- Projected probability of scoring proficient on the PSSA grade 7 math assessment of 70% or greater
- Scaled score of 1090 or higher on grade 6 PSSA math assessment
- A final/overall average of 92% or better in 6$^{th}$ grade math

Accelerated Pre-Algebra is designed to meet the seventh grade Pennsylvania Standards in mathematics, including four main areas: ratios and proportional relationships; operations with rational numbers and expressions and linear equations; geometry; and statistics and probability. In addition to all seventh grade content, the course is also designed to meet assessed eighth grade PA Common Core State Standards, which progress to irrational numbers, systems of linear equations, functions; geometry; and bivariate statistics and probability. This is an accelerated course that consists of one and a half years of content taught in one year.

## 205-206 – ALGEBRA I

Grades: 7-12

1 year

1.0 credit

Prerequisites for Algebra I in Grade 7

- Projected probability of scoring advanced on the PSSA grade 7 math assessment of 70% or greater
- Projected probability of scoring advanced on the Keystone Algebra Exam of 70% or greater
- Scaled score of 1200 or higher on grade 6 PSSA math assessment
- A final/overall average of 95% or better in 6$^{th}$ grade math
-

Prerequisites for Algebra I in Grade 8

- A final/overall average of 83% or better in Accelerated Pre-Algebra
- A scaled score of 1000 or higher on grade 7 PSSA math assessment

Prerequisite for Algebra I in Grade 9

- A "C" or better in Pre-Algebra

Algebra I, which stresses the structure of algebra and the development of computational problem-solving skills, introduces students to a higher level of mathematics, thus enabling them to begin to understand the requirements of a technological world and to develop the skills necessary to function successfully in that world. Analytical thinking skills and the application of science and technology are emphasized through completion of algebraic applications. The structure and properties of real numbers are reviewed and extended. Problem-solving techniques are developed for various types of problems, including those dealing with mixtures, uniform motion, work and percent. Equations, inequalities, polynomials and functions are thoroughly treated. This course also includes an introduction to quadratic equations and functions.

## 215 – PRE-ALGEBRA

Grade: 8
1 year
1.0 credit

Pre-Algebra is designed to meet the eighth grade PA Core standards. Four critical areas are the focus of the course: (1) formulating and reasoning about expressions and equations, including modeling and association in bivariate data with linear equation, and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and –three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.

## 207-208 – PACED ALGEBRA I - PART A & PACED ALGEBRA I-PART B

Grades: 9-12
2 years
1.0 credit each

Paced Algebra I-Part A and Part B is a two-year course sequence, which provides the fundamental concepts and processes of Algebra I. A review of integers and elementary equations reinforces and extends the basic mathematics skills. Interwoven into the curriculum are topics such as discrete mathematics, functions, measurement, probability and statistics and logical reasoning. Students solve math problems in cooperative and individual activities and are encouraged to communicate their problem-solving techniques in meaningful ways. A strong visual-verbal link between math and real-world situations is practiced. Part B is intended to give the intermediate math student a chance to successfully continue the study of Algebra. The topics covered review the fundamental concepts and skills taught in Part A and extend into functions, polynomials and radicals. Upon completion of Parts A and B, for which two credits are earned, students will have completed Algebra I (Math 206) and are eligible for Algebra II (Math 209). If a student earns a "D" in Paced A, the option exists to take either Paced B or Algebra I.

## 209-210 – ALGEBRA II

1 year
1.0 credit
Prerequisites: "C" or better grade in Algebra I OR
"C" or better grade in Paced Algebra I Part B

Algebra II is designed to give a sound basis for further study of more advanced mathematics and is primarily the study of functions. The course begins with a review of such areas studied in Algebra I as basic terminology, notation, concepts, skills, applications of elementary algebra, and the structure of the real number system. After the set of real numbers and their properties have been explored, the fundamental operations with polynomials are reviewed and extended. Linear, exponential and logarithmic functions are presented; and concepts, structure, precision of language and the inductive approach are stressed.

## 2080 – ALGEBRA I ESSENTIALS

Grades: 9-12
1 semester OR 1 year
.5 credits OR 1.0 credit
Prerequisites: Algebra I or Paced Algebra Part B and has scored Basic or Below Basic on the Keystone Exam

Algebra I Essentials is a semester OR one year course covering the modules from the Keystone Algebra Exam. Students will concentrate on content from Algebra I that have proven difficult for them. Instruction will target student weaknesses.

## 211 – COMBINATION GEOMETRY

1 year
1.0 credit
Prerequisite: "C" or better grade in Algebra I

This course is a combined study of plane geometry and solid geometry, with an emphasis on the former. Primary objectives are the development of an understanding of mathematical proof, the improvement of the quality of mathematics using logical reasoning, the further development of the concepts of arithmetic and algebra and the development of an understanding of the relationship of two-dimensional and three-dimensional structures.

## 212 – BASIC GEOMETRY

1 year
1.0 credit
Prerequisite: Passing grade in Paced Algebra I Part A
This course presents the topics of plane and solid geometry in an informal manner. Practical applications of geometric situations are stressed. The approach is less rigorous than conventional geometry, and guided proofs are used in place of original proofs in most problems. It is strongly suggested that students enrolling in Basic Geometry concurrently enrolling Paced Algebra I Part B.

## 213 – ALGEBRA III - TRIGONOMETRY

1 year
1.0 credit (weighted)
Prerequisite: "C" or better grade in Combination Geometry/Algebra II

Algebra III-Trigonometry, an elective to be scheduled after successful completion of two years of algebra and one year of geometry, is designed to prepare students for college level mathematics. Major topics discussed in the Algebra III portion of the course are factoring, irrational numbers, complex numbers, exponential and logarithmic functions. The Trigonometry portion of the course is approached first by defining circular functions in terms of a unit circle and then by discussing the trigonometric functions through developing relationships concerning sides and angle of triangles. Functions are graphed; identities are derived, verified, and applied; physical applications involving the law of sines and the law of cosines are discussed.

## 214 – CONSUMER MATHEMATICS

Grades: 11-12
1 year
1.0 credit

Students taking Consumer Mathematics will study and review arithmetic skills that they can apply in their personal lives. The course starts with a focus on occupational topics; it includes details on jobs, wages, deductions, taxes, insurance, spending, and transportation. Additionally, students will learn about personal finances, checking and savings accounts, loans and buying on credit, automobile expenses, and housing expenses.

