

# TRINITY AREA HIGH SCHOOL

## CURRICULUM PLANNING GUIDE for STUDENTS AND PARENTS

2021-2022





## **TRINITY AREA HIGH SCHOOL**

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**[www.trinitypride.org](http://www.trinitypride.org)**

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# TRINITY HIGH SCHOOL

## GRADUATION REQUIREMENTS

2021 – 2022

The course selection materials are provided to assist our students and their parents with the task of selecting courses for 2021-2022 school year. It is essential that students and parents acquaint themselves with scheduling procedures and regulations. It is the student's responsibility to ensure that all graduation requirements are met. Only those students who have completed all graduation requirements will be permitted to receive a Trinity diploma.

### GRADUATION REQUIREMENTS

Students must earn 24 credits to graduate from Trinity High School. Additionally, the successful completion of the graduation project (community service), Naviance tasks, and appropriate scores on the Keystone/Trinity tests are required for graduation. A full year course will be given one (1) credit and a semester course one-half (1/2) credit. Keystone Exams are end-of-course assessments designed to evaluate proficiency in academic content. Students in 9<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup>, grades must demonstrate proficiency in Literature, Algebra I, and Biology to graduate. All students are required to score Proficient or Advanced in the Keystone eligible subject. If proficiency is not reached by 12th grade, students will need to take and pass the Trinity Exam in that subject.

# Trinity Graduation Requirements (24 Credits)

<b>Freshman</b>	<b>Sophomore</b>	<b>Junior</b>	<b>Senior</b>
<i>English (1.5 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>
English 9 CP English 9 Honors Freshman Writing (.5 credit)	English 10 CP English 10 Honors	English 11 CP AP English 11	English 12 CP AP English 12
<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>
Algebra 1A Algebra 1 Algebra 2 Honors Honors Geometry	Algebra 1B Algebra 2 Honors Geometry Pre-Calculus Honors	Algebra 2 Geometry Financial Algebra Pre-Calculus Honors AP Stats AP Calculus AB	Algebra 2 Geometry Pre-Calculus Advanced Alg with Trig AP Stats AP Calculus AB AP Calculus BC
<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>
World History CP World History Honors	US History CP AP US History	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit) AP European History AP American Government	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit) AP European History AP American Government
<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>
Biology CP Biology Honors	Chemistry CP Physical Science CP Honors Chemistry AP Environmental Science (must be taken with Honors Chem)	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy and Meteorology (.5 Credit) Organic Chemistry (.5 Credit) Conservation Bio (.5 Credit) Forensic Science (.5 Credit) Geology and Oceanography (.5 Credit)	AP Biology AP or CP Chemistry AP or CP Physics AP Physics 2 AP or CP Enviro Science Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit) Organic Chemistry (.5 Credit) Conservation Biology (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)
<i>Physical Education &amp; Health (1.5 Credits)</i>			
1 Credit Physical Education and .5 Credit Health taken during Freshman Year			
<i>Elective Courses (4.0 Credits)</i>			
<i>Elective Course (1 Credit)</i>	<i>Elective Course (1 Credit)</i>	<i>Elective Course (1 Credit)</i>	<i>Elective Course (1 Credit)</i>

<i>Fine Arts (1 Credit)</i>
<i>Graduation Project (1 Credit)</i>

# TRINITY HIGH SCHOOL

## GRADUATION REQUIREMENTS

### GRADUATION REQUIREMENT ( Board Policy 217)

1. **Purpose** – The Board will acknowledge each student’s successful completion of the instructional program appropriate to the student’s interests and needs by awarding a diploma at graduation ceremonies.
2. **Authority** – The Board shall adopt the graduation requirements students must achieve, which shall include course completion and grades, completion of a culminating project, and results of district and state assessments.

#### **Title 22 Section 4.24 SC 1611, 1613**

The Board shall award a regular high school diploma to every student enrolled in this district who meets the requirements of graduation established by this Board as part of the district’s Strategic Plan.

#### **Title 22**

##### **Section 4.13, 4.24 Policy 100, 102**

A requirement for graduation shall be the completion of work and studies representing the instructional program assigned to grades 9 through 12.

#### **Title 22**

The Board requires that each candidate for graduation shall have earned twenty-four (24) credits for the class of 2023 and thereafter. The fourth year of high school shall not be required if the student has been accepted by an accredited institution of higher learning and has completed all requirements for graduation.

3. **Delegation of Responsibility** – The Superintendent or designee shall be responsible for planning and executing graduation ceremonies that appropriately recognize these important achievements.
4. **Guidelines** – Accurate recording of each student’s achievement of academic standards shall be maintained, as required by law and state regulations. **Pol. 213, 216**

### CAREER AND COLLEGE READINESS/COMMUNITY SERVICE HOURS

Students will complete their Career and College Tasks as follows: 9th Grade will complete work in English classes to meet the Career Awareness/Preparation strand; 10th Grade will complete work in Homeroom to meet the career acquisition strand; 11th Grade will complete work in Economics that will allow for students to complete the Entrepreneurship strand, and in Homeroom to complete the Career Retention/Advancement strand. Students must accumulate 10.00 hours of community service prior to graduating from Trinity High School. Students are encouraged to complete a minimum of 2.50 hours of community service for each year enrolled at the high school.

A transfer student during the senior year whose permanent records indicate a graduation project has been completed at another Pennsylvania school district will be considered to have met Trinity High School’s graduation project requirement. Out of state students transferring to Trinity High School after the first nine (9) weeks of their senior year may have the graduation project requirements waived by the principal.

# TRINITY HIGH SCHOOL

## SCHEDULING FOR 2021-2022

### COURSE SELECTION

As you select your courses, attention should be given to **course requirements, prerequisites** and **course sequences**. Before beginning the course selection process, you should realistically assess your capabilities and ambitions. If you have any concerns or questions regarding a course, you are encouraged to discuss it with the appropriate teacher or your counselor.

This selection of course will ultimately depend upon the student's abilities, interests and plans for a post-secondary education and career.

Colleges and employers review a student's transcript which consists of successfully completed courses and those courses in which a student is currently enrolled.

### SCHEDULING PROCESS

When our student body completes the course selection process, we develop a master schedule for the school that is based upon where the students have expressed interest through their selection of courses. In other words, the students of our school determine the school's master schedule for the next year. We build a master schedule that permits students to be scheduled for the classes they have selected with a few exceptions. It is possible that some students may select combinations of courses that are impossible to schedule. Consequently, it is important for students to prioritize their course selections around needs and future interests.

In order to make the proper selection of courses for next year, a careful study of course descriptions should be made. Also, study the requirements for the different programs and the electives offered each year. Plan to use your time wisely! Schedule courses that will benefit you and your future.

### STUDY HALLS

Students are advised that having some study halls on their schedules enables them to make up tests, visit the library or computer labs, make up physical education classes, and provide some study time.

### SCHEDULE CHANGES

Requests for schedule changes can be difficult, if not impossible, to accommodate once the school year starts. The course selections made by our students determine our master schedule which, in turn, determines the amount of materials (textbooks, science supplies, etc.) we need. It is important that the student and his/her parents carefully select a program of studies that is best suited for the student's needs. The programs have evolved after careful study and consultation with teachers, counselors, and parents and should require NO MAJOR CHANGE. However, the following are considered, as valid reason for requesting a schedule change:



# TRINITY HIGH SCHOOL

## SCHEDULING COURSE FOR 2021-2022

### SCHEDULE CHANGES CONTINUED

- If a student fails a subject and must repeat that subject the following year.
- Students who are enrolled in work study programs that necessitate schedule changes due to adjustments in work.
- Changes that must be made due to schedule conflicts or errors which are made by the school during the scheduling process.
- Students who registered for a sequential course during the scheduling process and then performed poorly after having scheduled.

Any changes that need to be made should be done prior to the first day of the new school year. Schedule changes will be made throughout the summer. Counselors have limited office hours during the summer to accommodate schedule changes. Once school begins, only emergency schedule changes are made with consultation by the principal.

### WITHDRAWING FROM A COURSE

During the first week of each course, students may add or drop a course by completing the official forms. Classes may be added after this time only with permission of the instructor and High School Principal.

Students who drop classes within the **first week** of the semester will be dropped from the course and no record of the course will appear on the transcript.

Students who withdraw after the **first week** in the course will receive a “WF” (0%) grade with permission of the High School Principal.

Students may not enter a new course after the class has been in session for five (5) days without instructor and/or principal permission.

Students, who initially attend class but, due to poor academic performance are not making satisfactory progress, may be recommended for withdrawal or change in placement by the instructor after the second week of the semester. Students recommended for withdrawal will be initiated by the teacher. With permission being granted by the High School Principal.

### WESTERN AREA CAREER & TECHNOLOGY CENTER (WACTC)

All students have the opportunity to complete an application for WACTC during their ninth grade year. Students can attend WACTC during grades 10, 11, and 12.

If a student fails more than one core academic course, they may not be able to continue to attend WACTC.

All students enrolled in one of the WACTC programs will be awarded four elective credits in their vocational program in accordance with school board policy.

Students will be removed for WACTC for any Level II violation of the student code of conduct.

If a student has 3 or more illegal absences or 18 absences (legal or illegal), they will be removed from WACTC and return to Trinity.

# TRINITY HIGH SCHOOL

## ADVANCED PLACEMENT COURSES FOR 2021-2022

Students at Trinity High School can utilize a variety of options to meet Trinity High School graduation requirements and earn credits for colleges, universities, technology or trade schools, or other post-secondary learning institutions.

The College Entrance Examination Board offers the Advanced Placement Program. This program is designed to allow students to pursue work on the college level while still in high school. The work involved is commensurate with the abilities of the students and is in the interest of colleges that welcome incoming students who are prepared for courses more advanced than those usually studied in the college freshman year.

Advanced Placement courses are equivalent to college freshman courses in breadth and depth and should recognize and reward students who successfully complete them. Individual colleges determine whether students who score sufficiently high on the advanced placement tests are granted advanced placement and/or college credit. Please note the Trinity Area School District and Trinity High School do not guarantee acceptance of the AP Test Scores for credit by any post-secondary institution. It is the responsibility of the student to inquire at the post-secondary institutions to determine if they accept AP scores and, if so, the minimum score that the institution will accept for credit for each course. Specific institutions and intended majors require certain minimum scores.

The cost for the AP Exam is the responsibility of the student and their families. The Trinity Area School District has reimbursed students in the past dependent upon the student's test score; however, there is no implied guarantee that the Board of School Directors will do so in the future.

The following courses will be offered. These are all year-long courses.

- |     |  |  |
|-----|--|--|
| 1.  | Advanced Placement English 11 (Lang)           | (11 <sup>th</sup> graders only)                                  |
| 2.  | Advanced Placement English 12 (Lit)            | (12 <sup>th</sup> graders only)                                  |
| 3.  | Advanced Placement US History                  | (10 <sup>th</sup> graders only)                                  |
| 4.  | Advanced Placement European History            | (11 <sup>th</sup> & 12 <sup>th</sup> graders)                    |
| 5.  | Advanced Placement Calculus AB                 | (11 <sup>th</sup> & 12 <sup>th</sup> graders)                    |
| 6.  | Advanced Placement Calculus BC                 | (12 <sup>th</sup> graders only)                                  |
| 7.  | Advanced Placement Chemistry                   | (11 <sup>th</sup> & 12 <sup>th</sup> graders)                    |
| 8.  | Advanced Placement Biology                     | (11 <sup>th</sup> & 12 <sup>th</sup> graders)                    |
| 9.  | Advanced Placement Statistics                  | (10 <sup>th</sup> , 11 <sup>th</sup> & 12 <sup>th</sup> graders) |
| 10. | Advanced Placement Computer Science A          | (11 <sup>th</sup> & 12 <sup>th</sup> graders)                    |
| 11. | Advanced Placement Computer Science Principles | (9 <sup>th</sup> - 12 <sup>th</sup> graders)                     |
| 12. | Advanced Placement Psychology                  | (11 <sup>th</sup> & 12 <sup>th</sup> graders)                    |
| 13. | Advanced Placement Music Theory                | (11 <sup>th</sup> & 12 <sup>th</sup> graders)                    |
| 14. | Advanced Placement Economics                   | (11 <sup>th</sup> & 12 <sup>th</sup> graders)                    |
| 15. | Advanced Placement Physics 1                   | (11 <sup>th</sup> & 12 <sup>th</sup> graders)                    |
| 16. | Advanced Placement Physics 2                   | (12 <sup>th</sup> graders only)                                  |
| 17. | Advanced Placement Environmental Science       | (10 <sup>th</sup> , 11 <sup>th</sup> & 12 <sup>th</sup> graders) |
| 18. | Advanced Placement German                      | (11 <sup>th</sup> & 12 <sup>th</sup> graders)                    |
| 19. | Advanced Placement Spanish                     | (11 <sup>th</sup> & 12 <sup>th</sup> graders)                    |
| 20. | Advanced Placement American Government         | (11 <sup>th</sup> & 12 <sup>th</sup> graders)                    |

# TRINITY HIGH SCHOOL

## ACADEMIC PROGRAMS

### WORK STUDY PROGRAM

This type of shared-time activity permits students in the twelfth grade to carry a reduced load of classes and then be excused for the purpose of reporting to work. However, the minimum graduation requirements must be met. No credit will be awarded toward graduation for participation in the work study program.

A student may have released time in his/her schedule either in the morning or the afternoon. The program requires that the student have a steady job, that is to say, a job that requires his/her presence every school day in the week. **The student must be in good academic standing.**

### NCAA REQUIREMENTS

Students considering participation in Division I or Division II intercollegiate sports programs after high school must register with the NCAA clearinghouse after completion of their junior year. A student must meet eligibility requirements by taking approved high school courses and the completion of a college entrance exam (SAT or ACT). Additional information is available in the Guidance Office or online at [www.eligibilitycenter.org](http://www.eligibilitycenter.org).

### LEARNING SUPPORT/EMOTIONAL SUPPORT PROGRAMS

For students with an Individual Education Plan (IEP), the High School Learning Support staff provides various levels of academic support. There are Co-teaching classrooms, monitoring periods, and tutorial services. Students should consult with Learning Support staff, counselors, and parents/guardians for course selection. Schedule recommendations are determined by staff, along with student and parent/guardian requests.

### PAS (PROMOTING ACADEMIC SUCCESS)

PAS is a one credit, college level course that was designed specifically for high school students with disabilities as an opportunity to explore post-secondary options. The program is open to high school seniors. However, it is important to note that in order for Office of Vocational Rehabilitation (OVR) to pay for the program a student must be working with OVR as a client. This program is for qualified IEP students.

### GIFTED SUPPORT

The Trinity Area High School gifted program is provided to students who qualify for gifted services. Identified students will enhance the regular education programs through their respective G.I.E.P.

### TEEN OUTREACH PROGRAM

Trinity Area School District will offer a Teen Outreach Program. This program will be voluntary in nature. The content of the program will entail Postponement of Sexual Involvement and Prevention of Pregnancy. It will be available to all students through their Physical Education class with parental permission.

# TRINITY HIGH SCHOOL

## ACADEMIC PROGRAMS

### LIFE SKILLS FOR INDEPENDENT LIVING

This program is for qualified I.E.P. students. They will receive all core subject areas based on a standard curriculum. The curriculum will be presented at lower reading levels and with an emphasis on practical application to life situations.

### TRINITY CYBER EDUCATION

Trinity High School offers a wide array of cyber options. These are exciting, engaging, online learning environments that are designed to capture your child's attention and draw them into the interactive world of web-based education.

Students requiring credit recovery may be placed into the cyber version of the course that they did not pass in the classroom.

Students seeking credit acceleration will complete an application to be approved by guidance and the department head prior to taking the course.

Students interested in a full time or blended cyber schedule should request a meeting with the cyber coordinator and their guidance counselor.

### COMMUNITY BASED INSTRUCTION

This program is for qualified I.E.P. students. They will receive unpaid vocational exploration and training experience to facilitate transition from school to integrated or supported employment. Relevant community support services are incorporated in this program.

### ACADEMIC RESOURCE CENTER

The Academic Resource Center, located in the high school library, is available for student use from 3 pm to 4 pm, Monday through Thursday to help students with their individual subject area needs and to provide help for student academic success in both classroom and online courses. A schedule of the subject teachers per day will be made available at the beginning of each school year.

The library has both print and non-print materials to enhance and support the curriculum. A computer network of on-line electronic databases provide access to comprehensive and up-to-date information from books, encyclopedias, magazines, newspapers, government documents, and various other resources. Combined with the Internet, these programs link students to national and global resources. The Internet is used as an educational tool. **Students must comply with the Trinity Area School District Acceptable Use Policy for Computer Technology and must have returned the Computer Technology Policy Agreement Form signed by a parent or guardian.**

# TRINITY HIGH SCHOOL

## GRADING

### GRADING SCALE

Trinity Area High School operates on four (4) nine-weeks marking periods. Final grades will be based on the four (4) nine weeks marking periods or two (2) nine-weeks marking periods in the case of semester classes.

Grading Scale	Quality Points		
90 – 100 A	A – 4	Incomplete	I
80 – 89 B	B – 3	Withdraw Failing	WF
70 – 79 C	C – 2	Withdraw Medical	M
60 – 69 D	D – 1	Pass	P
50 – 59 F	F – 0	Audit	G

The grading system represents various levels of achievement. These levels indicate student achievement compared to others studying the same subject matter. Since learning is a cumulative process, cumulative grading will be used for each semester. Whether a teacher grades by a percentage system or a point system, the student's points or percentage will be computed over the entire semester. The first and third nine (9) week grades are progress reports to the parents/guardians. The semester grade is the final grade based on the entire semester's work. **Cumulative grade point average is calculated at the end of each semester.**

**Class Rank is computed at the end of the school year based on semester grades received from all subjects EXCEPT the following:**

Olympus	Pass/Fail Subjects	Graduation Project
Audit Subjects	College Courses	

### **WEIGHTED (ADD-ON) COURSES:**

**Advanced Placement (AP) Courses** – These courses follow the Advanced Placement Curriculum. They are AP English 11, AP English 12, AP US History, AP Psychology, AP European History, AP American Government and Politics, AP Calculus AB, AP Calculus BC, AP Chemistry, AP Biology, AP Statistics, AP Computer Science A, AP Computer Science Principles, AP Economics, AP Physics 1, AP Physics 2, AP Environmental Science, AP Music Theory, AP Spanish and AP German.

**Honor Courses** – These are the most demanding courses offered. Mathematics and Science courses (except Biology) are both enriched and taken one (1) year early. In Social Studies and English, Honors courses are enriched but taken at the normal time. Honors courses are identified on the transcript by "HON".

**NOTE:** A student may receive "add-on" points for **no more** than thirty-two (32) Honors or Advanced Placement semester grades while at Trinity High School. The highest thirty-two (32) semester grades will be used at the end of the senior year to determine the weighted "add-on" for any student.

# TRINITY HIGH SCHOOL

## GRADING

### WEIGHTED ADD ON GRADES

Trinity High School uses a weighted add on class rank system.

1. A review of the objectives of the weighted grading system is included below:
  - a. Compensate those students in Honors and/or Advanced Placement classes in proportion to the difficulty of those courses.
  - b. Make advanced students more competitive in admission to highly selective colleges and universities and in selection for academic scholarships and college level honors programs.
  - c. Encourage academically qualified students to take the most challenging courses available.
  - d. Communicate to colleges and universities which of our students are the most academically talented.
  - e. Avoid placing students who do not pursue the advanced studies or those who are already working at the peak of their ability levels at a disadvantage.
  - f. Ensure that the elective program continues to be strong by not penalizing those students who take courses in the fine arts and other elective areas and who also pursue a difficult academic curriculum.
2. The Trinity High School weighted add on grading system has the following features:
  - a. Grade point averages (GPA) will be computed on a traditional four (4) point scale.
  - b. A value will be added to the GPA illustrating the difficulty of the curriculum a student has pursued and how well the student has done in that curriculum in relation to his/her peers.

