

# ***TUNKHANNOCK AREA HIGH SCHOOL***



## **CURRICULUM GUIDE 2019-2020**

Revised 4-4-19

**TUNKHANNOCK AREA HIGH SCHOOL  
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2019-2020**

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# NEW FOR 2019-2020

Page 18	<b>CONTEMPORARY POETRY</b>	(1PS) (10-12)	.5 credit
Page 19	<b>THEATRE ARTS 1</b>	(1PS) (9-12)	.5 credit
Page 19	<b>THE PSYCHOLOGY OF LITERATURE</b>	(1PS) (11-12)	.5 credit
Page 19	<b>INTRODUCTION TO FILM AND MEDIA STUDIES</b>	(1PS) (11-12)	.5 credit
Page 41	<b>BUILDING CONSTRUCTION 1</b>	(B) (10-12)	1 credit
	<b>BUILDING CONSTRUCTION 2</b>	(B) (10-12)	1 credit
Page 46	<b>INTRODUCTION TO CODING &amp; COMPUTER PROGRAMMING</b>	(1PS) (9-12)	.5 credit

Pages 45 - 46

## CISCO Networking Academy: CCENT & CCNA Certification Program

<b>NETWORKING 1</b>	(B) (10-12)	1 credit
<b>NETWORKING 2</b>	(B) (10-12)	1 credit
<b>NETWORKING 3</b>	(B) (11-12)	1 credit
<b>NETWORKING 4</b>	(B) (11-12)	1 credit

## UNMANNED AIRCRAFT SYSTEMS, (sUAS): FFA Part 107 LICENSE PREPARATION

<b>DRONE PILOTING &amp; AERIAL VIDEOGRAPHY 1</b>	(B) (10-12)	1 credit
<b>DRONE PILOTING &amp; AERIAL VIDEOGRAPHY 2</b>	(B) (11-12)	1 credit

# ***TUNKHANNOCK AREA HIGH SCHOOL***

## **Letter from the High School Administration**

Parents and Students,

This Curriculum Guide has been prepared to help you understand the program of studies at Tunkhannock Area High School (TAHS) and to assist you in planning your choice of classes for the next school year. Students at TAHS take a combination of mandatory and elective courses that are offered in both the block (88 minute), yearlong (42 minute), and one period/one semester (42 minutes) format. Other specialized courses, called peripherals, are offered in nine week and twenty-two day periods. Core courses, peripherals and the requirement of certain elective areas make up the mandatory classes. Elective subjects cover a wide range of subjects and should also be selected on the basis of interest, aptitude, and skill level. These subjects should be carefully selected from course offerings.

The School Counseling Staff of the Tunkhannock Area High School is available to assist students and parents with course selections. It is important to make choices that are realistic and appropriate to the student's education and career goals. In addition to counselor input, it is also advisable to seek teacher recommendations prior to making course selections. Each student will have the opportunity to meet individually with his or her counselor to review pertinent information and establish the best possible schedule. The high school counselors are Mrs. Eliza Comly, Mrs. Susan Elias, and Mr. Kelly Landon. Many services of the school counseling office can be addressed by the school counseling office secretary. The High School Counseling Office can be reached by calling 836-8273 or by emailing the staff directly through the school website at [www.tasd.net](http://www.tasd.net). Their fax number is 836-8251.

Parents and students should review the Tunkhannock Area High School Curriculum Guide thoroughly and carefully consider the course selection options available. The administration, school counseling staff, and faculty look forward to helping students and parents make the most informed course selection decisions possible.

Todd Bosscher  
TAHS Principal

## TASD GRADUATION REQUIREMENTS

The Tunkhannock Area School District has established three major criteria to be eligible for graduation. Students must complete 26 *credits* and participate in state assessments (Keystone Exams; page 7) as stipulated by the Pennsylvania Department of Education. (Algebra 1, Biology, and Literature).

**Credits:** TAHS students must complete a total of 26 credits in order to graduate. Credits are units of measurement designed to indicate the length and scope of courses offered in the high school curriculum. Courses can be 0.25, 0.5, or more typically 1.0 in credit value. The sequence of courses and credits required is as follows:

**Graduating Classes of 2020 and beyond:**

<u>Curriculum Area</u>	<u>Credits</u>
#Math	3
English	4
Social Studies	3
▪ U.S. History 1	
▪ U.S. History 2	
▪ American Government	
Science	3
▪ Science 9	
▪ Biology	
▪ Non-specific third credit	
Physical Education/Health	1
▪ PE 9	
▪ PE 10	
▪ PE 11 or 12	
+ Humanities	2
** Electives	10 (1 credit may be from Alg 1)
 Total Credits	<hr style="width: 100%; border: 0.5px solid black;"/> 26

In order to make adequate progress towards graduation within four (4) years, a student must earn an average of 6.5 credits per year.

\*\* An elective may be defined as any course chosen for study beyond those specifically required.

# All students will be scheduled for at least 1 math credit per year through their junior year.

+ These courses will meet the requirements for the Humanities:

- |                              |                                   |
|------------------------------|-----------------------------------|
| Visual Arts courses          | Co-op Employment Skills           |
| Wood Technology 1 & 2        | Family & Consumer Science courses |
| Introduction to Ag Mechanics | All English electives             |
| Music courses                | All Social Studies electives      |
| Foreign Language courses     |                                   |

### **College and Career Readiness Requirements for Graduation**

TASD requires all students to comply with the new ESSA (Every Student Succeeds Act) PA state guidelines for College and Career Readiness. These guidelines will be addressed at all grade levels. Evidence will be collected by students with the help of parents, teachers, counseling staff, and district personnel. This evidence may include pictures, projects, and/or reflections of documented internships, job shadowing, service learning and career research projects. The four Career Education and Work Standards, Career Awareness, Acquisition, Retention/Advancement and Entrepreneurship must all be addressed. All students in the high school will be scheduled for a series of career-based classes in 8<sup>th</sup> through 10<sup>th</sup> grade that will help guide them through this career exploration and planning experience. See Appendix A on page 54.

### **Pennsylvania's Graduation Requirements:**

Pennsylvania now requires students to demonstrate successful completion of course work in the areas of Algebra 1, Biology and English Literature. The Keystone Exams are the state developed assessments that now measure student proficiency in these three content areas. Tunkhannock Area High School students are required to participate in each of these exams until a minimum score of proficient is reached. Remediation classes and a tentative project based assessment, (PBA), will be scheduled for each student in any/all of three content areas, not yet proficient, until graduation.

### **Make Up/Supplemental Credits**

#### **Independent Study**

Juniors and seniors may arrange for an independent study, in certain situations, with their school counselor, and the appropriate faculty. The HS Principal has final approval. *Credit awarded and the cost of each class will be as noted in the Teacher Collective Bargaining Agreement.*

#### **Summer School / Credit Recovery**

TAHS offers summer school for students who need to make up credit. Summer school classes are scheduled according to the number of students who sign up for specific core classes. Summer school at Tunkhannock Area requires payment in full prior to registration. The school board sets the fee for summer school each year.

\*All of the requirements above comply with the Pennsylvania School Code. Please note that the courses and programs offered in this Curriculum Guide may be changed as per School Board action. Every effort will be made to communicate these changes as quickly as possible in the best interest of students.

## **IMPORTANT COURSE SELECTION POINTS**

**Schedule Change Policy:** Course selection should be made thoughtfully with individual student goals and abilities in mind. Student course requests determine the structure of the master schedule and staffing. Therefore, schedule changes should not be requested for frivolous reasons such as teacher preference (or dislike), a wish to be in classes with friends, a desire to have a specific lunch period, etc. Students should be aware of the schedule change policy as they make their course selections for the upcoming school year. The Tunkhannock Area High School's policy regarding re-scheduling and schedule changes is as follows:

- Students will have five school days into a course to withdraw from the course. The five-day timeline will be adhered to regardless of the student's school attendance.

- We realize there are rare, often unforeseen mitigating circumstances that necessitate a withdrawal from a course. In these cases, students must complete and submit a Course Change Request Form. This form must be signed by the parent, school counselor, and an administrator prior to a scheduling change approval. The student must select another course for credit to replace the dropped course. Depending upon the grade at the time of withdrawal, a withdrawn passing (WP) or withdrawn failing (WF) notation may appear on the permanent record/transcript.
- When a student has failed a block course during the first semester, the privilege of re-scheduling a class during second semester is reserved for seniors needing the course for graduation. All other requests will be evaluated on a case by case basis.

**Study Halls:** Tunkhannock Area High School recommends all students take the most challenging level of coursework available in accordance with their experience and abilities. Study halls are scheduled with the following points in mind:

- Students entering their junior year with 14 earned credits or more and students entering their senior year with 21 earned credits or more may opt to select one study hall in place of an elective credit when making course selections.
- Requests to schedule an initial study hall, after schedules are completed, will be reviewed on a case by case basis.

## **GOAL SETTING: THE KEY TO COURSE SELECTION**

1. After evaluating your personal strengths, interests, aptitudes, and needs, students should establish educational goals with the assistance of the School Counseling Office. Students will collect additional information on their specific educational, occupational, and personal objectives by working with their assigned school counselor.
2. Working with computerized college/career investigation programs, students will learn the requirements for entrance to the college/technical school they plan to attend and/or for the kind of career they would like to pursue.
3. During the summer prior to senior year, students should begin to visit the colleges, technical schools, or places of employment that meet their interest areas.
4. Students should talk frequently with their parents, teachers, counselors, and individuals currently working in their field of interest to gain the benefit of their experience and knowledge.
5. Students should select courses that most closely match their educational and career goals.

## **TESTING PROGRAMS**

Below are descriptions of testing programs, mandatory and discretionary, used by Tunkhannock Area High School. A grade-level calendar outlining when students will/should participate in various programs follows the descriptions.

### **The Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/MMSQT)**

The Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/MMSQT) is a test developed by the College Board specifically to prepare students to take the SAT. It tests knowledge and skills that have been identified as most important for college and career readiness and success.

The PSAT consists of 2 sections: Evidence-Based Reading & Writing and Math. Each section is given a scaled score ranging from 160 to 760.

Sophomores and juniors are mailed registration materials and information for the PSAT in September. The PSAT is given only once a year in mid October. Testing takes place on a Wednesday during the school day. Students should bring the registration form along with payment to the School Counseling Office. Junior students participating in free/reduced lunch may ask their counselor for a fee waiver.

### **The SAT**

The SAT is a college entrance examination created by the College Entrance Examination Board. Like the PSAT, the SAT is a standardized test which measures knowledge and skills that have been identified as most important for college and career readiness and success.

The SAT consists of 2 sections: Evidence-Based Reading & Writing and Math. A third Essay Section is optional. Each section is given a scaled score ranging from 200 to 800.

The SAT is offered seven times annually. Tunkhannock Area High School is a test site two times per year in October and March/April. Students can test at other local schools on the other testing days if they choose. The SAT is always administered on a Saturday. A listing of local testing sites and dates is available in the School Counseling Office.

Students register for the SAT online at <https://www.collegeboard.org>. Students participating in free/reduced lunch may ask their counselor for a fee waiver. A photograph is required for registration. Students must print their admission ticket and have it with them at the time of testing. Students must also have appropriate photo identification even if testing at TAHS. When registering, students should be sure to include the TAHS school code (also called the CEEB code) of **394885**. If a student neglects to give this information, we will not receive their scores.

### **The ACT**

The ACT is a national college admission examination that consists of subject area tests in English, Math, Reading, and Science. They offer Writing as an optional testing category. The SAT is more commonly used in our region; however, either test is typically accepted at most colleges throughout the country. Students sometimes opt to take the ACT to present other strengths not covered on the SAT. Tunkhannock Area High School is not an ACT test site; however, it is given nearby for all six administrations. A listing of local testing sites and dates is available in the School Counseling Office. Students register for the ACT online at [www.actstudent.org](http://www.actstudent.org). A photograph is required for registration. Students must print their admission ticket and have it with them at the time of testing. Students must also have appropriate photo identification when testing. When registering, students should be sure to include the TAHS school code of **394885**. If a student neglects to give this information, we will not receive their scores.

### **Armed Services Vocational Aptitude Battery (ASVAB)**

Students in 10<sup>th</sup> through 12<sup>th</sup> grade can elect to take the Armed Services Vocational Aptitude Battery (ASVAB). Students sign up through the School Counseling Office. The test is administered once a year at TAHS in November. This assessment measures aptitudes in areas such as word knowledge, arithmetic reasoning, general science, and mechanical comprehension. The ASVAB measures aptitudes that are related to success in different jobs and occupations. The



assessment is scored in a manner that informs students of their abilities and readiness to become proficient in ten separate types of activities. ASVAB results are returned to participating students in a feedback session facilitated by a representative from Harrisburg.

An additional part of the ASVAB includes career exploration. The career exploration portion of the ASVAB is especially valuable in that it helps students identify areas for career exploration. The “Exploring Careers” workbook is used with this portion of the ASVAB. This workbook enables the test taker to compare personal interest (established through an interest inventory), with personal preferences, to explore over 200 types of different occupations. This information is utilized to help the student further explore his or her career interests.

### **The Advanced Placement (AP) Exam**

Students in Advanced Placement courses have the option of taking the corresponding AP examination at the end of the course. TAHS has AP courses in English, Calculus, World History, United States History, Chemistry, Physics, Biology, Spanish, Music Theory and Studio Art. Except for AP Studio Art – which is a portfolio assessment – each AP Exam contains a free-response section (either essay or problem solving) and a section of multiple-choice questions. Each AP Exam is given an overall grade of 1, 2, 3, 4, or 5, with 5 indicating a student who is extremely well qualified to receive college credit and/or advanced placement based on an AP Exam grade. Most colleges require that a student earn a grade of 3 or higher to be considered for college credit. Students are responsible for the cost of the test. The tests are administered in the month of May, during the normal school day. Results of the AP Exams are made available in July. Students are informed of the upcoming test through their AP classroom teacher. Tests are coordinated through the School Counseling Office for those students who opt to test. More detailed information about TAHS’s AP offerings appear later in this publication. More information about AP is also available at <https://apstudent.collegeboard.org/exploreap>.

### **National Occupational Competency Testing Institute (NOCTI)**

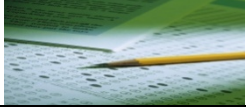
The Pennsylvania Department of Education requires that all secondary students concentrating in or completing a career and technical education (CTE) program participate in occupational competency testing. The testing program mandated by PDE is the National Occupational Competency Testing Institute (NOCTI). At TAHS, students in Engineering Technologies (Foundations, Reverse Engineering), Automotive Technology, Business (Accounting, Micro-Soft Skills), and Job-Seeking/Changing Skills (Co-Op) must take the NOCTI. Students required to participate are informed by their classroom teacher. In addition, a letter is sent home to parents informing them of their student’s participation. Students will have the opportunity to earn a Pennsylvania Skills Certificate if they score at the Advanced Level on all portions of the exam. Students scoring at the Competent Level will earn a Certificate of Competency. NOCTI testing takes place at the end of April each year.

### **Keystone Examinations**

The Keystone Exams are state mandated end-of-course assessments designed to assess proficiency in the subject areas of Algebra I, Literature, and Biology. The Keystone Exams are a mandatory component of Pennsylvania’s system of high school graduation requirements.

There are four testing windows in the Keystone Exam calendar. TAHS may utilize all four testing windows: both Winter Waves (December & January), the Spring Testing Window (May), and the Summer Wave (July). Students will be informed of which tests they must take and when.

## Testing Calendar

 9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
<b>ACT</b>		X (Spring)	X
<b>AP</b>		X	X
<b>ASVAB</b>		X	X
<b>Keystone Exams</b>	X	X Tentative PBA	X Tentative PBA
<b>NOCTI</b>			X
<b>PSAT</b>		X (October only)	X (October only)
<b>SAT</b>			X (Spring)

### HONORS COURSE WEIGHTING POLICY

Students' grades are 'weighted' for higher level courses completed during their high school career. This means that certain courses are given added points in calculating GPA (Grade Point Average) and class rank. The following policies are in effect:

- Only core courses (Math, English, Social Studies, and Science) and Foreign Languages (3<sup>rd</sup> & 4<sup>th</sup> level) will be offered for Honors credit and weighted grading.
- Elective courses within core disciplines will be offered for academic credit only.
- All other courses will be offered for academic credit and grading.
- Weighting for Honors and AP courses is as follows. A 4% weighted grading system for Honors courses and a 5% weighted grading system for Advanced Placement courses will be utilized.
- Grade point averages for Honors and AP courses appear on the student report card and weighting is applied by marking period for the purposes of honor roll.
- Class rank and career GPA are calculated annually.

### ADVANCED PLACEMENT COURSES

In addition to the regular academic program offered at Tunkhannock Area High School, the following Advanced Placement courses will be offered:

English Language & Composition  
 English Literature & Composition  
 Chemistry  
 Physics 1 & 2  
 Biology

Calculus AB  
 History (U.S. and/or World)  
 Studio Art (2-D and Drawing)  
 Music Theory

Courses in Advanced Placement are college level courses and are taught according to the guidelines of the College Board. They require a great amount of study on the part of the student and they carry one full academic credit. In addition, the student can expect to spend at least one hour on homework for each hour in the classroom. Prior investigation of a college's philosophy regarding advanced placement is highly recommended since all colleges do not recognize Advanced Placement. This research is the responsibility of the parents and students, and the information is usually found on individual college websites. For clarification of any questions, call or email the college admissions office and consult with your high school counselor.