## 226 – MATHEMATICAL ANALYSIS

Grades: 11 - 12
1 year
1.0 credit
Prerequisite: Passing grade in Algebra III/Trigonometry

This course is structured for those juniors and seniors who have taken Alg. III/Trig (Pre-Calculus) and do not desire to take Calculus. Topics to be covered will include Number Theory, Set Theory, Symbolic Logic, Sequences and Series, Solid Geometry, Matrices, Vectors, Polar Coordinates and an Introduction to Calculus. Students opting to take this course will enhance their mathematics knowledge, thus helping them to be successful in a college mathematics course.

## 227 – ADVANCED MATHEMATICS

Grades 11-12
1 year
1.0 credit
Prerequisite: Passing grade in Algebra II or Geometry
This course is designed to be a college preparatory course that emphasizes topics in algebra, geometry, and statistics. This course is an extension of Algebra II and geometric concepts. This course will utilize concepts of implementation and evaluation of math related to STEM careers.

### 216 – CALCULUS I

1 year
1.0 credit (weighted)
Prerequisite: "C" or better grade in Algebra III/Trigonometry

Calculus I is strongly recommended for those students planning to attend college and major in mathematics or such math-related fields as engineering, medicine or business. This course begins with a review of the properties of real numbers and trigonometric functions from an analytical geometry outlook, leading up to the development of the concept of "limit". The derivative and applications of the derivative and differential are studied. Methods for deriving the definite and indefinite integral are also developed.

### 217 – AP CALCULUS

1 year
1.0 credit (weighted)
Prerequisite: "B" or better grade in Calculus I

This is a college-level course in differential and integral calculus, equivalent to one semester of calculus at most universities. Topics include a review of functions, an introduction to limits and continuity, derivatives and their applications, integrals and their applications, anti-derivatives and the Fundamental Theorem of Calculus. There is an emphasis on conceptual understanding and working with functions represented graphically, numerically, analytically, and verbally. The Advanced Placement exam is required of all students enrolled in this course. The District will help defray the cost of the exam. Please see page 28, ADVANCED PLACEMENT COURSES.

### 228 –AP STATISTICS

Grades: 11-12
1 year
1.0 credit (weighted)
Prerequisite: “B” or better grade in Algebra III/Trig

This course is a college statistics course that teaches students how to communicate methods, results, and interpretations using the vocabulary of statistics. Students learn how to use graphing calculators and computer software to enhance the development of statistical understanding. The course is designed to have students learn to draw connections between all aspects of the statistical process including design, analysis, and conclusions. The Advanced Placement exam and Dual Enrollment are optional for all students in this course. Information can be found at http://www.collegeboard.com/ap/student/statistics/.

## SECONDARY MUSIC DEPARTMENT COURSE OFFERINGS

### 650 – MUSIC (Required)

Grades: 7 or 8
1 semester
.5 credits

This required introductory junior high level course meets five (5) days per week for one (1) semester and consists of the study of the five families of instruments, basic theory, elements of music, music of different cultures, historical style periods of music, music theater, and when applicable, study of guitar and keyboard instruments. A grade will be earned in accordance with the guidelines established by the planned course.

### 652-661 – JUNIOR HIGH CONCERT BAND and INSTRUMENTAL LESSONS (Elective)

Grades: 7-8
1 year
1.0 credit – as scheduled

Junior High Concert Band and Instrumental Lessons is a one (1) credit course and is designed as a continuation of the students' studies at the elementary level in preparation for high school level instrumental courses. No audition is required. Members of the Concert Band will be introduced to various styles of band literature appropriate to their level of ability. The importance of proper rehearsal techniques and procedures will be stressed. The concepts of good timbre, intonation, rhythm and articulation will be emphasized. Modern concert selections, marches, concert jazz arrangements and standard works of level 2-3 difficulty will be taught. In addition, a method book(s) emphasizing technique may be used to enhance musicianship. The Concert Band will perform at least two public concerts. Students are scheduled for one period of group instrumental instruction per week in addition to rehearsals. Grading is based upon class and lesson participation, rehearsals, public performances, and both written and playing tests in accordance with the guidelines established by the planned course.

### 675-684 – JUNIOR HIGH MIXED CHOIR, JUNIOR HIGH ADVANCED CHOIR, AND VOCAL LESSONS (Elective)

Grades: 7-8
1 year
1.0 credit – as scheduled

Junior High Mixed Choir is a one (1) credit course and is designed both for those who have participated in a chorus before and for beginners. This course provides the opportunity to improve the voice, develop sight-reading abilities, and develop basics of music theory. Students develop their ability to produce and perform at public performances a wide variety of music mostly consisting of SA and SAB. Advanced Choir is designed for the most advanced students and provides enrichment and performance opportunities beyond Mixed Choir. Participation in Advanced Choir is based on audition and permission of the Choral Directors. The Mixed Choir and Advanced Choir will perform at least two public concerts. Students are scheduled for one period of group vocal instruction per week in addition to the regularly scheduled class rehearsals. Grading is based upon class and lesson participation, rehearsals, public performances, and both written and playing tests in accordance with the guidelines established by the planned course.

### 664 – SENIOR HIGH CONCERT BAND AND INSTRUMENTAL LESSONS (Elective)

Grades: 9-12
1 year
1.0 credit – as scheduled

Concert Band and Instrumental Lessons is a one (1) credit course that meets five (5) periods per week all year and is designed as a continuation of the students' studies in the junior high band level. No audition is required. Members of the Concert Band will be introduced to various styles of band literature appropriate to their level of ability. Modern concert selections, marches, concert jazz arrangements and standard works of level 3-4 difficulty will be taught. In addition, a method book(s) emphasizing technique may be used to enhance musicianship. The Concert Band will perform at least two public concerts. Students are scheduled for one period of group instrumental instruction per week in addition to the regularly scheduled class rehearsals. Grading is based upon class and lesson participation, rehearsals, public performances, and both written and playing tests in accordance with the guidelines established by the planned course.

### 666 – MUSIC APPRECIATION (Elective)

Grades: 9-12
1 semester
.5 credits

Music Appreciation is a .5 credit course that meets five (5) days per week for one (1) semester and offers an in-depth study of the historical-style periods of music as well as a general understanding of musical terms and aspects of musical culture. Students will be better appreciators of music of all genres with the focus on music of the Western cultures. Students will have the opportunity to listen and compare all musical styles. A grade will be earned in accordance with the guidelines established by the planned course.