### INCOMPLETE GRADES

All 12<sup>th</sup> grade students must meet the mandatory requirements for graduation. If a student receives an “I” for a semester grade in any subject during the senior year and fails to make up the “I,” he/she will NOT graduate. This will be true even if the student has already earned the number of credits required for graduation. Second semester incompletes of graduating seniors must be made up within two (2) school days after senior grades are due.

Students in grades 9, 10 and 11 who receive an “I” for a grading period must make up the work. If the “I” is not made up, this indicates that the course requirements have not been met, therefore, no credit will be given. Failure to make up a first semester “I” in an all year course will result in failure for the year, regardless of the second semester grade. Intermittent (1<sup>st</sup> and 3<sup>rd</sup>) marking period “I” grades are to be made up at the discretion of the subject teacher.

Any semester “I” incomplete must be made up within ten (10) school days following the day of distribution of report cards, unless extenuating circumstances exist which will allow extended time if approved by the principal. Teachers must submit in writing, to the principal, any extension requests prior to the close of the semester work.

No credit will be given in a course with an incomplete after the ten day limit unless an extension request has been granted by the building principal.

### SKYWARD

Online access to individual student grades is available to both students and parents. Access codes are available through the Guidance office, or emailing [familyaccess@trinitypride.org](mailto:familyaccess@trinitypride.org)

## HONOR ROLL

The honor roll is calculated every grading period. To be considered for the honor roll a student must have a GPA of 3.4 or higher. To be considered for the high honor roll a student must have a GPA of 3.75 or higher.

## GRADUATION HONORS

A student will be recognized in the Commencement Program as an Honors Graduate if he/she maintains a minimum weighted GPA of 3.75 cumulative in grades 9, 10, 11 and 12. The graduating seniors who have the highest cumulative grade point average and rank and who have met all course requirements will be designated as Valedictorian regardless of the number of credits earned.

## NATIONAL HONOR SOCIETY

Juniors and seniors who have weighted GPA's of 3.75 or higher will be considered for membership. Other criteria include: ten hours of community service (documented by a NHS adviser), no grades of D or F throughout the year, no major infractions of school procedures and rules, and completion of a minimum of four Honors or AP level credits.

# TRINITY HIGH SCHOOL

## ELIGIBILITY AND SUMMER SCHOOL

### ATHLETIC ELIGIBILITY

Meeting requirements for participation in athletics at the interscholastic level and/or intercollegiate level is the responsibility of the student/parent. Information will be disseminated through the athletic department in an athletic orientation assembly at the beginning of the school year, as well as being espoused on the School District Website. Additionally, any inquiries should be forwarded to the Athletic Director.

### SUMMER SCHOOL

Summer School classes are credit recovery courses designed for students who have failed a course during the regular school year. Courses will be delivered via an On-line/Cyber format with an on-site “Lab” element. Senior students who fail a course required for graduation shall be given an opportunity to attend Trinity Summer Cyber Academy.

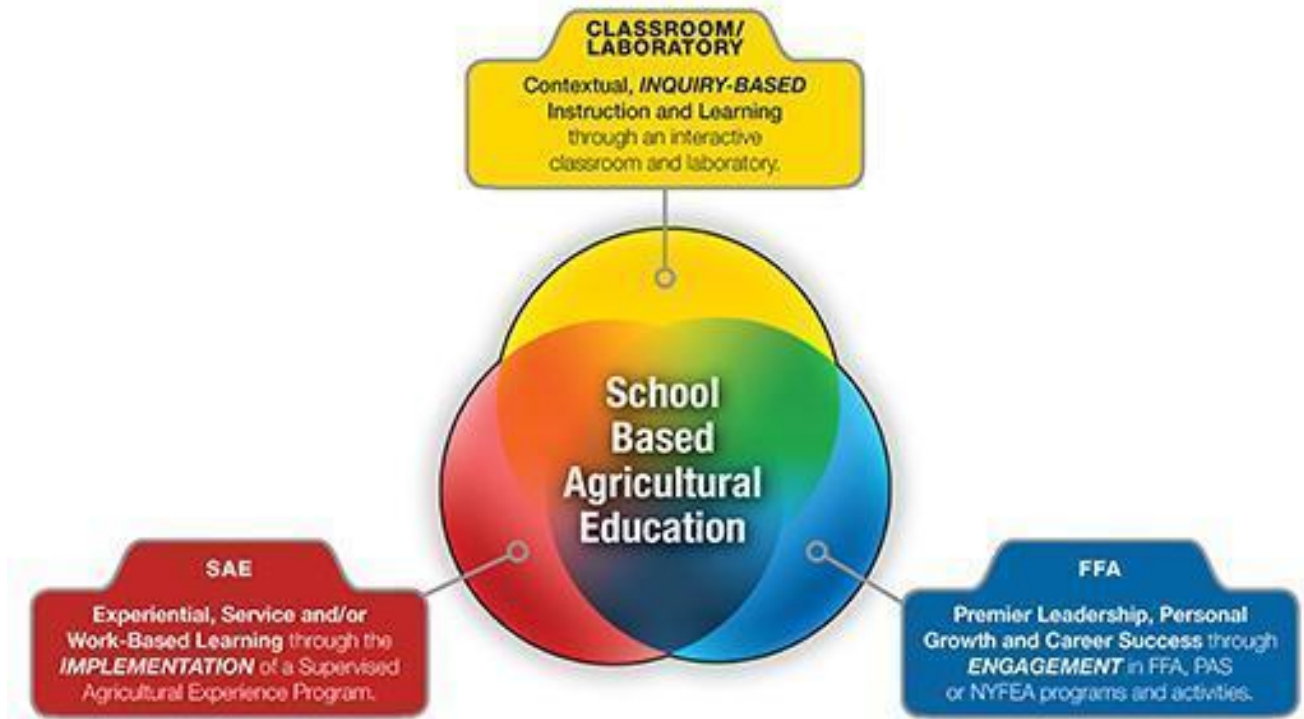


# 2021-2022

## COURSE DESCRIPTIONS

# AGRICULTURE PATHWAYS

## Applied Agriculture / Applied Horticulture / Agricultural Mechanization



Through agricultural education, students are provided opportunities for leadership development, personal growth and career success. Agricultural education instruction is delivered through three major components: Classroom/ Laboratory instruction, SAE (Supervised Agricultural Experience), and FFA Membership.

# Agriculture Education - General

Freshman	Sophomore	Junior	Senior
<i>English (1.5 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>
English 9 CP English 9 Honors Freshman Writing (.5 credit)	English 10 CP English 10 Honors	English 11 CP AP English 11	English 12 CP AP English 12
<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>
Algebra 1A Algebra 1 Algebra 2 Honors Honors Geometry	Algebra 1B Geometry Pre-Calculus Honors	Algebra 2 Geometry Financial Algebra Pre-Calculus Honors AP Stats AP Calculus AB	Algebra 2 Geometry Pre-Calculus Advanced Alg with Trig AP Stats AP Calculus AB AP Calculus BC
<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>
World History World History Honors	US History AP US History	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit) AP European History AP American Government	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit) AP European History AP American Government
<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>
Biology CP Honors Biology	Chemistry CP Physical Science CP Honors Chemistry	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit)  Organic Chemistry (.5 Credit) Conservation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit)  Organic Chemistry (.5 Credit) Conservation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)
<i>Physical Education &amp; Health (1.5Credits)</i>			
1 Credit Physical Education and .5 Credit Health taken during Freshman Year			
<i>Agriculture General Courses (10 Credits)</i>			
Intro to Agricultural Science (1 credit)  Intro to Horticulture	Intro to Agricultural Mechanics (1 credit)  Animal Science (1 credit)	Conservation Biology (.5 credit)  Environmental Science (.5 credit)	Advanced Hydroponics (1 credit)  Agricultural Leadership and Communications (1 credit)

(1 credit)	SAE II Project (1 credit)	Floral Design (1 credit)	SAE IV Project (1 credit)
SAE I Project (1 credit)		SAE III Project (1 credit)	
<i>Fine Arts (1 Credit)</i> <i>Graduation Project (1 credit)</i>			

# Applied Horticulture/ Horticulture

Freshman	Sophomore	Junior	Senior
<i>English (1.5 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>
English 9 CP English 9 Honors Freshman Writing (.5 credit)	English 10 CP English 10 Honors	English 11 CP AP English 11	English 12 CP AP English 12
<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>
Algebra 1A Algebra 1 Algebra 2 Honors Honors Geometry	Algebra 1B Geometry Pre-Calculus Honors	Algebra 2 Geometry Financial Algebra Pre-Calculus Honors AP Stats AP Calculus AB	Algebra 2 Geometry Pre-Calculus Advanced Alg with Trig AP Stats AP Calculus AB AP Calculus BC
<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>
World History World History Honors	US History AP US History	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit) AP European History AP American Government	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit) AP European History AP American Government
<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>
Biology CP Honors Biology	Chemistry CP Physical Science CP Honors Chemistry	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit)  Organic Chemistry (.5 Credit) Conservation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit)  Organic Chemistry (.5 Credit) Conservation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)
<i>Physical Education &amp; Health (1.5 Credits)</i>			
1 Credits Physical Education and .5 Credit Health taken during Freshman Year			
<i>Horticulture Pathway</i>			
Intro to Horticulture (1 credit)	Greenhouse Production & Management (1 credit)	Landscape Design and Soil Science (1 credit)	Agricultural Leadership and Communications (1 credit)
Intro to Agricultural Science (1 credit)	Floral Design (1 credit)	Conservation Biology (.5 credit)	Advanced Hydroponics (1 credit)
SAE I Project	SAE II Project (1 credit)	Environmental Science (.5 Credit)	SAE IV (1 credit)

(1 credit)		SAE III (1 credit)	
<i>Fine Arts (1 Credit)</i> <i>Graduation Project (1 credit)</i>			
<h2 style="text-align: center;">Agricultural Mechanization</h2>			

Freshman	Sophomore	Junior	Senior
<i>English (1.5 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>
English 9 CP English 9 Honors Freshman Writing (.5 credit)	English 10 CP English 10 Honors	English 11 CP AP English 11	English 12 CP AP English 12
<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>
Algebra 1A Algebra 1 Algebra 2 Honors Honors Geometry	Algebra 1B Geometry Pre-Calculus Honors	Algebra 2 Geometry Financial Algebra Pre-Calculus Honors AP Stats AP Calculus AB	Algebra 2 Geometry Pre-Calculus Advanced Alg with Trig AP Stats AP Calculus AB AP Calculus BC
<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>
World History World History Honors	US History AP US History	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit) AP European History AP American Government	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit) AP European History AP American Government
<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>
Biology CP Honors Biology	Chemistry CP Physical Science CP Honors Chemistry	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit) Organic Chemistry (.5 Credit) Conservation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit) Organic Chemistry (.5 Credit) Conservation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)
<i>Physical Education &amp; Health (1.5 Credits)</i>			
1 Credit Physical Education and .5 Credit Health taken during Freshman Year			
<i>Mechanization Pathway</i>			
Intro to Agricultural Mechanics (1 Credit)	Agricultural Construction (1 Credit)	Agricultural Advertising and Automation (1 Credit)  Small Gas Engines (1 Credit)	Agricultural Engine & Machinery Systems (1 Credit)

Intro to Agricultural Science (1 Credit)  SAE I Project (1 Credit)	Agricultural Mechanical Techniques (1 Credit)  SAE II Project(1 Credit)	SAE Project III (1 Credit)	Agricultural Leadership and Communications (1 Credit)  SAE Project IV (1 Credit)
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*Fine Arts (1 Credit)*  
*Graduation Project (1 Credit)*

## Agricultural Production

Freshman	Sophomore	Junior	Senior
<i>English (1.5 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>
English 9 CP English 9 Honors Freshman Writing (.5 credit)	English 10 CP English 10 Honors	English 11 CP AP English 11	English 12 CP AP English 12
<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>
Algebra 1A Algebra 1 Algebra 2 Honors Honors Geometry	Algebra 1B Geometry Pre-Calculus Honors	Algebra 2 Geometry Financial Algebra Pre-Calculus Honors AP Stats AP Calculus AB	Algebra 2 Geometry Pre-Calculus Advanced Alg with Trig AP Stats AP Calculus AB AP Calculus BC
<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>
World History World History Honors	US History AP US History	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit) AP European History AP American Government	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit) AP European History AP American Government
<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>
Biology CP Honors Biology	Chemistry CP Physical Science CP Honors Chemistry	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit)  Organic Chemistry (.5 Credit) Conservation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit)  Organic Chemistry (.5 Credit) Conservation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)
<i>Physical Education &amp; Health (1.5 Credits)</i>			
1 Credit Physical Education and .5 Credit Health taken during Freshman Year			
<i>Production Pathway</i>			

Intro to Agricultural Science (1 Credit)	Animal Science (1 Credit)	Agricultural Marketing (1 credit)	Conservation Biology (.5 Credit)
Intro to Horticulture (1Credit)	Intro to Agricultural Mechanics (1 Credit)	Agricultural Biotechnology System and Food Production (1 Credit)	Environmental Science (.5 Credit)
SAE I Project (1 credit)	SAE II Project (1 credit)	SAE III Project (1 credit)	Agricultural Leadership (1 credit)
			Advanced Hydroponics (1 Credit)
			SAE IV Project (1 credit)
<i>Fine Arts (1 Credit)</i> <i>Graduation Project (1 Credit)</i>			



# AGRICULTURE

## INTRODUCTORY COURSES

### Introduction to Agricultural Mechanics

888

**1 credit**

**2 semesters**

This course has been designed to provide students with a developing interest in agriculture with an overview of the agriculture industry. Individuals taking this class will receive training in the following areas: Agriculture Power and Energy System, Agriculture Tool and Equipment Training, Fabricating and Engineering, Small Engine Systems, Agriculture Structures, Fluid Systems, Environmental Resources and Safety. Within the animal production areas, students will study principles of raising livestock and will be involved in raising specific livestock enterprises. Students will spend approximately 50% of their time in other laboratory activities. While studying plant production, students will learn to identify and produce commonly grown agricultural crops. Shop activities will allow students to learn basic carpentry, which includes the use of both hand and power tools. Students will also be introduced to sheet metal work, electric and gas welding. Other lab areas will include food science, where various food products will be produced.

### Introduction to Horticulture

880

**1 credit**

**2 semesters**

This course is designed for beginning students in horticulture. Students will start and care for plants in the school greenhouses. Students will be encouraged to experiment with various growing techniques. Students will also prepare flowers and plants for markets; students will practice selling and marketing these products in the floral shop and greenhouse. Students will gain experience raising and marketing hydroponic crops. Computer assisted drawing of landscapes will be introduced. During the fall and spring, they will spend some time studying shrubs, trees, flowers, lawns, and vegetable plants in the outdoor areas around the school. Leadership skills are presented and experienced by the students and students must maintain a Supervised Agriculture Experience (SAE) record book. This course is to provide students with basic skills needed in horticulture.

### Introduction to Agricultural Science

881

**1 credit**

**2 semesters**

This course will include an introductory study of all the areas of Agricultural Science. It will be an exploratory course designed to give interested students a broad outlook at the Agricultural Sciences - including Animal Science, Plant Science, greenhouse skills, natural resources, food and fiber, FFA, food production, floral design, agricultural technology, agricultural business, agricultural science careers, and leadership development.

# AGRICULTURE

## MID-LEVEL COURSES

### Agricultural Construction

889

1 credit

2 semesters

**Requirement: Prerequisite Introduction to Agricultural Mechanics or Intro to Agricultural Science only for 10-12**

The goal of this course is to give students a working knowledge of building construction, electrical wiring, basic plumbing, and masonry skills. The class will participate in the planning and building of a storage shed or other construction projects. This project will give students hands on experiences with identification and ordering of construction materials, safe and proper construction tool use, rafter and wall layout, exterior finish work, site preparation, surveying, and teamwork. Each student will explore varied agriculture career options in all units. Students can relate to their individual interest, aptitudes and skills.

### Agricultural Mechanical Techniques

890

1 credit

2 semesters

**Requirement: Prerequisite Intro to Agricultural Mechanics or Intro to Agricultural Science only for 10-12**

Students will refine their skills in woodworking and metalworking techniques. A variety of designing, engineering, and fabricating opportunities will be used with manual and computerized applications. Material cutting, joining, repair and finishing techniques will be demonstrated. Students will learn to follow drawings and procedures to stay within designed tolerances. Safety with industrial and agricultural equipment will be discussed. Individualized instruction will be utilized with opportunities for individual design applications with approval from the instructors.

### Small Gas Engine

891

1 credit

2 semesters

The purpose of this course is to develop student's practical, working knowledge of small gas engines. Students will gain a more in-depth understanding of repair and maintenance of both two-cycle and four-cycle gas engines. Laboratory exercises will cover compression, ignition systems, fuel systems, lubrication, maintenance and sales. Students will develop troubleshooting skills using various diagnostic tools. In addition, students will learn how to repair and calibrate a small gas engine to return it to the manufacturer's original specifications. Students are required to bring in their own small gas engine to troubleshoot and repair. If students are unable to source an engine of their own, a donated engine provided by the agricultural mechanization program can be used as an alternative. (Course available to students in grades 10-12)

### Greenhouse Production and Management

892

1 credit

2 semesters

**Requirements: Prerequisite - Intro to Horticulture**

Plant health in both natural and agricultural ecosystems is essential for sustaining human society and all other life forms on Earth. Students will develop skills to manage agroecosystems for sustainable productivity, profitability and environmental protection by studying the greenhouse infrastructure, plant and soil sciences, ecology, and pest management from a systems perspective. The curriculum prepares students for a wide range of careers in agricultural and ecological fields as well as sustainable food production.

# AGRICULTURE

## MID-LEVEL COURSES

Animal Science	882
1 credit	2 semesters

### **Requirements: Prerequisite - Introduction to Agricultural Science**

(1/2 year Small Animal Science): Small animal science will explore the scientific principles of daily care involved in small animal production. These studies will include small animal care, safety, small animals as pets, animal rights and welfare, and careers in small animal care. Small animals discussed include, but are not limited to, rabbits, hamsters, cats, dogs, and birds.

(1/2 year Large Animal Science): Large animal science will explore the principles of large animal research and development. These studies will include the beef, sheep, goat, horse, dairy, and swine industries. Students will study reproduction, care and feeding, and basic veterinary science for each of the industries listed. This class would be especially beneficial to students who are exploring careers in veterinary care or who wish to learn more about the small and large animal industry.

Landscape Design and Soil Science	894
1 credit	2 semesters

### **Requirements: Prerequisite – Introduction to Horticulture**

This course continues to elevate student knowledge from the basics of how plants work toward getting plants to work for the landscape. The course focuses on building the students ability to diagnose and make decisions about how best to install and maintain a landscape project. Course content includes: tool and equipment maintenance; chemical application and calibration of spray equipment; plant and turf grass classification; fertilization skills; plant and turf irrigation; landscape and interior design layout, installation, and maintenance. FFA membership is curriculum required.

Agricultural Marketing	884
1 credit	2 semesters

Agricultural Marketing will cover the business side of the Agricultural industry. Students will learn about agricultural commodities, and basic accounting methods needed in the agricultural world. They will learn to keep a checking account, savings account and a basic investment portfolio as well as complete a basic tax return. Students will also learn the different marketing techniques used in the many agricultural commodities.

Floral Design	885
1 credit	2 semesters

### **Requirement: Prerequisite - Intro to Agricultural Science**

Concentration will be given to creating floral centerpieces, wreaths, corsages, and bouquets. The basics of floral composition, container choice, and construction techniques will be covered. Students will learn color and flower selection for banquet events and personal enjoyment and will work with silk, dried, and fresh plant material.