Due to the stringent demands of the various AP programs offered at Tunkhannock Area High School, students are advised to use caution in determining the number of Advanced Placement courses they select.

**Students taking courses at the Honors and AP level should have the following characteristics:**

- Self directed learner. Takes it upon self to make up work and study
- Proficient in doing homework, independent reading, and projects on a nightly basis
- Student who can pace him/herself in preparing for a comprehensive final exam
- Takes charge or leads group activities
- Above average note-taking and organizational skills
- Self-motivated, goes above and beyond what is required
- Maintains a minimum of a B average on all work; individual, group or lab work
- Strong and independent reading (including novels) , writing, and speaking skills
- Score proficient or advanced in math or score green/blue on the CDTs

**CLEP (College-Level Examination Program)**

The College Board's College-Level Examination Program (CLEP) has been the most widely trusted credit-by-examination program for over 40 years, accepted by 2,900 colleges and universities and administered in more than 1,800 test centers. In 2016, Tunkhannock Area High School was approved as a Testing Center. This rigorous program allows students from a wide range of ages and backgrounds to demonstrate their mastery of introductory college-level material and earn college credit. Students can earn credit for what they already know by getting qualifying scores on any of the 33 examinations.

While CLEP is sponsored by the College Board, only colleges may grant credit toward a degree. Not all colleges have the same CLEP policies—some colleges accept credit for a few exams, while others accept credit for all of them. A college often grants the same amount of credit to a student who earns satisfactory scores on a CLEP examination as it does for a student who successfully completes the related course.

For more information about CLEP, visit <https://clep.collegeboard.org/>. You may also want to speak to your School Counselor about opportunities you may for CLEP while still in high school.

## DUAL ENROLLMENT OPPORTUNITY

Dual Enrollment offers juniors and seniors the opportunity to experience the rigor of college level course work while still in high school. Students will receive credit for these efforts both at the High School and College levels at a substantially reduced rate of college tuition.

Currently, we have school board approved agreements with Johnson College, Keystone College, and Lackawanna College that allow us to offer College Credit at a substantially reduced rate. The Dual Enrollment Program guidelines are very similar for each institution. The cost of each college credit varies slightly with each institution, but \$100 per credit is average. A \$25 charge per student each year may also be charged to cover the cost of administrating this program at the college level. This is a great opportunity for our students and a financial savings to their parents. You are encouraged to look over the offerings and expectations of the program.

TASD holds dual enrollment agreements with the University of Scranton, Penn State Wilkes-Barre, Lackawanna College on line and on campus and California University of Pennsylvania online. These agreements allow TAHS students to take post secondary course work for a much reduced tuition rate. These credits cannot be applied to graduation requirements nor will they appear on the high school transcript.

Tunkhannock Area High School is proud to offer these dual enrollment options with each of these Colleges. We also appreciate your willingness and consideration when reviewing this effort. Our hope is that your son or daughter will find success in this rigorous yet affordable opportunity.

### **Education and Early Childhood Certifications:**

Tunkhannock Area School District is excited to announce a newly developed offering for the 2019-2020 school year. Working with both Lackawanna College and Wilkes University, TASD is offering a Special Dual Enrollment Program that would allow interested students the opportunity to work toward an Associate Degree while still in high school, and ultimately an Education Degree from Wilkes University. For more details, please inquire in the School Counseling Office.

Please also note the **Lackawanna College “Level Up“ Program** featured in this guide on page 11 or ask your Counselor for additional information regarding this post-secondary offering.

### **College Credit / Tunkhannock Area High School Conversion List**

*The list below represents the courses that are currently eligible for the dual enrollment program. College agreements are approved annually and are subject to change. Updated costs and Course offerings will be made available at the beginning of each school year.*

#### **College Course:**

##### **Business**

ACCT 1155: Financial Accounting

BUSN 1110: General Business

IT 105: PC- Office Applications

##### **Science**

BIOL 1110: Human Anatomy & Physiology I

BIOL 1125: General Biology I

BIOL 1130: General Biology II

CHEM 120: General Chemistry I

#### **Current TAHS Equivalent:**

Accounting II

Entrepreneurship

Microsoft Computer Skills II

Human Anatomy & Physiology I & II

AP Biology

AP Biology

Honors Chemistry

CHEM 121: General Chemistry Lab  
CHEM 1120: General Chemistry I  
CHEM 1125: General Chemistry II  
PHY 120: General Physics  
PHY 121: General Physics Lab  
PHYS 2110: General Physics I  
PHYS 2125: General Physics II

Honors Chemistry  
AP Chemistry  
AP Chemistry  
AP Physics 1  
AP Physics 1  
AP Physics 2  
AP Physics 2

### **English**

COMM 1125: Speech Communications  
ENGL 1125: College Writing II  
ENGL 110: Intro to Literature  
ENGL 1110: College Writing I

Speech and Debate  
AP English Literature & Composition  
Honors English IV  
AP English Literature & Language

### **Social Studies**

HIST 1110: The Making of the Modern World  
HIST 1130: US History I  
PSYC 105: Intro to Psychology  
SOC 1110: General Sociology

AP World History  
AP US History  
Psychology  
Sociology

### **Mathematics**

MATH 120: College Algebra  
MATH 220: Pre-Calculus  
MATH 2115: Statistics  
MATH 220: Pre-Calculus  
MATH 2150: Calculus I

Honors Algebra II  
Honors Pre-Calculus  
Prob. and Statistics  
Honors Pre-Calc/Calc  
AP Calculus

### **Spanish**

SPAN 1110: Elementary Spanish I  
SPAN 1115: Elementary Spanish II

Honors Spanish III  
Honors Spanish IV

### **Music**

MUSIC 1110: Introduction to Music

AP Music Theory

Students will receive both high school and college credits for their efforts in these specified courses. Students are allowed to take up to 24 post secondary credits per year through these concurrent enrollment agreements.

Each college has already approved these courses and granted faculty authorization to the applicable teachers. College credit will be provided to each registered student with an appropriate final grade. College transcripts are available for a small fee by each institution.

This is a great opportunity for our 11<sup>th</sup> and 12<sup>th</sup> grade students to experience success at the postsecondary level. This allows our students an educational and financial jump start on their future.

\* All Dual Enrollment courses are denoted throughout this Curriculum Guide with a “DE”.

***Please note: Keystone College courses are labeled with four (4) digits after the course name; Lackawanna College courses are labeled with three (3) digits.***

***Notice: Johnson College Dual Enrollment Credits can be identified in the School Counseling Office.***



# LACKAWANNA ♦ COLLEGE

## LEVEL UP

### PROGRAM OVERVIEW

The LEVEL UP program at Lackawanna College was created in response to the national crisis related to the rising cost of higher education, the increased time that students spend in college before completing their degree, and the need for students to graduate from their secondary experience prepared to succeed in a major program of their choice.

By creating a new model that offers students concrete educational pathways during their high school experience, the College aims to reduce or eliminate barriers to enrollment in higher education, boost student retention and completion rates, and link early educational pipelines with family-sustaining careers for students of all socioeconomic backgrounds.

### MULTIPLE APPROACHES TO HIGHER EDUCATION ACHIEVEMENT

#### Obtain an Associate Degree While Still in High School

- Students can earn an associate degree in select majors while still in high school via a combination of dual enrollment classes offered on-site through partner districts or via online, late afternoon, evening, and summer classes at Lackawanna.
- Aimed at high-achieving students from each partner district in the region. Eligibility will be based on academic achievement.
- Graduates can receive scholarships and enroll seamlessly in a bachelor's degree program at Lackawanna.
- Target majors include Business Administration, Criminal Justice, Human Services, and Professional Studies.
- **Total cost of an associate degree will be \$6,200** - a significant savings versus traditional tuition at any institution, with opportunities to have the program fully funded potentially making it free to students.

#### Earn Discipline-Specific Certificates and Transferable Credits

- Students can pursue discipline-specific certificates comprised of introductory and foundation level courses in a particular major.
- Certificate areas will include Business, Criminal Justice, Healthcare, Human Services, and General Education / Core Curriculum.
- These discipline-specific bundles of courses will save students at least one semester of college work.
- Certificate programs will cost from **\$1,400 to \$2,400** depending on the number of credits included.

#### Build a Pathway to a Healthcare Career

- Course collections designed to strengthen the academic skills of students interested in pursuing a career in healthcare.
- Lackawanna representatives will begin providing Informational sessions about available healthcare programs in intermediate schools or ninth grade, depending on the partner district's wishes.
- Develop mentoring opportunities between Lackawanna's healthcare students and high school students curious about the industry.
- Offers students the ability to take prerequisite and foundation courses while still in high school, including biology, anatomy and physiology, medical terminology, and more.
- Guaranteed associate program admission to graduates of the pipeline program.

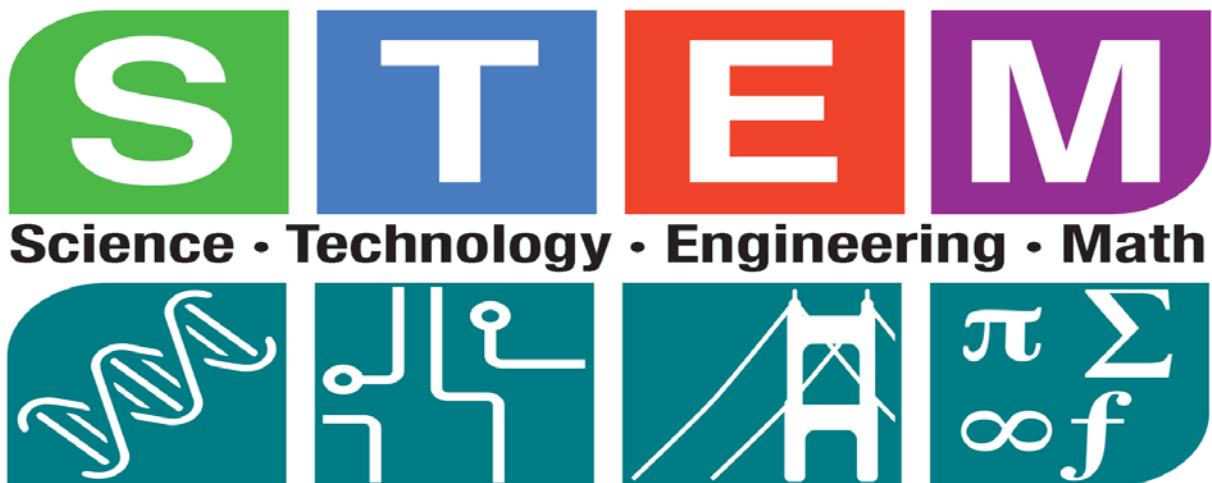
## NCAA COURSES

(National Collegiate Athletic Association)

The following is a list of all approved NCAA courses for the 2018-2019 school year. For more details about the NCAA Clearing House and for the most up-to-date information, please visit the following website: [www.ncaa.com](http://www.ncaa.com).

Academic English 1-4	Honors & AP Calculus
Honors English 1-4	Probabilities & Statistics
AP Literature & Composition	Trigonometry
AP Language & Composition	Science 9 & Honors Science 9
Speech & Debate	Academic & Honors Biology
Academic & Hon American Gov't	AP Biology
Psychology	Academic & Honors Chemistry
Sociology	AP Chemistry
Academic & Honors US History 1	Academic Physics
Academic & Honors US History 2	AP Physics 1
AP US History	AP Physics 2
AP World History	Astronomy
World War II	Human Anatomy & Physiology 1 & 2
Modern Algebra 1 & 2	Ecology
Honors Algebra 1 & 2	Zoology
Modern Geometry	Crime Scene Investigations
Honors Geometry	German 1 & 2
Pre-Calculus	Honors German 3 & 4
Calculus (pending)	Spanish 1 & 2
Honors Pre-Calculus	Honors Spanish 3 & 4

*\* All NCAA-approved courses are denoted throughout this Curriculum Guide with "NCAA."*



The acronym STEM stands for science, technology, engineering and math. STEM related courses encompass diverse content areas and are integrated to link learning opportunities through an interdisciplinary approach of discovery, exploration, and problem solving.

According to “Team Pennsylvania Foundation”, occupations in STEM related careers are some of the fastest growing and best paid. Current data implies that nearly 1 million jobs will need to be filled in PA alone, by the year 2024.

By having a strong STEM foundation through a well-rounded curriculum in high school, students can be ready to enter college, specialized job training or the current work force with the information will that allow them to make positive contributions in a STEM related industry. Any student interested in pursuing a STEM career, should enroll in the required math and science courses at the highest level at which they can be successful. Students should also make and schedule elective choices in the math and science fields.

Additionally, all TAHS CTE course work and programs (pages 37-50) are STEM related. Each program offers students a specific skill set, state articulated credit toward postsecondary education, and a career pathway.

*\*All STEM related courses are denoted throughout this Curriculum Guide with “STEM”*

## **SPECIAL EDUCATION SERVICES**

Special Education services will be provided to students with disabilities who need specially designed instruction in accordance with their Individual Education Programs. Multiple levels of educational services are available to students, depending on need. The Tunkhannock Area School District strives to provide a complete continuum of services designed to meet the educational needs of our identified students.

## **GIFTED SUPPORT**

A student who has qualified for Gifted Support education is given the opportunity to participate in an enrichment program. The program may allow individual goals to be reached through self-assessment, investigation, organization, and participation in team and/or individual activities.



## **COMMUNICATION WITH FAMILIES**

Effective communication between the school and our students and their families is a key component to academic success. With this in mind, TAHS employs multiple methods to communicate with students and their families about their students' progress.

The **Tunkhannock Area High School website**, which can be accessed at <https://www.tasd.net/> provides the most up to date and comprehensive information about your child's school. On the website you will find general information such as the school calendar and announcements. On the High School Counseling page you will find information about testing, contacting your student's counselor, and graduation requirements.

**PlusPortals** is designed to give parents and students up to date academic information via the internet. Each parent and student has his/her own PlusPortals account. Information is normally updated by individual classroom teachers at least once a week. **Please ensure that each account has a working email that accepts PlusPortals notifications.**

**Report Cards** are distributed to students in their homeroom at the conclusion of marking periods 1-3 and uploaded to Plus Portals. The final report card is sent by mail to the home address of record. Dates for the issuing of report cards are listed on the district school calendar.

**Progress Reports** are posted on PlusPortals at the mid-point of each marking period. Progress reports are mailed home only for students with grades of 75 or below in any class or by special parent request.

**Parent Conferences** are scheduled once in the fall semester and once in the spring semester. Faculty is available both during the day and the evening in order to accommodate varying parent work schedules. Conference hours are 12:00am – 4:00pm and 5:30pm – 8:00pm. The dates for conferences are listed on the school calendar.

**Individual Conferences** with administrators, teachers or other personnel can be requested throughout the school year by calling your student's assigned counselor.

## TUNKHANNOCK AREA HIGH SCHOOL

# CURRICULUM

The following is a course listing of the **Academic and CTE programs** offered by Tunkhannock Area High School. Students and parents should read the course descriptions carefully, paying close attention to student expectations, content and skills covered, prerequisites, credits, course length, and format. The terms and definitions below are provided for better understanding:

- Credit - Unit of measurement indicating course completion.
- Prerequisite – Course(s) required to have been completed prior to scheduling of a class.
- Grade Level – The intended grade of the students to be taught in the course.
- Block (B) - Term used to describe a class offered in an 88 minute time frame. This class is taught for one semester.
- Yearlong (Y) – Term used to describe a traditional class offered in a 42 minute time frame. This class meets all year.
- 1PS – Term used to describe courses taught for 42 minutes during one semester. Stands for “One Period Semester”.
- P - Term used to describe “peripheral class.” Meets for 42 minutes 22-23 days per semester.
- Full-Year Block (FYB) – Term used to describe a class offered in an 88 minute time frame taught for the entire school year.

Questions or concerns about the courses described in this guide should be directed to the high school administration or school counseling office.

## Core Programs

### English, Math, Science, and Social Studies

#### ENGLISH

The Tunkhannock Area High School English Language Arts program is designed to make students aware of the important role that language and literature play in their lives. With this goal in mind, the English Department has provided a program of studies that will meet the needs of all students. In order to meet the requirements for graduation, students at each grade level must select from the courses listed on the following pages. English courses are aligned with the Common Core State Standards and are delivered in a scope and sequence as to adequately prepare students for the Keystone Exams.

#### **HONORS ENGLISH 1**                      NCAA                      (Y)    (9)                      1 credit

Honors English 1 is a demanding college preparatory course. Students who are aggressive learners with a strong desire to be challenged to excel should consider taking this course. The course covers an intense examination of the elements of composition and the writing process, and an in-depth exploration of a broad range of literary works. Literature units will include an examination of the Folk Tradition, Greek and Roman Mythology, epic poetry and selected works by William Shakespeare. Representative novels and short stories from around the world will also be included in our study of literature. Students will perform critical reading of both literary and informational texts to build knowledge, enlarge experience, and broaden worldviews. Middle school teacher recommendation is strongly considered and should be the basis for admittance to this course.

**ACADEMIC ENGLISH 1**                      NCAA                                      (Y)      (9)                      1 credit  
Students who seek a challenging and comprehensive study of the various aspects of their native tongue should elect Academic English 1. This course will begin to prepare students to take the S.A.T.s in their junior and senior years and will more than satisfy future requirements for entrance into most colleges and business training courses. Emphasis in this course centers on a demanding vocabulary program, on the varied sentence and paragraphing techniques relative to improved writing and grammar, on the development of active reading skills and on the insightful analysis of internationally-known short stories, dramas and poems. Students will perform critical reading of both literary and informational texts to build knowledge, enlarge experience, and broaden worldviews.