### 667 – MUSIC THEORY (Elective)

Grades: 9-12
1 semester
.5 credits

Music Theory is a .5 credit course that meets five (5) days per week for one (1) semester and is designed for students in grades nine through twelve who have an interest in continuing music either as a career or for personal enrichment. It offers a deeper and more complex study of the fundaments of music. This course focuses specifically on all aspects of theory that have been introduced through our music programs, but with a more written approach at a deeper level. Students will also learn how to compose and analyze music. A grade will be earned in accordance with the guidelines established by the planned course.

### 687 – SENIOR HIGH CHORUS/MIXED CHOIR, SENIOR HIGH VOCAL ENSEMBLE, AND VOCAL LESSONS (Elective)

Grades: 9-12
1 year
1.0 credit – as scheduled

Senior High Mixed Choir is a one (1) credit course that meets five (5) days per week all year and is designed for those who have participated in chorus before and wish to continue growing in ability. This course provides the opportunity to improve the voice, develop sight-reading abilities, continue to develop basics of music theory and appreciation, and to continue aesthetic growth. Students develop their ability to

produce and perform at public performances a wide variety of music mostly consisting of SAB and SATB. Vocal Ensemble is designed for the most advanced students and provides enrichment and performance opportunities beyond Mixed Choir. Participation in Vocal Ensemble is based on audition and permission of the Choral Directors. The Mixed Choir and Vocal Ensemble will perform at least two public concerts. Students are scheduled for one period of group vocal instruction per week in addition to the regularly scheduled class rehearsals. Grading is based upon class and lesson participation, rehearsals, public performances, and both written and playing tests in accordance with the guidelines established by the planned course.

### 670 – INTRODUCTION TO GUITAR (Elective)

Grades: 9-12
1 semester
.5 credits

Introduction to Guitar is a (.5) credit course that meets five (5) days a week for one (1) semester. Students will learn the fundamentals of playing the guitar by playing various styles of music including: classical, flamenco, folk, blues, pop, country and rock. Students will learn music notation, chord symbols, and be introduced to guitar tablature and reading lead sheets. Grading is based upon classroom participation and both written and playing tests.

## SECONDARY DEVELOPMENTAL READING DEPARTMENT COURSE OFFERINGS

### 176-177 – DEVELOPMENTAL READING 7 (Required)

Grade: 7
1 year
1.0 credit

The seventh grade developmental reading program emphasizes the skills necessary for success as an independent and functional reader. Comprehensive reading skills such as: increased sight word vocabulary through contextual usage; increased comprehension through a variety of applicable strategies; and increased writing skills that stress persuasive, informative and narrative writing styles. The above strategies will be aided by the use of supplemental readings, a current basal text and enhanced computer technology. Reinforcement of study skills will be implemented through the use of all of the above strategies.

### 179-180 – DEVELOPMENTAL READING 8 (Required)

Grade: 8
1 year
1.0 credit

Students will continue to develop vocabulary skills appropriate to their grade level and ability. Increased activities in comprehension skills will promote development of successful interaction with

content area materials in other parts of the curriculum. The basal text, supplemental reading materials and enhanced computer technology will be used to provide students with a basis for use as life-long readers. A variety of strategies will be used to promote writing across the curriculum with special emphasis placed on research methods and study skills.

### 175-178 – READ 180

Grades: 7-8
1 year
1.0 credit

This program is a comprehensive reading intervention program to improve students' decoding, fluency, vocabulary, comprehension, and writing skills. Core components include content area nonfiction selections, an interactive software component, video clips, and audio support. This program includes a variety of assessment tools to monitor student achievement over time. The class incorporates reading intervention software to provide intensive, differentiated skills practice to motivate struggling readers. The software will analyze, monitor, track, and report on student accuracy, noting not only incorrect answers, but also the types of errors made and the time of the response.

### 183 – DEVELOPMENTAL READING 9

Grade: 9
1 year
1.0 credit

The Reading 9 course is designed to provide eligible students with opportunities to bolster their reading skills using a variety of supplemental reading materials and computer assisted instruction. In the course, teachers use 4 Sight Assessment results to inform their instructional plans and customize lessons based on students' strengths and literacy needs. The course emphasizes vocabulary and comprehension skill development, study skills, and reading strategies to help students successfully read critically in all content areas.

## SECONDARY SCIENCE DEPARTMENT COURSE OFFERINGS

### 249-250 – GENERAL SCIENCE 7 – YOU AND THE EARTH (Required)

Grade: 7
1 year
1.0 credit

This required course teaches students to use an inquiry and inductive approach to the study of the earth and its atmosphere, the physical and chemical changes occurring within them, and the impacts these changes have on the living things on our planet. The course enables the students to gain a better understanding of their locale as well as global environments and our planet's relationship to the solar system and universe.

## 251-252 – GENERAL SCIENCE 8 - MATTER AND ENERGY (Required)

Grade: 8
1 year
1.0 credit

This course focuses on the study of the physical and chemical changes that occur in our environment. Energy is the main theme of this course that will link topics such as light, sound, heat, electricity, motion and chemistry. An emphasis will be made on problem-solving skills and an understanding of real-life application.

## 253-255 – SCIENCE 9

Grade: 9
1 year
1.0 credit

Science 9 is a required 9th grade course designed to teach fundamental biological concepts through hands-on investigation of the following: This course will introduce the underlying characteristics of life, the levels of organization that organisms exhibit, and the structures and functions that make up those levels. In addition, the molecules important to life and the structures and functions of four categories of biological macromolecules will be investigated. Also, the mechanisms by which evolution occurs, the evidence that supports evolution, and the scientific vocabulary used to describe evolution will be discussed. Finally, the ecological levels of organization, the energy flows that take place in an ecosystem, the cycling of matter, and the response of an ecosystem to natural and human-caused change will be explored. **A student can double up with Science 9 and CP Biology in 9th grade with at least a "B" average, however, an "A" is recommended.**

## 256-258 – BIOLOGY I (Required)

Grades: 9-10
1 year
1.0 credit
Prerequisite: Passing grade in previous science course

Biology I is a required 10th grade course, designed to teach fundamental biological concepts through hands-on investigation of the following:
This course will introduce the energy transformations that take place during cellular respiration and photosynthesis. In addition, how genes are inherited, how they may be altered or mutated to increase variability and how they are engineered through human intervention will be covered. Also, the transport of materials through the plasma membrane and the structures and processes by which cells maintain homeostasis will be discussed. Finally, the processes of mitosis and meiosis as the cell goes through the cell cycle will be explored. **A student can double up with CP Biology and Chemistry in 10th grade with at least a "B" average, however, an "A" is recommended.**