# AGRICULTURE

## MID-LEVEL COURSES

### Agricultural Advertising and Automation

895

1 credit

2 semesters

**Requirements: Prerequisite - Introduction to Agricultural Mechanics.**

This course includes the role of advertising in integrated marketing communications, consumer behavior, creative strategies, and types of media. Integrated into the course are practical applications. On successful completion of the course, students will be able to define terminology and explain concepts regarding dimensions/foundations of advertising; explain the relationship between advertising and marketing; demonstrate an understanding of the role of advertising in integrated marketing communications; recognize the factors that influence consumer behavior; explain the target marketing process; analyze and understand the importance of creative strategies and executions in advertising campaigns; demonstrate an understanding of media planning; and weigh the advantages and disadvantages of using different media to convey the advertising message. FFA membership is curriculum required.

The SAE program is a hands-on, real life agricultural career preparation experience tying together Agricultural Science curriculum, student aptitudes and interests, student career and educational goals, and the agricultural industry. SAE students will meet with the Agriculture Teacher during homeroom and activity periods as well as during home project visits. **Students are to make arrangements with instructor prior to scheduling class to propose project.**

### Agricultural Biotechnology System and Food Production

899

1 credit

2 semesters

This is an instructional program that focuses on the application of the biological sciences, biochemistry and genetics in preparation of new and enhanced agricultural, environmental, clinical and industrial products including the commercial exploitation of microbes, plants and animals. This program may include instruction in bioinformatics, gene identification, phylogenetics and comparative genomics, bioinorganic chemistry, immunoassaying, DNA sequencing, xenotransplantation, genetic engineering, industrial microbiology, drug and biologic development, enzyme based production process, patent law and biotechnology management and marketing, applicable regulations and biotechnology ethics.

# AGRICULTURE

## ADVANCED COURSES

Agricultural Leadership & Communications	886
1 credit	2 semesters

**Requirement: Prerequisite - Intro to Agricultural Science. Open to 11th and 12th grade only.**

This course is the secondary study of all the areas of Ag-Science. It is designed to give students a more in depth study of animals and plant science as well as agricultural business. Students will be involved in research projects which will explore current trends in agricultural industry. These studies may include but are not limited to: dairy food quality testing, alternative fuels, organic farming, and non-traditional farming practices.

This course will incorporate the activities of the FFA program. Students will learn basic record keeping by completing an FFA record book using MS EXCEL. Students will learn communication skills and Robert's Rules of Order by using the FFA speech format and parliamentary procedure event. Each student will write a conversation speech, prepared speech and extemporaneous speech to present in class.

This class will benefit any student looking to further their education in agriculture after high school. We will be completing lab reports and documents that will assist in college level courses.

Advanced Hydroponics	893
1 credit	2 semesters

**Requirements: Prerequisite – Introduction to Agricultural Science or Introduction to Horticulture**

Hydroponics is a subset of hydroculture, the method of growing plants without soil, using mineral nutrient solutions in a water solvent. Students in advanced hydroponics will utilize Trinity High School's LGM hydroponic growing unit. Students will monitor nutrient levels, water levels, and plant health as well as conduct water quality tests. Students will learn how to calibrate pH, conductivity, and temperature. They will be required to conduct independent research using the LGM and will keep accurate records of data collections. Students will also participate in starting plants from seeds, transplant seedlings, and harvesting mature plants for consumption.

Agricultural Large Engine & Machinery Systems	897
1 credit	2 semesters

**Requirements: Prerequisite – Small Gas Engine; 11-12th Graders**

This course is designed to be a continuation of Small Gas Engine. Students will apply the mechanical skills and troubleshooting techniques learned in Small Gas Engine to gain a more in depth understanding of the operation, maintenance, and repair of large gas engines used in the agricultural, recreational, and automotive industries. Laboratory exercises will cover routine maintenance, intake systems, exhaust systems, carburation, fuel injection, valve train components, and performance modifications. In addition, students will be introduced to the theory of operation of diesel engines and their numerous advantages and applications. Successful completion of Small Gas Engine (course 891) is required before enrolling in Large Gas Engine.



## ARMY JROTC



The mission of the United States Army Junior Reserve Officer Training Corps (JROTC) Program is **"TO MOTIVATE YOUNG PEOPLE TO BE BETTER CITIZENS."** The program is offered as an academic elective and the grade received is included in the student's overall grade point average. Program objectives are to provide and encourage citizenship, promote high school completion, develop leadership potential, strengthen self-esteem, improve wellness and physical fitness, provide an incentive to live drug-free and enhance life skills. These objectives are accomplished through a well-balanced curriculum of 180 hours of instruction per year, and a number of optional extracurricular activities to include but not limited to; drill teams, color guards, physical fitness teams, civic activities, and summer leadership camp. Major subject areas in the JROTC curriculum are; **Leadership and Patriotism** (decision making, problem-solving, teamwork, moral responsibility, respect for constituted authority, personal and group success), **Communication** (communicate and listen effectively, improve verbal and written skills, interview and presentation methods), **Citizenship and History** (ethical values, rights and responsibilities, role of military in a democracy, current events, importance of citizenship in American History), **Life Management Skills** (self-reliance, goal setting, time management, financial management, stress reduction, increase self-confidence, overcome fear of failure, career options and opportunities), and **Wellness and Physical Fitness** (first aid training, good health and appearance, drug prevention, importance of diet and exercise). The **JROTC Program of Instruction** is based on a systematic progression of learning that is designed for the cadet's development at each grade level.

Leadership Education & Training (LET I)	970
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1 credit

2 semesters

This course is designed for students at any grade level entering the program. The desired learning outcomes are: demonstrate knowledge of the rights, responsibilities (including respect for constituted authority), privileges and freedoms that underlie good citizenship. Display leadership potential and the ability to live and work cooperatively with others. Demonstrates the ability to think logically and communicate effectively, with emphasis on effective oral communication. Describe the importance of diet and demonstrate the importance of physical fitness in maintaining good health and appearance. Demonstrate a basic understanding of the steps in the financial planning process including goal setting and decision-making. Demonstrate an understanding of the history, purpose and structure of Army JROTC. Demonstrate proficiency in basic military skills (such as drill and ceremonies, first aid and map reading) that are necessary for working effectively as members of a team. Describe the importance of citizenship through American history as it relates to America's culture and future from the Revolutionary period to present. Demonstration knowledge of the dangers from substance abuse and the importance of mental management including goal setting and positive self-talk. Express a desire to graduate from high school.

# ARMY JROTC

## Leadership Education & Training (LET II)

971

1 credit

2 semesters

### Requirements: Successful completion of 970

This course is designed for cadets who have successfully completed LET I. The desired outcomes are to: Demonstrate knowledge of ethical values and principles that underline good citizenship. Display leadership potential which shows the ability to live and work with others. Demonstrate the ability to think logically and to communicate effectively in writing. Describe the importance of physical fitness in maintaining good health and appearance. Demonstrate a basic understanding of the importance of managing income and credit effectively in the financial planning process. Demonstrate an understanding of the roles education, earnings and protecting an income play in the financial planning program. Display knowledge of history, purpose and structure of the total Army, with emphasis on the role and accomplishments of the Army. Demonstrate knowledge of basic military skills in drill and ceremonies, first aid, and map reading that are necessary for working effectively as a member of the team. Describe the importance of American military history during the period from the Korean Conflict to present, as it relates to America's future. Display an understanding of technological advancements in the areas of computers, lasers, simulators, and robotics. Display an understanding of the effects substance abuse has on the present and future, along with the importance of mental management. Express a desire to graduate from high school.

## Leadership Education & Training (LET III)

972

1 credit

2 semesters

### Requirements: Successful completion of 971

This course is designed for cadets who have successfully completed LET II. The desired outcomes are to: Demonstrate knowledge of the federal and military systems of justice. Apply leadership assessment principals and display leadership potential by demonstrating the ability to effectively solve problems and supervise. Demonstrate the ability to communicate effectively as a leader and as a counselor. Demonstrate the importance of physical fitness in maintaining good health and appearance. Demonstrate a basic understanding of the financial planning process toward protecting assets against personal and financial loss. Display knowledge of the history, missions, and organization of the Department of Defense and of the military services of the U.S. Armed Forces.

## Leadership Education & Training (LET IV)

973

1 credit

2 semesters

### Requirements: Successful completion of 972

This course is designed for cadets who have successfully completed LET III. Students will study service to the National and financial planning, with continue practical work in drill, technology awareness, physical training along with command and staff principles. Give students practical experience in command and leadership. Practical exercises are provided in planning, preparing, conducting inspections, reviews, and parades. Students are given experience in presenting formal classroom instructions as a means of staff actions and responsibilities, and an opportunity to apply knowledge gained by participating as a battalion staff member in the staff planning process to solve mission requirements. Additional instruction is provided covering subjects such as; American Military History, History of Warfare, Unit Administration, and Military Occupations. The role of the Army in support of national objectives is studied with emphasis given to the fact that civilian authority is the maker of policy and the Army is the executer of that policy.

# ART

## INTRODUCTORY COURSES

Design I	901
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**½ credit**

**1 semester**

Design I explores the basics of real-world design industries including graphic design, fashion design, interior design, entertainment design, and industrial design. Students will learn how to use their traditional drawing skills to produce innovative artwork for a variety of markets and product applications. Throughout each unit, students will be exposed to possible career paths in the many growing fields of design.

Ceramics I	902
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**½ credit**

**1 semester**

This course provides an introduction to the medium of clay and the basics of working in a ceramics studio. Have fun learning beginning potter's wheel techniques as well as hand building techniques in coil, pinch, slab, and sculpting. Glazing and decorating will also be taught. At the end of this course the student will feel comfortable working and creating in a ceramics studio.

Note: In order to meet the State of Pennsylvania's Academic Standards for the Arts and Humanities, all students must select at least one Fine Arts (Art, Music and Instrumental Music) course (.50 credit or more) per their high school career as part of their elective requirement.

Digital Photography	905
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**½ credit**

**1 semester**

In the modern age of selfies and smartphones it is easy to forget that photography is actually a fine art. In Digital Photography class you will learn to operate a digital camera as you creatively explore the fundamentals of good subject, composition, and exposure. You will also learn basic skills for editing and enhancing your photos. As you master the art of capturing and controlling light, you will obtain the necessary skills to take high quality images of the world around you.

Painting I	906
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**½ credit**

**1 semester**

Like to paint but don't have the materials at home? Confused between a fan brush and a bright? Do you really want to know how to make that perfect shade of green? This introductory course introduces the materials and techniques of painting in an approachable and enjoyable way. Learn how to create art using acrylic, watercolor, pen and ink, and mixed media. Explore different tools and materials to find different ways to express yourself. At the end of this course you will feel confident working independently in a painting studio.



# ART

## INTRODUCTORY COURSES

Drawing I	907
<b>½ credit</b> <b>1 semester</b>	

This course is an introduction to the fundamentals of drawing. Learn a variety of traditional mediums including graphite pencil, colored pencil, and pen & ink as the class explores a wide range of realistic subject matter like animals, food, landscapes, and even people. The primary focus of this class is to help improve your perceptual skills in order to better understand how line is used to communicate light, space, and form. Students will also learn to maintain a sketchbook to help plan out compositions, practice techniques, and journal their interests.

Illustration I	918
<b>½ credit</b> <b>1 semester</b>	

The focus of this course is to explore the art of visual storytelling. Students will learn a variety of techniques that professional illustrators use every day to communicate their ideas and vision for modern print and film. The course covers the basics of real-world applications such as concept art, character design, art for publication (comic books, children's books, etc.), editorial art, and product design. In addition, students will learn the basics of the illustration business and become familiarized with available job opportunities within the field.

# ART

## MID-LEVEL COURSES

Ceramics II	909
<b>½ credit</b> <b>1 semester</b>	

### Requirements: Successful completion of Ceramics I

Moving past the basics, learn to develop advanced wheel skills and create more complex hand-building projects. You will be encouraged to find your own style and artistic approach to clay. Advanced decorating and glazing materials will be introduced, and the heritage of ceramics will be explored. You have the opportunity to specialize in either wheel throwing or hand building, or you can choose a blend of both. Membership in the National Art Honor Society for scholarship and display opportunities is available at this level.

Painting II	914
<b>½ credit</b> <b>1 semester</b>	

### Requirements: Successful completion Painting I

Working from the basics learned in Painting I, you will learn how to integrate the Elements and Principles of Art into your work to create more dynamic and engaging artwork. Further exploration into acrylic, watercolor, pen and ink, and mixed media will be included. Projects take on a more individual approach as you consider who you are as an artist and what you want to say with your art. Membership in the National Art Honor Society for scholarship and display opportunities is available at this level.

# ART

## MID-LEVEL COURSES

Drawing II	915
1/2 credit	1 semester

### Requirements: Successful completion of Drawing I

Drawing II builds upon the basic concepts learned in Drawing I. In this course students will learn new mediums and experiment with advanced materials. There will be a deeper emphasis on color and value as well as composition and perspective as students begin to discover their strengths and individual styles, they will be pushed to create drawings that are more original and personal to them. They will also continue to keep a sketchbook and complete independent studies. Membership in the National Art Honor Society for scholarship and display opportunities is available at this level.

Design II	916
1/2 credit	1 semester

### Requirements: Successful completion of Design I

Design II is a continuation of the concepts learned in Design I. Students will revisit the major industries of design, learning higher-level skills to create powerful concept art. This course is for students with a growing passion for design who enjoy using art to problem-solve. The curriculum will challenge learners to be innovative and sharpen their craftsmanship skills. Additionally, Design II offers resources for those interested in furthering their education in design

Illustration II	908
1/2 credit	1 semester

### Requirements: Successful completion of Illustration I

Illustration II is a special opportunity for students to continue exploring the visual story-telling side of art. As this course unfolds, you will learn advanced methods for making your art really come to life. New drawing and colorful techniques will be demonstrated as you learn to combine mediums and use new materials. This class also offers you the opportunity to illustrate in 3D form! Upon completing this course, you will have a better understanding of the business side of illustration as well as the skills to market yourself to paying clients all over the world.

# ART

## ADVANCED LEVEL COURSES

Ceramics III	912
1/2 credit	1 semester

**Requirements: Successful completion of Ceramics II, written instructor's approval.**

Ceramics III is a special opportunity for the student who is highly interested in clay. You will have the opportunity to work independently to produce projects using techniques that you like best. Emphasis is placed on exploring the possibilities of the medium to develop and individual artistic style. Projects, group critiques, and self-reflection all contribute to this goal. Investigations of today's important ceramic artists and trends will enhance this course. Membership in the National Art Honor Society for scholarship and display opportunities is available at this level. Submission to the Scholastic Art and Writing Awards is strongly encouraged at this level.

# BUSINESS AND ACCOUNTING

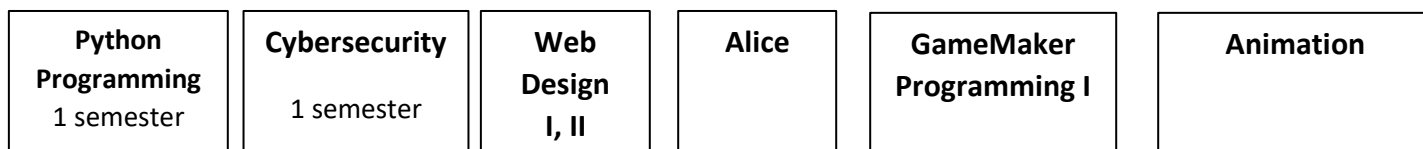
Freshman	Sophomore	Junior	Senior
<i>English (1.5 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>
English 9 CP English 9 Honors Freshman Writing (.5 Credit)	English 10 CP English 10 Honors	English 11 CP AP English 11	English 12 CP AP English 12
<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>
Algebra 1A Algebra 1 Algebra 2 Honors Honors Geometry	Algebra 1B Geometry Pre-Calculus Honors	Algebra 2 Geometry Financial Algebra Pre-Calculus Honors AP Stats AP Calculus AB	Algebra 2 Geometry Pre-Calculus Advanced Alg with Trig AP Stats AP Calculus AB AP Calculus BC
<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>
World History World History Honors	US History AP US History	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit) AP European History AP American Government	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit) AP European History AP American Government
<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>
Biology CP Honors Biology	Chemistry CP Physical Science CP Honors Chemistry	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit) Organic Chemistry (.5 Credit) Conservation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit) Organic Chemistry (.5 Credit) Conservation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)
<i>Physical Education &amp; Health (1.5 Credits)</i>			
1 Credit Physical Education and .5 Credit Health taken during Freshman Year			
<i>Business Accounting Courses</i>			
Accounting I (1credit)	Accounting II (.5 credit)	Accounting III (.5 Credit)	Advanced Accounting IV (1 Credit)
Virtual Business I (.5 credit)	Virtual Business II (.5 credit)	Adv. Accounting/Computer App (.5 Credit)	Foundation of Management (1 Credit)
Accounting Project I (1 credit)	Marketing & Math (1 credit)	Personal Finance (1 credit)	Accounting Project IV (1 credit)
	Accounting Project II	Accounting Project III (1 credit)	

	(1 credit)		
Fine Arts (1 Credit) <i>Graduation Project (1 Credit)</i>			

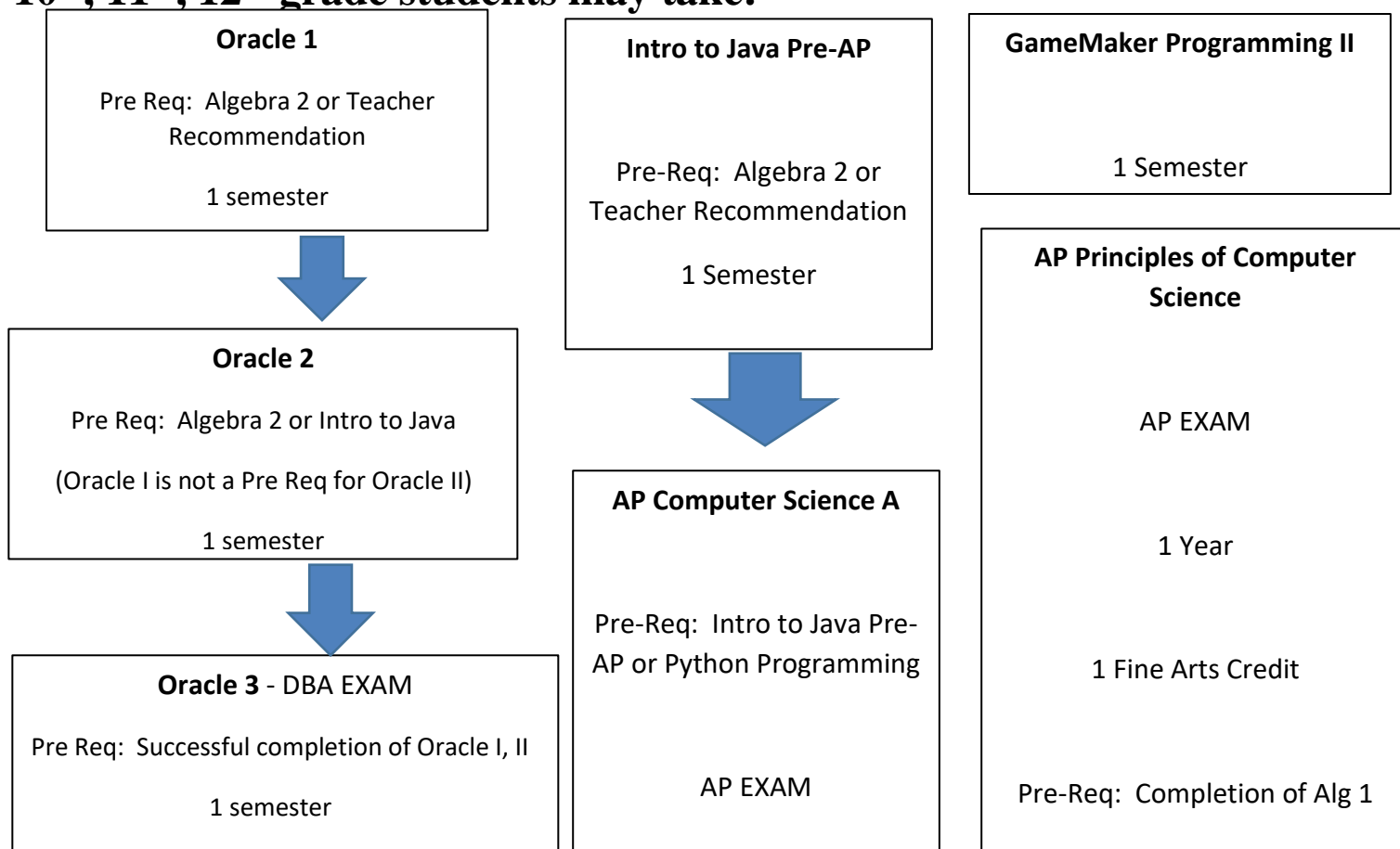
# BUSINESS AND TECHNOLOGY

## Computer Programming Classes

**Incoming 9<sup>th</sup> grade students may take:**



**10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup> grade students may take:**



# BUSINESS AND TECHNOLOGY

## Accounting I

731

1 credit

2 semesters

**Requirements:** Mandatory math courses can be found on page 55. Students must take three 400 level courses (via PDE). This course can be used as the 4<sup>th</sup> math credit, IF and ONLY if the student has passed the Keystone Algebra 1 test (retroactivity is allowed); Otherwise this is an elective credit.