**HONORS ENGLISH 2**                      NCAA                                      (Y)      (10)                      1 credit  
Honors English II is a college preparatory class devoted to an in-depth study of world literature. The genres incorporated in this study include novels, plays, short stories, poetry and essays representative of the cultural and ethnic diversity of our literary heritage. Vocabulary, grammar, discussion and composition – with emphasis on the literary analysis are integral parts of the curriculum. Some readings included in the course are *Things Fall Apart*, *The Tragedy of Macbeth*, and *A Doll's House*. Students will perform critical reading of both literary and informational texts to build knowledge, enlarge experience, and broaden worldviews. Students wishing to take this course must consult with their ninth grade English teacher for a recommendation.

**ACADEMIC ENGLISH 2**                      NCAA                                      (Y)      (10)                      1 credit  
This course is designed to meet the needs of students planning to attend college and is devoted to an in-depth study of world literature. Novels, plays, short stories, poetry, and essays expose students to literary and cultural diversity. Grammar, composition, discussion and vocabulary study round out the curriculum. Students will perform critical reading of both literary and informational texts to build knowledge, enlarge experience, and broaden worldviews.

**HONORS ENGLISH 3**                      NCAA                                      (Y)      (11)                      1 credit  
This very demanding honors level course is devoted to the intensive study of American literature, composition, vocabulary, and other areas in an effort to prepare students for SATs, PSSAs and college academics. Special attention is given to literary movements from Colonial times to the present. Students will perform critical reading of both literary and informational texts to build knowledge, enlarge experience, and broaden worldviews. Students are expected to produce at least one research project.

**ACADEMIC ENGLISH 3**                      NCAA                                      (Y)      (11)                      1 credit  
This course, which is designed to meet the needs of college-bound juniors, deals with the study of American literature beginning with the colonial era and progressing to contemporary times. Novels, plays, short stories, poetry, and informational texts expose students to literary and cultural diversity. Some readings included in this course are *The Scarlet Letter*, *The Great Gatsby* and *Walden*. Students will perform critical reading of both literary and informational texts to build knowledge, enlarge experience, and broaden worldviews. Students are expected to produce at least one research project.

**ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION**  
NCAA/DE (Y) (11 or 12) 1 credit

\*Prerequisite: Successful Completion of Honors English 2 or 3 and Strong Teacher Recommendation.

Advanced Placement English Composition and Literature is the ultimate challenge for students who have acquired the skills and habits of highly motivated independent learners. The course is designed to resemble an introductory college course in composition and careful reading and critical analysis of imaginative literature. It prepares the students to take the AP English Literature and Composition exam which is administered in the spring of their junior or senior year. Many colleges will award college credit to students who score well on this exam. Students in this course will engage in intensive study of literature, complete an independent research project, write creatively and analytically, and make numerous presentations before the class. Class discussion is a vital component of this course. Teacher recommendation is required for students wishing to accept the challenges offered by this course.

**ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION**  
NCAA/DE (Y) (11 or 12) 1 credit

\*Prerequisite: Successful Completion of Honors English 2 or 3 and Strong Teacher Recommendation.

Advanced Placement English Language and Literature is the ultimate challenge for students who have acquired the skills and habits of highly motivated independent learners. The course is designed to resemble an introductory college course in rhetorical analysis of nonfiction texts and the development and revision of well-reasoned, evidence-centered analytic and argumentative writing. It prepares the students to take the A.P. English Language and Composition exam which is administered in the spring of their junior or senior year. Many colleges will award college credit to students who score well on this exam. Students in this course will engage in intensive study of rhetorical prose, complete an independent research project, write argumentatively and analytically, and make numerous presentations before the class. Class discussion is a vital component of this course. Teacher recommendation is required for students wishing to accept the challenges offered by this course.

**HONORS ENGLISH 4** NCAA/DE (Y) (12) 1 credit

Honors English 4 is a very demanding honors level course designed to meet the needs of college bound seniors. Through independent reading, discussion, research and writing, students will cultivate their communication and critical thinking skills while developing their knowledge of literature through the close, attentive reading that is at the heart of understanding and enjoying complex works of literature. Students will perform critical reading of both literary and informational texts to build knowledge, enlarge experience, and broaden worldviews. Students should have an Honors English background or teacher recommendation for this course.

**ACADEMIC ENGLISH 4** NCAA (Y) (12) 1 credit

This course emphasizes development of advanced composition skills and critical reading skills through both literary and informational texts. This course is designed to provide students with both college and career readiness. Students will perform critical reading of both literary and informational texts to build knowledge, enlarge experience, and broaden worldviews. Students will demonstrate cogent reasoning and purposeful expression in language.

## ENGLISH ELECTIVES

### **CREATIVE WRITING**                      NCAA                      (1 PS) (11-12)                      .5 credit

Creative writing will improve each student's ability to communicate using the written word. It gives students the opportunity to communicate through a variety of methods and genres while exploring the writing process through journals, poetry, short stories, and plays. Additionally, students will read, interpret, and analyze a collection of nonfiction and fictional works by a variety of authors. Students will engage in the process of workshop, which includes pre-writing, multiple drafts, and peer editing. Students will orally present their own written pieces, both individually and in groups. Over the course of the school year, students will be able to identify and utilize their writing style with an original voice. Through a variety of reading, writing, speaking and listening activities, students will gain a deeper understanding of these diverse forms of writing through the processes of problem solving, analysis and critique.

*This course may **NOT** be used toward the English graduation requirement.*

### **MASS MEDIA JOURNALISM**                      (Y)                      (9-12)                      1 credit

Mass media journalism is a course designed as a comprehensive course in journalism for the 21<sup>st</sup> century. Students will examine local and national news outlets in print and broadcasting. Students will practice proper news writing style for both print and broadcast news. Students will also study and gain practical experience in ENG (electronic news gathering) video production by filming and editing produced news pieces as well as in print production using publishing software. Students will be responsible for the publishing of the school newspaper *The Prowler* as well as the daily television news announcements on *Tiger Talk*. *This course may **NOT** be used toward the English graduation requirement.*

### **SPEECH & DEBATE**                      NCAA/DE                      (Y)                      (11-12)                      1 credit

This demanding course is designed to enhance the oral communication skills, confidence, composure, and ease among people that are so needed in our society today. Communication levels and classroom debating skills will be augmented. Students taking this course will be required to do out of class reading and research in support of various speaking assignments.

*This course may **NOT** be used toward the English graduation requirement.*

### **YEARBOOK**                      (Y)                      (10-12)                      1 credit

This is a course featuring the design, layout and production of the school yearbook, *Awanatunk*. Students should expect to learn all phases of yearbook production: layout, section design, cover design, digital photography, copywriting, theme development, editing & publicity. Students will learn to use computers to produce the book & are expected to be responsible, self-motivated and prompt in meeting deadlines. It is intended for college-preparatory English students that are committed to working on a professional quality publication. A background in Journalism is suggested but not required. Yearbook students practice the fundamentals of journalistic writing, photojournalism, graphic design, and budget management. *This course may **NOT** be used toward the English graduation requirement.*

### **CONTEMPORARY POETRY**                      (1 PS) (10-12)                      .5 credit

Students will learn the power of poetic expression through a standards-based curriculum fusing classic literature/poetry with contemporary spoken word performance techniques and poems. The course will boost literacy, foster cultural understanding, increase empathy and listening skills, enhance public speaking abilities, and build a foundation of self-confidence. The class will produce a live event, as their final, where students will perform classic poems, individual

responses, and group pieces. Students will also publish a class anthology and individual chapbook.

**THEATRE ARTS 1** (1 PS) (9-12) .5 credit

This course is an introduction to the history, theories, and practice of live theatre as an art form.

**THE PSYCHOLOGY OF LITERATURE** (1 PS) (11-12) .5 credit

Since the dawn of literature, authors have included characters who have struggled with “melancholy” and “madness.” Modern writers have continued this tradition on the page, stage and screen. What is our obsession with mental illness? Humans have used it as works of satire, method of explaining brainwashing, a means of classifying criminals, and a source of entertainment. Using analysis and evaluative skills, students will examine poetry, plays, scripts, short stories, non-fiction, and more to examine this complex topic.

**INTRODUCTION TO FILM AND MEDIA STUDIES** (1 PS) (11-12) .5 credit

Introduction to Film and Media Studies Syllabus will explore the specificity and function of media forms, focusing on the language of cinema and the critical repertoire of film/media theories. As an art, a text, a technology, a commercial product, a psychological experience, and a social practice. This lecture/discussion/research-based course, is intended as a general introduction in Film and Media Studies, has two basic goals. First, it will develop skills in film analysis and fluency in the vocabulary of film form. Second, it will foster an understanding of the construction of a film while focusing on the images and technique as it pertains to being a story telling device.

## MATHEMATICS

*Math class placements may depend on year-end math grades and/or Keystone Exam results where applicable.*

**FUNDAMENTALS OF MATH** (Y) (9-10) 1 credit

Fundamentals of Math show the student how to use mathematical tools. It introduces new ways of looking at old problems to help them improve on their fundamental skills. The goal of this course is to prepare students for Algebra 1. This course is available by teacher recommendation only.

**MODERN ALGEBRA 1** NCAA (Y/B) (9-12) 2 credits (1 math/1 elective)

Modern Algebra 1 is the first course in our sequential academic mathematics program. It deals with algebraic fundamentals and emphasizes the equation as a means to the solution of problems. Algebra is a very important math prerequisite to many careers and it is recommended that successful completion of this course sequence be attained by all students planning to continue in a field involving mathematics. Successful completion of this program requires a firm understanding of the concepts presented in Modern Algebra 1. Our experience has shown that this understanding is exhibited by a final average of C or higher in this course. The Algebra 1 Keystone Exam will be administered near the end of this course.

**MODERN GEOMETRY**                      NCAA                                      (Y)    (9-12)                      1 credit

\*Prerequisite: Modern Algebra 1

Modern Geometry is the second course in our sequential academic mathematics program. The traditional approach to Modern Geometry involves formal proof, constructions, deductive and inductive reasoning. The student learns to work with various two-dimensional and three-dimensional figures and solve problems relating to those figures. All topics necessary for success in standardized tests will be included. Successful completion of this program requires a firm understanding of the concepts presented in Modern Geometry. Our experience has shown that this understanding is exhibited by a final average of C or higher in this course.

**HONORS GEOMETRY**                      NCAA/STEM                                      (Y)    (9-10)                      1 credit

This course parallels the Modern Geometry program, exploring concepts more thoroughly and augmenting curriculum using extended applications.

**MODERN ALGEBRA 2**                      NCAA                                      (Y)    (10-12)                      1 credit

\*Prerequisite: Modern Algebra 1 and Modern Geometry

Modern Algebra 2 is the third course in our sequential academic mathematics program. The course includes graphing quadratic, polynomial, exponential, logarithmic, and rational functions; solving quadratic, polynomial, exponential, logarithmic, and rational equations; sequences and series; and, applications of each topic to real-world problems. Modern Algebra 2 is an important prerequisite for Pre-Calculus, as it lays the algebraic foundation for the PreCalculus curriculum. Successful completion of this program requires a firm understanding of the concepts presented in Modern Algebra 2. Our experience has shown that this understanding is exhibited by a final average of C or higher in this course.

**HONORS ALGEBRA 2**                      NCAA/STEM/DE                                      (Y)    (10-11)                      1 credit

Honors Algebra 2 topics include an in-depth study of quadratic, polynomial, exponential, logarithmic, and rational functions and equations. In-depth chapter projects allow students to apply algebraic skills learned in class to real-world situations.

**MATHEMATICAL APPLICATIONS**                                                                                      (Y)    (12)                      1 credit

\*Prerequisite: Algebra 1

This course is designed to reinforce basic algebra and geometry concepts and their applications in mathematics and the real world. In addition, this class will also target consumer related math skills, topics of trigonometry, and elementary statistics.

**PRECALCULUS**                                      NCAA                                      (Y)    (11-12)                      1 credit

\*Prerequisite: Algebra 1, Geometry, Algebra 2

PreCalculus follows after our sequential academic mathematics program. College algebra, analytic geometry, and trigonometry are integrated with other pre-calculus topics such as matrices and determinants to prepare the student for college mathematics courses. This course is intended for the student who has successfully completed Algebra 1, Geometry, and Algebra 2. Our experience shows this success is exhibited by a score of C or higher in each of the three prerequisite courses.

**HONORS PRECALCULUS**                      NCAA/STEM/DE                      (Y)    (11-12)                      1 credit  
The course includes pre-calculus mathematic topics such as polar coordinates, complex numbers, variables, trigonometry, probability, limit theory, and basic concepts of calculus. Course will be taught at a fast, self-directed pace.

**CALCULUS**                                      NCAA/STEM/DE (Pending)                      (Y)    (12)                      1 credit  
This class is a review of the theory covered in pre-calculus along with the study of the basic topics of derivatives and integrals.

**HONORS CALCULUS**                                      NCAA/STEM/DE    (Y)                      (12)                      1 credit  
This course parallels the Calculus Course, exploring concepts more thoroughly and augmenting curriculum using extended applications.

**ADVANCED PLACEMENT CALCULUS (AB)**    NCAA/STEM/DE                      (Y)    (12)    1 credit  
This course is an introduction to college level calculus. An intuitive approach is used to introduce the basic concepts, while the theoretical aspect is presented but not emphasized. Taking the Calculus AB Advanced Placement Test is not mandatory, although topics tested will be covered. A recommendation from the math department is needed to take this course.

**PROBABILITIES AND STATISTICS**    NCAA/DE                      (Y)    (11-12)                      1 credit  
\*Prerequisite: Algebra 2 or permission of instructor  
This course consists of the basic concepts of probability, decision making, and probability distributions. Topics include estimates, sample sizes, testing hypotheses, correlation, regression, chi-square distributions, and inferences from two samples.

**TRIGONOMETRY**                                      NCAA                      (Y)    (11-12)                      1 credit  
Prerequisite: Algebra 2  
This course helps students develop a solid understanding of trigonometric functions and the applications of these concepts to real world situations. It is for the academic or honors students who has successfully completed Algebra 2 and who will not be majoring in a math intensive field in college. This can also be taken as a math elective.

## **SCIENCE**

The science curriculum at TAHS is designed to teach students essential scientific knowledge and skills, while providing opportunities for students to advance their experience in the sciences to higher levels. The Pennsylvania Science and Technology Standards form a content basis for the curriculum, while emphasis on developing more inquiry based learning is a strategic goal of the department. Students are exposed to hands on laboratory experiences in order to continually reinforce the scientific method in all scientific study.

**SCIENCE 9**                                      NCAA                      (B)    (9)                      1 credit  
Students will split the course time studying dynamic systems on/ in the Earth and the other half studying principles of ecology relevant to the Keystone Biology Exam. Dynamic system topics covered include, but are not limited to: astronomy, geologic time through fossil evidence and evolution, dynamic movements of the Earth's layers, atmosphere and water. Ecology related topics include, but are not limited to: chemistry of life, biomes, ecosystems, evolution, diversity / interactions of species, and populations.





**CHEMISTRY**                              NCAA                              (B)      (11-12)                              1 credit

\*Prerequisite: Successful completion of Algebra 1.

Chemistry is the study of matter and its changes. This course uses a hands-on approach to learn about the classification of matter, measurement, atomic structure, the periodic table, chemical bonding, formulas, and equations. An emphasis is placed on how chemistry relates to everyday life. Laboratory experiments are an essential component of this course.

**HONORS CHEMISTRY**                              NCAA/STEM/DE                              (B)      (10-12)                              1 credit

\*Prerequisite: Successful completion of Algebra 1

Honors Chemistry is designed for high academic students. Well planned experiments provide some of the basic data from which the student is expected to reason inductively so as to arrive at some of the basic concepts. Organizing data and perfecting the technique of abstract reasoning is stressed. Topics include: measurement, atomic structure, chemical reactions, the periodic table, chemical bonds, stoichiometry, molecular geometry, gas laws, and solutions. This class uses a college level textbook. Laboratory experiments are a key component of the course. Tenth grade students, who have successfully completed Algebra 1, may take this class in addition to the required biology class.

**INTRO TO ORGANIC CHEMISTRY**                                                                              (1 PS) (11-12)                              .5 credit

\*Prerequisite: Successful completion of Aca or Hon Chemistry with at least a 78 average.

This course is designed to provide an introduction into organic chemistry nomenclature and reactions for students interested in pursuing a career in the medical field or another science related field. Upon successful completion of this class, students will understand the relationship between structure and function of molecules, the major classes of reactions, synthesis of organic compounds, and how to determine structure via various spectroscopic techniques. Several themes are prevalent in each unit of study: nomenclature, chemical and physical properties, structures, mechanisms, common molecules, and the diversity of organic molecules in plants, bacteria and animals.