## 259 – BIOLOGY II (Elective)

Grade: 10-12
1 year
1.4 credits (weighted)
Prerequisites: "C" or better grade in Chemistry I and Biology I

Biology II is offered to students as a non-repetitive inquiry into advanced biological topics. The course involves the student in the work of a scientist and the processes of scientific investigation. An in-depth study of comparative vertebrate anatomy and physiology makes this course particularly worthwhile to students planning to major in science in college or to pursue careers in nursing, pharmacy, medical arts and engineering. As a result of extensive laboratory experience, the student gains knowledge and skills in experimental design, empirical measurements, statistical evaluation of data, utilization of scientific literature and the development of experiments and ideas in investigating biological phenomena. In addition, if time and student interest permit, units dealing with population dynamics and with the interaction and impact of science and society will be presented. **A student may take both Chemistry I and Biology II with at least a "B" average in CP Biology I; however, an "A" is recommended.**

## 260 – AP BIOLOGY (Elective)

Grade: 12
1 year
1.4 credits (weighted)
Prerequisites: "B" or better grade in Chemistry I and Biology I

The Advanced Placement Biology course is designed to be the equivalent of a college introductory biology course usually taken by biology majors during their first year. After showing themselves to be qualified on the Advanced Placement Examination, some students, as college freshmen, are permitted to undertake upper-level courses in biology or register for courses for which biology is a prerequisite. Other students may have fulfilled a basic requirement for a laboratory-science course and will be able to undertake other courses to pursue their major. Advanced Placement Biology should include those topics regularly covered in a college biology course for majors or in the syllabus from a high-quality college program in introductory biology. The college course in biology differs significantly from the usual first high school course in biology with respect to the kind of textbook used, the range and depth of topics covered, the kind of laboratory work done by students, and the time and effort required of students. The textbooks used for AP Biology will be those also used by college biology majors. The kinds of labs done by AP students must be the equivalent of the kinds of labs experienced by college students. This course aims to provide students with the conceptual framework, factual knowledge and analytical skills necessary to deal critically with the rapidly changing science of biology. The Advanced Placement exam is required of all students enrolled in this course. The District will help defray the cost of the exam. Please see page 28, ADVANCED PLACEMENT COURSES. More information can be found at http:\\www.collegeboard.com/ap/students/biology/.

## 261 – CHEMISTRY I (Elective)

Grades: 10-12
1 year
1.4 credits (weighted)
Prerequisites: "C" or better grade in Biology I and Algebra I

The aim of the chemistry program is to enable students to develop a better understanding of their physical world. The central theme of the program is the basic principle that the properties of matter are a consequence of the structure of the elementary particles of matter - the atoms. The course is a balanced approach, presenting chemical theories and concepts along with quantitative problems. Laboratory activities in the course are designed to expand and reinforce the student's knowledge of chemistry through experiences. The activities present exercises in observing, making accurate measurements, and organizing and recording data in tables and graphs, as well as in producing a written analysis of their observations. **(A student may take both Chemistry I and CP Biology in 10th grade with at least a "B" average, however an "A" is recommended.)**

## 262 – CHEMISTRY II (Elective)

Grades: 11-12
1 year
1.4 credits (weighted)
Prerequisite: "C" or better grade in Chemistry I

Chemistry II provides an opportunity for interested students who wish to pursue college majors and careers in chemistry and related fields such as pharmacy, forensics, environmental, and many other science related fields. Students will enhance theoretical knowledge, laboratory techniques, and problem solving abilities by expanding on the concepts developed in Chemistry I. Meaningful laboratory work is critical to the successful development of topics covered in the course. Topics may include the following: organic, thermodynamics, equilibrium, reaction kinetics, acids and bases, oxidation-reduction, electrochemistry, and nuclear chemistry.

## 263 – PHYSICS I (Elective)

Grades: 10-12
1 year
1.4 credits (weighted)
Prerequisite: "C" or better in Algebra II required, "B" or better recommended

This course deals with the laws and theories of energy and matter and includes the study of mechanics, waves, light, sound and static electricity. By using carefully designed laboratory experiments, demonstrations, and problem-solving techniques, the student is encouraged to learn and appreciate the laws and theories of both matter and energy. Coordination of the physics course and the mathematics department is encouraged, since it is recommended that physics students either have taken or be taking Algebra III /Trigonometry.

### 264 – PHYSICS II (Elective)

Grades: 11-12
1 year
1.4 credits (weighted)
Prerequisite: "C" or better grade in Physics I

The Physics II coursed is designed for interested students who are planning on entering physics, engineering and related college majors and careers. The course will offer students topics and lab experiences that broaden their experiences from Physics I. Rigorous mathematical treatment and laboratory investigations are necessary to the understanding of the topics covered. Topics shall include Electric Fields and Potential, DC Circuits, Electromagnetic Induction, Magnetism, Light and Reflection, Refraction, Interference and Diffraction, Fluids, and Modern Physics (relativity, cosmology, fundamental particles and nuclear decay energies).

### 265 – PRINCIPLES OF SCIENCE (Elective)

Grades: 10-12
1 year
1.0 credit

Principles of Science emphasize science that is relevant and applicable to modern living. Through a combined study of the physical and chemical concepts this course analyzes the various interactions that occur between humans and their environment through an environmental approach.

### 266 – ASTRONOMY (Elective)

Grades: 10-12
1 year
1.0 credit

Astronomy is a year-long course that is designed as an activity-oriented program. Through the use of discovery and problem-solving techniques, students will learn about the interactions in our solar system and stellar events. This course will reinforce and enhance concepts and skills introduced in previous science courses including those principles of Earth and Space Science.

## SECONDARY SOCIAL SCIENCES DEPARTMENT
## COURSE OFFERINGS

### 3000 – GEOGRAPHY/CIVICS

Grade: 7
1 year
1.0 credit

This course, required of all 7th grade students, will consist of two semester length components- **Geography and Civics**. The **Geography** component will introduce, but not be limited to; the seven

continents and their locations, major bodies of water and their locations, climate types, human population patterns, and basic mapping skills. Students will cover aspects of North American, South American, Middle Eastern, Southeast Asian, European, and African geography, including boundaries, countries/states and their capitals, regional climates, settlement patterns and how geography affects regional economic development. A special emphasis will be placed on Pennsylvania landmarks and features. In the **Civics** component, students will be introduced to the rights, roles and privileges associated with American Citizenship. Concepts covered will include, but not be limited to: The Declaration of Independence, The seven Articles of the Constitution, the Bill of Rights, how state and local governments function, voting and the electoral process, and the origins and meanings of American Symbols and Icons.