The first year of Accounting is for students who have a variety of career objectives: (1) Beginning vocational preparation for careers in accounting, (2) Accounting knowledge and skill needed for careers in related business fields, (3) A foundation on which to continue studying business and accounting at the collegiate level. Learning progresses from the simple to the complex. The accounting procedures are described, drilled and practiced, then reinforced. The studies include how to start an accounting system, analyzing debit and credit transactions, journalizing and posting business transactions, and completing end-of-fiscal-period work. The student will work with up-to-date computers and accounting software which is used in local colleges and businesses.

## Accounting II

732

½ credit

1 semester

**Requirements:** Accounting I (731)

Mandatory math courses can be found on page 55. Students must take three 400 level courses (via PDE). This course can be used as the 4<sup>th</sup> math credit, IF and ONLY if the student has passed the Keystone Algebra 1 test (retroactivity is allowed); Otherwise this is an elective credit.

This course will further enhance your Accounting knowledge and help prepare you for the collegiate level. Emphasis will be placed on Corporate Accounting. This course is a must for all students planning to enter the business profession. Extensive work will be done with up-to-date computers and accounting software which are used in local colleges and businesses.

## Accounting III

733

½ credit

1 semester

**Requirements:** Accounting I & Accounting II (731 & 732)

Mandatory math courses can be found on page 55. Students must take three 400 level courses (via PDE). This course can be used as the 4<sup>th</sup> math credit, IF and ONLY if the student has passed the Keystone Algebra 1 test (retroactivity is allowed); Otherwise this is an elective credit.

This course will further enhance your computer knowledge of Accounting and help prepare you for the collegiate level. Emphasis will be placed on utilizing Excel, Quick-books Pro, and Peachtree Accounting. This course is a must for all students planning to enter the business profession.

## Adv Accounting

734

1 credit

2 semesters

**Requirements:** Accounting I & Accounting II (731 & 732)

Mandatory math courses can be found on page 55. Students must take three 400 level courses (via PDE). This course can be used as the 4<sup>th</sup> math credit, IF and ONLY if the student has passed the Keystone Algebra 1 test (retroactivity is allowed); Otherwise this is an elective credit.

Students will intern and work with local business learning and applying Accounting knowledge. Students will setup a company utilizing Accounting skills learned both manually and automated to run a business. This course will further enhance your computer knowledge of Accounting and help prepare you for the collegiate level. Emphasis will be placed on utilizing Excel, Quick-books Pro, and Peachtree Accounting. This course is a must for all students planning to enter the business profession.

# BUSINESS AND TECHNOLOGY

## Web Design I

741

½ credit

1 semester

**This course will count as a Fine Arts credit.**

This course introduces students to basic web design using HTML (Hypertext Markup Language) and CSS (Cascading Style Sheets). HTML and CSS are the standard languages that all pages on the Web are written and styled. This course does not require any prior knowledge of web design. The students will plan and design effective web pages using HTML and CSS coding, utilizing page layout techniques, text formatting, and graphics. This course will provide students with the basic skills to create web pages suitable for course work, professional purposes, and personal use.

## Web Design II

700

½ credit

1 semester

**Requirements: Web Design I**

**This course will count as a Fine Arts credit.**

This course continues to develop students' web design skills expanding upon the strategies and techniques learned in Web Design I. Students will use Adobe Dreamweaver to develop professional websites and mobile applications in practical, real-world settings. Independent and/or small group projects will be the primary emphasis during website and application development producing full-scale examples that are pleasing to the eye and easy to navigate.

## Adv Accounting/Computer Applications

742

½ credit

1 semester

This course is designed for any student who wants to become advanced in the Microsoft Office Suite. Emphasis will be placed on Word, PowerPoint, and Excel to foster success at the high school and collegiate level. Following completion of this course, students will be prepared to take the **MOUS** (Microsoft Office User Specialist) certification.

## Computers and Marketing as Life Skills (recommended students)

744

1 credit

2 semesters

**Semester One:** Students will become familiar with the computer and various programs. The students will utilize the learned computer skills in a variety of ways such as, presentations and spreadsheets.

**Semester Two:** Students will explore the world of Marketing, through utilizing the computer skills and programs from semester one. Students will create product(s) and learn how to effectively market them to consumers.

## Virtual Business I

711

½ credit

1 semester

**This course will count as a Fine Arts credit.**

Can you lead a task? Are you creative? Do you like using different forms of technology? Then, Virtual Business is the course for you. You will be given the opportunity to use ALL of your business skills to engage in realistic business simulations.



# BUSINESS AND TECHNOLOGY

## Virtual Business II

746

$\frac{1}{2}$  credit

1 semester

**Requirements: Virtual Business I**

**This course will count as a Fine Arts credit.**

Did you enjoy presenting to local businesses?? Would you like to work with more?? Then Virtual Business II is the course for you. You will be given the opportunity to use even more of your business and computer skills to engage in more realistic business simulations.

## Sports & Entertainment Marketing

747

$\frac{1}{2}$  credit

1 semester

This course will help students develop a thorough understanding of the marketing concepts and theories that apply to sports and sporting events. This course will cover sports and entertainment marketing, marketing-information management, promoting sports and entertainment, the economics of supply and demand, sport and entertainment legal issues and entrepreneurship. During this course students will participate in activities that will give them realistic hands on experience.

## Personal Finance

748

1 credit

2 semesters

**Requirements: Mandatory math courses can be found on page 55. Students must take three 400 level courses.**

**This course can be used as the 4th math credit, IF and ONLY if the student has passed the Keystone Algebra 1 test (retroactivity is allowed); Otherwise this is an elective credit.**

This course deals with the practical application of business and financial skills used in the real world. The students will be equipped with the knowledge to make informed personal finance decisions. Topics that will be studied are: payroll, banking, credit, interest, investing, and ownership.

## GameMaker Programming I

750

$\frac{1}{2}$  credit

1 semester

**This course will count as a Fine Arts credit.**

Learn the concepts taught in a college-level "Programming 101" course, but all of the projects are games! Students will receive an introduction to basic programming by building two dimensional (2D) games using the GameMaker software. Students will design their games based on the GameMaker scripting language that can be transferred to any other programming language such as Python, Java and C++. The game design process of planning, designing, implementing, testing, and maintaining will be utilized as students create and program games that can be played with friends and added to their digital portfolio.

## GameMaker Programming II

751

$\frac{1}{2}$  credit

1 semester

**Requirements: GameMaker Programming I. This course will count as a Fine Arts credit.**

This course is designed to be a continuation of GameMaker Programming I. Students will apply the 21<sup>st</sup> century skills and techniques that they learned in GameMaker Programming I to develop more interactive and engaging digital games that will expand their digital portfolio. Problem solving skills will be developed and applied to debug programming errors. Students will also explore the game programming career field and other potential careers in computer science (CS).

# BUSINESS AND TECHNOLOGY

AP Computer Science Principles	752
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1 credit

2 semesters

**This course will count as a Fine Arts credit.**

AP Computer Science Principles is a full-year, rigorous entry-level course that introduces high school students to the foundations of modern computing. This exploratory course covers a broad range of foundational topics such as programming, big data, digital privacy and security, and the societal impact of computing. This course requires a significant amount of expository (descriptive) writing in preparation for the AP Computer Science Principles performance tasks and AP Exam.

Computer Programming with Alice	790
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½ credit

1 semester

**This course will count as a Fine Arts credit.**

This course prepares students to create movies and games using the Scratch graphics programming environment from MIT, the Alice 3D interactive graphics programming environment from Carnegie Mellon University, and the App Inventor Android Development environment from MIT. Introductory Computer Science topics will also include history of computing and computers, flowcharts, stepwise refinement, base number systems (binary, octal and hexadecimal), algorithms, abstraction, object development, methods, event handling, parameters, functions, conditional logic, loops, and random numbers.

Foundations of Management	709
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1 credit

2 semesters

This course is designed as an exploration into the necessary skills, traits, and values of careers in business and management. Students will engage in a wide-range exploration of what it takes to become an effective and successful leader, with focus on communication, interpersonal strategies, management styles, and creative thinking. This is a great exploration for anyone considering careers in business, marketing, medicine, law and more.

Marketing & Math 710
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1 credit

2 semesters

This course is a split exploration of both essentials of marketing and business mathematics. Focus will be put on the major principles of marketing as well as the impact and altering of marketing in the age of social media. Students will explore the impact of marketing on daily lives and how society is continually influenced by deliberate manipulation. Additional focus is spent on essential business math, such as sales, taxes, and payroll.

Accounting Project I	735
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1 credit

2 semesters

Students will run a merchandising business that sells exercise equipment for cash and on account to its customers.

## BUSINESS AND TECHNOLOGY

### Accounting Project II

736

**1 credit**

**2 semesters**

Students will run a merchandising business organizations as a corporation that sells golf clubs, bags, shoes, and golf gear to amateur golfers and sports facilities for cash and on account with/without discounts.

### Accounting Project III

737

**1 credit**

**2 semesters**

Students will develop and format a yearly personal budget incorporating everyday income and expenses using advanced Excel functions and formulas.

### Accounting Project IV

738

**1 credit**

**2 semesters**

Students will utilize all the skills learned in Accounting I thru Advanced Accounting to develop and run a company (of their choice) for a fiscal period. Current Accounting software must be used to complete the project.

# ENGLISH

## REQUIRED COURSES

Each student is required to successfully complete a full-year English course each year. English electives cannot be used to satisfy this requirement. It is strongly recommended that all students enrolling in an Advanced Placement English course have a “B” grade or better in their present English Course. It is strongly recommended that English Honors 9 and English Honors 10 be taken before Advanced Placement English 11 and Advanced Placement English 12. Students may not take more than two (2) required English classes in one (1) year unless approved by the high school administration.

**NOTE:** These are full-year courses. In order to receive credit, students must complete both semesters. Any novel in the course description deemed unacceptable by a parent/guardian should be stated so in writing and submitted to the principal’s office by June 15<sup>th</sup>.

### English 9

113

**1 credit**

**2 semesters**

This area of study will address the skills required in the Pennsylvania Common Core standards with an emphasis on increased rigor for career and college readiness, PSAT preparation, and Keystone test-taking strategies. The course will emphasize critical and creative thinking, reading, and writing. Literature studies include a variety of multicultural selections such as *The Odyssey*, *Lord of the Flies*, *Romeo and Juliet*, *Animal Farm*, and *Tuesdays with Morrie*, a variety of short stories (both fiction and nonfiction), poetry, and essays. A career research project utilizing proper MLA formatting will be required. Additional emphasis will be placed on communication skills such as vocabulary development and class participation.

### English 9 Honors

114

**1 credit**

**2 semesters**

This area of study is for the highly motivated, college-bound student interested in a challenge. Students will analyze, evaluate, and synthesize multi-cultural novels, poetry, short stories, and essays. Readings may include *The Count of Monte Cristo*, *Romeo and Juliet*, *Animal Farm*, *Lord of the Flies*, *Things Fall Apart*, Greek myths, and excerpts from the *Iliad* and/or the *Odyssey*. Different modes of writing, including literary-response, informational, narrative, and persuasive, will be emphasized in addition to weekly vocabulary and SAT practice. MLA research methods will be used to complete a mandatory career . Every student is expected to be an active, participating member of the class. Efficient time management skills, independent reading, and class participation will be an integral part of this course.

### Freshman Writing

115

**½ credit**

**1 semester**

The purpose of this writing course will be to provide guided instruction for both career and college readiness. The class will focus of writing over a shorter time frame for a wide range of discipline specific tasks, purposes, and audiences with the opportunity for thoughtful teacher-student conferences. Writings will include but not be limited to: technical writing, writing for personal growth and reflection, writing in response to various fiction, non-fiction texts/articles, and writing for communication in the digital age.

### Language!

116

**1 credit**

**2 semesters**

This enrichment class is for students with IEPs only. The *Language!* Course is a comprehensive literacy curriculum. This curriculum is designed to accelerate literacy development. Each student will be placed in the appropriate *Language!* Class based on readability level.

# ENGLISH

## REQUIRED COURSES

English 10	123
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**1 credit**

**2 semesters**

This course addresses the skills required in the PA Common Core standards with an emphasis on increased rigor for career and college readiness, PSAT preparation, and Keystone test-taking strategies. Critical reading of multicultural literature, vocabulary enrichment, effective writing skills, and speech techniques will be covered. A review of grammar and usage, a mandatory persuasive research project utilizing MLA formatting, and participation in class discussion will augment student communication skills. The literary selections may include *A Midsummer Night's Dream*, *Our Town*, *Night*, and *To Kill A Mockingbird* as well as short stories, nonfiction selections, and poetry.

English 10 Honors	124
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**1 credit**

**2 semesters**

This area of study is for highly motivated college-bound students who will analyze, evaluate, and synthesize novels, poetry, and short stories. Selections may include *Julius Caesar*, *A Raisin in the Sun*, *The Kite Runner*, *Night*, *October Sky*, *Our Town*, *To Kill A Mockingbird*, *Bless Me*, *Ultima*, and *Twelfth Night*. Critical and creative thinking and writing, speaking skills, vocabulary enrichment, Keystone Exam and SAT practice, digital projects, and MLA research methods will be utilized in this course to support college and career readiness. Students will be required to complete a mandatory argumentative persuasive research project. Literature circles, topic tracking, and Socratic Seminar will be implemented to promote lively discussions and critical thinking. Independent reading and active class participation is an integral part of the course.

English 11	134
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**1 credit**

**2 semesters**

This course addresses the skills required in the PA Common Core standards with an emphasis on increased rigor for career and college readiness and SAT preparation. American literature such as *The Scarlet Letter*, *Adventures of Huckleberry Finn*, *The Crucible*, *Fences*, *Into the Wild*, *The Absolutely True Story of a Part-Time Indian*, and *The Catcher in the Rye* may be studied as well as various short stories, poems, and essays. Students will write informational, persuasive, and literary-based essays to improve writing skills. MLA research methods will be used to complete a mandatory research project. Independent reading, vocabulary enrichment, and active class participation will be an integral part of this course.

AP English 11 Language & Composition	135
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**1 credit**

**2 semesters**

The AP English Language and Composition course is designed to help students become skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts and to become skilled writers who can compose for a variety of purposes. By their writing and reading in this course, students will become aware of the interactions among a writer's purposes, audience expectations, and subjects, as well as the way generic conventions and the resources of language contribute to effect writing. Readings may include but are not limited to: *The Great Gatsby*; *The Scarlet Letter*, *The Immortal Life of Henrietta Lacks*, *Ethan Frome*, and *Fences*.

# ENGLISH

## REQUIRED COURSES

English 12	144
1 credit	2 semesters

This course addresses the skills required in the PA Common Core standards with an emphasis on increased rigor for career and college readiness. Components of this course include a study of poetry, short stories, novel study, expository writing, research techniques, independent vocabulary study, technical writing, career application skills, and active class participation. Selections may include *Beowulf*, *The Canterbury Tales*, *Nineteen Eighty-Four*, *Othello*, *King Lear*, *Frankenstein*, *Oliver Twist*, *Pride and Prejudice*, *The Curious Incident of the Dog in the Night-Time*, and *A Tale of Two Cities* among others. A mandatory research project utilizing MLA formatting as well as essays and other writing prompts are required.

AP English 12 Literature	145
1 credit	2 semesters

This class is for the highly motivated college-bound student interested in challenging academic materials. The course consists of the close, deliberate reading and thoughtful discussion of a variety of representative novelists, playwrights, and poets. Frequent literary analysis essays will help students better understand, evaluate, analyze, synthesize, and explain works of literature while working to improve their writing's overall style to prepare them for the Advanced Placement Test in English Literature and Composition. Group presentations, individual presentations, class participation, technology projects, and research projects will supplement the class. The selections for reading may include, but are not limited to: *Oedipus Rex*, *Hamlet*, *Death of a Salesman*, *A Tale of Two Cities*, *Slaughterhouse Five*, and/or *Their Eyes Were Watching God*.

# ENGLISH

## ELECTIVE COURSES

Journalism I	150
$\frac{1}{2}$ credit	1 semester

**This course will count as a Fine Arts credit.**

This is a course in the history, reporting, and writing of news, feature, entertainment, editorial, opinion, and sports articles. Students will conduct extensive interviews and learn the Associated Press style of writing. The responsibilities of the media will be emphasized along with the laws and ethics of journalism. Students will study article examples from the professional press with an emphasis on newspaper reporting and style. Considerable writing and public speaking is required in this course. Upon successful completion of the course, students are encouraged to become staff members of the school newspaper, the *Hiller*. This course is open to 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grade students.

Journalism II	151
1 credit	2 semesters

**Requirement: Journalism I**

**This course will count as a Fine Arts credit.**

Students in this class are responsible for the production of the school newspaper, *The Hiller*. Students will become proficient in interviewing and word processing to prepare their stories for publication in the school newspaper. Each member of the staff will be required to write articles for the newspaper and aid with the duties related to the distribution of the paper. This class is open to 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grade students. \*Please note that Journalism II, III and IV students make up *The Hiller* staff and are enrolled in the same class period.

Journalism III	152
1 credit	2 semesters

**Requirement: Journalism I and II**

**This course will count as a Fine Arts credit.**

Students in this class are responsible for the production of the school newspaper, *The Hiller*. Students will become proficient in interviewing and word processing to prepare their stories for publication in the school newspaper. Students will also become proficient in the layout and design of the school newspaper using SNO's WordPress website. The technology and Associated Press style of writing used in this class are those used by professional newspapers worldwide. Students at this level are encouraged to apply for section editor roles to serve as an editorial board for the school newspaper. This class is open to 11<sup>th</sup> and 12<sup>th</sup> grade students. \*Please note that Journalism II, III and IV students make up *The Hiller* staff and are enrolled in the same class period.

# ENGLISH

## ELECTIVE COURSES

Journalism IV	153
1 credit	2 semesters

**Requirement: Journalism I, II, III**

**This course will count as a Fine Arts credit.**

Students in this class are responsible for the production of the school newspaper, *The Hiller*. Students will become proficient in interviewing and word processing to prepare their stories for publication in the school newspaper. Students will also become proficient in the layout and design of the school newspaper using SNO's WordPress website. The modern technology and Associated Press style of writing used in this class are those used by professional newspapers nationwide. Students at this level are encouraged to apply for section editor roles to serve as an editorial board for the school newspaper. This class is open to 12<sup>th</sup> grade students. \* Please note the Journalism II, III and IV students make up *The Hiller* staff and are enrolled in the same period.