**ADVANCED PLACEMENT CHEMISTRY**      NCAA/STEM/DE (B)      (11-12)                              1 credit

\*Prerequisite: Successful completion of Honors Chemistry and Algebra 2

The Advanced Placement Chemistry course is a continuation of Honors Chemistry and is the equivalent of a first year college chemistry course. AP chemistry uses the same college level text as the Honors Chemistry class. This course is recommended for students intending to enter the science, engineering, or premedical fields. The course focuses on six big ideas: the chemical elements are fundamental building blocks of matter, properties of materials can be explained by the structure and the arrangement of atoms, changes in matter involve the rearrangement of atoms or transfer of electrons, rates of reactions are determined by molecular collisions, laws of thermodynamics describe the role of energy needed for changes in matter, and any bond that can be formed can be broken. The laboratory is a key component of the course and focuses on analyzing the results of the experiment. Students who complete this course have the chemistry background required to take the AP Chemistry exam in May.

**INTRO TO ASTROPHYSICS**                                                                              (1PS) (10-12)                              .5 credit

\*Prerequisite: Successful completion of Algebra and Geometry

This course will explore nuclear fusion in stars, the Photoelectric Effect, spectral analysis of stars, Einstein's Special and General Relativity along with the relativistic Doppler Effect in this Astronomy course that blends math with hands-on science.

**PHYSICS**                      NCAA/STEM                      (Y)    (10-12)                      1 credit

\*Prerequisite: Successful completion of Algebra 1, Geometry and are concurrently taking Algebra 2

This course will deal with the various major subdivisions of physics. The various concepts will be covered using a more analytical and less strenuous mathematical approach. The course is designed for non-science career students, who have an honest desire to learn Physics. Topics covered include: methods of science and measurement; force, motion, and energy; wave theory, sound, light, optics, and electricity.

**ADVANCED PLACEMENT PHYSICS 1**    NCAA/STEM/DE    (Y)    (10-12)                      1 credit

\*Prerequisite: Students should have completed geometry and be concurrently taking Algebra 2

Although the Physics 1 course includes basic use of trigonometric functions, this understanding can be gained either in the concurrent math course or in the AP Physics 1 course itself. No prior course work in physics is necessary.

AP Physics 1: Algebra-based is the equivalent of the first semester of an introductory, algebra-based college course. Because this course is intended to be yearlong course, your teacher will have time to foster deeper conceptual understanding through student-centered, inquiry-based instruction. Students have time to master foundational physics principles while engaging in science practices to earn credit or placement.

AP Physics 1 explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills.

**Laboratory Requirement:**

This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices.

**ADVANCED PLACEMENT PHYSICS 2**    NCAA/STEM/DE    (Y)    (11-12)                      1 credit

\*Prerequisite: Students should have had AP Physics 1 or a comparable introductory course.

Students should have taken or be concurrently taking pre-calculus or an equivalent course.

AP Physics 2: Algebra-based is the equivalent of the second semester of an introductory, algebra-based college course. Because this course is intended to be yearlong course, your teacher will have time to foster deeper conceptual understanding through student-centered, inquiry-based instruction. Students have time to master foundational physics principles while engaging in science practices to earn credit or placement.

AP Physics 2 is an algebra-based, introductory college-level physics course that explores topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills.

**Laboratory Requirement:**

This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices.

## **THE SOLAR SYSTEM**

**(1PS) (10-12) .5 credit**

This course is intended for students who wish to have working knowledge and understanding of the sun, the eight planets, numerous dwarf planets, moons and comets.

## **ASTRONOMY**

NCAA/STEM

**(B) (10-12) 1 credit**

\*Prerequisite: Earth Science, Algebra 1 and Geometry

Astronomy is the oldest of the sciences and this course begins by developing a perspective of the size and scale of our universe. Next, basic science concepts are reviewed, which are then applied in the study and understanding our solar system. The second half of the course involves studying the mysteries of space and time and uncovering a surprising relationship between humans and the stars. Throughout the course, students will be required to study the nighttime sky and learn the visible constellations.

## **HUMAN ANATOMY AND PHYSIOLOGY 1** NCAA/STEM **(B) (11-12) 1 credit**

\*Prerequisite: Successful completion of Honors Biology or a “C” or better in Academic Biology.

This course is an in-depth study of the structure and function of the human body. A variety of lectures, activities, investigations, inquiry based activities, and AV materials will be used to explore these topics: Introduction to Human A&P, Homeostasis, Metabolism, and Integumentary, Skeletal, Muscular and Nervous Systems. This course is designed for those interested in pursuing health care fields. Subject matter and vocabulary are highly scientific in nature.

## **HUMAN ANATOMY & PHYSIOLOGY 2** NCAA/STEM/DE **(B) (11-12) 1 credit**

\*Prerequisite: Successful completion of Human Anatomy and Physiology 1

This course is designed for students who have a serious interest in medical fields and have successfully completed the Human Anatomy & Physiology 1 course. It is a continuation of Human A&P 1 in that focus is on systems not previously covered. Emphasis will be on the physiological and biochemical components of systems with the main focus on maintenance of homeostasis within and among these systems. Methodologies used include current medical and technical news, discoveries and advances, and inquiry based learning in addition to lecture & discussion.

## **ECOLOGY- THE FUNDAMENTALS OF ECOSYSTEMS** NCAA **(B) (11-12) 1 credit**

This ecology class will acquaint the student with the local and global environment. Students will explore the ecosystems of estuaries, seashores, mangroves, coral reefs, freshwater systems, deserts, tundra, grasslands, forests, caves and suburbia. A variety of written activities, lectures, models, investigations, projects and research techniques will be used to explore these topics. Students will also explore water resources and the problems associated with them, air, the atmosphere, climate, land use, biodiversity, energy, population growth, urban planning, suburban sprawl, food resources and feeding the world into the future

## **ZOOLOGY**

NCAA

**(B) (11-12) 1 credit**

Students will explore the structure, physiology, development and classification of members of the animal kingdom. A variety of lectures, written activities, laboratory investigations and activities, dissections and AV materials will be used to explore these topics. Laboratory investigations will include utilization of microscopes and the study and observation of both live and preserved specimens. Material and vocabulary are scientific in nature. Students are required to complete two research projects. **Dissection is required.**

**CRIME SCENE INVESTIGATIONS**      NCAA/STEM      (B)      (9-12)      1 credit

This course is designed as a science elective (not a replacement for a required course) to reach broad interest areas in the sciences including: biology, physical science, earth science, and sociology. In addition, numerous activities also incorporate math, art, analytical skills, and writing skills. Duration of the course will be one semester of a block course. Topics being discussed include but are not limited to: Ballistics, fingerprint analysis, blood types/patterns, dental forensics and analyzing a crime scene. A portfolio style grading policy will be enforced. There will be extensive writing skills utilized due to reports similar to police or laboratory reports. A 3-4 week final exam project will be required.

## **SOCIAL STUDIES**

The Social Studies curriculum is based on the Pennsylvania Academic Standards for History and as such offers core classes in U.S. History, and American Government, with the History of Pennsylvania integrated throughout the program. Skills in chronological understanding, historical comprehension, research, critical thinking, and context are important concepts included in social studies instruction. Awareness of society and of responsible citizenship are themes stressed throughout the various disciplines within the department. Students who are interested in pursuing careers associated with the social science field should make every effort to take as many social science courses as their schedule permits.

**HONORS UNITED STATES HISTORY 1**      NCAA      (B)      (9)      1 credit

This course deals with the social, political, economic, and cultural aspects of United States History. Course content will stress the significant events, personalities, technology, and the forces of change and continuity that form the story of our country. Emphasis will be placed on a solid understanding of the chronological order of American historical events and contextual, analytical, and evaluative thinking skills. The course will utilize a conceptual approach to the study of American history in conjunction with the chronological presentation of material. High expectations are in place for reading (comprehension) written (and oral) expression. (Students are required to be actively engaged in all aspects of the course. Self motivation and independent learning are also essential components for students) United States History will cover the time period from U.S. Expansion and Imperialism to World War II.

**ACADEMIC UNITED STATES HISTORY 1**      NCAA      (B)      (9)      1 credit

The course will present a chronological, in depth study of United States history stressing the social, economic, cultural, and political implications of events and experiences that shaped our country's history. Students will utilize high order thinking skills in conjunction with the chronological study of events. Written expression and independent reading will be important features of the class. The course covers U.S. Expansion and Imperialism to World War II.

**HONORS UNITED STATES HISTORY 2**      NCAA      (B)      (10)      1 credit

This course deals with historical and contemporary issues of United States history. Course content will stress the significant events, personalities, technology, and the forces of change and continuity that shaped the second half of the 20<sup>th</sup> Century and influence contemporary society. Emphasis will be placed on a solid understanding of the chronological order of American historical events and contextual, analytical, and evaluative thinking skills. The course will utilize a conceptual approach to the study of American history and current events. High expectations are in place for reading (comprehension) written (and oral) expression. (Students are required to be actively engaged in all aspects of the course. Self motivation and independent learning are also essential components for students). United States history will cover the time period from the Cold War Era to present day events.

**ACADEMIC UNITED STATES HISTORY 2** NCAA (B) (10) 1 credit

The course will present a chronological, in depth study of United States history stressing the social, economic, cultural, and political implications of events and experiences that shaped our country's history and influence contemporary society. Students will utilize high order thinking skills in conjunction with the chronological study of events. Written expression and independent reading will be important features of the class. The course covers the Cold War Era to present day events

**HONORS AMERICAN GOVERNMENT** NCAA (B) (11) 1 credit

This course is a comprehensive study of the governmental and political systems of the United States and will cover the organization, operations, and philosophical basis for our system of governance. Emphasis will be placed upon how the government, established by the Constitution, embodies the purposes, values, and principles of American democracy. The intent of the course is to have students acquire an understanding of the rights and responsibilities that are essential for citizens and voters. A high degree of critical thinking skills, readings, written (and oral) expression and independent work will characterize the course. (Self-motivation and active engagement are required for students.)

**ACADEMIC AMERICAN GOVERNMENT** NCAA (B) (11) 1 credit

The course will study the organization, operations, and philosophical basis for our system of government. The principles, purpose, and values of the U.S. government system will be studied within the context of the Constitution. Students will be expected to utilize higher order thinking skills as they study the content of the course (and prepare for the rights and responsibilities as citizens and voters.) Language arts skills in reading and writing will be an important part of the class.

**ADVANCED PLACEMENT U.S. HISTORY** NCAA/DE (Y) (11-12) 1 credit

The advanced placement program in United States history is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and resources in U.S. history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those of full year introductory college courses. Students will learn to analyze and assess historical materials, apply relevance to a given interpretive problem, and measure their reliability and importance in context. Students will be expected to evaluate evidence and interpretations presented in historical scholarship. The course will stress the skills necessary to arrive at conclusions on the basis of an informed judgment and to present ideas clearly and persuasively in written format. The course complies with the standards established by the College Board.

**ADVANCED PLACEMENT WORLD HISTORY** NCAA/DE (Y) (10-12) 1 credit

The AP World History course offers highly motivated students the opportunity to immerse themselves into the study of World History by stressing high order thinking and language arts skills. The program of study stresses the integration of events, personalities, philosophies within the context of the social sciences. The course offers a balanced global study of world history with emphasis on Asia, Africa, the Americas, and Europe. Students will study and overview of the development of organized societies and civilizations and move to a more detailed study of the world from 1450 to the present. Discussions, essay writing, analyzing primary source documents and a heavy emphasis on reading will characterize the expectations of the course. The program prepares students for intermediate and advanced college courses by matching many of the expectations of a full credit introductory college courses. The content and expectation of the course comply with the standards established by the College Board.

**PSYCHOLOGY**                                                  NCAA/DE                                                  **(B) (11-12)                          1 credit**  
Psychology is the social science that deals with the study of human and non-human behavior. Human psychology is a far-ranging field for it covers all aspects of the ways human beings behave. The subject matter of psychology is you - how you think, feel, react, learn, remember, perceive and develop as a human being. The course will emphasize analysis, evaluation, and application in studying course content. High expectations for reading, interpretation of data, and written expression will characterize the course.

**SOCIOLOGY**                                                  NCAA/DE                                                  **(B) (11-12)                          1 credit**  
The course is a comprehensive approach to the studying of society, human behavior, and the reciprocal influence of both. Students are challenged to apply concepts learned in class to explore major social/cultural, economic, and political issues facing our culture and others both past and present. Emphasis will be placed on group discussion, intellectual debate, current event articles and reports, and written expression. Important intellectual skills in analysis, evaluation, and application will be utilized.

**WORLD WAR II**                                                  NCAA                                                  **(B) (11-12)                          1 credit**  
The study of World War II will give students the opportunity to explore themes of war propaganda, ideologies, fanaticism, military warfare and strategies, and major battles related to all theaters of war. There will be an emphasis placed on the study of the Holocaust. Classic, modern, and foreign WWII films and documentaries will be viewed to compliment specific units of studies. Assignments will include written responses to readings and special group projects. Whenever possible, guest speakers will be scheduled to share their war and/or military experiences.

**CONTEMPORARY ISSUES**                                                  **(1 PS)                          (9-12)                          .5 credit**  
This course deals with an analysis of the current social, economic, cultural and political trends and problems that affect the national and international settings. This is done through analytical research using traditional and contemporary mediums, including daily and weekly primary resources, as well as the internet.

**Additional Elective Offerings:**

**Art, Family Consumer Science, Foreign Language, and Music**

**ART**

The TASD Art Department, in alignment with PA Core Standards, helps the student to develop an awareness of and sensitivity to that which surrounds him/her. Through various art experiences, the student explores concepts, processes, materials and techniques of both past and present which helps him/her develop respect and appreciation for craftsmanship, expression and meaning in his/her own work and the work of others. The TASD art curriculum provides art exposure for all students, a broad background for students seeking personal enrichment and a strong foundation for serious student artists who plan to pursue some phase of the visual arts as a profession. Career opportunities in art include: graphic design, advertising design, web design, computer animation, photography, film, multimedia design, art education, university instruction/professorship, university art administration, museum curatorship, gallery ownership/management, independent studio/instruction, painting, sculpting, ceramic design, window/store display, fashion design, interior decoration, book illustration, greeting card design, etc.

**ART 1** (B) (9-12) 1 credit  
Art 1 is designed to introduce students to the major areas of two and three-dimensional design. These areas include elements and principles of composition and design, drawing, painting, sculpture, graphic design and art history.

**3-DIMENSION DESIGN** (B) (9-12) 1 credit  
This course has been designed to introduce students to the basic media and techniques needed for 3-dimensional design concepts. The projects include work “in the round” and relief. Ceramics, constructions, stabiles, found object and soft sculpture are presented. Creativity and problem solving skills are emphasized and developed.

**DRAW RIGHT/PAINT RIGHT** (B) (9-12) 1 credit  
Drawing is a skill that can be learned by any person with average hand coordination and average eyesight. This course is designed to teach students how to draw even if they possess no apparent drawing skills. It is for students with no previous art instruction or for students who have taken art but feel that they have not gained from the experience. The course is based on the theory that drawing can be learned if a person becomes aware of how to use the right hemisphere of the brain. Students explore the capabilities of both the right and left hemispheres as they are used for particular tasks. In doing so, they will develop the ability to use the right hemisphere of the brain for drawing, thus learn to draw realistically. Paint Right is a continuation of the entry-level course Draw Right. Color theory is added to the basic concepts of drawing covered in Draw Right. Introductory painting techniques will be the focus of the second marking period of this course.

**ART 2**  
\*Prerequisite: Art 1 (B) (10-12) 1 credit  
Art 2 is a continuation of the general art course, Art 1. Areas to be stressed are composition, design, drawing, painting and sculpture.

**COMMERCIAL and FREELANCE ARTIST** (B) (11-12) 1 credit  
\*Prerequisite: 2 years of high school art  
This course is designed to help those students who are more interested in the commercial side of art. Illustration, design, lettering, advertising and digital imagery are presented with a fine art approach. A variety of materials and techniques are stressed with emphasis on the student’s personal interpretation. This course allows the student to simulate the career of a freelance commercial and fine artist. The students also explore the business aspects of freelance work. School public relations projects such as posters, brochures, banners, bulletin boards and program covers are “real world” assignments covered in the course. Through the course students enter art competitions, i.e. Scholastic & Rossetti.

**ART 3** (B) (11-12) 1 credit  
\*Prerequisite: Art 1 & 2  
This course is designed to develop the student’s understanding of art history through studio work, audiovisuals, and selected readings. Emphasis will be placed on styles and innovations from prehistoric cave painting to contemporary art movements. The studio segment of the course includes drawing, painting, sculpture, and architectural models. Art 3 should be chosen by students with an interest in history and the visual arts. The course also provides an important foundation for any student who will pursue the visual arts in college.



**ADVANCED PLACEMENT STUDIO ART****(B) (12)****1 credit**

\*Prerequisite: Teacher recommendation.

AP Studio Art is an expanded study of numerous mediums and techniques in art. It is also an in depth look into a particular concentration of a medium, subject matter, or idea chosen independently by each student. The work schedule is very intense. Four to six hours per week out of class work is necessary to complete this course. Students should have at least 2 years of high school art before taking this course.

**FAMILY AND CONSUMER SCIENCE**

The mission of Family and Consumer Sciences is to empower students with the knowledge and skills to manage with reason and creativity the personal, family, and community challenges across the lifespan of living and working in a global society. The Family and Consumer Sciences (FCS) elective classes enable students to prepare for a world that is ever-changing. Students will be presented with excellent and varied opportunities for the preparation of everyday living and an introduction to many employment opportunities with or without further education. Exposure to FCS classes will continue to integrate academic standards with life-long skills and responsibilities.