### 3010 – UNITED STATES HISTORY I

Grade: 8
1 year
1.0 credit

This course, required of all 8th grade students, covers the time period in American History from the English Colonial Period through the end of the Civil War. Topics to be covered will include, but not limited to: The English Colonial Period, the French and Indian War, the Revolutionary War, establishment of the new forms of American Government, including the Articles of Confederation and the Constitution, the establishment and evolution of the role of American Presidents from George Washington through Abraham Lincoln. A focus will be placed on the War of 1812, the Mexican-American War, the Industrial Revolution, and the Civil War. An emphasis will be placed on the role of slavery and sectionalism in our nation's early social and economic development. Key figures and events, which have had social, political or economic impacts, will be incorporated into the classroom as students are motivated to explore our American past. Economic, social, and political perspectives will also be integrated into the course. In addition, an emphasis will be placed on the continuing role of Pennsylvania's influence and location on the development of the United States.

### 3020-3022 – UNITED STATES HISTORY II

Grade: 9
1 year
1.0 credit

This course, required of all 9th grade students, covers the time period in American History from Reconstruction through the Present Day. Topics to be covered will include, but not be limited to, Reconstruction, the Westward Expansion, Industrialization, Immigration, the Progressive Era, World War I, the Roaring 20's, the Great Depression, World War II, the Cold War Era, the Civil Rights Era, the Korean War, the Vietnam Conflict, Middle-Eastern Conflicts and Tensions, the Reagan Era, the Persian Gulf Conflicts, the Technology Revolution, 9/11, the War on Terror, and other relevant Contemporary Figures and Issues. Key figures and events, which have had social, political, or economic impacts, will be incorporated into the classroom as students are motivated to explore our American past. Economic, social, and political perspectives will also be integrated into the course. In addition, an emphasis will be placed on the contemporary role of Pennsylvania's influence on the United States.

## 3050-3052 – AMERICAN GOVERNMENT

Grade: 10
1 year
1.0 credit

This course, required by all 10th grade students, will cover the study of American Government and Politics. Topics to be covered include, but will not be limited to; comparisons of various Political Systems, the Structures, Functions and Powers of Government at the National, State and Local Levels, the role of Political Parties and Interest Groups, Political Affiliations and Issues, Electoral Process and Voter Behavior and the influence of Mass Media. Students will reach an understanding of the rights and responsibilities of American citizenship by examining historical documents, such as the Declaration of Independence, the Constitution, and the Bill of Rights. In addition, an emphasis will be placed on the specific Structures and Powers of the state and local governments of the Commonwealth of Pennsylvania.

## 3080 – AMERICAN GEO-POLITICAL CONFLICT (Elective)

Grades: 11-12
1 semester
.5 credits

This elective course will cover the History of the Evolution of American Geo-Political Military involvement from the French and Indian Wars through the Present Day. Students will assess the key Individuals, military policies, postures, organizations, strategies, campaigns, tactics, weaponry, and significant battles that define the American Military Experience. The course will emphasize how political, social, economic, and technological factors have combined to shape various changes and continuities in the Nature of Conflict. The class will encompass concepts such as foreign policy, global interactions, social impacts and diplomacy. In addition, a focus will be given to the contributions of and difficulties faced by Veterans both from previous conflicts and those from the current era. ***This course will be taught using a blended approach of on-line learning and traditional classroom learning.***

## 3070-3072 – WORLD HISTORY

Grade: 11
1 year
1.0 credit

This course, required of 11th grade students, is a survey course covering World History from 1450 to the present. The areas of concentration will include: Africa, the Middle East, the Pacific Rim, the Americas and Europe. Students will examine how geographic, historical, political, and economic factors have influenced the development and evolution of the social institutions of these cultures in relation to their history. An emphasis will be place on understanding the culture of each region by exploring the different beliefs, concepts, and customs of each of the respective areas.

## 318 – ECONOMICS

Grades: 11-12
1 semester
.5 credits

This course, required for graduation, will introduce students to key economic concepts useful for developing sound economic decision making skills. The course will focus primarily on personal interactions in the mixed free enterprise economy of the United States. Topics to be covered will include, but not limited to; Scarcity, Supply and Demand, the Forms and Functions of Financial Institutions, the Stock Market and other Investment Tools, Loans and Interest Rates, Credit and Credit Scores, Debt Management, and life-long Financial Planning. Student will also explore public policy issues and current economic issues in order to be active and aware members of the global economy.

## 319 – AP ECONOMICS (Elective)

Grades: 11-12
1 year
1.0 credit (weighted)
Prerequisite: Passing grade in Algebra II (or higher math course) with a "B" or better

This course is intended for students who wish to complete studies in high school equivalent to a one-semester college introductory course in microeconomics. AP Economics is a full-year course covering both Macro and Microeconomics.
In Microeconomics, students will focus on how economic decisions are made by individuals, firms, and organizational structures based on the three key economic questions, and how they are interpreted in contemporary American society. Supply and demand analysis will be developed to demonstrate how market prices are determined and how those prices determine an economy's allocation of goods and services. Students will evaluate the strengths and weaknesses of economic decisions by using the concepts of efficiency and equity. Students will also analyze and evaluate the effects of government intervention in the micro-economy. In Macroeconomics, students will study measurements of the economy, economic indicators, and money and the monetary system, banking, financial markets, AS-AD, the Business Cycle, Fiscal and Monetary Policy, and International Trade. Emphasis will be placed on forming reasoned logical arguments so that student will be able to use economics as a method and model for decision making. The Advanced Placement exam is required of all students enrolled in this course. The District will help to defray the cost of the exam. Please see page 26, ADVANCED PLACMENT COURSES. More information can be found at http://www.collegeboard.com/ap/students/economics/. This course can be taken in lieu of the semester length general Economics course (.5 credit) and required additional semester length elective (.5 credit) to meet the required 1 credit of advanced social studies. ***This course will be taught using a blended approach of on-line learning and traditional classroom learning.***

## 322 – SOCIOLOGY (Elective)

Grades: 11-12
1 semester
.5 credits

This elective course involves the study of Group Interaction and its effect on Human Behavior. Topics to be covered will include, but not limited to, influence of Culture and Society, Social Interaction, Socialization, Social Institutions, and Formal and Informal Organizations. Students will be expected to apply Sociological Principles in the analysis of selected Problems facing our Society.