Public Speaking	154
½ credit	1 semester

This course is designed to give the student an introduction to the characteristics and the delivery of various types of speeches, as well as an opportunity to plan and participate in discussions of contemporary problems. Areas covered will include oral readings, original speeches, Student Congress, impromptu, and extemporaneous speaking.

Honors Debate I	156
½ credit	1 semester

This course is designed to give the student familiarity with, and practice in, the principles of the use of logical reasoning and the oral presentation of sound argument. The student will be given practice in formal debate, team debate, one-on-one styles, panel discussions, and Student Congress formats.



# ENGLISH

## ELECTIVE COURSES

Honors Debate II	160
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$\frac{1}{2}$  credit

1 semester

### Requirement: Honors Debate I

This course is a continuation of Honors Debate I. A brief review of the debate fundamentals – philosophy, terminology, debate formats covered in the first course serve as the foundation for this class. If a student has not taken the CHS Argumentation credit previously, he/she will be able to do this through this course. This course will focus on historical speeches and all debate formats.

Honors Debate III	161
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$\frac{1}{2}$  credit

1 semester

### Requirement: Honors Debate II

This course is a continuation of Honors Debate II. A brief review of the debate fundamentals – philosophy, terminology, debate formats – covered in the first course serve as the foundation for this class. State and local debate issues will be addressed.

Honors Debate IV	162
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$\frac{1}{2}$  credit

1 semester

### Requirement: Honors Debate III

This course is a continuation of Honors Debate III. A brief review of the debate fundamentals – philosophy, terminology, debate formats – covered in the second and third course serve as the foundation for this class. In addition, state and local debate issues will be addressed.

SAT Test Preparation	164
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$\frac{1}{2}$  credit

1 semester

This course is designed for the college bound student who is interested in improving his/her college entrance exam scores. This Pass/Fail course will specifically address the English and Math components of the SAT exam. The class will incorporate the Khan Academy that provides exclusive access and advice to build a personalized practice program for each individual student. Included will also be practice tests plus study and test-taking tips. This class will **NOT** count towards the student grade point average.

Olympus	998
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2 semesters

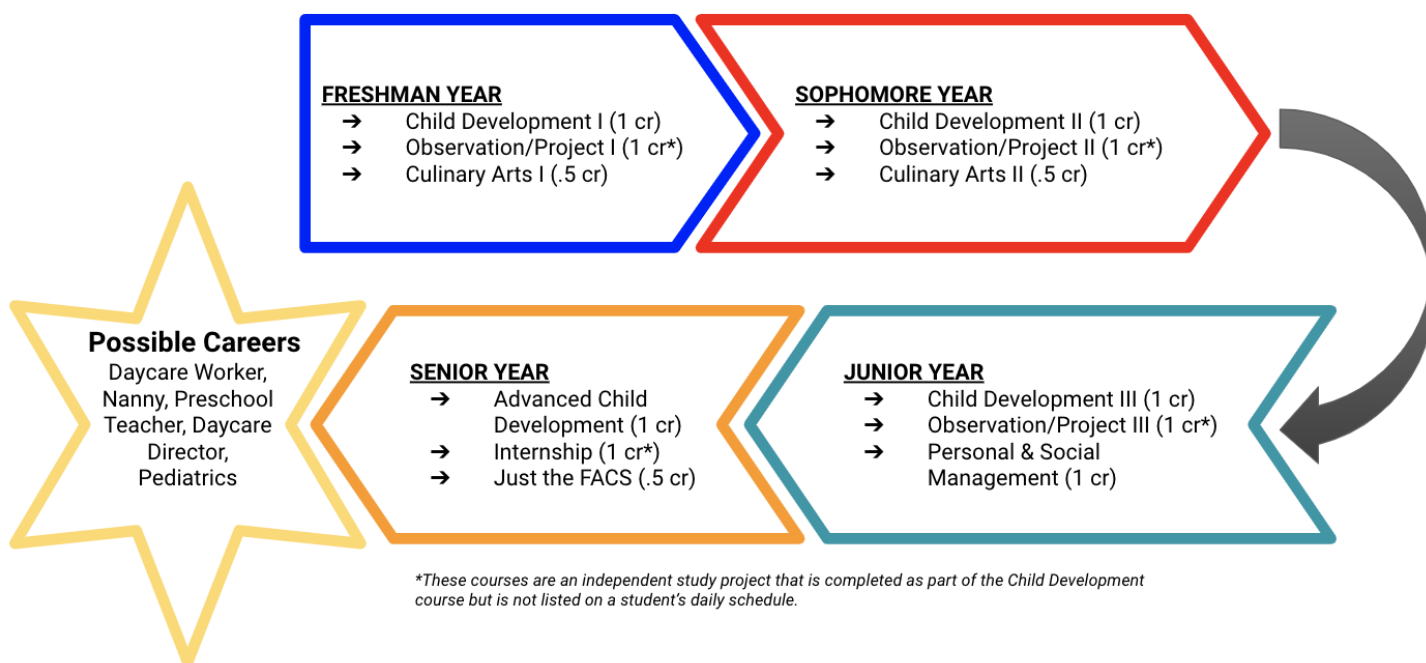
Students in this non-credit class are responsible for the production of the school yearbook, *Olympus*. Staff members will be required to write articles and captions for all sections of the yearbook and take photographs of events, both extracurricular and within the school day. Yearbook editors are responsible for creating layouts and meeting deadlines to ensure completion of the yearbook for publication. This year-long course is open to students in grades 9-12.

# FAMILY and CONSUMER SCIENCES PATHWAY

## Child Care and Support Services Management

Through Family and Consumer Science Education (FCS), students are provided opportunities for Leadership Development, Personal Growth, and Career Success. FCS education is delivered through three major components, classroom/laboratory instruction, Child Care Hours and Projects, and Family, Career, and Community Leaders of America (FCCLA).

### Child Care & Support Services Career Pathways Track



# Child Care and Support Services Management Program

Freshman	Sophomore	Junior	Senior
English (1.5 credit)	English (1 credit)	English (1 credit)	English (1 credit)
English 9 CP English 9 Honors Freshman Writing (.5 credit)	English 10 CP English 10 Honors	English 11 CP AP English 11	English 12 CP AP English 12
Math (1 credit)	Math (1 credit)	Math (1 credit)	Math (1 credit)
Algebra 1A Algebra 1 Algebra 2 Honors Honors Geometry	Algebra 1B Geometry Pre-Calculus Honors	Algebra 2 Geometry Financial Algebra Pre-Calculus Honors AP Stats AP Calculus AB	Algebra 2 Geometry Pre-Calculus Advanced Alg with Trig AP Stats AP Calculus AB AP Calculus BC
Social Studies (1 Credit)	Social Studies (1 Credit)	Social Studies (1 Credit)	Social Studies (1 Credit)
World History World History Honors	US History AP US History	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 Credit) AP Psychology Sociology (.5 Credit) AP European History AP American Government	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 Credit) AP Psychology Sociology (.5 Credit) AP European History AP American Government
Science (1 Credit)	Science (1 Credit)	Science (1 Credit)	Science (1 Credit)
Biology CP Honor Biology	Chemistry CP Physical Science CP Honor Chemistry	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit) Organic Chemistry (.5 Credit) Conversation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit) Organic Chemistry (.5 Credit) Conversation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)
Physical Education & Health (1.5 Credits)			
1 Credit Physical Education and .5 Credit Health taken during Freshman Year			
Child Care and Support Management Services			
Child Development (1 credit)  Culinary Arts I (.5 credit)  Child Observation and Project (1 credit)	Child Development II (1 credit)  Culinary Arts II (.5 credit)  Child Observation and Project II (1 credit)	Child Development III (1 credit)  Personal and Social Management (1 credit)  Child Observation and Project III (1 credit)	Advanced Child Development (1 credit)  Just the FACS (.5 credit)  Advanced Child Observation and Project (1 credit)
Fine Arts (1 Credit) Graduation Project (1 Credit)			

# FAMILY and CONSUMER SCIENCES

Child Development I	852
1 credit	all year

This course will prepare the student to understand the development throughout pregnancy to the care of infants. Students will study the physical, intellectual, and emotional development of children. Students will also participate in a preschool program where children from the community come to THS three times a week. The student will teach the preschoolers a variety of lessons about theme of the day, math, science, language arts, literature, art, and the importance of dramatic play. Students will complete a semester project by observing the development of a preschooler from the beginning of the semester to determine their skills and growth throughout the program. Students will also complete Observation and Project Assessment Hours throughout the school year.

Child Development Observation and Project 859	
1 credit	all year

## **Requirement- Child Development – This course is an Independent Study Course**

Students will spend time observing children in a child care setting. The focus of the observation will be based on infancy development. During the observation hours students will complete a variety of naturalistic observations. The student will complete an observation packet based on the development of the children in a variety of settings. Students will be able to see how the children develop over the span of the observation hours. Students will complete 107 hours of observation and projects.

Child Development II	853
1 credit	all year

## **Requirements: Child Development I**

This course will prepare student for the care of a child from age 2-3 years of age including the physical, intellectual, and emotional development of children. Students will also participate in a preschool program where children from the community come to THS twice a week. Students will take a more advanced role in the preschool program by preparing lessons about theme of the day, math, science, language arts, literature, art, and the importance of dramatic play. Students will complete a semester project by completing a portfolio as if they were teaching the preschooler a variety of lessons about one centralized theme.

Child Development II Observation and Project Hours	860
1 credit	all year

## **Requirements: Child Development II – This course is an Independent Study Course**

Students will spend time observing children in a child care setting. The focus of the observation will be based on toddler development. During the observation hours students will complete a variety of naturalistic observations. The student will complete an observation packet based on the development of the children in a variety of settings. Students will be able to see how the children develop over the span of the observation hours. Students will complete 107 hours of observation and projects.

# FAMILY and CONSUMER SCIENCES

## Child Development III

855

1 credit

all year

### Requirements: Child Development II

This course will prepare student for the care of a child from age 2-3 years of age including the physical, intellectual, and emotional development of children. Students will also participate in a preschool program where children from the community come to THS twice a week. Students will take a more advanced role in the preschool program by preparing lessons about theme of the day, math, science, language arts, literature, art, and the importance of dramatic play. Students will complete a semester project by completing a portfolio as if they were teaching the preschooler a variety of lessons about one centralized theme.

## Child Development III Observation and Project Hour

861

1 credit

all year

### Requirement- Child Development III -

Students will spend time observing children in a child care setting. The focus of the observation will be based on preschool development. During the observation hours students will complete a variety of naturalistic observations. The student will complete an observation packet based on the development of the children in a variety of settings. Students will be able to see how the children develop over the span of the observation hours. Students will complete 107 hours of observation.

## Advanced Child Development

856

1 credit

all year

### Requirements: Child Development I, II, and II

This course will prepare student for the care of a child in Early Elementary Education the physical, intellectual, and emotional development of children. This course is especially designed for the child development student desiring a personal or professional advancement in the care and education of children. The student must display extreme interest and/or have child development career potential. With the guidance of the directing child development teacher the student will receive an individualized program to meet his/her needs and abilities. Students will also participate in a preschool program where children from the community come to THS twice a week. Students will take a more advanced role in the preschool program by preparing lessons about theme of the day, math, science, language arts, literature, art, and the importance of dramatic play. Students will complete a semester project by completing a reflection portfolio of all the tasks they have completed in working with children throughout Child Development I, II and III.

## Advanced Child Development Internship

862

1 credit

all year

### Requirement- Advanced Child Development – This course is an Independent Study Course

Students will work with a child care facility for 50 hours. During their experience at the child care center, students will plan, prepare, and teach a variety of lessons with children of various ages. Students will also complete a variety of observations that include intellectual, emotional, social, moral, and physical development. Students will also complete a variety of assessments on the children in the center and create a portfolio of the child's work and include the assessments they have completed on the child. Students will complete a portfolio of personal work done during the internship on their

ability to plan, prepare, and setting up the learning environment.

## FAMILY and CONSUMER SCIENCES

Just the FACS (FCS survey)	854
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**½ credit**

**1 semester**

This course is designed for the student to survey a variety of topics covered in FCS. The course will focus on three main units of topics including Interior Design, Sewing Techniques, and Cake Decorating. This course will help you in cake decorating, sewing, laundry, and interior designing. Learn how to decorate cakes and make your very own creations on a sewing machine. Students will use their creativity to produce a variety of projects within the classroom. *(Counts as a Fine Arts or Elective Credit).*

Culinary Arts I	857
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**½ credit**

**1 semester**

This is a course for students interested in cooking food and overall wellness throughout their lifetime. The nature of this course will be investigative and hands-on, as well as encouraging critical thinking and lifestyle changes. Some areas of exploration include food safety and sanitation, nutrition, personal behaviors, and cooking. *(Counts as a Fine Arts or Elective Credit).*

Culinary Arts II	858
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**½ credit**

**1 semester**

**Requirement: Successful completion of Culinary Arts**

This advanced course builds upon the culinary foundations learned in Culinary Arts I and explores more refined cooking techniques and recipes as well as fosters a health-conscious mindset in daily meal planning. *(Counts as a Fine Arts or Elective Credit).*

Personal and Social Management	849
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**1 credit**

**all year**

**Requirement: Taken in conjunction with Child Development III**

Students explore essential personal finance topics and trends as well as small business ownership topics, including in each taxes, insurance, payroll, banking, and more. Additionally, students will complete their career pathways certifications (Red Cross CPR, Red Cross First Aid, and General Industry OSHA).

# FOREIGN LANGUAGE

All Foreign Language Courses must be taken in Sequential order (1.e. I, II, III, IV A.P.) NO EXCEPTIONS!

It is highly recommended that students planning to enroll in college and/or college level Foreign Language courses complete the four-year high school sequence. Foreign Language is recommended for all students who intend to pursue a college career. In addition, the study of Foreign Language has been shown to improve Reading and English scores on the standardized tests.

## TRAVEL OPPORTUNITIES IN FOREIGN LANGUAGE

Students enrolled in Level III or higher of a Foreign Language course may have the opportunity to travel abroad within their given language.

# FOREIGN LANGUAGE

## INTRODUCTORY COURSES

German I	511
1 credit	2 semesters

This course is the first step in learning the German language and culture. Listening and speaking skills are emphasized, but the focus is on communication. Students will learn various methodologies in order to increase their reading, writing and speaking abilities in the target language. German culture will be explored through films, realia, the internet, recordings, role plays, art projects, pictures and dialogues. Emphasis will also be placed on vocabulary and beginning grammar skills.

Spanish I	521
1 credit	2 semesters

The main purpose of this beginning course in Spanish is to help the student in learning the elementary conversational patterns of the language. Emphasis is placed on listening and speaking skills used in the student's daily activities. They will also discover the fundamental building blocks to grammar structures found in the Spanish language. Reading and writing will be introduced in addition to cultural information. The class will be taught mostly in the target language halfway through school year.

# FOREIGN LANGUAGE

## MID-LEVEL COURSES

### German II

512

1 credit

2 semesters

#### Requirements: German I

This course builds upon the foundations presented in the previous course. Listening, reading, writing and speaking skills are emphasized. Reading materials will begin to introduce the students to German literature, music and art. Movies dealing with the history and culture of German-speaking countries will begin to introduce students to literature, music and art. Increasing vocabulary and grammar skills will be an important part to this course. The main focus is on proficiency and communication.

### Spanish II

522

1 credit

2 semesters

#### Requirements: Spanish I

Spanish II is a continuation of Spanish I; previously learned vocabulary and grammar structures will be reviewed and included in the course. The student will be expected to respond orally in the target language to various topics relating to different situations. Students will learn and apply present tense grammar structures as well as complex present tenses and compound sentences. More emphasis will be placed on reading and writing in the target language while listening and speaking will continue to be of prime importance. This class is taught in the target language.

### German III

513

1 credit

2 semesters

#### Requirements: German II

This class builds upon the foundation presented in the previous two (2) courses (German I and II). The students will be introduced to less controlled listening and speaking situations, and will continue to read and write in a more sophisticated way. Course material will explore German literature, music, art, history and culture. A comprehensive grammar review will also allow the student to refresh their writing and speaking skills at the beginning of the 1<sup>st</sup> semester. More in-depth vocabulary will be introduced and utilized in this course.

### German IV

514

1 credit

2 semesters

#### Requirements: German III

Listening, speaking, reading and writing are emphasized. The reading material will be more sophisticated and an effort will be made to read without translating. The student will be able to write about what has previously been read and discussed. Course material will continue the study of literature, music, art and everyday life. Typical German customs will be demonstrated through skits, articles, and classroom conversations.



# FOREIGN LANGUAGE

## MID-LEVEL COURSES

Spanish III	523
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1 credit

2 semesters

**Requirements:** Spanish II and teacher recommendation suggested

Spanish III will build on grammar and vocabulary from levels I and II. Students will be required to master more verb tenses, including past tenses, and to apply all acquired vocabulary and grammar structures to develop meaningful conversation. There will be continued emphasis on listening and speaking in the target language. Equally important will be the student's ability to read and write about thematic topics related to the Hispanic culture. This class is taught in the target language and students will be expected to exclusively use the target language half way through the year with the teacher and peers.

Spanish IV	524
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1 credit

2 semesters

**Requirements:** Spanish III and teacher recommendation required

Spanish IV will build upon the grammar and vocabulary learned and applied in the previous levels. Students will learn and apply more complex grammar structures including the imperative and subjunctive tenses allowing for more self-expression and natural responses. Culture will be a focus with each unit. Also, speaking, reading and writing fluently will receive specific attention through two different monthly assignments. This class is taught exclusively in the target language and students are expected to exclusively use the target language with peers and the teacher the entire year.

# FOREIGN LANGUAGE

## ADVANCED COURSES

AP – German	515
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1 credit

2 semesters

**Requirements:** German I – IV

The focus of this course is to expand upon the concepts presented in the first four years (speaking, reading, and writing) with an increased emphasis on cultural objectives. The course will be primarily for those students who plan on studying German beyond the High School level. The use of authentic reading and listening materials will be a hallmark of the course.

AP – Spanish	525
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1 credit

2 semesters

**Requirements:** Spanish IV and teacher recommendation required

AP Spanish will be a culminating year for the language and will encompass all vocabulary and grammar structures beginning with Spanish I. Culture and connections with our society will be the primary focus of the year while advanced grammar structures with compound, complex sentences will receive attention. Authentic literature pieces and listening will ensure cross-cultural connections are made. Also, speaking, reading, and writing abilities will receive specific attention through monthly assignments, journal entries, and independent work. This class is taught exclusively in the target language with no instances of English between the teacher and students or students and students.

# HEALTH & PHYSICAL EDUCATION

Gym clothing for all students: (REQUIRED)

- Athletic shoes
- Full length t-shirt
- Athletic shorts (no extremely tight shorts, cutoffs, or zippers)
- Clothes for PE will not be those worn during the regular school day

## HEALTH & PHYSICAL EDUCATION

### REQUIRED COURSES

Health	605
$\frac{1}{2}$ credit	1 semester

This course is required of all 9<sup>th</sup> grade students. It is designed to meet the student's interest and needs, as well as to provide the opportunity for enriched growth and progress in the promotion of adequate health practices.

**NOTE:** The Pennsylvania Department of Education has mandated all students to be educated about AIDS during their high school career. Parents/Guardians have the opportunity to review the course of study in Health prior to the start of the school year.