**CULINARY ARTS 1****(B) (9-12)****1 credit**

This course offers students the opportunity to improve food preparation skills, practice critical decision making skills, explore nutrition choices, and apply basic science principles to food preparation. A wide range of cooking skills will be developed with the introduction to topics such as meat, poultry, breads, and so much more! Creativity will abound as the student learns skills to prepare appetizers, main courses, and desserts. Hands on activities through food prep demonstrations and labs are extremely practical as well as academic. Tests, projects, and daily assignments, as well as labs, are used for assessment purposes.

**CULINARY ARTS 2****(B) (10-12)****1 credit**

\*Prerequisite: Culinary Arts 1 with a grade of 85% or higher

Students will build on skills acquired and utilized in Foods 1. This course is designed for the student who has a passion for preparing and consuming food! Creativity abounds as you “travel the world” through the tactile composition of constructing multicultural dishes that will delight and challenge. Students will navigate through a variety of fusion and trending cuisine to create edible pieces of art! Only true foodies should accept the invitation to elect this course. Projects, tests, and kitchen lab assignments will allow the student to show their true talents.

**CHILD DEVELOPMENT 1****(B) (9-12)****1 credit**

Students will be introduced to the study of child development and appreciate its relevance in their lives. The class helps students understand the beginnings of human life and follows the changes that take place from conception through birth and first days of life through late adulthood. This course is the first in a sequence of two classes focusing on the development and care of children.

**CHILD DEVELOPMENT 2 – Playschool Lab****(B) (10-12)****1 credit**

\*Prerequisite: Child Development 1

This course is designed to help students apply the knowledge gained in Child Development 1 and enhance skills through direct interaction in the laboratory playschool. The students, under supervision of the teacher, operate the laboratory playschool. The students will develop practical techniques for guiding and teaching young children and their families. Students will prepare lesson plans complete with learning activities and instructional materials that are aligned with the



**SPANISH 1** NCAA (Y) (9-12) 1 credit  
The specific aim of the course is the development of listening, speaking and writing skills with gradually increasing emphasis on stressing correct pronunciation and intonation. Introduction of various cultural topics via video, DVD, maps, photographs and discussion will encourage formation of positive attitudes toward Hispanic culture and ways of life. Pennsylvania State Standards for World Languages will be employed throughout the course, as well as the standards set forth by the American Council on the Teaching of Foreign Languages (ACTFL).

**SPANISH 2** NCAA (Y) (10-12) 1 credit  
\*Prerequisite: Spanish 1  
Spanish 2 reinforces Spanish 1 and expands the art of communication by introducing key structure patterns. Vocabulary continues to be introduced in context, and practice is provided in reading and writing. The main objective of the course will be to provide a strong foundation in the grammatical concepts of the language, and to encourage students to pursue the study of Spanish. Pennsylvania State Standards for World Languages will be employed, as well as the standards set forth by the American Council on the Teaching of Foreign Languages (ACTFL).

**HONORS SPANISH 3** NCAA/DE (Y) (11-12) 1 credit  
\*Prerequisite: Spanish 2  
At this level of Spanish, class is conducted mostly in the target language. Students will master more complex verb forms and grammatical structures. The combination of these will improve listening comprehension and oral and written self-expression. Students will be offered a wider variety of sophisticated reading materials and will be introduced to analysis and criticism of Spanish literature. Conversational and writing skills are constantly reinforced and increased enabling communication in a variety of situations. ACTFL standards will be followed.

**HONORS SPANISH 4** NCAA/DE (Y) (12) 1 credit  
\*Prerequisite: Honors Spanish 3  
In this course, the students develop a strong command of the Spanish language with proficiency in integrating language skills and synthesizing written and aural materials, the formal writing process, extensive interpersonal and presentational speaking and writing practice, and aural comprehension skills through quality, authentic, and level-appropriate audio and video recordings. They are exposed to the world of literature and current events of Spanish-speaking countries through authentic written texts, including newspaper and magazine articles, literary texts, and other non-technical writings that develop their reading and comprehension abilities. Class is conducted completely in Spanish and includes frequent writing and integration of skills with a rigorous review of grammatical structures. Advanced organizational and analytical strategies are taught. An array of resources is used to facilitate the learning process.

**CONVERSATIONAL SPANISH AND CULTURE** (Y) (9-12) 1 credit  
This course is for students who wish to learn about the Spanish language and culture. Basic language expressions, pronunciation, the culture, and traditions of people with a Spanish origin are the main emphasis. Music, holidays, daily life, food, and places of interest are a few of the topics covered in this course. Individual student activities and audiovisual materials are the basis of the course.

## MUSIC

*All instrumental music classes denoted with \*\* are accompanied with a Marching Band participation pre-requisite. Specific details are listed under each course.*

### **CONCERT BAND (Y) (8-9) 1 credit**

Students electing this course must show sufficient proficiency on their chosen instrument to function in the concert band and the marching band that plays for football games and parades. This class will be developed and organized according to personnel that would encourage small ensemble performance, sectional preparation, and development of musicianship. Additional practices will be conducted after school as necessary. 8<sup>th</sup> Grade Jazz Band will meet on a rotating schedule.

### **WIND ENSEMBLE\*\* (Y) (10-12) 1 credit**

Students electing this course must show sufficient proficiency on their chosen instrument to function in the wind ensemble and the marching band that plays for football games and parades. This class will be developed and organized according to personnel that would encourage small ensemble performance, sectional preparation, and development of musicianship. Additional practices will be conducted after school as necessary. Wind Ensemble is a three year program broken up into three different levels that correspond to grade levels.

### **PERCUSSION ENSEMBLE\*\* (Y) (9-12) 1 credit**

This course will act as an extension of the Marching/Concert Band Program. This course will only be offered to students who are actively participating in the Marching/Concert Band Program. This course is designed to better meet the needs of our overall band program and the percussion students participating in that program. The course itself will consist of: drum-line work throughout the year or as needed, Concert Band, and independent ensemble work. Students will be required to participate in the Marching and concert bands, as per the structure of the other courses (i.e. Concert Band and Jazz Band.)

### **JAZZ ENSEMBLE 1 (Endless Jazz Band)\*\* (Y) (9-10) 1 credit**

Students electing this course must be recommended by the director based on their proficiency on their chosen instrument and their participation in previous jazz programs. Students will be recommended from the Marching Band organization. Jazz Ensemble 1 students must participate in ALL Marching/Concert Band activities. Instruments chosen to participate will be those common to the jazz idiom. They will meet on a daily basis and study this American art form. In addition, theory and composition will be utilized in this course. Concerts and tours will be set up accordingly. Additional practices may be set up after school to enhance the concert schedule.

### **JAZZ ENSEMBLE 2 (Tioga Jazz Ensemble)\*\* (Y) (10-12) 1 credit**

Students electing this course must be recommended by the director based on their proficiency on their chosen instrument. Students will be recommended from the Marching Band organization and must have completed at least one year in Jazz Ensemble 1. Although the Jazz Ensemble 2 will meet at a different time, these students must participate in ALL Marching/Concert Band activities. Instruments chosen to participate will be those common to the jazz idiom (saxophones, trumpets, trombones, and rhythm). They will meet on a daily basis and study this American art form. In addition, theory and composition will be utilized in this course. Concerts and tours will be set up accordingly. Additional practices may be set up after school to enhance the concert schedule.

**JAZZ ENSEMBLE 3 (Tiger Big Band)\*\* (Y) (9-12) 1 credit**

Students electing this course may be asked to complete an audition and must be recommended by the director based on their proficiency on their chosen instrument. Students will be recommended from the Marching Band organization. Although the Jazz Ensemble 3 will meet at a different time, these students must participate in ALL Marching/Concert Band activities. Instruments chosen to participate will be those common to the jazz idiom (saxophones, trumpets, trombones, and rhythm). They will meet on a daily basis and study this American art form. In addition, theory and composition will be utilized in this course. Concerts and tours will be set up accordingly. Additional practices may be set up after school to enhance the concert schedule.

**MUSIC THEORY AND COMPOSITION (Y) (9-12) 1 credit**

This is a basic course in music theory, history, writing, and analyzing music. This course involves a hands-on approach to music and exposure to its basic elements. All students will grasp an understanding of the structure of music, how music has evolved, and will be able to read and write music by the end of this course. The course will conclude with one major project as determined by the instructor. This course is open to all students who wish to enhance their knowledge of music.

**AP MUSIC THEORY (DE) (Y) (10-12) 1 credit**

\*Prerequisite: Successful Completion of “Music Theory” with a grade of 85% or higher and Strong Teacher Recommendation

AP Music Theory is an advanced level music theory course and serves to prepare students for life as a music major at the post-secondary level of their education. Students may also wish to take AP Music Theory for enrichment in music theory and as an opportunity to improve on their own musicianship. This course will also prepare students for the AP Music Theory Exam given in May. The class will focus on more complex elements of written and aural music theory – rules of composition, voice leading, chords (inversions, analyzation), transposition, sight-singing, ear training, dictations (rhythmic, harmonic, melodic), etc.

**STRING ENSEMBLE (Y) (9-12) 1 credit**

This class, which is available to students only with permission from the director, will provide the opportunity for students to continue in their study of a traditional string instrument. String instruments included in the class are limited to the following: violin, viola, cello, and string bass. Students will be classified as beginner, intermediate, or advanced. All students taking this course must provide their own instruments. Students wishing to study cello or string bass may use a school-owned instrument based on availability. If necessary, the rental of instruments may be arranged with the director. Opportunity for performances will be based on ensemble proficiency.

**ADVANCED VOCAL COMPREHENSION (Y) (9-12) 1 Credit**

\*Prerequisite: A student audition/director recommendation is required for course enrollment  
This course is designed to meet the needs of the advancing young vocalist. Comprehensive instruction and guided practice will be given in the development of sight-singing skills, where students will concentrate on the integration of intervals using solfege syllables. Additional instruction will include music theory and appropriate sound production, body mechanics, and breathing. The course will emphasize the study and performance of choral literature, spanning several centuries and genres of music. This course is designed for the student pursuing music/vocal training in the collegiate setting; however, a student need not intend to be a future music major to enroll in the course. Students will be expected to demonstrate an active

participation in the class, and will be evaluated periodically in individual or group performances on the musical literature being studied. Students will also be expected to perform for specific functions as a group, as well as with the Full Chorus. Additional Full Chorus practices may be conducted after school. The class will be limited to those students who express a sincere interest in vocal development & demonstrate above average vocal capabilities.

**WOMEN'S CHORUS** (Y) (9-12) 1 Credit

This class is intended for female choral students that possess an intermediate or advanced vocal ability. This ensemble will incorporate all the techniques, skills, and demands of an elite treble choir. Additional practices may be conducted after school specifically for this group. Students will be evaluated periodically in individual or group performances on the musical literature being studied. Sight-singing and music theory will also be covered in class. All students will sing with the Full Chorus. Additional Full Chorus practices may be conducted after school.

**CONCERT CHORUS** (Y) (10-12) 1 Credit

This is an elective course for students who demonstrate interest, vocal ability, and musical awareness. Scheduled performances during the school day and in the evening throughout the school year are part of the requirements of this course. Additional practices will be conducted after school or during activity period as necessary. Periodically, students may be evaluated individually or in small groups on the musical literature being studied or vocal concepts being learned. Sight-singing, solfege, vocal technique, and music theory concepts will also be covered in class. This course is available to all students in grades 10 through 12 who demonstrate an able vocal ability and can match pitch.

**MIXED CHORUS** (Y) (8-9) 1 Credit

This is an elective course for students who demonstrate interest, vocal ability, and musical awareness. Scheduled performances during the school day and in the evening throughout the school year are part of the requirements of this course. Additional practices will be conducted after school or during activity period as necessary. Solfege, vocal technique, and basic music theory concepts will also be covered in class. This course is available to all students in grades 8 and 9 who demonstrate an able vocal ability and can match pitch.

**PIANO LAB** (Y) (9-12) 1 Credit

\*Prerequisite: A director recommendation is required for course enrollment. In addition, special consideration will be given first to students in 11<sup>th</sup>/12<sup>th</sup> grade who are pursuing a career in music education.

This piano course will serve as an extension of the Music Program and will only be offered to students who are enrolled in a Choral or Instrumental Ensemble, or who have successfully completed at least one year of the TAHS Music Theory and Composition Class. Designed to better meet the needs of our overall music program, this course will focus on the development of skill proficiencies in music literacy, piano technique, and its application to music learning and performance. The course will consist of both individual and group work. Due to the limited availability of pianos/keyboards, confinements of space, and the demands of course content, class enrollment will be capped at 6 students. Prior piano experience is recommended, but not required.

## **Additional Requirements:** **Physical Education, Health and Peripherals**

### **PHYSICAL EDUCATION**

Physical education, health education, and family life are required courses for high school students. Additionally, health education will be taught in conjunction with the family living program. We strive in our physical education classes to develop lifelong skills and knowledge in maintaining physical fitness and social and emotional well being. Each student will receive one unit of credit toward graduation requirements when the physical education and health programs are completed. Additional, but required credit received for Health and Family Life may accumulate toward required elective credits.

#### **PHYSICAL EDUCATION (1 Quarter – 45 days) .25 credit**

The physical education program provides instruction and participation in individual, team and lifetime sports activities. An emphasis on lifelong fitness complements information on nutrition and overall good health. Students are expected to have appropriate clothing in accordance with PE faculty guidelines and to participate fully in all activities. Failure to dress and participate in PE class will adversely affect student grades and/or lead to class failure.

### **PERIPHERALS**

Peripherals are 22 to 23 day mini-courses that are designed to satisfy specific PDE requirements. They are taken in conjunction with Physical Education in the 9<sup>th</sup> and 10<sup>th</sup> grade years. They are graded on a P/F basis.

#### **CAREER EXPLORATION (P) (9) .25 credit**

This course provides all ninth grade students with an introduction to the career self assessment and exploration experience. Students will develop basic career awareness including job acquisition, retention, and advancement. The course includes presentations from the School-to-Career Coordinator, Transition Coordinator, school counselors, teachers, post-secondary institution representatives, PHEAA representatives, military representatives, and business partners. Students will learn about PA Child Labor Laws and how to complete a job application. Students will also complete a unit on Cyber Safety. Students will continue the process of building their Career Plan Portfolios using the “Career Cruising” program.

#### **CAREER PLANNING (P) (10) .25 credit**

This course provides all tenth grade students with continued career exploration experience. Students will continue to develop career awareness including job acquisition, retention, and advancement. Students will be encouraged to explore careers through job shadowing and career interviews. The students will begin to develop a Post Graduation plan to supplement their Individualized Career Plan. Students will complete a unit on Job Interview preparation, execution, and follow up. The course includes presentations from the School-to-Career Coordinator, Transition Coordinator, school counselors, teachers, post-secondary institution representatives, PHEAA representatives, military representatives, and business partners. Students will continue the process of building their Career Plan Portfolios using the “Career Cruising” program.

**FAMILY & CONSUMER SCIENCE (P) (9) .25 credit**

Family and Consumer Science class is designed for all 9th grade students. Child development, personal self-awareness and communication skills are discussed.

**DIGITAL MULTIMEDIA & COMMUNICATION (P) (9) .25 credit**

The focus of this peripheral is designed around providing students with introductory-level experience in and an overview of the many technical computer courses that are offered in the high school. Students will learn fundamental skills working in Windows such as folder navigation, file management, file transfer, and file sizes. Students will learn necessary computer skills using programs such as Microsoft Word, PowerPoint, Excel, etc. while utilizing those programs to design fun, creative, meaningful, and well-designed multimedia presentations and compositions. A brief component of this course will be in examining career opportunities in this broad field.

**HEALTH (P) (9) .25 credit**

Each student will be required to complete a planned course in health education. Drug and alcohol and AIDS education will be included in this course.

**FAMILY LIFE (P) (10) .25 credit**

All students in 10<sup>th</sup> grade will be required to successfully complete a planned course in family life education. The class provides information and experiences designed to reinforcement wholesome attitudes and favorable behavior patterns enabling them to function as responsible citizens in society today. Classes are designed to use techniques that will provide accurate information while also presenting students with an opportunity to discuss and share ideas with peers. The endocrine system, male and female reproduction, and HIV/AIDS education will be included in the course.

*\*The following classes may be mandatory for all students that have not yet scored proficient in Algebra 1, Biology, or both:*

**ART APPRECIATION (P) (10) .25 credit**

Art Appreciation is designed to provide an art experience for all freshmen. The course includes an introduction to basic drawing skills and elements of design, the application of such to at least one project and exposure to some of the world's greatest art.

**CONTEMPORARY ISSUES (P) (10) .25 credit**

This course deals with an analysis of the current social, economic, cultural and political trends and problems that affect the national and international settings.

**\*KEYSTONE ALGEGRA 1 SUPPORT (P) (10) .25 credit**

Keystone Math will be scheduled for any 10<sup>th</sup> grade student who requires mandated remediation prior to retesting on the Keystone Algebra 1 Exam. This course will revisit all of algebraic concepts needed to help students find success on this state assessment. Keystone Math will be scheduled in lieu of Library Orientation. **Some students may also be eligible to begin the Algebra 1 (Project Based Assessment) during this time.**

**\*KEYSTONE BIOLOGY REMEDIATION/PBA (P) (11) .25 credit**

Any student who has been unsuccessful in their attempts to score proficient on the Biology Keystone Exams will be scheduled for this class to fulfill this graduation requirement. The Project Based Assessment (PBA) may be part of this remediation



# **TUNKHANNOCK AREA HIGH SCHOOL: A COMPREHENSIVE (STEM) APPROACH**

Tunkhannock Area High School is one of very few comprehensive high schools in Pennsylvania. TAHS provides both a full academic program and a Career and Technology Education (CTE) program in the same building.