### 324 – PSYCHOLOGY & HUMAN BEHAVIOR (Elective)

Grades: 11-12
1 semester
.5 credits

This elective course involves the study of Human Behavior based on the individual Cognitive Process. Topics to be covered will include, but not be limited to, Historical Origins of Psychology, major Psychological Theories and Perspectives, Biological and Environmental Factors effecting Cognition, States and Levels of Consciousness, Theories of Learning, Processes and Stages of Memory, Types and Meanings of Intelligence, Personality Formation, Motivation, and Stages of Development.

### 3060 – AP UNITED STATES HISTORY

Grades: 11-12
1 year
1.0 credit (weighted)

AP United States History is a yearlong course that covers the American Experience from Pre-Colonial Times through the post-Cold War Era. The course will emphasize the formation of the American Identity in terms of the evolving popular perspectives on Diversity, Religion, Politics and Citizenship, Culture and the Environment as our National Demographics and the extent of our Global Interaction and Integration in terms of both Diplomatic Policy and Economic Policy have changed over time. The Advanced Placement exam is required of all students enrolled in this course. The District will help defray the cost of the exam. Please see page 28, ADVANCED PLACEMENT COURSES. ***This course will be taught using a blended approach of on-line learning and traditional classroom learning.***

### 3180 – WORLD GEOGRAPHY (Elective)

Grades: 11-12
1 semester
.5 credits

This elective course will cover various regions of the world. Students will learn the Five Themes of Geography, describe Regional Conflicts, identify Regional Characteristics, Compare and Contrast Cultural Patterns, and Compare and Contrast Major World Religions. The students will examine the Physical Features of specific regions including Land, Climate, and Types of Vegetation. In Addition, each region will also be addressed in terms of its Culture, which includes studies of Population Patterns, History and Government.

# TECHNOLOGY EDUCATION DEPARTMENT COURSE OFFERINGS

## 555 – TECHNOLOGY SYSTEMS (Required)

Grades: 7 or 8
1 semester
.5 credits

Technology Systems is designed to introduce students to systems and processes to develop an understanding of the impact of technology on humans, the environment, and the global community. By investigating systems through their function, design, and development, students will understand what systems are, why they are developed and how "systems thinking" can be used to describe them. Students engage in activities and experiences where they evaluate the impacts of technology in order to learn problem-solving skills and the reinforcement of science, technology, engineering, art and mathematics (STEAM) concepts.

## 556 – TECHNOLOGY EXPLORATION: Manufacturing Engineering (Elective)

Grades: 7 or 8
1 semester
.5 credits

This is an elective course that provides interested students additional exploratory opportunities for hands-on experiences beyond the required course. Students use various tools, materials, and products in activities and projects related to the field and study of manufacturing materials and processes. Special emphasis is given to the generation of visual images, career exploration, planning, and problem-solving skills and the reinforcement of science, technology, engineering, art, and math (STEAM) concepts.

## 557 – TECHNOLOGY EXPLORATION: Materials Engineering (Elective)

Grades: 7 or 8
1 semester
.5 credits

This is an elective course that provides interested students additional exploratory opportunities for hands-on experiences beyond the required course. Students use various tools, materials, and products in activities and projects related to the field and study of materials processing, structure, and engineering. Special emphasis is given to the generation of visual images, career exploration, planning, and problem-solving skills and the reinforcement of science, technology, engineering, art, and math (STEAM) concepts.

## FOUNDATIONS OF TECHNOLOGY 9 COURSE OPTIONS (Courses 561, 562, 563 & 564)

Grade: 9
1 semester per course
.5 credits per course

These courses prepare students to understand and apply technological concepts and processes that are the cornerstone for the high school technology program. Group and individual activities engage

students in creating ideas, developing innovations, and engineering practical solutions. Technology content, resources and laboratory/classroom activities apply student applications of science, technology, engineering, art, and mathematics (STEAM) and other school subjects in authentic situations.

The Foundations of Technology program is designed to prepare students for the technological world by preparing them to assume the roles of informed voters, productive workers and wise consumers. The Foundations of Technology course focuses on the development of knowledge and skills regarding the aspects of technology: its evolution systems, and impacts of technology use, design and utilization. The following are the available courses within the Foundations of Technology curriculum.

***This class is an elective requiring materials for projects which become the student's personal property at the conclusion of the course and the student is required to assume the cost of the materials or supplies.***

### 561 – MANUFACTURING ENGINEERING (Elective)

Grade: 9
1 semester
.5 credits

This course focuses on developing and understanding the discipline of engineering through manufacturing practices that include research, design, development, testing, and evaluating design solutions. The primary focus of this course is to turn raw materials into new products in the most efficient way while considering the economic, social, and environmental impacts of various manufacturing processes.

### 562 – MATERIALS ENGINEERING (Elective)

Grade: 9
1 semester
.5 credits

This course includes instruction in industrial materials and manufacturing. The study of Materials Engineering involves the materials, processes, and other key components of the manufacturing systems. Students will explore various materials processes. They gain an understanding of technological innovation and the fact that it often results when ideas, knowledge, or skills are shared within a technology, among technologies, or across other fields of study.

### 563 – ENGINEERING DESIGN AND DEVELOPMENT (Elective)

Grade: 9
1 semester
.5 credits

This course focuses on students exploring and deepening their understanding of "big ideas" regarding technology and makes use of a variety of assessment instruments to reveal the extent of understanding. Students develop an understanding of the influence of technology on society by

exploring how people of all times and places have increased their capability by using their unique skills to innovate, improvise, and invents. They gain an understanding of technological innovation. Students select and use construction, manufacturing, information, communications, and engineering technologies and recognize that cultural norms, environmental conditions, and the requirements of enterprises and institutions impact the design of structures. Opportunities are provided that enable students to select and use energy and power technologies and to explore the processing and controlling of the energy resources that have been important in the development of contemporary technology. Opportunities are provided that enable students to gain insights into the use of bio-related and other medical technologies.

### 564 – COMMUNICATIONS SYSTEMS (Elective)

Grade: 9
1 semester
.5 credits

This course focuses on developing an understanding of engineering design through technical drawing and computer aided design. Students will understand the formal process that transforms ideas into products or systems of the designed world. Students will become familiar with information and communication technologies and their role in the use of other technologies. Graphic design will be incorporated to produce items through print and engraving technologies.