Physical Education	611
$\frac{1}{2}$ credit	1 semester

This course will provide an introduction to the rules and skills needed to perform a variety of physical activities. Through a directed, yet varied curriculum, the physical education department provides for the development and appreciation of a healthy lifestyle while stressing the importance of maintaining healthy living during their adult life. The physical education program emphasizes physical fitness, lifetime, and team activities. The conditioning curriculum includes cardiovascular activities, flexibility exercises, and a muscular endurance program. Students will be evaluated on their skills. **All students must complete Physical Fitness Testing.**

Physical Education w/LAB (10 <sup>th</sup> and 11 <sup>th</sup> grade)	612
$\frac{1}{2}$ credit	1 semester

**(This PE class meets opposite science lab courses, every other day for a full year.)**

This course will provide an introduction to the rules and skills needed to perform a variety of physical activities. Through a directed, yet varied curriculum, the physical education department provides for the development and appreciation of a healthy lifestyle while stressing the importance of maintaining healthy living during their adult life. The physical education program emphasizes physical fitness, lifetime, and team activities. The conditioning curriculum includes cardiovascular activities, flexibility exercises, and a muscular endurance program. Students will be evaluated on their skills. **All students must complete Physical Fitness Testing.**

**A Teen Outreach Program**, offered through the physical education department, focusing on postponing sexual involvement, myths and misconceptions, the topic of AIDS will be included in this unit regarding contraception, peer pressure, and prevention of pregnancy. Student participation is optional. This program is taught in conjunction with the Washington Hospital and is instructed by Dr. Mary Jo Podgurski, R.N. Students are automatically enrolled unless excluded by a parent/guardian. An exclusion form must be signed and returned to the P.E. Department.

# INDUSTRIAL TECHNOLOGY

## Introduction to Technology

801

½ credit

1 semester

This course will take students through basic courses in Woodworking, Metalworking, Drafting, TV Production, Robotics and Graphics. Students will use a variety of hand tools, power tools and computerized equipment in order to complete a wide range of individual and small group projects. These exploratory units will act as the prerequisites for future Industrial Technology Education courses (*Counts as a Fine Arts or Elective Credit*).

## Woodworking

802

½ credit

1 semester

In this course the student will be introduced to some of the basic principles in the construction, woodworking and cabinetry fields today. Students will be exposed to the following areas of construction: wood materials, shop safety, hand tools, layout and measuring tools, furniture construction, abrasives, fasteners, computerized router programming, laser engraving, joinery techniques, gluing of stock and staining & finishing techniques. (*Counts as a Fine Arts or Elective Credit*).

## Advanced Woodworking

803

1 credit

2 semesters

This course is designed to develop a more extensive background in construction, woodworking and cabinetry. The following areas will be covered in this course: The engineering design process, shop layout and design, wood materials, shop safety, various hand tools, layout and measuring tools, furniture construction, abrasives, fasteners, computerized router programming, laser engraving, joinery techniques, gluing of stock, and staining & finishing techniques.

## Digital Fabrication

804

½ credit

1 semester

This course encourages students to design and create products by providing the materials, tools, and machines to make ideas come into reality. At the High School fabrication lab, students learn elements of 3D design, graphic arts, circuitry, and computer-aided manufacturing by using advanced technology that they wouldn't otherwise have access to; including 3D printers, laser cutters, micro-controllers and milling machines. This course expands hands-on learning by driving innovation and creativity into the classroom, while developing problem-solving skills that they can use both in their personal lives and in the workforce. *Class is available for 10-12 grade students.*

**Prerequisites:** Intro to Tech

## Advanced Digital Fabrication

806

½ credit

1 semester

This course facilitates students' pursuit of more challenging projects using technologies covered in Digital Fabrication, along with projects that require the exploration of new technologies and materials. Students then apply the knowledge and skills developed through the completion of a design project that incorporates the entire process from design to CAD to fabrication. This experiential approach encourages students to "learn by doing" and, thereby, develops the problem-solving and teamwork skills fundamental to industry practice in the fields of engineering and manufacturing. *Class is available for 10-12 grade students.*

**Prerequisites:** Digital Fabrication

**Introduction to Engine Mechanics****807****½ credit****1 semester**

This course is designed to provide students with an overview of engine mechanics using a hands-on approach. Students will explore the theory of operation of a small gas engine, large gas engine, diesel engine, and recreational engines utilized in a variety of industries. Students will also gain a better understanding of the hand and diagnostic tools utilized by today's 21<sup>st</sup> century technician. Laboratory exercises will cover general operation and routine maintenance. This course is must have for all students interested in advancing through the agricultural engine mechanics curriculum or for anyone simply wanting to explore their inner gearhead. *(Counts as a Fine Arts or Elective Credit).*

**Animation  
805****½ credit****1 semester**

Students study motion-capture and animation with focus on the historical, cultural, technological, and scientific significance of the craft. The course takes an interdisciplinary approach, covering a range of topics including the history of animation, the language of motion, anatomy & kinematics, character analysis, digital design, and relevant technologies. Students study historical examples of animation from the 19th century to the present. They investigate the theoretical and technological evolution of the craft, and they develop a critical eye for analyzing prior work. They apply this knowledge through a series of project-based assignments where they create animations using multiple techniques. The course culminates in a series of projects where students use professional tools to capture motion that renders complex 3D animated models.

**Drone Tech I****810****½ credit****1 semester**

This course is the first of 2 courses that covers UAS (unmanned aircraft systems). Students will learn about both large and small type UAS systems and what industries they are revolutionizing. Students will learn what UAS systems are best suited to different applications, and what performance characteristics influence the utilization of these systems. Students will also learn about different sensor payloads, methods to determine the best application of the sensor options, and how to analyze and differentiate the data collected. Students will participate in simulated UAS flights at the end of each class—working on their flight skills from the very beginning—and obtain beginner experience as sensor operators.

**Drone Tech I****811****½ credit****1 semester**

This course is the second of 2 courses that covers UAS (unmanned aircraft systems). Students will learn information about the following topics: Aerial Photography, Utility Inspections using sUAS, sUAS for Use in Law Enforcement and Emergency Response, Applications of sUAS Within Land Survey and Asset Management, Basic-Level flight Training with both Simulators and Live Flight Action, FAA Rules and Regulations, History of the UAS Industry, and Aerodynamics, Electronics, Software, and Hardware Basics.

**Metalworking****822****½ credit****1 semester**

Students will be introduced to a variety of welding, forging, engraving and fabrication equipment. Manual equipment and computerized applications will be utilized in the production of assigned projects. Students will learn to follow drawings and procedures to stay within designed tolerances. *(Counts as a Fine Arts or Elective Credit)*

# INDUSTRIAL TECHNOLOGY

Advanced Metalworking	823
1 credit	2 semesters

Students will be introduced to a variety of machine shop, foundry and fabrication equipment. Manual equipment and computerized applications will be utilized in the production of assigned projects. Students will learn to follow drawings and to stay within designated tolerances.

Communications Technology	832
½ credit	1 semester

In this course the student will be introduced to Drafting and Graphics Concepts. For the drafting portion of the technology class, the student will learn basic techniques that are used by architects and engineers today. The students will use 2-Dimensional and 3-Dimensional modeling software. For the graphics portion of the class, the student will be exposed to graphics as it relates in the real-world and show an interest in a possible career in graphics communications. Students will learn the basic graphic concepts by using such software and platforms such as; desktop publishing, picture-editing software, and scanning and modifying images. *(Counts as a Fine Arts or Elective Credit).*

Advanced Drafting	833
1 credit	2 semesters

## Requirements: Communication Technology

This course is designed to develop a more extensive background in computer-aided design, **Architectural Design**, and **3D Modeling**. The areas to be covered in this course include: architectural layout and design, architectural drafting, and 3-dimensional assembly and stress test. The student will be doing more in-depth work in computer-aided drafting using AutoCAD 2010, Inventor 2010 and Autodesk Architecture 2010 software.

Advanced Graphics	846
1 credit	2 semesters

Students in this course will develop a more extensive background in the graphics field. Students will use the following software and platforms: Desktop Publishing, Photoshop, and scanning and modifying images. Because this is an advanced course, emphasis will be placed on mastering graphic concepts and project quality.

Independent Drafting	847
½ credit	1 semester

This course is especially designed for the industrial technology student desiring a personal or professional advancement and training in the fields of **Architecture, Pre-Engineering or Drafting**. The student must display an extreme interest and/or have college or professional potential. With the guidance of an instructor, the student will receive and individualized program to meet his/her maximum ability, potential, and goals. Students are to make arrangements with the instructor prior to scheduling. *(Counts as a Fine Arts or Elective Credit).*

Television Broadcasting	848
½ credit	1 semester

## Requirements: TV Production

This course is intended to allow students to use modern digital video production equipment and techniques to broadcast

the morning news show announcements. Students will learn to use graphic generators, audio mixing equipment, video mixers, lighting boards, teleprompters, and digital recording equipment. This course will be scheduled during 1<sup>st</sup> period, and can only be taken for credit once. (*Counts as a Fine Arts or Elective Credit*).

## INDUSTRIAL TECHNOLOGY

Robotics	850
<b>½ credit</b>	<b>1 semester</b>

The course will be a hands-on instructional class that includes electronics, programming and engineering of robotics. Mindstorm Platform will be used to perform a series of challenges using the robot. Students with ambitions of an engineering career will benefit from this course. Open to 11<sup>th</sup> and 12<sup>th</sup> grade students.

Advanced Robotics	851
<b>1 credit</b>	<b>2 semesters</b>

This course is an extension of the ½ credit Robotics course. In the Advanced Robotics course, students will continue learning autonomous behavior and will also delve into the internal mechanical components that make up different robots. In this class, students will use the engineering design process to design and fabricate a working robot to complete a specific task. Students entering this class will be working in both a lecture and lab environment.

Television Production	980
<b>½ credit</b>	<b>1 semester</b>

Students will learn proper video techniques and operations of modern digital production equipment. Individual productions as well as group projects will be undertaken by each student. This class is **required** if individuals wish to participate in the morning news presentation (*Counts as a Fine Arts or Elective Credit*)

# MATHEMATICS

## EXPECTED COURSE PROGRESSION

Grade	Option 1	Option 2	Honors 1	Honors 2
8	Pre Alg/CC 8	Alg 1/ Fail Keystone	Alg 1/ Pass Keystone	Honors Geometry
9	Algebra 1A	Algebra 1	Honors Geometry	Honors Algebra 2
10	Algebra 1B	Geometry	Honors Algebra 2	Honors Pre-Calculus
11	Financial Algebra	Algebra 2	Honors Pre-calculus	AP Calculus AB
12	Geometry	Pre-Calculus	AP Calculus AB	AP Calculus BC

# MATHEMATICS

## REQUIRED COURSES

Algebra 1A	400
1 credit	2 semesters

**Requirements:** Successful completion of 8th Grade CC Math; or student who received a C or below in 8th Grade CC/Pre-Algebra

This course is the first half of Algebra 1. The course is designed to introduce the basic elements of algebra: variables, functions, equations, and inequalities. This course extends on what students learned in Pre-Algebra. In addition, basic probability and statistics will be introduced. Students will spend considerable time evaluating, simplifying, and solving various types of equations using the order of operations. Students will evaluate and graph simple and more complex functions by hand, create scatterplots, compare and contrast parallel and perpendicular lines, use tables to examine data closely, and compare and contrast direct and inverse variation. Students are expected to take Algebra 1B the following year to complete one year of algebra over two years. *All students are expected to have their own scientific calculator for class and homework.*

Algebra 1B	401
1 credit	2 semesters

**Requirements:** Successful completion of Algebra 1A; or student who did not pass the Algebra Keystone Exam in 9<sup>th</sup> grade Algebra 1

This course is the second half of Algebra 1. The course focuses on the basic concepts of algebra, extending what the student learned in Algebra 1 A. Additional topics in probability, statistics, and geometry are included. The students will take the Algebra 1 Keystone Exam at the conclusion of this course. Students who do not pass the Algebra 1 Keystone exam will be scheduled to take Financial Algebra the following year. *All students are expected to have their own scientific calculator OR TI-83 or TI-84 graphing calculator for class and homework.*

# MATHEMATICS

## REQUIRED COURSES

Financial Algebra	402
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1 credit

2 semesters

**Requirements:** Successful completion of Algebra 1B, but did not pass the Algebra Keystone Exam

This course focuses Algebra 1 and 2 Topics through Financial Applications, extending what the student learned in Algebra 1 B. Topics include Banking, Credit, Insurance, Taxes, and Budgets. ALEKs will be incorporated into this class. Students are expected to take Sr. Geometry next year. The students will take the Algebra 1 Keystone Exam in December and at the conclusion of this course (*if not passed in December*). *All students are expected to have their own scientific calculator (TI-83 or TI-84 graphing calculator) for class and homework.*

Algebra 1	420
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1 credit

2 semesters

**Requirements:** Students who received a B or better in 8th Grade CC/Pre-Algebra; or student who did not pass the Algebra Keystone Exam in 8<sup>th</sup> Grade CC/Algebra 1

This course is designed to introduce the basic elements of algebra: variables, functions, equations, and inequalities. This course extends on what students learned in Pre-Algebra. In addition, basic probability and statistics will be introduced. Students will spend considerable time evaluating, simplifying, and solving various types of equations using the order of operations. Students will evaluate and graph simple and more complex functions by hand, create scatterplots, compare and contrast parallel and perpendicular lines, use tables to examine data closely, and compare and contrast direct and inverse variation. Students are expected to take Geometry next year. The students will take the Algebra 1 Keystone Exam at the conclusion of this course. Students who do not pass the Algebra 1 Keystone exam will be scheduled to take Algebra 1B the following year. *All students are expected to have their own TI-83 or TI-84 graphing calculator for class and homework.*

Geometry	430
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1 credit

2 semesters

**Requirements:** Successful completion Algebra 1 AND the Algebra 1 Keystone Exam (at 8<sup>th</sup> grade or 9<sup>th</sup> grade level); or successful completion Algebra 1B AND the Algebra Keystone Exam

This course is designed to introduce the basic elements of geometry: points, lines, planes, segments, and angles. Other topics of study include: theorems and postulates related to parallel and perpendicular lines, triangles and their angle measures and side lengths, properties of congruent triangles, angle bisectors and perpendicular bisectors, properties and classifications of different types of polygons such as quadrilaterals, ratios and proportions and their connection with similar polygons, areas and volumes of polygons, simplification of square roots, right triangle trigonometry, properties involving tangents, secants, and chords of a circle, and central angles, inscribed angles, and inscribed polygons. Students are expected to take Algebra 2 next year. *All students are expected to have their own TI-83 or TI-84 graphing calculator for class and homework.*



# MATHEMATICS

## REQUIRED COURSES

Geometry Honors	434
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1 credit

2 semesters

**Requirements:** Successful completion 8<sup>h</sup> Grade CC/Algebra 1 AND the Algebra Keystone Exam

This course is designed to introduce the basic elements of geometry: points, lines, planes, segments, and angles. Students will develop the basics of logical thinking necessary for the study of proofs. Other topics of study include: angles formed when two lines are cut by a transversal, theorems and postulates related to parallel and perpendicular lines, triangles and their angle measures and side lengths, properties of congruent triangles, angle bisectors and perpendicular bisectors, properties and classifications of different types of polygons such as quadrilaterals, ratios and proportions and their connection with similar polygons, areas and volumes of polygons, simplification of square roots, right triangle trigonometry, properties involving tangents, secants, and chords of a circle, and central angles, inscribed angles, and inscribed polygons. *All students are expected to have their own TI-83 or TI-84 graphing calculator for class and homework.*

Algebra 2	450
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1 credit

2 semesters

**Requirements:** Successful completion of Geometry

The course is designed to develop basic and more advanced algebraic tools and the mathematical ability that will help students participate in an ever-changing world. Students develop a firm grasp of the underlying mathematical concepts while using algebra, geometry, and trigonometry as tools for solving problems. Technology will be used to deepen understanding and skills. Consistent problem-solving strategies will be introduced and utilized to assist in developing strong mathematical skills. *All students are expected to have their own TI-83 or TI-84 graphing calculator for class and homework.*

Algebra 2 Honors	451
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1 credit

2 semesters

**Requirements:** Successful completion of Honors Geometry

The course is designed to develop basic and more advanced algebraic tools and the mathematical ability that will help students participate in an ever-changing world. Students develop a firm grasp of the underlying mathematical concepts while using algebra, geometry, and trigonometry as tools for solving problems. Technology will be used to deepen understanding and skills. Consistent problem-solving strategies will be introduced and utilized to assist in developing strong mathematical skills. *All students are expected to have their own TI-83 or TI-84 graphing calculator for class and homework.*

# MATHEMATICS

## REQUIRED COURSES

Advanced Algebra with Trigonometry	453
1 credit	2 semesters

**Requirements: Successful completion of Algebra 2 or higher (Seniors Only)**

**No student who has completed Honors Pre-calculus with a B or better can take this course as their 4<sup>th</sup> year of math.**

This course will cover a wide range of mathematical topics that will prepare students for collegiate mathematics. The course is targeted towards students who are in the top 50% of their graduating class and will be required to take a mathematics course in college. Some of the topics that will be studied are the following: Discrete Mathematics (Set Theory, Logic, and Inductive vs. Deductive Reasoning), Number Theory, Changing the Base of Numbers, Financial Management (Annuities, Stocks, Bonds, Automobile and Home Financing, Compound and Simple Interest), Trigonometry (Right Triangle Trigonometry, Unit Circle, Graphing Trigonometric Functions, Inverse Trigonometric Functions, Trigonometric Properties and Identities, Proving Trigonometric Equations), Linear Programming, and Probability (Permutations, Combinations, and Conditional Probability). Advanced Algebra with Trigonometry will illustrate how mathematics can be applied to the daily lives of students in interesting and practical ways. The course will enable students to develop problem-solving skills and foster critical thinking skills. The course will use technology, in particular, the TI-83 graphing calculator. *All students are expected to have their own TI-83 or TI-84 graphing calculator for class and homework.*

Pre-Calculus	460
1 credit	2 semesters

**Requirements: Successful completion of Algebra 2**

This course presents a thorough discussion of functions with special emphasis on the trigonometric functions; in addition, it is designed to combine algebra and geometry by using traditional Cartesian methods. Topics included are: graphing linear, rational, polynomial, exponential, logarithmic, and trigonometric functions; exploring real-life applications of linear, rational, polynomial, exponential, logarithmic, and trigonometric functions; solving trigonometric identities (Pythagorean identities). This course does not prepare students to take AP Calculus AB. *All students are expected to have their own TI-83 or TI-84 graphing calculator for class and homework.*

Honors Pre-Calculus	461
1 credit	2 semesters

**Requirements: Successful completion of Honors Algebra 2; B or better in Honors Algebra 2 is strongly recommended**

This course presents a thorough discussion of functions with special emphasis on the trigonometric functions; in addition, it is designed to combine algebra and geometry by using traditional Cartesian methods. Topics included are: solving and graphing linear, rational, polynomial, exponential, logarithmic, and trigonometric functions (including inverse trigonometric functions); exploring real-life applications of linear, rational, polynomial, exponential, logarithmic, and trigonometric functions; solving trigonometric identities; deriving parametric equations and exploring their applications; vector operations and applications; partial fraction decomposition; evaluating limits using tables, graphs and properties of limits; finding the first derivative using the difference quotient and the “shortcut.” *All students are expected to have their own TI-83 or TI-84 graphing calculator for class and homework.*

# MATHEMATICS

## REQUIRED COURSES

Advanced Placement Statistics	465
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1 credit

2 semesters

**Requirements:** B or better in Algebra 2 is strongly recommended

This course is the equivalent of a college level statistics class. Topics covered are exploring data, planning a study, probability, and inferential reasoning. Students will be required to use a graphing calculator (can be purchased by student or will be provided by school) and computer. Students will be prepared for successful completion of the AP Statistics exam. Students may also take this course while doubling up with Pre-Calculus, AP Calculus AB, or AP Calculus BC. *All students are expected to have their own TI-83 or TI-84 graphing calculator for class and homework.*

Advanced Placement Calculus AB	470
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1 credit

2 semesters

**Requirements:** Successful completion of Honors Pre-Calculus; B or better in Honors Pre-Calculus is strongly recommended

This course presents a thorough discussion of the fundamental concepts of differential and integral calculus. These two main topics are connected by the Fundamental Theorem of Calculus. Each topic introduced is connected to previous concepts and are presented in a graphical, numerical and analytic manner. Students are presented with the following topics: elementary functions, limits, differentiation rules and applications, and integration rules and applications. Students will be prepared for successful completion of the AP Calculus AB exam. *All students are expected to have their own TI-83 or TI-84 graphing calculator for class and homework.*

Advanced Placement Calculus BC	471
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1 credit

2 semesters

**Requirements:** Successful completion of AP Calculus AB; B or better in AP Calculus AB is strongly recommended

This course is designed for accelerated students who have completed AP Calculus AB by the end of their junior year. Students will be prepared for the AP Calculus BC exam. This area of study presents a thorough discussion of all college level Calculus 1 and most Calculus 2 topics. Topics included are: review of AP Calculus AB, with special emphasis on Related Rates; advanced integration techniques (including division of rational expressions, partial fractions, completing the square, rationalizing numerators and denominators, separation of variables, solving for an unknown integral); Integration Applications [volumes (cross sections, disc and shell), lengths of curves, work, fluid force]; Infinite series; Relative rates of Growth; Improper Integrals; Parametric Equations – differentiation, velocity, acceleration, speed, arc length; Vectors in the Plane – modeling planar motion (speed and direction), velocity, acceleration, speed, displacement and distance; Polar to rectangular and rectangular to polar conversions; Polar functions – graphing, slopes, areas, areas between curves. *All students are expected to have their own TI-83, TI-84, or TI-89 graphing calculator for class and homework.*

# MATHEMATICS

## ELECTIVE COURSES

Introduction to Cybersecurity	489
$\frac{1}{2}$ credit	1 semester

Cybersecurity is one of the fastest growing fields in Information Technology (IT)! Americans are dependent of the internet and electronic data both in their professional and personal lives. Cybersecurity is the field of study where fraudulent electronic data are discussed and actions to prevent them are learned. This course is designed as an introductory course to cybersecurity. Topics that will be discussed consist of: information security fundamentals, managing user security, command line interface management, controlling physical environments and user actions, and protecting host systems.