All of our CTE course offerings engage students in real-life projects that help students develop science, technology, engineering, and mathematics (STEM) skills that will serve them well in their future career or vocational endeavors.

**The CTE programs available at TAHS represent a number of high demand STEM-related fields. Each program area is aligned with both the Pennsylvania Academic Standards and the Career Education and Work Standards. Our CTE programs are separated into three categories:**

## **(1)Programs of Study (2) Occupational and (3) Supporting Programs**

The breakdown of CTE programs available to students is as follows:

### **CTE Curriculum: Program of Study**

- Administrative Assistant
- Automotive Technology
- Child Care and Support Services
- Computer Systems Networking
- Engineering Technology/Architecture

### **CTE: Supportive Programming**

- Accounting
- Ag Mechanics
- Drone (sUAS) piloting/careers
- Electronics
- Graphic Communications
- Machining and Metal Fabrication
- Wood Tech

### **CTE: Occupational Programs**

- School-to-Career

**Programs of Study** are rigorous academically programs approved by the state. The content of each program is aligned with academic standards and contains pertinent career and technical information. These programs are designed to lead to an industry-recognized credential or certificates at the postsecondary level, many times as an associate or baccalaureate degree.

**Occupational CTE programs** prepare students for careers immediately following high school or with some specific training of less than two years. Often these programs lead to apprenticeships and entry level positions in the trades and other highly skilled careers.

**Supportive Programming** combine college level coursework with technical classes to prepare students for specific, high demand technologies and industries. Most of these CTE students are expected to continue their education at a post-secondary school that offers continued training, industry certifications, and collegiate degree in specific career.

**State and national labor and industry data indicates a great demand for technical, specially trained professionals.** Students should see their school counselor or the Director of Career and Technology Education for more information on the opportunities available through the CTE programs of Tunkhannock Area High School.



**Mission of SOAR:** The mission of SOAR (Students Occupationally and Academically Ready) is to prepare students for college and careers in a diverse, high-performing workforce.

**Goal of SOAR:** SOAR is the career and technical Program of Study (POS) educational plan that articulates the secondary career and technical programs to postsecondary degree or diploma or certificate programs. SOAR programs lead students into a career pathway that align the secondary courses to a postsecondary program to complete a degree or certificate.

### **What is SOAR?**

SOAR is built on programs of study which incorporate secondary education and postsecondary education elements and include coherent and rigorous content aligned with challenging academic standards and relevant career and technical content. These career and technical programs of study includes a statewide articulation agreement partnership between secondary schools and postsecondary institutions.

### **SOAR Supports High Demand Careers**

SOAR programs prepare today's student for High Priority Occupations (HPO) which include career categories that are in high demand by employers, have higher skill needs, and are most likely to provide family sustaining wages.

### **Benefits of SOAR**

- Saving Money on College Tuition
- Saving Time by Shortening College Attendance
- Getting on the Right Career Pathway
- Entering the Job Market Ready
- Getting a Consistent Education

## SKILLS USA COMPETITION

This international vocational youth organization is available for students in any Career and Technology Education Program. Leadership and Technical Skills Competition take place on the district, state, and national level in over sixty categories. The motto of the organization is “Preparing for Leadership in the World of Work.”

## AGRICULTURE MECHANICS & BUILDING CONSTRUCTION

The Ag Mechanics Program is designed to support students who wish to enter a career or post-secondary study in the field of agricultural mechanics. Agricultural education consists of three key components; classroom instruction, hands-on training, and an affiliation with our local FFA. The program also allows students not majoring in agriculture, a chance to enroll in the elective semester courses for personal enrichment.

Introductions to Ag mechanics, welding technology, outdoor equipment & small gas engines, along with building construction, can all be explored in depth as desired by each student.

### **INTRODUCTION TO AGRICULTURAL MECHANICS (B) (9-11) 1 credit**

Introduction to Agricultural Mechanics will cover the basics of welding and use of metal working tools and equipment. This course will also include hands-on experience in the maintenance and repair of small gas engines. Students will gain experience with hand tools used in the repair of agriculture equipment. Students will also be required to complete the National Safe Tractor and Machinery Operation Program (NSTMOP). Upon successful completion of the NSTMOP, 14 and 15 year old students will legally be able to operate agricultural equipment and machinery. The course will also include a unit on the purpose, structure, and function of the FFA. Each student will have the opportunity to begin a supervised agricultural experience (SAE) project, which will be maintained throughout high school.

### **OUTDOOR POWER EQUIPMENT TECHNOLOGY (B) (10-12) 1 credit**

\*Prerequisite: Introduction to Agricultural Mechanics

Outdoor power equipment technology is a study of internal combustion engines and associated systems. It includes theory and the disassembly and repair of both two and four stroke engines. The course will cover both classroom theory and hands-on experience on small gas and/or small diesel engines. Students will be expected to perform maintenance and systematically troubleshoot any problems associated with outdoor power equipment including, but not limited to, lawn mowers, chainsaws, tractors, ATV's, snowmobiles, etc. Electrical controls and hydraulic systems incorporated on outdoor power equipment will also be introduced and explored.

Students will also learn basic job readiness and business skills. The students will learn how to obtain a job, succeed in the workplace, and work with people. They will also learn basic business, economic, marketing, sales, and customer service skills associated with operating a small business.

**WELDING TECHNOLOGY 1****(B) (10-12) 1 credit**

\*Prerequisite: Introduction to Agricultural Mechanics

Welding Technology will include both beginning and advanced students in the same class. The course will include classroom instruction in welding theory and practice as well as practical experience. Much of the time will be spent on assigned jobs designed to increase the student's skill level as he or she moves from one job to another. After students have completed the assigned jobs, they will be required to complete a welding project.

**WELDING TECHNOLOGY 2****(B) (10-12) 1 credit**

\*Prerequisite: Welding Technology 1 and teacher recommendation

Welding Technology 2 will focus on advanced SMAW, GMAW, and GTAW welding techniques. The students will follow a sequence of welds including, but not limited to, out of position stick welds, GMAW on both steel and aluminum, GTAW on both steel and aluminum, and SMAW and GTAW pipe welds. Upon completion of assigned jobs, they will be required to complete a welding project at their skill level. The students will also learn about welding blueprints, welding symbols, and advanced layout skills.

Students will also learn basic job readiness and business skills. The students will learn how to obtain a job, succeed in the workplace, and work with people. They will also learn basic business, economic, marketing, sales, and customer service skills associated with operating a small business.

**ANIMAL SCIENCE****(Y) (10-12) 1 credit**

Animal Science includes a study of genetics, feeding, housing and marketing of common domestic animals, as well as meat processing. Current advances in animal technology are also studied. This course may be used to fulfill the third science credit requirement.

**BUILDING CONSTRUCTION 1****(B) (10-12) 1 credit**

A fundamental course that will include basic introduction in the following areas: basic layout and measuring to evaluate and layout building sites and masonry tool identification and usage. Carpentry shall consist of estimating, layout, and construction of floors, walls, and rafters. Students will also learn necessary hand and power tool skills and safety.

**BUILDING CONSTRUCTION 2****(B) (10-12) 1 credit**

This course is a more in-depth study of the knowledge and skills acquired in Agricultural Construction I with the addition of electrical and plumbing. Electrical will consist of students practicing safe work habits while learning the fundamentals of residential wiring. Plumbing will include the fundamental understanding, installation and repair of residential plumbing systems.

## AUTOMOTIVE TECHNOLOGY

Automotive technology consists of classroom and practical experiences designed to be taught as a technical/vocational program providing basic knowledge and skill competencies from a number of closely related occupations associated with combustion engines. Automotive Technology is designed to prepare students for job entry or post secondary technical training. Eligible students may participate in the cooperative education program in their senior year of Automotive Technology. Qualified students may be eligible for the PA State Inspection Program and/or ASE certification. *Courses marked with a \*\* may be used as a computer science credit for the purpose of meeting graduation requirements.*

**All Automotive Technology students will be required to complete web-based instructional modules, called CDX. This program supplements instruction along with all hands-on training in class. Although time is allotted in class for this purpose, students may also access this program anywhere the internet is available.**

### **AUTOMOTIVE TECHNOLOGY 1 (B) (9-10) 1 credit**

This course is introductory but challenging and highly competitive. *Up to 80 students will take this course prior their junior year but only a selected group of students will be recommended for Auto Tech 2.* The areas covered in this course are: careers in the automotive industry, workplace skills, working safely in the shop, tools and equipment, basic math theories used in the shop, automotive systems and preventive maintenance.

### **AUTOMOTIVE TECHNOLOGY 2 (FYB) (11) 2 credits**

\*Prerequisite: Automotive Technology 1 and teacher recommendation

The areas covered in this course include brake systems, drum brakes, disc brakes, tires and wheels, suspension and steering, and front end alignment. Basic electrical systems and introduction to engine performance will also be covered.

### **AUTOMOTIVE TECHNOLOGY 3 (FYB) (12) 2 credits**

\* Prerequisite: Automotive Technology 2 and teacher recommendation

This course is a continuation of Auto Technology 2. The areas covered in this course are ignition systems. Ignition system diagnosis and service, fuels and other energy sources, fuel delivery systems, electronic fuel injection diagnosis and repair, intake and exhaust systems, emission control systems diagnosis and repair, on-board diagnostic systems diagnosis and repair, antilock brake systems alignment and PA State Inspection. Students who pass the State Inspection Test will receive a "PA Vehicle Safety Inspection License" when they become 18 years old.

### **AUTOMOTIVE ELECTRONICS (Y) (11) 1 credit**

\*Prerequisite: Automotive Technology 1 and teacher recommendation

This course covers general electrical system diagnosis including, digital volt-Ohm meter operation, Ohm's Law, batteries, starting systems, charging systems and lighting, as well as, miscellaneous accessories. Students will build simple circuits and learn diagnostic strategies using factory wire schematics. Student will learn to draw wiring schematics and design circuits using advanced Ohm's Law to determine systems requirements.

### **AUTOMOTIVE DIAGNOSTIC SYSTEMS (Y) (12) 1 credit**

\*Prerequisite: Automotive Electronics and teacher recommendation

This course is designed to enhance students' knowledge of the electrical and on-board diagnostic systems used in modern vehicles. Lighting systems, electrical instrumentation, electrical

accessories, restraint systems, air bags, as well as electricity as it relates to On-Board Diagnostics (OBD) 1 and 2 systems are covered in depth. Students are taught a direct approach to engine performance and emission analysis using scan tools, five gas analyzers, evaporation/emission (EVAP) testers, lab scopes, and digital multi-meters. The goal of this course is to train technicians to diagnose quickly and accurately.

## **BUSINESS TECHNOLOGY**

The Business Technology Department offers a variety of courses that suite many areas of interest. Students planning to take advantage of the tremendous demand for skilled workers in the business fields can take courses in this department that will provide valuable training for the future. Students planning to go to college to study business and industry can use business electives to become familiar with subject matter, while learning skills that will later be used in college such as word processing and spreadsheets. Business courses also allow students to gain practical life skills that assist in home, school, and personal management experiences.

### **INTRODUCTION TO BUSINESS & PERSONAL FINANCE (B) (9-12) 1 credit**

This course introduces students to the basic business concepts that will help them understand how a business survives in today's economy and the role consumers play in the same economy. Students will learn how to balance a checkbook, invest in savings and the stock market, use credit and credit cards, compute a paycheck, and buy insurance. Students will also learn how to create a resume and participate in a job interview. Extensive use of technology and Web 2.0 tools will be used throughout the course. A job shadowing experience may be offered in conjunction with our School-to-Work department.

### **ENTREPRENEURSHIP DE (Y) (11-12) 1 credit**

This course takes students step-by-step through the entire process of starting and owning a business. Students create their own "fantasy" business by selecting a product or service to sell, researching the industry, determining customer base and competition, marketing, financing, managing employees, interpreting financial records, and more. Along the way, students learn about the stock market, personal finances, advertising, spreadsheets, desktop publishing, and gain insight into their own entrepreneurial talents and creativity. Special presenters, speakers and field trips are offered to see first hand how real businesses operate.

### **ACCOUNTING 1 (B) (10-12) 1 credit**

This course gives students an introduction to accounting as a career and provides students with the tools to determine if a business is making a profit. Accounting will be especially useful if students plan to go to college to study a business-related field. The entire accounting cycle for a one-owner business and a merchandising partnership is included in the content of this course. Students learn computerized general ledger accounting as well as the traditional manual system, along with enhanced computer skills in Microsoft Word, Excel, and PowerPoint.

### **ACCOUNTING 2 DE (B) (11-12) 1 credit**

\*Prerequisite: Successful completion of Accounting 1

As a follow-up to Accounting 1, this course will offer instruction in partnership and corporate accounting. Accounting applications on the computer will dominate the course content as students develop a portfolio of results with computerized payrolls, integrated general-ledger systems, and spreadsheet applications typical of accounting practice. Students explore managerial accounting and use accounting information to enhance typical business decisions. This includes budgeting for a business, deciding whether to invest in new equipment, pricing a product/service based on costs,

handling inventory costs, and breakeven analysis. Presentations include business professionals and practitioners of accounting in real world environments. This course currently is part of the Dual Enrollment program, and upon successful completion of the course a student can earn up to four (4) college credits.

**ACCOUNTING 3** DE (B) (12) 1 credit

\*Prerequisite: Successful completion of Accounting 2

The course details the conceptual framework of accounting and generally accepted accounting principles (GAAP). Throughout the course students will utilize many accounting and business ratios and standards to aid in making business decisions. The course includes financial accounting, managerial accounting and financial statement analysis topics.

**MICROSOFT COMPUTER SKILLS 1** (B) (9-12) 1 credit

This course is designed to help students learn how to use the Microsoft Office software package. Students will engage in thorough exercises covering the following topics: Word, Excel, Access (database), PowerPoint, and several Integration Projects. After completing this course, students will be prepared to take the Microsoft Officer User Specialist (MOUS) exams. These examinations certify and validate your skills in the Microsoft programs.

**MICROSOFT COMPUTER SKILLS 2** DE (B) (10-12) 1 credit

\*Prerequisite: Microsoft Computer Skills 1

Students who have successfully completed Microsoft Computer Skills 1 (MCS 1) are eligible for this class. This course will build on the skills learned in MCS 1 and develop advanced concepts and techniques in the Microsoft Office Program. Students will work independently to complete detailed exercises using the Word, Excel, Access, and PowerPoint programs. After completing this course, students will be prepared to take the Microsoft Officer User Specialist (MOUS) exams. These examinations certify and validate skill levels in the Microsoft programs.

**BUSINESS LAW** (B) (11-12) 1 credit

This course emphasizes laws in the business and personal world. Students will be introduced to topics that have a direct impact on their daily lives. By using case studies, present day court cases, class discussions, and mock trials, students will explore areas such as – Sources of laws, ethics, criminal and civil laws, trials, contracts, consumer protection, identity theft, and insurance laws.

**BUSINESS INTERNSHIP** (Y) (11-12) 1 credit

The Business Internship serves the committed (408) student during their junior and/or senior year as a project based course developed to better prepare the student for the NOCTI assessment. The program related NOCTI assessment was developed based on a Pennsylvania statewide competency task list and contains a multiple-choice and performance components. This assessment is meant to measure technical skills at the occupational level and includes items which gauge factual and theoretical knowledge. Students will be scheduled as needed to demonstrate proficiency or above on this NOCTI Assessment.

## **CISCO Networking Academy: CCENT and CCNA Certification Program**

### **NETWORKING 1 (B) (10-12) 1 credit**

*First step toward a networking career*

\*Prerequisite: Algebra 1

Begin preparing for a networking career with this introduction to how networks operate. This includes learning the architecture, structure, and functions needed to support the operations and priorities of Fortune 500 companies to small innovative retailers. You will even get the chance to configure a network yourself, such as a simple LAN (Local Area Network). After completing this course, you will have a working knowledge of routing, switching, network applications and protocols. This is the first course in a 4-course series designed to prepare you for entry-level networking jobs.

The goal of this course is to introduce students to fundamental networking concepts and technologies. This course provides a hands-on introduction to networking and the Internet using tools and hardware commonly found in the home and small business environment. The course will assist you in developing the skills necessary to plan and implement small networks across a range of applications. Students will gain the skills needed to obtain entry-level home network installer jobs while also gaining preparation for some of the skills needed for network technician, computer technician, cable installer, and help desk technician jobs.

### **NETWORKING 2 (B) (10-12) 1 credit**

*Deep dive into routing & switching*

It's time to delve further into the world of networking. Be fascinated with the sheer magnitude and interconnectedness of networks all around you. Become a pro at configuring a router and a switch to enable the functionality of a network. Gain more knowledge on what it takes to work with LANs, WANs and other network designs. This is the second course in a 4-course series designed to prepare you for networking technician jobs, plus prepare you for the [Cisco CCENT Certification](#) or to continue on your path toward the [Cisco CCNA R&S Certification](#).

Students analyze, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. By the end of this course, students will be able to recognize and correct common routing issues and problems. Students complete a basic procedural lab, followed by basic configuration, implementation, and troubleshooting labs in each chapter. Packet Tracer activities reinforce new concepts, and allow students to model and analyze routing processes that may be difficult to visualize or understand.