### 458 – IT ESSENTIALS I (Elective)

Grades: 10-12
1 year
1.0 credit
Prerequisite: "C" or better in Computer Science 9

This course is an excellent introduction to Information Technology, which includes an overview of IT, math for the digital age, intro to networking, PC maintenance, safety and troubleshooting. This course provides an in-depth exposure to personal computer hardware and desktop operating systems. Students are prepared to take the A+ Certification upon successful completion of this course.

### 565 – MANUFACTURING ENGINEERING I (Elective)

Grades: 10-12
1 year
1.0 credit
This course is an introduction into the field and study of manufacturing engineering. Students will focus on the components of a manufacturing enterprise and how those components work together to produce a good or product. You will be taught the basic use of various tools and processes used in manufacturing. Students will also see the strong connection between manufacturing and operations management, as well as mechanical, industrial, and electrical engineering.

***This class is an elective requiring materials for projects which become the student's personal property at the conclusion of the course and the student is required to assume the cost of the materials or supplies.***

## 566 – MANUFACTURING ENGINEERING II (Elective)

Grades: 11-12
1 year
1.0 credit
Prerequisite: Passing grade in Manufacturing Engineering I

Manufacturing Engineering II encourages further exploration, experimentation and independent study in all areas of woodworking. Students, through individual instruction and using applied academics, will enhance the development of skills in problem solving, health and safety and good work habits in the woodworking laboratory.

***This class is an elective requiring material for projects which become the student's personal property at the conclusion of the course and the student is required to assume the cost of the materials or supplies.***

## 567 – MANUFACTURING ENGINEERING III (Elective)

Grade: 12
1 year
1.0 credit
Prerequisite: Passing grade in Manufacturing Engineering II

Manufacturing Engineering III is an advanced course recommended for students considering a career in woodworking-related industries. With individualized assistance from the instructor, students review and hone woodworking operations, procedures, skills and processes which they have learned in Manufacturing Engineering I and II. Independent study is stressed and students are given the freedom to select models, experiments, and technical procedures that will further enhance and contribute to the development of the student's woodworking skills, quality workmanship and safe, efficient work habits.

***This class is an elective requiring material for projects which become the student's personal property at the conclusion of the course and the student is required to assume the cost of the materials or supplies.***

## 568 – MATERIALS ENGINEERING I (Elective)

Grades: 10-12
1 year
1.0 credit

This course is intended to expose students to the various materials processing operations. Forming, shaping, joining and separating materials in both solid and liquid states will be the primary focus of this course. Students will use these processes to convert materials from their industrial state into parts and products using the engineering and design process.

***This class is an elective requiring material for projects which become the student's personal property at the conclusion of the course and the student is required to assume the cost of the materials or supplies.***

## 569 – MATERIALS ENGINEERING II (Elective)

Grades: 11-12
1 year
1.0 credit
Prerequisite: Passing grade in Materials Engineering I

This course provides students with an opportunity to continue their study in the fields of Materials Engineering. Through academic and laboratory exercises in individually selected areas, students will apply present scientific knowledge and industrial techniques to explore and experiment in the design and production of both practical and creative metal products. This course would be ideal for students considering metal or metal-related careers.

***This class is an elective requiring material for projects which become the student's personal property at the conclusion of the course and the student is required to assume the cost of the materials or supplies.***

## 570 – MATERIALS ENGINEERING III (Elective)

Grade: 12
1 year
1.0 credit
Prerequisite: Passing grade in Materials Engineering II

This course is offered to students who are planning to pursue a career in metal industries or related areas along with students who want to expand their knowledge and skills in areas of metal technology. This class will provide students with the opportunity to apply their scientific and creative skills to design and produce both simplistic and complex metal products. Along with this, students will study the great minds of industry and their contributions. They will also explore the opportunities in metal and related industries and their qualifications needed for employment.

***This class is an elective requiring material for projects which become the student's personal property at the conclusion of the course and the student is required to assume the cost of the materials or supplies.***

## 571 – ENGINEERING DESIGN AND DEVELOPMENT I (Elective)

Grades: 10-12
1 year
1.0 credit
Engineering Design and Development offers students the opportunity to analyze current technologies to the impacts they have on society and the environment through various hands on activities in the fields of Construction, Manufacturing, Communications, Transportation, and Bio-Technology. Students will use critical and reflective thinking skills to clarify the issues before informed decisions will be made. Students will leave with the abilities to select and use energy and power technologies to solve real world problems.

***This class is an elective requiring material for projects which become the student's personal property at the conclusion of the course and the student is required to assume the cost of the materials or supplies.***

## 572 – ENGINEERING DESIGN AND DEVELOPMENT II (Elective)

Grades: 11-12
1 year
1.0 credit
Prerequisite: Passing grade in Engineering Design and Development I

The course of Engineering Design and Development II will advance their curriculum to teach the fundamentals of electricity, electronics, and their practical application to STEM Robotics design and engineering. Students will enhance their background knowledge learned in the business curriculum of STEM Robotics to learn the underlying principles and theory of operation of electronic energy devices and relate those principles to the operation of industrial, household, and robotic equipment. Throughout the course, students will apply the fundaments of electricity and electronics during lab exercises, while using electronic trainers and building models and robots.
***This class is an elective, requiring material for projects which become the student's personal property at the conclusion of the course and the student is required to assume the cost of the materials or supplies.***

## 573 – ENGINEERING DESIGN AND DEVELOPMENT III (Elective)

Grade: 12
1 year
1.0 credit
Prerequisite: Passing grade in Engineering Design and Development II

This course is designed to teach the principles and theory of operation of combustion engines, fluid power systems (hydraulic and pneumatic), robotics, rocketry and solar energy. Throughout the course, students develop a basis for safety, good work habits, use of power and hand tools, testing of equipment, applications and problem solving.
***This class is an elective requiring material for projects which become the student's personal property at the conclusion of the course and the student is required to assume the cost of the materials or supplies.***

## 574 – COMMUNICATION SYSTEMS I (Elective)

Grades: 10-12
1 year
1.0 credit

This course will further develop an understanding of engineering design through technical drawing and computer aided design. Students will understand the formal process that transforms ideas into products or systems of the designed world. Students will apply science, technology, engineering, art and mathematics (STEAM) concepts and skills to solve engineering design problems and innovative designs. Students will research, develop, test, and analyze engineering designs using criteria such as design effectiveness, public safety, human factors, and ethics. This course is an essential experience for students who are interested in technology, innovation, design, and engineering. Graphic design

will be incorporated to produce items through print and engraving technologies.