**Mandatory math courses can be found on page 55. Students must take three 400 level courses (via PDE). This course can be used as the 4th math credit, IF and ONLY if the student has passed the Keystone Algebra 1 test (retroactivity is allowed); Otherwise this is an elective credit.**

Python Programming	491
$\frac{1}{2}$ credit	1 semester

**Requirements: Successful completion of Algebra 1 or Algebra 1B**

This class can be combined with Computer Programming with Alice to provide 1 full math elective credit. This class can also fill the prerequisite for Intro to Java and/or Honors Oracle. In this course students are introduced to object-oriented programming control structures, procedures, parameter passing, arrays, and files. Emphasis is placed on modularization and programming style.

**Mandatory math courses can be found on page 55. Students must take three 400 level courses (via PDE). This course can be used as the 4th math credit, IF and ONLY if the student has passed the Keystone Algebra 1 test (retroactivity is allowed); Otherwise this is an elective credit.**

Introduction to Java – Pre AP	493
$\frac{1}{2}$ credit	1 semester

**Requirements: “B” or better in Computer Programming with Alice or Python Programming or Teacher Recommendation.**

Students enrolled in this course will have an opportunity to design, code, document, and run programs using the Java and processing programming languages. The focus of the course is Java syntax in preparation for the Computer Science AP Exam. The Java API library is used extensively. The course will also focus on problem analysis and the development of algorithms. This course is a building block to the Computer Science III and the AP Computer Science course.

**Mandatory math courses can be found on page 55. Students must take three 400 level courses (via PDE). This course can be used as the 4<sup>th</sup> math credit, IF and ONLY if the student has passed the Keystone Algebra 1 test (retroactivity is allowed); Otherwise this is an elective credit.**

**Requirements: “B” or better in Introduction to Java**

Students enrolled in this course will learn **advanced** concepts in computer science including: Searching, Sorting, Files and File Access, Data Structures. The structure of Java will be studied extensively, including: Object Oriented design, encapsulation, polymorphism, inheritance, and abstraction. This course will prepare students to take the AP Computer Science A exam

## MATHEMATICS

### ELECTIVE COURSES

**Requirements: Successful completion of Algebra 2 and/or “B” or better in Honors Oracle II; or teacher recommendation**

Students enrolled in the Oracle Academy I will learn how to analyze data requirements and design a vendor-neutral relational database. Using a combination of virtual and face-to-face training, the Oracle Academy Database Design curriculum focuses on higher-order thinking skills necessary to compete in the 21<sup>st</sup> century workplace. Group collaboration and project management skills are developed as entity relationship diagram models are completed to provide a conceptual representation of an organization’s information. In addition, students will create a career portfolio and explore computer science and other career paths.

**Mandatory math courses can be found on page 55. Students must take three 400 level courses (via PDE). This course can be used as the 4th math credit, IF and ONLY if the student has passed the Keystone Algebra 1 test (retroactivity is allowed); Otherwise this is an elective credit.**

**Requirements: Successful completion of Algebra 2 and/or “B” or better in Intro to Java or Oracle I (Honors Oracle I is NOT a prerequisite for taking this course); or teacher recommendation**

Students enrolled in the Oracle Academy II will use SQL (Structured Query Language) to extract data, and create and modify an online physical database. Topics include: Functions, Joins, Sub queries, Group Functions, Inserts, Updates, and Delete Operations. The curriculum is online through the Oracle Academy. Assessments include quizzes, exams, and projects.

**Mandatory math courses can be found on page 55. Students must take three 400 level courses (via PDE). This course can be used as the 4th math credit, IF and ONLY if the student has passed the Keystone Algebra 1 test (retroactivity is allowed); Otherwise this is an elective credit.**

**Requirements: “B” or better in Honors Oracle Academy I and II AND approval by teacher**

Students enrolled in the Oracle Academy III will work independently to create and modify an online physical database using SQL programming. Topics include: Data Control Language, Data Definition Language, Data Manipulation Language, and Transaction Control Language. Students will be required to take the Oracle SQL Certification Exam, a distinction that provides an additional competitive edge in the college and career market. **This class will be entirely online and work will be done independent of a scheduled class time.**

**Mandatory math courses can be found on page 55. Students must take three 400 level courses (via PDE). This course can be used as the 4th math credit, IF and ONLY if the student has passed the Keystone Algebra 1 test (retroactivity is allowed); Otherwise this is an elective credit.**

## MUSIC

### ELECTIVE COURSES

#### Concert Band

920

1 credit

2 semesters

This performance ensemble, which is an elective for the student in grades 9–12 who play a wind or percussion instrument, is designed to improve and develop techniques, mechanics, and music fundamentals so that the student further develops as an instrumental musician at a high standard. The student will be required to attend after school and out-of-school rehearsals and performances. This section is for students who do not participate in Marching Band.

#### Honors Concert/Marching Band

921

1 credit

2 semesters

This performance ensemble, which is an elective for the student in grades 9–12 who play a wind or percussion instrument, is designed to improve and develop techniques, mechanics, and music fundamentals so that the student further develops as an instrumental musician at a high standard. The student will participate in both the concert and marching band setting and will be required to attend after school and out-of-school rehearsals and performances. This course can be taken once for honors-level credit. This section is for students who participate in Marching Band.

#### Music Technology

924

½ credit

1 semester

This course, which is an elective for all students in grades 9–12, is designed for student with an interest in the music industry, current technologies, and electronic performance. The course begins by introducing the students to the basic elements of music and the Mac OS–X computer platform. The course then acquaints the student with basic fundamentals of keyboard performance and music theory. The remainder of the course is spent with Garage-Band and Sibelius to construct projects that engage the student creatively. Projects include, but are not limited to, simple music tracks, podcasts, movie soundtracks, and full length songs. Music arranging and composition are also explored throughout the semester. Space is limited. There are no prerequisites for Music Technology. Computers in the Trinity High School Performing Arts music lab are outfitted by Apple, Inc.

Survey of Popular Music	925
<b>½ credit</b>	<b>1 semester</b>

This course, open to all students in grades 9–12, is an historical and stylistic examination of a variety of music reflecting pop culture. Such forms as folk, rock and popular songs and dances, jazz and concert music will be considered.

String Orchestra	927
<b>1 credit</b>	<b>2 semesters</b>

This course, which is both elective and selective for students in grades 9–12, is designed to expose the student to orchestral literature of western civilization. The orchestra performs to the highest musical standards and musicianship is developed in phrasing, rhythm, intonation and ensemble skills. The orchestra performs at the discretion of the director and the student will be required to attend after school rehearsals and/or concert performances. Students must enroll in the class in order to participate in concerts.

## MUSIC

### ELECTIVE COURSES

Guitar	928
<b>½ credit</b>	<b>1 semester</b>

This course, open to all students in grades 9–12, is for the beginning guitar student. The course will establish fundamental playing techniques, reading skills in treble clef and nomenclature, tablature and basic music theory. The student will learn to tune the guitar accurately and accompany with facility on the guitar using various strumming techniques and patterns. Previous musical experience is **NOT** required. **Instruments will be provided.**

Piano	929
<b>½ credit</b>	<b>1 semester</b>

This course is designed to teach the beginner the concepts and fundamentals needed to perform on the piano. It will increase musical understanding beyond reading notes by teaching students a vocabulary of chords and keys, accompaniment patterns, and improvisational techniques. Students will play melodies in several positions and have the opportunity to participate in ensemble playing. Students will develop sustainable practice habits and techniques. Students will have the opportunity to explore music technology, and its applications to composition and arrangement.

Introduction to Music Theory and Technology – College Credit	930
<b>½ credit</b>	<b>1 semester</b>

This course is open to students in grades 11-12. The course studies the elements of music and how music is composed. Students will learn pitch, rhythm, chord and interval structure, major and minor keys, modes and meters. Students will learn how to read music notation in treble and bass clef, key signatures and how to analyze chords in root position and inversions. This course will also incorporate the use of technology through iMacs and/or MacBooks using software titles including, but not limited to GarageBand, Sibelius, Finale, Aurelia, Musition 4, MS Word, and iMovie. The class concludes with a written final and arranging/composition project that is completed using the music notation software as well as other forms of music technology. **Dual enrollment will be with California University of PA.**

Auxiliary Skills Training	940
<b>½ credit</b>	<b>1 semester</b>

This course, which is an elective for the students in grades 9-12 is designed to teach and fortify marching techniques and equipment handling in order that the student develops the ability to perform with the high school marching band. The student must audition for the Color Guard and be selected in order to take this course. Acceptance is based on the ability and potential to learn basic equipment handling and marching techniques. The student will participate in the marching band and will be required to attend after school rehearsals and out-of-school performances.

Concert Choir	951
<b>½ credit</b>	<b>1 semester</b>

This course is open to students in grades 9–12. Students will progress through a curriculum that includes basics of proper vocal technique, tone production, sight-singing, and music literacy while preparing music of a wide variety of styles for performances. Attendance is required at evening concerts, as well as dress rehearsals each semester. There are also a number of additional performance opportunities in the community and the region.

## MUSIC

### ELECTIVE COURSES

Concert Choir	952
<b>1 credit</b>	<b>2 semesters</b>

This course is open to students in grades 9–12. Students will progress through a curriculum that includes basics of proper vocal technique, tone production, sight-singing, and music literacy while preparing music of a wide variety of styles for performances. Attendance is required at evening concerts, as well as dress rehearsals each semester. There are also a number of additional performance opportunities in the community and the region.

Honors Chamber Choir	953
<b>1 credit</b>	<b>2 semesters</b>

**Requirements: Choral director recommendation**

This course, for the students in grades 10–12, is a select ensemble of mixed voices. The class is designed to develop and refine advanced vocal and musical skills. Students perform advanced vocal repertoire of a variety of styles. Attendance is required at evening concerts, as well as dress rehearsals. There are also a number of additional performance opportunities in the community and the region.

AP Music Theory	956
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**1 credit****2 semesters**

Advanced Placement Music Theory, for the students in grades 11–12, is designed to develop the student's ability to recognize, understand, and describe the basic materials and processes of music that is heard or presented in a score. The course will further instill mastery of the basic elements of music, including intervals, scales, chords, rhythmic patterns, and the terms used to describe these elements as they relate to the system of major-minor tonality. Students will explore basic harmonization and realization techniques, as well as more sophisticated analytical techniques. Sight singing and piano skills will also be addressed. Students should possess the ability to read and play musical notation and be proficient as a vocalist or instrumentalist. ***Students may only take during their junior year if approved by the instructor.*** Students enrolled in this course should be preparing for music study (music education, performance, therapy, composition, business) in college.

**Introduction to Musical Theater****960****½ credit****1 semester**

This course is open to all students in grades 9-12 interested in learning the basics of stage craft, including but not limited to singing, acting, orchestration, audition preparation, stage crew and other theater elements. Using a variety of games and techniques, you will learn the foundational principals of blocking, staging, memory, use of props and sets, and getting over stage fright. Skills and techniques are exercised by performing monologues, scenes, songs, and improvisational games. Participation in rehearsals and performances is mandatory. The class will travel to a live theater event.

## SCIENCE

### REQUIRED COURSES

GRADE	HONORS/AP	COLLEGE PREPARATORY
<b>9</b>	Honors Biology	Biology
<b>10</b>	Honors Chemistry	Chemistry Physical Science
<b>11</b>	AP Physics 1 AP Chemistry AP Biology AP Environmental Science Hon Organic Chemistry	Chemistry Physics Anatomy and Physiology Astronomy and Meteorology Conservation Biology Environmental Science Forensic Science Geology and Oceanography
<b>12</b>	AP Physics 1 AP Chemistry AP Biology AP Environmental Science AP Physics 2 Hon Organic Chemistry	Physics Anatomy and Physiology Astronomy and Meteorology Conservation Biology Environmental Science Forensic Science

		Geology and Oceanography
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Biology 9	313
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**1 credit**

**2 semesters**

This course presents an in-depth insight into the nature of life and its inter-relationship with matter and energy. The following topics will be studied: cell structure, chemical and physical cell processes, principles of heredity, genetics, living organisms observed from an evolutionary viewpoint, and ecological relationships in the biosphere. Computer technology is used to enhance study.

Biology 9 – Honors	314
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**1 credit**

**2 semesters**

This is a laboratory and technology oriented course in the life sciences designed to provide the student with a background in biology that is as advanced as he/she is able to assimilate. Emphasis is placed on science as inquiry, the study of organisms from an evolutionary viewpoint, ecological relationships in the biosphere, cellular structure of organisms, the chemical basis for life, the complementary of structure and function in organisms, and the genetic continuity of life.

Physical Science	322
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**1 credit**

**2 semesters**

This class teaches the principles of physics and chemistry in a conceptual manner. The chemistry topics covered include scientific measurement, matter, the gas laws, basic atomic structure, the periodic table, chemical bonding, and formula writing. The physics topics covered include motion in one direction, projectile motion, Newton's laws, energy and work, momentum, vibrations and waves, sound and light, electricity, and magnetism. The course teaches basic lab skills and is supplemented by a variety of technology resources.

## SCIENCE

### REQUIRED COURSES

Chemistry	324
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**1 credit**

**2 semesters**

**Requirements: Successful completion of Algebra I (2 periods per day; Lab alternates with Study Hall or gym).**

This course is designed to help students understand the following fundamental scientific principles: matter and energy, atomic structure, bonding, writing chemical formulas and chemical equations, the mole concept, kinetic theory, gas laws, volume –volume relationships in chemical equations, and solution chemistry. These concepts will be supplemented with laboratory experiments and computer technology. Math skills are required.

Chemistry 10 – Honors	325
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**1 credit**

**2 semesters**

**Requirements: Recommended “B” average in Biology 9 Honors (2 periods per day; Lab alternates with Study Hall or gym).**

This course is designed to help students understand the following fundamental scientific principles: matter and energy, atomic structure, bonding, writing chemical formulas and chemical equations, the mole concept, kinetic theory, gas laws, volume –volume relationships in chemical equations, and solution chemistry. These concepts will be supplemented with

laboratory experiments and computer technology. Math skills are required.

<b>Astronomy and Meteorology</b>	<b>326</b>
<b>½ credit</b>	<b>1 semester</b>

This one semester course will be based on the various aspects of astronomy and meteorology. The course will be divided into two main sections. In the first section, the students will learn about the formation of the solar system, nature of gravity and light, composition of other planets in the solar system, and the nature of stars, galaxies, and the universe. The second part of the course will be based on meteorology which includes the study of atmospheric conditions, cloud formation, atmospheric circulation, and the formation of weather systems (fronts).

<b>Geology and Oceanography</b>	<b>327</b>
<b>½ credit</b>	<b>1 semester</b>

This one semester course will explore geology and oceanography from an Earth Science perspective. Topics in geology may include: minerals, rock types and features, surface and groundwater, plate tectonics, geologic resources, and various issues in environmental geology. Topics in oceanography may include: ocean floor features and exploration, ocean motion, the marine environment, coastline features, and human impact on oceans.

<b>Anatomy and Physiology</b>	<b>328</b>
<b>½ credit</b>	<b>1 semester</b>

This one semester course is designed for students interested in pursuing a career in the health fields. The major systems of the human body will be studied including their components, structure, basic physiology and common disorders. These topics will be supplemented through the use of audiovisual materials and computer technology. Notebooks are required.

## **SCIENCE**

### **REQUIRED COURSES**

<b>Environmental Science</b>	<b>329</b>
<b>½ credit</b>	<b>1 semester</b>

This one semester course will examine major issues that affect our global environment. Topics may include energy, pollution, land use, population biology, species extinction, global climate changes, and the development of environmental policy. In addition, the students will gain a better understanding of environmental issues in Pennsylvania.

<b>Forensic Science</b>	<b>330</b>
<b>½ credit</b>	<b>1 semester</b>

This course is a laboratory-based course intended to study the application of forensic science. This is a multidisciplinary course that draws upon topics previously learned in chemistry and biology. This is an inquiry based course that uses scientific methods to solve crimes and other mysteries. In addition to deepening their understanding of scientific concepts, this course will sharpen student's critical thinking and problem-solving skills. Throughout the course, topics that will be highlighted include, but are not limited to, observation skills, crime scene analysis, hair and fiber analysis, fingerprinting, blood spatter analysis, and forensic anthropology (skeletal analysis).

<b>Conservation Biology</b>	<b>333</b>
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½ credit

1 semester

This course studies the plant life, animal life, and ecosystems of Pennsylvania. Topics covered include Pennsylvania geography, terrestrial and aquatic ecosystems, wetlands, mammals, birds, fish, amphibians, reptiles, and trees. The focus of this course is respect for, and conservation of, our natural resources. The laws of Pennsylvania that impact the conservation of these resources will also be studied.

Physics

336

1 credit

2 semesters

**Requirements: Enrollment in or completed Algebra 2 and successful completion of Chemistry. (2 periods per day; Lab alternates with Study Hall or gym).**

This course offers a foundation in the general principles and theories of physics. Areas of concentration include: Kinematics, Dynamics, Energy, Power, Momentum, Simple Harmonic Motion, Sound and Introduction to Light. Emphasis will be placed on laboratory experiments and computer technology. An above average background in mathematics and chemistry is recommended.

## SCIENCE

### ADVANCED COURSES

Advanced Placement Physics 1

337

1 credit

2 semesters

**Requirements: Enrollment in Honors Pre-Calculus or Higher, and successful completion of Honors Chemistry or all year Chemistry with teacher recommendation; recommended grade of “B” or higher. (2 periods per day; Lab alternates with Study Hall or gym).**

The AP Physics 1 is a college level, Algebra based, Physics course based on the guidelines of the Advanced Placement Program. The course will replace the Honors Physics class offered in previous years. It is designed for the student who plans to pursue an engineering or science career. Topics include kinematics in one and two dimension, dynamics, circular and rotary motion, momentum, harmonic motion, waves, sound, electrostatics and DC circuits. Lecture, discussion, laboratory and inquiry-based activities are designed to develop the student’s conceptual understanding or physics principles. Students are prepared to take the AP Physics 1 exam.

Advanced Placement Physics 2

338

1 credit

2 semesters

**Requirements:** Enrollment in HONORS Pre-Calculus or Higher, and successful completion of AP Physics 1 or Physics (with teacher recommendation); recommended grade of “B” or higher.  
(2 periods per day; Lab alternates with Study Hall or gym).