### **NETWORKING 3 (B) (11-12) 1 credit**

*Set your sights on a networking career*

Large enterprises depend heavily on the smooth operation of their network infrastructure. This is why networking support professionals are becoming more and more vital to every organization. Those who are skilled can not only land a great job, they can set their sights on a rewarding career! So, time to get serious and advance your networking knowledge with the help of Cisco, the pioneer of routing and switching technologies. This is the third course in a 4-course series designed to prepare you for networking analyst and engineering jobs. [Cisco CCENT](#) or equivalent knowledge is recommended.

This course provides a comprehensive, theoretical, and practical approach to learning the technologies and protocols needed to design and implement a converged switched network. Students learn about the hierarchical network design model and how to select devices for each layer. The course explains how to configure a switch for basic functionality and how to implement



Virtual LANs, VTP, and Inter-VLAN routing in a converged network. The different implementations of Spanning Tree Protocol in a converged network are presented, and students develop the knowledge and skills necessary to implement a WLAN in a small-to-medium network.

#### **NETWORKING 4**

**(B)**

**(11-12)**

**1 credit**

*Ready yourself for certification*

Be ready to take your CCNA R&S certification upon completing this course and watch the doors open and job opportunities come your way. Why? Because the networking expertise that you will attain is coveted by network engineers and employers all over the world. Intimately understanding network infrastructure and protocols and how they work together will not only help you succeed today, but also help you stay current as technologies continue to evolve. This is the fourth course in a 4-course series designed to prepare you for the [Cisco CCNA R&S Certification](#) and networking administrator and engineering jobs.

This course discusses the WAN technologies and network services required by converged applications in enterprise networks. The course uses the Cisco Network Architecture to introduce integrated network services and explains how to select the appropriate devices and technologies to meet network requirements. Students learn how to implement and configure common data link protocols and how to apply WAN security concepts, principles of traffic, access control, and addressing services. Finally, students learn how to detect, troubleshoot, and correct common enterprise network implementation issues.

#### **INTRODUCTION TO CODING AND COMPUTER PROGRAMMING**

**(1PS) (9-12)**

**.5 credit**

*Introduction to Coding & Computer Programming*

This course is designed to introduce students to the principles of Computer Science. Students will learn standard computational algorithms for decision structures, iteration structures and basic searching techniques. Students will learn programming style, format, design, and debugging techniques. Students will create user interface projects as used in real world applications. Students will learn the structure and syntax of the BASIC and Visual Basic programming languages.

#### **UNMANNED AIRCRAFT SYSTEMS, (sUAS): FFA Part 107 LICENSE PREPARATION**

##### **DRONE PILOTING & AERIAL VIDEOGRAPHY 1**

**(B)**

**(10-12)**

**1 credit**

\*Prerequisite: Geometry

This course is designed to introduce students to the exciting, emerging, and unbounded world of the small Unmanned Aircraft System. The course will specifically focus on quadcopter uses and begin to prepare students for a potential career path in this unique field. The instructor will lead students in learning the vast information needed to pass the Federal Aviation Association's (FAA) required pilot exam called "Part 107" as well as getting some hands on experience flying quadcopters and simulating real-world experiences and usage of this innovative technology. Focus will be placed on aerial videography, photography, as well as an introduction to 3D imaging pertaining to surveying.

##### **DRONE PILOTING & AERIAL VIDEOGRAPHY 2**

**(B)**

**(11-12)**

**1 credit**

\*Prerequisite: Drone Piloting & Aerial Videography 1

This course will continue students on the track of implementing small Unmanned Aircraft Systems (sUAS) in various occupations. The section of Drone Piloting will focus more on quadcopter uses in Surveying and Civil Engineering simulating real-world applications. The instructor will lead students through the second half of the information needed to pass the Federal Aviation Association's (FAA) required pilot exam "Part 107". After completing this section of the course,

students over the age of 16 can then schedule a visit to a FAA authorized testing location to take the test. When passing this test they will obtain their sUAS Pilot certification.

## **GRAPHIC COMMUNICATIONS**

### **GRAPHIC COMMUNICATIONS 1 (B) (9-12) 1 credit**

Graphic Communications is an introduction to printing and will be divided into four areas: Silk Screen, Offset Printing, Desktop Publishing, and Traditional & Digital Photography. Students will be introduced to basic Adobe Suite skills. (Drawing skills are not necessary for Graphic Communications)

### **GRAPHIC COMMUNICATIONS 2 (B) (10-12) 1 credit**

\*Prerequisite: Graphic Communications 1 and teacher recommendation

This course concentrates on the features and advancing skills of Adobe CS5 software and will work on a variety of in-house assignments and projects. Students will also be exposed to photographic darkroom techniques used in the graphic reproduction process. Sublimation, digital photography and manipulation of digital images will also be explored.

### **GRAPHICS COMMUNICATIONS 3 (B) (11-12) 1 credit**

\*Prerequisite: Graphic Communications 2 and teacher recommendation

This course is a continuation of Graphic Communications 2 and is designed to meet the needs of the students who plan to pursue a career in the digital graphics or printing industry. Individual will choose an area of interest *and in depth study* that includes projects and a research paper.

### **COMPUTER ANIMATION 1 (B) (9-12) 1 credit**

This course is an introduction to the world of animation. Students will learn to use the software that industry uses (3D Studio) to produce many of the most popular animated features of today. All aspects of animation will be covered from storyboard layouts to final renderings. This course uses the Discreet Design Academy series software.

### **COMPUTER ANIMATION 2 (B) (10-12) 1 credit**

\*Prerequisite: Computer Animation 1 and teacher recommendation

This course is a more in-depth evaluation of 3D Animation. Students will advance their skills using the 3D Studio Max software. Students will still be responsible for all preproduction procedures as they undergo the process to produce a more thorough and detailed animation. Students will be asked to progress their skills by following more complex tutorials and researching the career areas of computer animation. This course uses the Autodesk Design Suite software.

### **DIGITAL MULTIMEDIA (Y) (9-12) 1 credit**

This computer course is designed to give students a comprehensive, introductory-level experience across many digital media types (graphic design, digital photography, animation, audio/video, digital marketing). Students will learn to develop and deliver effective designs, presentations, and compositions using fun, creative, digital multimedia software in this interdisciplinary program. The course will focus on exploring these different types of media outputs and to learn about the basic processes involved in solving real-world design problems. This course provides an important foundation for any student looking to continue taking technical computer courses in high school as well as considering this field as a possible career path.

## ENGINEERING TECHNOLOGY AND ARCHITECTURE

### INTRO TO ROBOTICS

(Y) (9-12) 1 credit

What is the first thing that comes to mind when you think of a robot? For many people it is a machine that imitates a human like the androids in Star Wars, Terminator and Star Trek. However as much as these robots capture our imagination, such robots still only inhabit science fiction. People still haven't been able to give a robot enough 'common sense' to reliably interact with a dynamic world. The type of robots that you will encounter most frequently are robots that do work that is too dangerous, boring, onerous, or just plain nasty. They can be found in auto, medical, manufacturing and space industries. Some robots like the Mars Rover Sojourner and the upcoming Mars Exploration Rover, or the underwater robot Caribou help us learn about places that are too dangerous for us to go. While other robots are just plain fun, popular toys such as Teckno, Polly or AIBO ERS-220 seem to hit the store shelves every year around Christmas time. Are you ready to build a robot? "Yes it is fun, but it's hard fun."

<http://www.galileo.org/robotics/intro.html>

### INTRO TO 3D PRINTING

(Y) (9-12) 1 credit

The next industrial revolution is all about personal fabrication, and it's happening now. 3D printing is poised to unlock the potential in every person to create, innovate and fabricate. It's already transforming manufacturing; soon it will change the world. 3D printing can be used to prototype, create replacement parts, and is even versatile enough to print prostheses and medical implants. It will have a growing impact on our world, as more and more people gain access to these amazing machines.

<http://www.stratasys.com/industries/education/educators/curriculum/introduction-to-3d-printing>

### ENGINEERING FUNDAMENTALS

(Y) (11-12) 1 credit

Engineering Fundamentals provides a complete introduction to the field. The course will help you learn about engineering and how it affects our everyday lives. You will learn how engineering is different from science and technology and how science, technology, and math are an integral part of engineering design.

<https://www.g-wonlinetextbooks.com/engineering-fundamentals-2014/3?ajax>

### REVERSE ENGINEERING

(Y) (11-12) 1 credit

Reverse engineering, sometimes referred to as "Mechanical Dissection" is an approach to teaching students about engineering concepts and design principles by having them explore the engineered products around them. This exploration involves having students work in small teams to disassemble and reassemble machines. This exploration leads to insight on materials, function, design alternatives, human factors and manufacturing.

<http://www-adl.stanford.edu/>

### ENGINEERING INTERNSHIP

(Y) (11-12) 1 credit

\*Prerequisite: Per Administrative approval

The Engineering Internship serves the committed (408) student during their junior and/or senior year as a project based course developed to better prepare the student for the NOCTI assessment. The Engineering Technologies/Technicians PA assessment was developed based on a Pennsylvania statewide competency task list and contains a multiple-choice and performance component. This assessment is meant to measure technical skills at the occupational level and includes items which gauge factual and theoretical knowledge. Students will be scheduled as needed to demonstrate proficiency or above on this NOCTI Assessment.

**ARCHITECTURE (Y) (9-12) 1 credit**

Discover the various phases of architectural drafting and design. This course will build the necessary technical skills to communicate architectural ideas in an understandable, efficient, and accurate manner. The introduction of CAD files and computer simulation of 3D model buildings will be presented. Virtual prototypes and 3D printed models will allow students to see how a building's structure would appear in physical space and landscapes. 3D printing may also be used to combine precise computer aided designs and the physical scale models.

Students may elect to take this course a second time to build on their knowledge of architectural modeling or to explore the history of various American architectural designs.

## **ELECTRONICS**

**ELECTRONICS (Y) (9-11) 1 credit**

\*Prerequisite: Successful completion of or concurrent enrollment in Algebra 1 or its equivalent. This course covers the basics of electronics. Emphasis will be placed on analyzing circuits and component identification and usage in DC and AC circuits. The use of test equipment and the introduction to residential wiring will be coupled with electrical safety throughout the course.

## **MACHINING AND METAL FABRICATION**

**INTRO TO METAL FABRICATION (B) (9-12) 1 credit**

This class introduces students to the basic knowledge and skills that are used in the machining and metal fabrication industry. Through classroom/laboratory activities, students will perform in the areas of metallurgy, machining, and metal fabrication. Students will learn and apply math and science principles that are used in this field. An emphasis is placed on safety and workmanship.

**MACHINING AND METAL FABRICATION (B) (10-12) 1 credit**

\*Prerequisite: Intro to Metal Fabrication or Instructor's pre approval; teacher recommendation  
Individuals will use metal working skills to design, machine and fabricate a high quality product. Through classroom/laboratory activities, students will apply the design process, manual machining, welding and metal fabrication skills. An emphasis is placed on problem solving, safety and development of professional skills.

**ADVANCED MACHINING AND METAL FABRICATION (B) (11-12) 1 credit**

\*Prerequisite: Machining and Metal Fabrication and CNC Machining or instructors pre approval.  
In this course individuals will use precision manual and CNC machining, and advanced metalworking skills. In groups students will organize a company structure to design, test and fabricate a product to solve technical problem. An emphasis is placed on group interaction and safe work habits.

**CNC MACHINING (Y) (11-12) 1 credit**

\*Suggested (not Required) Prerequisite: Intro to Metal Fabrication  
In this course students will learn to use Computer Numeric Control (CNC) for machining various materials. Students will use basic FANUC controls and advanced CAD and Cam software to design and write code to communicate with our numerous CNC machines.

## WOOD TECHNOLOGY

### WOOD TECHNOLOGY 1

(B) (9-12) 1 credit

This is an introduction to the basics of manufacturing with wood products. Through a project based curriculum students will learn procedures, materials, and machinery to enable the beginner to develop his or her woodworking skills. This is a prerequisite to Wood Technology II and cabinetry.

### WOOD TECHNOLOGY 2

(B) (10-12) 1 credit

\*Prerequisite: Wood Technology 1 and teacher recommendation

This course is a more in-depth study of woodworking tools, processes, and machinery including cabinetry skills and procedures through classroom/laboratory activities and projects. This class compliments the knowledge and skills acquired in Wood Technology 1 while challenging students to an increased difficulty level of wood working techniques and cabinetry.

## SCHOOL-TO-CAREER EDUCATION

### School-To-Career Opportunities

School-to-Career opportunities are available for ALL students. For the college bound student intending to invest large sums of time and money into a specialized field of learning, these programs offer practical experience to help ensure that investment is a wise one. For the student entering the exciting and rapidly changing fields of technology, these programs offer valuable hands on experience and a real head start for their careers. All work site placements are planned to enable students to obtain meaningful career related experience in an atmosphere conducive to learning. The major courses and educational experiences of the TAHS School-to-Career Program include: Cooperative Vocational Education, Internship Program, Job Shadowing, Skills USA, and Transitional Job Shadowing/Job Training with related transition services.

The Cooperative Education (Co-Op) Program is open to senior students (and juniors on a limited basis) who wish to participate in career related, paid, on-the-job training throughout their senior year. The student's job training is usually on a daily basis which would require an early release from the traditional academic schedule. Another job training schedule is called *Intensive Cooperative Education (ICE)* to allow a work schedule on a full day basis (usually Mondays). All Co-Op students must take related vocational classes.

### JOB TRAINING

(\*11-12)

0.5 credits/quarter

This course is the on-the-job training portion of the program. It is here that a student finally gets to put into practice the things that they have learned in the classroom. It is the opportunity for school and community to work together to bring students into the real world of work and provide them the necessary technical job skills. Students on Job Training are either **Capstone Co-Op Job Training, or Diversified Occupations Co-Op Job Training**. **Capstone Co-Op** is designed for students enrolled in an approved vocational-technical program. The job training enhances and puts into practical application their classroom training. Students may be from Agriculture, Building Trades, Business Education, Automotive Technology, or from the Tech-Prep areas (Communication Technology and Production Industries Technology). **Diversified Occupations** is offered to allow paid on-the-job training in areas where there is no in-school vocational programs, such as health care or culinary arts. **All co-op job training students must also be enrolled in the Cooperative Employment Skills class during their senior year. (\*11<sup>th</sup> grade on limited basis.)**

**COOPERATIVE EMPLOYMENT SKILLS (Y) (12) 1 credit**

This classroom course includes employment seeking and retention skills (job applications, interviews, employer-employee relations), career planning, social insurance services for workers (social security, unemployment compensation, workers compensation), income taxes, and safety. Enrollment is mandatory for all seniors participating in Co-Op Job Training.

**\*Eligibility for Job Training and Co-Op Employment Skills Credits\***

Students on approved **Co-op Job Training** are reminded that they must adhere to all cooperative education program regulations (attendance, academics, discipline) to maintain their participation in the program. Students on the Cooperative Education Program must have jobs that are **career related** in nature. Placements will be made with the career interest match up in mind. Any placements brought into the program must be approved on that basis by the School-to-Career Coordinator. All training sites must also provide “Legal Employment” (wages, child labor, workers compensation, tax deductions.)

**SCHOOL-TO-CAREER INTERNSHIP PROGRAM (11-12) .25 credit**

Internships will be made available to juniors and seniors on a limited, selective basis. Internships will consist of non-paid experience directly related to the student’s career objective. The internship is expected to last from 30-90 hours during a quarter or semester. School credit of .25 will be awarded upon the return of a completed “Internship Log” to the Cooperative Education Coordinator and successful completion of the program. Students must provide their own transportation and document that they have medical coverage because workers compensation is not provided since an employer-employee relationship does not exist. The student must have good academic standing and attendance to be considered. Grades will be on a pass/fail basis. They must be sponsored by a classroom teacher.

**JOB SHADOWING (9-12) non-credit**

This is a 1-3 day, non-paid job exploration experience to assist a student in determining or fine tuning their career path. Students **MUST BE SPONSORED** by classroom teacher of subject area related to the shadowing field. Students will be expected to report back to their class at the discretion of the classroom teacher. Students must document health insurance coverage since this is not an employer-employee relationship covered by workers compensation.

**\*TRANSITIONAL SERVICES FOR SPECIAL EDUCATION STUDENTS\***

Paid Job Training and Job Shadowing experiences are available to students within the Learning Support and Life Skills programs and are under the supervision of the Transition Coordinator. In the Job Training aspect, students are awarded 1 credit for each semester of approved job training and may be provided transportation assistance from school to their job site. This also includes pre-vocational skills taught in the program through the utilization of the Tiger House. Career testing, career pathways in conjunction with course work already in place, helps guide these students with special needs through their transition from school into the community. Along the way, a life long link is established with agencies, community based organizations and services. Such groups include: housing (HUD), CEO, OVR, MH/OS., Social Security, Public Assistance, Children Services, as well as educational centers. The total program attempts to eliminate “gaps” in this transition while staying connected to any service which may provide and form a link or a “transition” from the school age setting to a work, careers, or recreating setting.