### 575 – COMMUNICATION SYSTEMS II (Elective)

Grades: 11-12
1 year
1.0 credit
Prerequisite: Passing grade in Communication Systems I

This course is offered to students who have completed Communication Systems I and wish to further develop their understanding of advanced areas. These areas include: photography, darkroom procedures, photo offset printing and advanced technical drawings, such as assemble detail and assemble drawing.

### 576 - COMMUNICATION SYSTEMS III (Elective)

Grade: 12
1 year
1.0 credit
Prerequisite: Passing grade in Communication Systems II

This course provides a more in-depth study of graphic communications and drafting. Communication Systems III further develops each student's proficiency in the areas of photography/printing, architectural drafting and mechanical drawing.

### 580 – ROBOTICS ENGINEERING (Elective)

Grades: 10-12
1 year
1.0 credit

This course is designed to provide a comprehensive study of engineering concepts including: Physics, Programming, Mechanical systems, and Electrical Systems. These core concepts are delivered through relevant activities and projects using robotics as a vehicle to convey the principles of engineering. This course is aligned to STEAM standards recognized nationwide including Atlas of Science, ITEEA, and NCTM.

## WORLD LANGUAGE DEPARTMENT COURSE OFFERINGS

### 350 – FRENCH I (Elective)

Grades: 8-12
1 year
1.0 credit

At this beginning level, the student is introduced to French primarily as a spoken language, allowing time for him/her to develop basic skills. Much time is spent on learning vocabulary, verbs

and dialogues. Liberal use of audio-visual aids to learning help the student gain a more knowledgeable understanding of the wide scope of influence that the French-speaking world has had on his/her own culture. A language scheduled in 8th grade MAY NOT count as a prerequisite required by area colleges.

### 351 – FRENCH II (Elective)

Grades: 9-12
1 year
1.0 credit
Prerequisite: "C" or better grade in French I

This course, building on French I, further develops both the skills of speaking, reading and writing the French language and an awareness of French culture. Extensive use is made of visual aids.

### 352 – FRENCH III (Elective)

Grades: 10-12
1 year
1.0 credit (weighted)
Prerequisite: "C" or better grade in French II

At this level, the students are given a thorough review of the grammar presented in French I and II. Stress is placed on the finer points of grammar and pronunciation, and students are able to use special talents in individual projects. Since French has become so widespread, emphasis is placed on the development of the oral communication skills of speaking and comprehension of the French language.

### 353 – FRENCH IV (Elective)

Grades: 11-12
1 year
1.0 credit (weighted)
Prerequisite: "C" or better grade in French III

At this level, students will examine and study advanced grammatical structures such as the past subjunctive and the past simple. In addition, students are exposed to French literature and culture, specifically poetry of the 18th and 19th centuries and such modern authors as Sainte Exupery, the author of Le Petit Prince.

### 355 – AP FRENCH (Elective)

Grade: 12
1 year
1.0 credit (weighted)
Prerequisite: "C" or better grade in French IV
At the AP level, students prepare for taking the AP language and culture exam. There is an intensive

grammar review with added attention given to the subtleties of the French language. In addition to grammar, the class focuses on French culture through literature and history. AP test taking skills are developed through test practice exercises. This class is conducted mostly in the target language in order to strengthen communication skills. The Advanced Placement exam is required of all students enrolled in this course. The District will help defray the cost of the exam. Please see page 28, ADVANCED PLACEMENT COURSES. ADVANCED PLACEMENT

### 358 – SPANISH I (Elective)

Grades: 8-12
1 year
1.0 credit

At this beginning level, the student is introduced to Spanish primarily as a spoken language, allowing time for him/her to develop basic skills. Much time is spent on learning vocabulary, verbs and dialogues. Liberal use of audio-visual aids to learning help the student gain a more knowledgeable understanding of the wide scope of influence that the Spanish-speaking world has had on his/her own culture. A language scheduled in 8th grade MAY NOT count as a prerequisite required by area colleges.

### 359 – SPANISH II (Elective)

Grades: 9-12
1 year
1.0 credit
Prerequisite: "C" or better grade in Spanish I

This course, building on Spanish I, further develops both the skills of speaking, reading and writing the Spanish language and an awareness of Spanish-speaking culture. Extensive use is made of visual aids.

### 360 – SPANISH III (Elective)

Grades: 10-12
1 year
1.0 credit (weighted)
Prerequisite: "C" or better grade in Spanish II

At this level, students are given a thorough review of the grammar presented in Spanish I and Spanish II. Stress is placed on the finer points of grammar and pronunciation, and students are able to use special talents in individual projects. Since Spanish has become so widespread, emphasis is placed on the development of the oral communication skills of speaking and comprehension of the Spanish language.

## 361 – SPANISH IV (Elective)

Grades: 11-12
1 year
1.0 credit (weighted)
Prerequisite: "C" or better grade in Spanish III

At this level, the students are given a thorough review of the grammar presented in Spanish I, II, and III. Stress is placed on the finer points of grammar and pronunciation, and students are able to use special talents in individual projects. They will also learn more about the cultures of Spanish-speaking countries while they study new grammatical structures so that they may communicate more advanced concepts such as asking for and giving advice or help, reporting what has happened or what was said, expressing and supporting a point of view or opinion, discussing the future, expressing hopes and wishes, and making suggestions or recommendations. Due to the pervasiveness of the Spanish language in today's world, oral communication skills of speaking and comprehension are emphasized.

## 363 – AP SPANISH (Elective)

Grade: 12
1 year
1.0 credit (weighted)
Prerequisite: "C" or better grade in Spanish IV

At the AP level, students prepare for taking the AP language and culture exam. There is an intensive grammar review with added attention given to the subtleties of the Spanish language. In addition to grammar, the class focuses on Spanish culture through literature and history. AP test taking skills are developed through test practice exercises. This class is conducted mostly in the target language in order to strengthen communication skills. The Advanced Placement exam is required of all students enrolled in this course. The District will help defray the cost of the exam. Please see page 28, ADVANCED PLACEMENT COURSES.

## 340 – MANDARIN CHINESE I (Elective)

Grades: 9-12
1 year
1.0 credit

This is an introduction to the Mandarin Chinese language. Students will develop basic conversational skills and proficiency in reading and writing Chinese characters. The relationship between language and culture will be stressed throughout.

## 341-MANDARIN CHINESE II (Elective)

Grades: 9-12
1 year
1.0 credit

This course, building on Mandarin Chinese I, further develops both the skills of speaking, reading and writing the Mandarin Chinese language and an awareness of Chinese culture. Extensive use is made of visual aids.