The AP Physics 2 is a college level, Algebra based, Physics course based on the guidelines of the Advanced Placement Program. It is designed for the student who plans to pursue an engineering or science career. Topics include electricity and magnetism, fluid mechanics, light and geometric optics, thermodynamics, nuclear physics and modern physics. Lecture, discussion, laboratory and inquiry-based activities are designed to develop the student’s conceptual understanding of physics principles. Students are prepared to take the AP Physics 2 exam.

Honors Introduction to Organic Chemistry	339
½ credit	1 semester

**Requirements:** Successful completion of Honors Biology and Honors Chemistry; recommended grade of “B” or higher in both of these.

This one semester course focuses on the basic structure, naming, functions, and reactions of various classes of organic compounds. This course will also discuss current events topics relating to organic chemistry. Students will develop skills in critical thinking. There are no formal lab periods, and most lab exercises will be of a “paper and pencil” nature.

Advanced Placement Biology	340
1 credit	2 semesters

**Requirements:** It is recommended that the student received a “B” average or above in Biology and Chemistry.  
(2 periods per day; Lab alternates with Study Hall or gym).

This course is a college level course taught in accordance with the guidelines of the Advanced Placement program. It is designed for the student with a strong interest in the biological sciences. Major topics include biochemistry, cell biology, cellular energetics, genetics, evolutionary biology, taxonomy, plant anatomy and physiology, animal anatomy and physiology, and ecology. Through a combination of lecture, discussion, laboratory activities, and the use of computer technology, students are prepared to take the AP exam in biology. Laboratory work is an integral part of this course.

## SCIENCE

### ADVANCED COURSES

Advanced Placement Chemistry	341
1 credit	2 semesters

**Requirements:** It is recommended that the student received a “B” average or above in Chemistry. Students who plan on taking the SAT Subject Test in Chemistry should enroll in this class during their junior year.  
(2 periods per day; Lab alternates with Study Hall or gym).

The science of chemistry will be introduced through lecture, laboratory investigation and computer technology. The basic principles of atomic structure, chemical bonds, stoichiometry, chemical kinetics, chemical equilibrium, introductory qualitative analysis, electrochemistry, gases, solids and solutions will be studied on an in-depth level.

Advanced Placement Environmental Science	342
1 credit	2 semesters

**Requirements:** Successful completion of Chemistry or currently enrolled in Honors Chemistry; Recommended grade of “B” or higher in Biology and Chemistry.  
(2 periods per day; Lab alternates with Study Hall or gym).

AP Environmental Science will provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them.

**SOCIAL STUDIES**  
**REQUIRED COURSES**

World History	213
1 credit	2 semesters

The purpose of this course is to give the student a basic understanding of history and its role in the development of the modern world. The major problems and great contributions to history will be analyzed to help the student use history to understand his/her society and the world today.

World History – Honors	214
1 credit	2 semesters

This course is an intensive study of civilization from ancient Greece through the present. Emphasis will be placed on thematic development of political, social, economic, cultural, and religious trends. Cause and effect relationships, critical analysis, and concept manipulation are key higher-level thinking skills to be developed. The course will enhance essay writing, outline skills, time-management, oral expression, and study habits. One major reading project and one group research project are included. This course assumes the student will enroll in a four (4) year college following high school.

American History 10	223
1 credit	2 semesters

The aim of this course is to develop the student's ability to participate in the decision making process inherent in a democratic society. Student participation will be encouraged in large and small group discussions, as well as simulations, role playing, and oral reports.

Economics	234
$\frac{1}{2}$ credit	1 semester

This course offers an introduction to the study of economic institutions, theory and policy related to individuals and nations. Emphasis is placed on concepts and analytical tools so that one may gain an insight into the major economic problems that exist today. The junior year Career Readiness projects on entrepreneurship are embedded in the course. *Open to 11<sup>th</sup> and 12<sup>th</sup> grade students. Requirement for graduation.*

Emerging World: Geography, History, Culture and Conflict	236
$\frac{1}{2}$ credit	1 semester

Students in this course will examine the geography, history, culture and contemporary issues facing world regions to include: Far East Asia, Latin America, the Middle East and Sub-Saharan Africa. Filling a void in the current curriculum, this course will focus on investigating the foundation facts, factors and results that have framed the history of these regions and as well as their effects and influence world-wide. *Open to 11<sup>th</sup> and 12<sup>th</sup> grade students.*

American Government	240
$\frac{1}{2}$ credit	1 semester

This course will emphasize the practical aspects of state and federal governments as well as provide a basic understanding of the principles upon which they are built. The goals of the class will be to develop within the student a knowledge of these forms of governmental policies and operations and an appreciation for the freedoms, values and responsibilities necessary in a democratic society. *Open to 11<sup>th</sup> and 12<sup>th</sup> grade students.*

## SOCIAL STUDIES

### REQUIRED COURSES

Psychology	241
$\frac{1}{2}$ credit	1 semester

This course offers a representative survey of modern psychology. The history of psychology and psychological procedures is traced from the ancient to the present. Emphasis is placed on modern psychological knowledge and procedures which are applicable in the solution of personal and social problems. By a better understanding of ourselves we will better understand others. *Open to 11<sup>th</sup> and 12<sup>th</sup> grade students.*

Sociology	242
$\frac{1}{2}$ credit	1 semester

This course is designed to provide the student with an understanding of society and social behavior from the sociological perspective. It will look at society as a whole, including the groups that compose it and the actions of individuals and how the social world is reflected in their behavior. The course is intended for the college bound student. It is taught using a college text and a number of primary and secondary readings. *Open to 11<sup>th</sup> and 12<sup>th</sup> grade students.*

## SOCIAL STUDIES

### ADVANCED COURSES

Advanced Placement Economics	1 credit	2 semesters	237
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**AP Economics is a yearlong course made up of two college level semester courses. All students must take both courses.**

AP Microeconomics is a one semester college level course that is the first semester of a yearlong AP Economics course. The course emphasizes the economic principles concerning individual decision makers within the economy. The main areas of concentration include the nature and function of product markets, factor markets, efficiency, equity and the role of the government. AP Macroeconomics is a one semester college level course that is the second semester of a yearlong AP Economics course. This course emphasizes economic principles as applied to the economy as a whole. Lessons include national income accounting, economic indicators, inflation and unemployment, money and banking, loanable funds, stabilization policy and international economics. *Open to 11<sup>th</sup> and 12<sup>th</sup> grade students. Requirement for graduation*

Advanced Placement United States History	1 credit	2 semesters	224
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The aim of this course is to give the student an overall, comprehensive understanding of the major periods in American



History. The student will do extensive reading in the following periods: American Revolution, New Nation, Jacksonian Period, Civil War, and Reconstruction, The Frontier, Progressive Era, and Twentieth Century United States. The student will become familiar with leading American historians and will examine primary and secondary sources in order to form his/her own conclusions as to what actually happened in the past.

Advanced Placement European History	243
1 credit	2 semesters

The aim of this course is to give the student a general knowledge of the major themes of European history of the past five (5) centuries and to provide a deeper understanding of the political, economic, and intellectual forces involved in the historical process. By exploring primary and secondary materials, a student will have an opportunity to sense the flavor of an era, to assess the complexities of issues, and to discover how historians reach conclusions about the past. ***Open to 11<sup>th</sup> and 12<sup>th</sup> grade students.***

Advanced Placement American Government	246
1 credit	2 semesters

The AP American Government & Politics course will give students an analytical perspective on government and politics in the United States. This course includes both the study of general concepts used to interpret U.S. politics and the analysis of specific examples. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. politics and government. ***Open to 11<sup>th</sup> and 12<sup>th</sup> grade students.***

Advanced Placement Psychology	247
1 credit	2 semesters

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with the major sub-fields within psychology. They also learn about the methods psychologists use in their science and practice. ***Open to 11<sup>th</sup> and 12<sup>th</sup> grade students.***

## Sports Medicine and Rehabilitation Therapy

Freshman	Sophomore	Junior	Senior
<i>English (1.5 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>
English 9 CP English 9 Honors Freshman Writing (.5 credit)	English 10 CP English 10 Honors	English 11 CP AP English 11	English 12 CP AP English 12
<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>
Algebra 1A Algebra 1 Algebra 2 Honors Honors Geometry	Algebra 1B Geometry Pre-Calculus Honors	Algebra 2 Geometry Financial Algebra Pre-Calculus Honors AP Stats AP Calculus AB	Algebra 2 Geometry Pre-Calculus Advanced Alg with Trig AP Stats AP Calculus AB AP Calculus BC
<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>

World History World History Honors	US History AP US History	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit) AP European History AP American Government	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit) AP European History AP American Government
<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>
Biology CP Honors Biology	Chemistry CP Physical Science CP Honors Chemistry	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit) Organic Chemistry (.5 Credit) Conservation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit) Organic Chemistry (.5 Credit) Conservation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)
<i>Physical Education &amp; Health (1.5 Credits)</i>			
1 Credit Physical Education and .5 Credit Health taken during Freshman Year			
<i>Sports Medicine and Rehabilitation Therapy</i>			
Introduction to Medicine and Medical Terminology (1 credit)  Sports and Body Movement (1 credit)  Sports Medicine Career Exploration I (1 credit)	Sports Medicine I (w/everyday yearlong lab) (1 credit)  Sports Medicine Career Exploration II (1 credit)	Sports Medicine II (1 credit) (w/everyday yearlong lab)  Career Exploration III (1 credit)	Sports Medicine III (1 credit) (w/everyday half year lab)  Internship (.5 credit)  Career Exploration IV (1 credit)
<i>Fine Arts (1 Credit)</i> <i>Graduation Project (1 Credit)</i>			

# SPORTS MEDICINE EDUCATION

## REQUIRED COURSES

Introduction to Medicine and Medical Terminology	361
1 credit	2 semesters

Introduction to Medicine and Medical Terminology lays the foundation for students interested in pursuing a medical career. An introduction to different career pathways starts here as students will research and discover different disciplines of the sports medicine field. An understanding of basic medical terminology begins here as well as learning basic first aid techniques and CPR.

Sports and Body Movement	362
1 credit	2 semesters

Sports and Body Movement provides students with the means to explore the human body. Students will learn how the body systems work through physical activity and theory.

Sports Medicine I	363
1 credit	4 semesters

**Requirements: Either Introduction to Medicine and Medical Terminology or Sports and Body Movement (2 periods per day; 1 Theory and 2 Hands on)**

Sports Medicine I will teach students how to recognize, evaluate and treat common neuromusculoskeletal injuries of the body. Students will be taught how to work as a team and prioritize care for injured individuals. The lab portion will provide students with the clinical application of skills learned.

Sports Medicine II	364
1 credit	4 semesters

**Requirements: Must have completed Sports Medicine I (2 periods per day)**

Sports Medicine II: Rehabilitation and Sports Nutrition w/Lab will teach the students about the phases of rehabilitation, setting attainable goals and supporting a patient through the rehabilitation process. The sports nutrition part of the course will analyze diet, supplementation, and pre and post exercise nutrition for not only athletes but your everyday person as well. The lab portion will provide students with the clinical applications skills learned.

Sports Medicine III Exercise Science Prescription (with Lab)	365
1 credit	4 semesters

**Requirements: Intro to Medicine and Medical Terminology, Sports and Body Movement, Sports Medicine I and Sports Medicine II**

Sports Medicine III will give students the ability to recommend and create an exercise program. At the conclusion of this course, students will be able to earn a personal training certification. Students in the course will also be given the opportunity to be recertified in CPR and First Aid. Lab time will be spent putting theory into practice in the fitness/weight room.

Sports Medicine Internship	366
.5 credit	1 semester

**Requirements: Intro to Medicine and Medical Terminology, Sports and Body Movement, Sports Medicine I and Sports Medicine II**

The last semester of the program, students will get real world working experience before heading off to college or the work force. Students will be required to log 180 hours of on-site time at a medical facility or their choice. While there, they will put the skills they have learned to use in the clinical setting.

# Vet Technology

Freshman	Sophomore	Junior	Senior
<i>English (1.5 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>	<i>English (1 Credit)</i>
English 9 CP English 9 Honors Freshman Writing (.5 credit)	English 10 CP English 10 Honors	English 11 CP AP English 11	English 12 CP AP English 12
<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>	<i>Math (1 Credit)</i>
Algebra 1A Algebra 1 Algebra 2 Honors Honors Geometry	Algebra 1B Geometry Pre-Calculus Honors	Algebra 2 Geometry Financial Algebra Pre-Calculus Honors AP Stats AP Calculus AB	Algebra 2 Geometry Pre-Calculus Advanced Alg with Trig AP Stats AP Calculus AB AP Calculus BC
<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>	<i>Social Studies (1 Credit)</i>
World History World History Honors	US History AP US History	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit)	Economics CP (.5 credit) AP Economics Emerging World (.5 credit) American Govt (.5 credit) Psychology (.5 credit) AP Psychology Sociology (.5 credit)

		AP European History AP American Government	AP European History AP American Government
<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>	<i>Science (1 Credit)</i>
Biology CP Honors Biology	Chemistry CP Physical Science CP Honors Chemistry	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit) Organic Chemistry (.5 Credit) Conservation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)	AP Biology AP or CP Chemistry AP or CP Physics AP Environmental Science CP Environmental (.5 Credit) Anatomy & Physiology (.5 Credit) Astronomy & Meteorology (.5 Credit) Organic Chemistry (.5 Credit) Conservation Bio (.5 Credit) Forensic Science (.5 Credit) Geology & Oceanography (.5 Credit)
<i>Physical Education &amp; Health (1.5 Credits)</i>			
1 Credit Physical Education and .5 Credit Health taken during Freshman Year			
<i>Vet Technology</i>			
Animal/Work Safety (1 credit)  Veterinary Medical Terminology (1 credit)  Vet Tech Project I (1 credit)	Animal Health & Nutrition (1 credit)  Veterinary Laboratory Procedures (1 credit)  Vet Tech Project II (1 credit)	Veterinary Hermatology, Microbiology, & Exam Procedures (1 credit)  Animal Husbandry & Nursing (1 credit)  Vet Tech Project III (1 credit)	Vet Tech Year IV (2 credits)  Vet Tech Project IV (1 credit)
<i>Fine Arts (1 Credit)</i> <i>Graduation Project (1Credit)</i>			

# VET TECHNOLOGY

## REQUIRED COURSES

Animal/Work Safety	8800
1 credit	2 semesters

In this course students will have an Introduction to Veterinary Medicine. We will discuss the different roles in the Veterinary field. They will learn safety in the work place, AKC/CFA organizations, recognize breeds by sight (26 canine, 15 feline, 16 equine, 12 bovine) as well as how they are subdivided into groups/categories. They will learn the domestication process, different breed characteristics and common diseases seen in different breeds. The students will learn about different behaviors in each breed as well as behavior throughout the lifecycle, communication, and social behavior. They will learn training and behavior modification techniques as well as training and problem prevention in puppies and kittens such as unruly/disruptive behaviors, elimination problems, separation, fear, anxiety and aggression. Students will also become skilled in different handling techniques by utilizing our outside learning resources such as local Veterinary clinics and shelters.

Veterinary Medical Terminology	8801
1 credit	2 semesters

This course is an Introduction to Veterinary Medical Terminology. The students will learn positional terms and directional terms as well as common anatomical terms. They will learn different common species names along with the common terms associated with each species. Students will know the common eye, ear, digestive, cardiovascular, respiratory, integumentary, endocrine and reproductive terms. They will also learn the numbers and abbreviations used to complete

medical records and forms. Students will be able to read a syringe volume while also being able to add/subtract volume. They will learn volume abbreviations as well as volume conversions. Students will gain knowledge in computer software, office and hospital procedures and how to build good client relationships. They will learn inventory, SOP's, and how to keep proper medical OSHA, and MSDS records.

<b>Animal Health &amp; Nutrition</b>	<b>8806</b>
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**1 credit**

**2 semesters**

This course is designed to give students an understanding of animal health and nutrition. They will learn the nutritional requirements for dogs and cats during all the life stages. They will learn about body condition scores and different feeding methods. We will learn the differences between diets, how to choose an appropriate diet, how to read a food label and nutritional requirements for sick and debilitated animals. The students will also learn nutritional requirements for some large animal breeds. We will learn the common internal and external parasites seen in dogs, cats, and some large animals, as well as the parasites lifecycle.

<b>Veterinary Laboratory Procedures</b>	<b>8807</b>
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**1 credit**

**2 semesters**

Students will learn how to safely handle specimens when working in a lab. Students will learn the different equipment used in a lab. We will also learn how to use the equipment in a lab for urinalysis, histology, and parasite identification. Students will learn about zoonotic diseases and how to prevent them. Students will also learn about the layout, design, equipment used and record keeping in a lab. We will learn about radiography equipment, x-ray safety, generation/development, terms and positioning. We will learn about contrast studies, ultrasound, endoscopy, MRI, and PET scans. We will learn the principles of immunology and vaccine protocols as well as diseases the vaccines prevent.

<b>Veterinary Hematology, Microbiology, and Exam Procedures</b>	<b>8808</b>
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**1 credit**

**2 semesters**

Students will learn how to collect various blood samples from different species. They will learn how to run, read and evaluate the different samples, including preparing blood smears and reading CBC's. They will be able to collect and analyze different cytology specimens and be able to identify different types of bacteria and their characteristics. The students will learn other lab skills such as coagulation testing and how to properly use culture media. The students will also learn how to perform a physical exam, obtain a patient's history and obtain patients' vitals.

<b>Animal Husbandry &amp; Nursing</b>	<b>8810</b>
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**1 credit**

**2 semesters**

Students will learn husbandry skills for small and large animals as well as some exotics. This includes the housing, nutrition and vet care required for different species. These species include dog, cat, avian, reptile, cow and horse. The students will also learn various nursing care techniques used in a clinic. They will learn how to care for sick pets, wound care, bandaging techniques, fluid therapy, skin care and how to administer medications.



## WESTERN AREA CAREER & TECHNOLOGY CENTER

The Western Area Career & Technology Center (WACTC) has been established by the participating districts: Avella, Burgettstown, Canon McMillan, Chartiers-Houston, Fort Cherry, McGuffey, Peters Township, Trinity Area, and Washington. Students from the nine participating districts will attend their home school on a half day basis for their academic training. The remaining half day will be spent at the WACTC for career and/or technical training. Transportation will be provided for WACTC students by the home school district.

Students may participate in extra-curricular activities provided conflicts such as transportation, schedules, practices, etc. are able to be resolved. Upon successful completion of required schooling, each student will receive his/her diploma from Trinity High School. WACTC will only be offered in the am.

### **WACTC Programs of Study:**

Automotive Mechanics	Electrical Occupations
Automation Robotics, Engineering, and Tech	Emergency & Protective Services
Carpentry	Health Assistant
Collision Repair Technology	Heating & Air Conditioning
Computer Networking	Machine Shop
Cosmetology	Masonry
Culinary Arts	
Welding	

\* For additional information about Western Area Career and Technology Center, please see your high school guidance

counselor or visit [www.wactc.net](http://www.wactc.net)

Students that attend WACTC for all three years need to meet all of the aforementioned graduation requirements except for.

Science 1 year credit

Social Studies 1 year credit

If students do not attend WACTC for all three years they will have to complete both the Science and Social Studies requirements.

**State-Wide Articulation:**

WACTC is involved in the state-wide articulation agreement program named SOAR. This program offers qualifying students advanced credit(s) by partnering with post-secondary institutions in aligned CTE programs. Students may earn 9 to 25 credits. The students must pass all industry certifications with advanced stating and meet the required GPA both at WACTC and their home school. To view current advanced credit opportunities, please visit [www.collegetranser.net](http://www.collegetranser.net).

Parents/Guardians and students of Trinity High School who are interested in the services of the WACTC should contact a counselor at the high school.

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