## Susquehanna County Career & Technology Center

The Susquehanna County Career & Technology Center (SCCTC) is located in Dimock, PA on the same campus as the Elk Lake Schools. The SCCTC offers several career technical educational programs and students from TAHS are eligible to enroll in one of the following programs: Carpentry & Cabinetmaking, Electrical, Plumbing, & Heating, Cosmetology, Food Mgt./Prod./Services, Health Care Technology, Security & Protective Services, Welding, Vehicle Maintenance & Repair, and Autobody/Collision & Repair Technology. All SCCTC programs are three year Programs of Study (POS). For TAHS students enrolled in a Program of Study at the SCCTC, the students take only their core courses at TAHS. They spend half their day at the SCCTC and the academic half of the day at TAHS. Students must successfully complete ninth grade and be in good credit standing in order to enroll in a POS at the SCCTC. Application is made in the spring of the ninth grade year when scheduling for the upcoming school year.

The following descriptions have been provided by the Susquehanna County Career & Technology Center, (SCCTC). Any questions regarding enrollment at the SCCTC should be directed to the student's school counselor. Additional details and information can be found on their website: <http://scctc.elklakeschool.org/>

The **Accounting Program** is designed to provide technical administrative support to professional accountants and other financial management personnel. Students learn to use generally accepted accounting principles in manual and computerized formats to complete the steps of the accounting cycle for various forms of business ownership; verify and enter details of transactions from source documents into journals; post transactions to accounts; summarize details of separate ledgers by transferring data to general ledgers; balance records and compile various financial statements and reports; prepare withholding, social security, and other tax reports; compute, type, and mail monthly statements to customers; complete records through the prior balance; and operate calculators, computers, and spreadsheet and accounting application software. Students also receive instruction in business ethics, business law, economics, office procedures and public relations. Students are provided experiences and instruction needed to satisfy initial employment requirements for accounting, computing and data capturing occupations and/or prepare them to further their education in a business related field or the post-secondary/college environment

The **Administrative Assistant/Secretarial Science Program** is designed to prepare students to perform the duties of administrative assistants and/or secretaries and related occupations. Students compose, key, format and process documents (correspondence, reports, tabulations and forms); compile, proofread, edit and correct documents; operate dictation/transcription equipment and computers; use word processing, spreadsheet, database, desktop publishing, presentation and communication software; receive, distribute and sort incoming mail; prepare outgoing mail; perform basic mathematical functions; operate office equipment; perform records management duties; communicate with others in person, in writing and by telephone; and perform receptionist duties. Students also receive instruction in business ethics, principles of business law, office procedures, public relations and accounting. Students are provided experiences and instruction needed to satisfy initial employment requirements for administrative assistants and secretaries.

The **Autobody/Collision Repair Program** prepares individuals to apply technical knowledge and skills to repair damaged automotive vehicles such as automobiles and light trucks. Students learn to examine damaged vehicles and estimate cost of repairs; remove, repair and replace upholstery, accessories, electrical and hydraulic window and seat operating equipment and trim to gain access

to vehicle body and fenders; remove and replace glass; repair dented areas; replace excessively damaged fenders, panels and grills; straighten bent frames or unibody structures using hydraulic jacks and pulling devices; and file, grind and sand repaired surfaces using power tools and hand tools. Students refinish repaired surfaces by painting with primer and finish coat.

The **Automotive Technology Program** provides the student with practical instruction in the diagnosis, repair, and adjustment of all phases of the automobile. Instruction will also be given on the use of up-to-date equipment used in areas such as analyzing, fuel injection, ignition, electrical controls, ABS braking systems, computer engine controls, four-wheel alignment, and State Safety Inspection. Upon successful completion of this program, the student will be able to test for a State Inspection Mechanic license, and may seek entry level employment as an automotive technician, automobile salesperson, garage salesperson, service manager, parts salesperson, or service writer.

In the **Electrical, Plumbing & Heating Program** students will experience hands-on training as well as classroom theory in Basic Residential Wiring, Plumbing, and Heating. During the first year, the student will practice developing basic skills by installing common electrical circuits, fixtures, and equipment as well as basic carpentry skills. The second year will consist of practice in joining common piping systems, fixtures, and equipment. Advanced plumbing systems will be installed during the third year. The student will also practice basic skills needed to install, maintain, and troubleshoot residential oil fired hydronic systems and forced warm air systems. The student will also practice basic skills in the areas of stick arc welding, oxyacetylene cutting, welding, and brazing.

Students enrolled in the **Carpentry and Cabinetmaking Program** will study a number of related areas so that he/she will possess adequate entry level skills to work in the area of building construction. The carpentry unit, for example, gives actual experience in layout, cutting and fitting wood members, rafter cuts, roof or platform framing, and selection of general building materials. The students will also hone their skills completing carpentry projects and working at the on-site house construction project. Upon successful completion of this program, the student may seek employment as an apprentice cabinetmaker, materials salesperson, roofer, rough carpenter, sheetrock installer, framer, or siding installer.

The **Cosmetology Program** prepares individuals to apply technical knowledge and skills related to experiences in a variety of beauty treatments including the care and beautification of the hair, complexion and hands. Instruction includes training in giving shampoos, rinses and scalp treatments; hair styling, setting, cutting, dyeing, tinting and bleaching; permanent waving; facials; manicuring; and hand and arm massaging. Bacteriology, anatomy, hygiene, sanitation, salon management including record keeping and customer relations are also emphasized.

Beginning with the basics, students In **Food Management/Production/Services** will proceed to intermediate and advanced levels to develop a solid foundation in Culinary Arts. Through lecture and cooking demonstrations, the student will learn the techniques of fine cooking. Classes will cover the basics of cooking and baking and the provisions used to create effective and elegant menus for the most discriminating palate. With instructor supervision, the students will then hone these skills by operating their on-site restaurants, "A Touch of Class" and The Serfass Solarium. The restaurants offer the students the opportunity to culminate all laboratory experiences as they rotate through all positions in management, production, and services perfecting skills and techniques. Upon successful completion of this program, the student may seek employment as a baker, cashier, caterer, chef, host, hostess, line cook, restaurant manager, salad maker, short-



order cook, dining room service personnel, or any of the vast number of culinary positions. They may continue their restaurant management education in the hotel restaurant management or culinary arts fields.

The **Health/Medical Assisting Program** is a combination of subject matter and experiences designed to prepare individuals for entry-level employment in a minimum of three related health occupations under the supervision of a licensed health care professional. Instruction consists of core course content with clinical experiences in one or two health related occupations. The core curriculum consists of planned courses for introduction of health careers, basic anatomy and physiology, and medical terminology. Additional content includes: legal and ethical aspects of health care and communications and at least three planned courses for the knowledge and skills for the occupational area such as medical assisting, ward clerk, nursing assisting, pharmacy technician, EKG Technician, etc. Students may also continue their education in a post-secondary/college environment.

The **Security and Protective Services** program prepares individuals to apply technical knowledge and skills required to perform entry-level duties as a police officer, fire fighter, paramedic and other safety services. This program stresses the techniques, methods and procedures peculiar to the areas of criminal justice and fire protection especially in emergency and disaster situations. Physical development and self-confidence skills are emphasized due to the nature of the specific occupation(s). In addition to the application of mathematics, communication, science and physics, students receive training in social and psychological skills, map reading, vehicle and equipment operations, the judicial system, pre-hospital emergency medical care and appropriate emergency assessment, treatment and communication.

The **Vehicle Maintenance and Repair (Small Engines)** program prepares individuals to apply technical knowledge and skills to repair, service, maintain and diagnose problems on a variety of small internal-combustion gasoline engines and related systems used on portable power equipment such as lawn and garden equipment, chain saws, outboard motors, rototillers, snowmobiles, lawn mowers, motorcycles, personal watercraft and pumps and generators. This program includes instruction in the principles of the internal-combustion engine and all systems related to the powered unit. Instruction also includes the use of technical and service manuals, state inspection code, care and use of tools and test equipment, engine tune-up/maintenance, engine overhaul, troubleshooting and diagnostic techniques, drive lines and propulsion systems, electrical and electronic systems, suspension and steering systems and service operations and parts management.

The **Welding Program** prepares individuals to apply technical knowledge and skills in gas, arc, tig, shielded and non-shielded metal arc, brazing, flame cutting, plasma cutting and plastic welding. Hand and semi-automatic welding processes are also included in the instruction. Students learn safety practices, types of electrodes and welding rods; properties of metals, welding symbols, blueprint reading, use of equipment for the testing of welds by destructive and non-destructive methods, use of manuals and specification charts, use of hand and portable power tools, use of metal fabricating equipment, positioning and clamping, and welding standards established by the American Welding Society, American Society of Mechanical Engineers and the American Petroleum Institute. Students will receive OSHA safety training and have the opportunity to become AWS Certified Welders.

## Tunkhannock High School

### Career Pathways

Career Pathways is designed to help students learn about themselves and potential careers that may be of interest to them. Once a student narrows his or her field of interest, Career Pathways will help the student decide which of the five “Career Clusters” will best serve him or her in preparing for the future. The five clusters are:

- Arts and Communications
- Business, Finance, and Information Technology
- Engineering and Industrial Technology
- Human Services
- Science and Health

#### **The Career Pathways Goals:**

1. To provide the opportunity for all students to follow a rigorous coherent program of studies focused upon career pathways and designed to prepare them for post-secondary education and successful careers.
2. To set higher expectations for all students in pursuit of their career.
3. To increase the mathematics, science, communication, problem-solving and technical achievement and the application of learning for all students.
4. To increase access to intellectually challenging vocational and technical studies, with a major emphasis on using high-level mathematics, science, language arts and problem-solving skills in the context of modern society and life-long learning.
5. To increase access to academic studies, which teach the essential concepts, from the college preparatory curriculum through functional and applied strategies.
6. To guide students in completing a challenging program of study in their career pathway that is rich in math, science, and communications with content reflective of both theory and practice.
7. To use instructional processes designed to have all students actively engaged in learning.

## Arts and Communications Pathway

*Required Courses for Graduation:* Refer to graduation requirements for all students on page 2 of this guide.

Careers in this pathway are related to humanities and performing, visual, technical, literary, and media arts. These include architecture, graphics, interior and fashion design, creative writing, film, fine arts, journalism, radio/television production, languages, media, advertising, and public relations.

***If you are a creative thinker, imaginative, innovative, have effective communication skills and work well with people, this may be the career path for you!***

### Suggested Electives:

Art: Art 1, 3-Dimension Design, Draw Right/Paint Right, Art 2, Commercial and Freelance Artist, Art 3, Advanced Placement Studio Art, Foreign Language, Band, Chorus, Percussion Ensemble, Jazz Ensemble, Music Theory and Composition, AP Music Theory, Advanced Vocal Comprehension

Communications: Mass Media Journalism, Creative Writing, Speech & Debate, Yearbook, Foreign Language, Psychology, Sociology, Graphic Communications, Computer Animation, Intro to Business & Personal Finance, Microsoft Computer Skills, Contemporary Poetry, Theatre Arts 1, The Psychology of Literature, Introduction to Film and Media Studies, and Contemporary Issues.

## Arts and Communications Careers

- Actor
- Animator
- Artist
- Art Educator
- Art Director
- Audio Systems Technician
- Audio/Video Engineer
- Audio/Video Equipment Technicians
- Cartoonist
- Choreographer
- Computer Graphics Animator
- Dancer
- Director
- Film/Video Editor
- Fashion Designer
- Graphic Designer
- Hair Stylist
- Illustrator
- Museum Director
- Musician
- News Reporter
- Painter
- Photographer
- Producer
- Publisher
- Radio and Television Announcers
- Sculptor
- Sound Engineering Technician
- Video Systems Technician
- Webpage Designer

## Business, Finance and Information Technology

*Required Courses for Graduation:* Refer to graduation requirements for all students on page 2 of this guide.

Careers in this pathway are related to the business environment, including marketing, management, finance and computer/information systems. These include entrepreneur, sales, computer/information systems, finance and computer programming.

***If you like to plan, organize, be a leader, talk with people, find solutions, work with numbers, use basic computer software applications or work on computers, then this career pathway may be the right one for you!***

### Suggested Electives:

Business: Foreign Language, Intro to Business & Personal Finance, Entrepreneurship, Accounting, Microsoft Computer Skills, Business Law, Business Internship, Psychology, Speech & Debate, Yearbook

Information Technology: Foreign Language, Microsoft Computer Skills, Networking 1-4, Drone Piloting, Introduction to Coding and Computer Programming.

## Business, Finance, and Information Technology Careers

- Accountant
- Actuary
- Administrative Secretary
- Auditor
- Bank Teller
- Bookkeeping
- Budget Analysts
- Business Intelligence Analysts
- Cashier
- Compliance Officer
- Computer Forensic Investigator
- Computer Systems Analysts
- Customer Service Representative
- Entrepreneur
- Event Coordinator
- Financial Planner
- Food Service/Lodging Manager
- General Manager
- Hotel Manager
- Human Resources
- Insurance Agent
- IT Consultant
- Software Engineer
- Paralegal
- Public Relations Specialist
- Risk Management Specialist
- Salesperson
- Small Business Management
- Teller
- Training Supervisor
- Video Game Designers
- Web Developer

## Engineering and Industrial Technology

*Required Courses for Graduation:* Refer to graduation requirements for all students on page 2 of this guide.

Careers in this pathway are related to the technologies necessary to design, develop, install or maintain physical manufacturing systems. These can include engineering and related fields, architecture, mechanics and repairers, manufacturing technology, electronics and construction trades and related industries.

***If you enjoy working with your hands, building and fixing things, are interested in science, drafting, robotics, woodworking, math or like to use technology, then this career pathway might be right for you!***

### Suggested Electives:

Engineering: Microsoft Computer Skills, Intro to Robotics, Engineering Fundamentals, Reverse Engineering, Physics, and Architecture.

Industrial: Introduction to Agricultural Mechanics, Welding Technology, Automotive Technology 1, Architecture, Intro to Metal Fabrication, Wood Technology, Networking 1-4, Drone Piloting, Introduction to Coding and Computer Programming, and Building Construction 1-2.

### Engineering and Industrial Technology Careers

- Architect
- Architectural Engineer
- Assembler/Operator
- Automotive Mechanic
- Carpenter
- Civil Engineer
- Construction/Building Inspector
- Electrical Engineer
- Electrician
- Inspector/Tester
- Installation/Repair Assistant
- Machine Operator
- Mason
- Mechanical Engineers
- Plant Supervisor
- Plumber
- Production Engineer
- Programmer
- Service Attendant
- Sheet Metal Technician
- Software Engineer
- Surveyor
- Technician
- Welder

## Human Services

*Required Courses for Graduation:* Refer to graduation requirements for all students on page 2 of this guide.

Careers in this pathway are related to families, working with diverse groups of people serving the public. Individuals in these careers help people manage the many mental, emotional and practical demands of everyday life. Human services specializes in helping people. Career could include education, governmental functions, social work, hospitality, and human services.

***Are you able to be flexible and adapt quickly under stressful situations? If you enjoy interacting with other people and are interested in helping people solve their problems, this could be the career path for you!***

### Suggested Electives:

Human Services: Psychology, Sociology, Foreign Language, and Contemporary Issues

Education: Psychology, Sociology, Foreign Language, Child Development, Speech & Debate, and Contemporary Issues

Hospitality: Foreign Language, Speech & Debate, Accounting, Microsoft Computer Skills, Business Law, Entrepreneurship, Psychology, Sociology, and Contemporary Issues

## Human Services Careers

- Activities Director
- Assistant Manager
- Caseworker
- Childcare Workers
- Child Welfare Workers
- Community Aide
- Community Outreach Specialist
- Corrections Officer
- Counselor
- Education Specialist
- EMT
- Federal Park Police/Ranger
- Firefighter
- Fitness Trainer
- Guest Services
- Librarian
- Nutritionist
- Paramedic
- Pastor
- Pastry Chef
- Police Officer
- Preschool Director
- Preschool Teacher
- Principal
- Probation Officer
- Psychologist
- Security Guard
- School Counselor
- Social Worker
- Speech Therapist
- Teacher
- Teacher Aide
- Youth Worker

## Science and Health

*Required Courses for Graduation:* Refer to graduation requirements for all students on page 2 of this guide.

Careers in this pathway are related to physical and behavioral sciences. This can include therapeutic services, health and wellness, research, support services, therapy, nursing, physical science, and social science.

***If you are curious about healthcare, have an interest in physical and mental fitness, like science and math, have a desire to work in hospitals, clinics or health and wellness facilities and like to work with people, then this career path may be the right fit for you!***

### Suggested Electives:

Science: Biology, Chemistry, Physics, Human Anatomy and Physiology, Ecology, Zoology, Crime Scene Investigations, Foreign Language,

Health: Biology, Chemistry, Human Anatomy & Physiology, Foreign Language

## Science and Health Careers

- Anesthesiologist
- Athletic Trainer
- Biomedical Chemist
- Biomedical Engineer
- Chiropractor
- Dental Hygienists
- Dentist
- Diagnostic Medical Sonographer
- Dietitians
- Doctor
- Emergency Medical Technician
- Environmental Health and Safety Officer
- Group Health Administrator
- Health Care Executive
- Home Care Aide
- Lab Assistant
- Licensed Practical Nurse
- Massage Therapist
- Medical Biller
- Medical Technologist
- Microbiologist
- Nutritionist
- Occupational Therapist
- Occupational Therapy Assistant
- Pharmacist
- Phlebotomist Laboratory Assistant
- Physician Assistant
- Physical Therapist
- Physical Therapy Assistant
- Radiologist
- Registered Dietitian
- Registered Nurse
- Scientist
- Speech Language Pathologist
- Surgeon
- Veterinarian