



# Forest City Regional School District

**Every Child, Every Need, Every Day**

# High School Program of Studies

**2021-2022**

Revised March 2021

Forest City Regional High School 100  
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# 2020-2021 Forest City Regional High School Program of Studies

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The Forest City Regional School District vision, mission, and guiding beliefs are shared by the Board of Education, Faculty, Staff and Administration. Our educational programming is reflective of our guiding beliefs and supportive of our vision and mission.

### **Vision**

All Forest City Regional School District students will graduate prepared for post-secondary learning, career, and service.

### **Mission**

The Forest City Regional School District will challenge, empower, and inspire all students to GO BE GREAT! By:

- Setting high academic standards
- Fostering critical thinking skills
- Creating opportunities for collaboration, communication, and innovation
- Promoting self-directed learning and personal goal setting
- Engaging in opportunities to care for others

### **Guiding Beliefs**

#### **Every Child, Every Need, Every Day**

1. Every child can learn.
2. Every child is entitled to an education that is designed to support their individual academic, social-emotional and behavioral needs.
3. Learning happens in a safe, supportive and collaborative environment.
4. We are a community of lifelong learners comprised of students, parents, teachers, paraprofessionals, administrators and community members.
5. High expectations for ALL are an integral part of the learning process.
6. The effort of our teachers and students makes all the difference and is the most valuable asset in our school district.
7. Collaboration among students, families, teachers, administrators and community members is essential for continuous improvement.  
Our shared leadership approach will maximize the professional growth of our educational team by empowering individuals and giving them an opportunity to lead in their areas of expertise.

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# Course Scheduling Information

## Timeline

In March 2021, school counselors and administration will hold grade level assemblies explaining the course selection process, timeline, course offerings, the recommendation process and course prerequisites.

Following the assemblies, the school counselors will meet with smaller groups of students within each grade level to distribute course selection forms and review course information.

## Course Selection

Students should carefully select courses based upon their future plans and discussions with their parents, teachers, and school counselor. Selections must be submitted to the School Counseling Office by the due date. Course selection and scheduling will occur in the fourth quarter of the school year.

**Students who do not submit course selections in a timely fashion will have courses selected for them.**

## Elective Courses

A variety of elective courses are available for students to expand and explore interests while developing fundamental critical thinking skills. Students should review all elective course descriptions and speak with their school counselor and teachers about which electives could enhance their school experience. Seniors will receive preference in scheduling elective classes.

## Recommendation Process

During the third quarter, teachers will complete recommendation forms based on the following: students' academic performance in the classroom, students' work ethic (homework/assignment completion, class participation, ability to work collaboratively, and self-advocacy skills).

Recommendation forms are reviewed for eligibility by school counselors. The review process will include additional data such as previous and current state/local assessment performance.

If a student disagrees with the recommendation, the recommending teacher will meet with the student to review academic performance expectations for the fourth quarter. The recommending teacher may choose to maintain or change the recommendation based on student performance at the end of the fourth quarter.

## Override Process

At the end of the fourth quarter, if a student or parent is still in disagreement with the teacher recommendation, a student must pick up and complete an override form in the School Counseling Office. The completed override form should be submitted to the School Counseling Office for review by administration. The school counselor will schedule a meeting with the parent(s), student and Administration for final determination on placement.

### **Student Schedule Changes**

Students can request a schedule change on the designated summer day in August and/or until the end of the first 6-day cycle of the school year. Students will **not** be granted a schedule change after the end of the first 6-day cycle unless it was due to administrative error. The August dates will be shared prior to the close of the current school year.

### **Principal-Initiated Schedule Changes**

The principal may elect to change a schedule in extreme circumstances. The decision to change a schedule **after the deadline** will remain **solely with the principal**.

*Parental involvement and consent plays an important part in determining proper course placement.*

# Advanced Course Overview

## Dual Enrollment

Pennsylvania's Dual Enrollment Program allows the school district to partner with Keystone College, Lackawanna College and Johnson College to offer high school juniors and seniors, who have demonstrated academic ability and readiness, the chance to earn college credit while completing their course requirements at FCRHS. These courses may earn both high school and college credit. This curriculum is college-level and permission depends upon availability and academic readiness. To be eligible for college credit, students are required to pay tuition fees at the associated institution.

Applicants for the Dual Enrollment Program must be in the top 50% of their class and have demonstrated the ability to do college level work as evidenced by performance on the Keystone Exams in Algebra I, Literature and/or Biology. Grades earned in dual enrollment classes at FCRHS will be included in GPA and class rank calculations.

Forest City Regional High School offers the following Dual Enrollment Courses: Anatomy and Physiology; AP Chemistry; AP English Language and Composition; Advanced Public Speaking; AP Government and Politics; AP Calculus; College Level Physics; Psychology; Spanish III; AP Spanish; College Algebra; Honors Chemistry with Lab; Accounting I; Accounting II; Calculus Honors, Trig/Pre-Calc Honors, American History II, AP Computer Science, Advanced Office. Courses offered for Dual Enrollment credit are at the discretion of the participating higher education institutions.

## Level-Up Lackawanna

Level-up Lackawanna is designed to help ease and accelerate students' achievement of higher education by reducing financial and academic barriers. The program has three prongs:

1. The opportunity to achieve an associate degree in select majors while still enrolled in high school through a combination of dual enrollment classes at Forest City Regional High School, evening offerings at Lackawanna College, and Lackawanna College online classes.
2. The opportunity to earn discipline-specific certificates in foundational courses that transfer well to any post-secondary institution.
3. A pathway to prepare students for a career in health care through career exploration, mentoring, and dual enrollment science and health care courses.

Additional information regarding Level-up Lackawanna is available in the school counselors' office.

## Advanced Placement

The Advanced Placement (AP) Program offers college level courses and examinations to high school students. Advanced Placement courses make it possible for academically talented students to increase the challenge of their studies, both in high school and in college. The Advanced Placement Program consists of courses identified by the College Board as college level in content. Upon successful completion of an AP course, it is strongly suggested that students take the corresponding AP exam to realize the full benefit of the course. Based on the score the student receives on a particular examination and the specific college or university that a student chooses to attend, college credit or course waiver may be offered. **Students enrolled in these courses will be expected to perform at an advanced level of competence and will be required to complete summer work and a significant amount of additional work outside of the classroom.**

Forest City Regional High School offers the following Advanced Placement (AP) Courses: AP Calculus, AP English Language and Composition, AP Government and Politics, AP Chemistry, AP Spanish, AP Computer Science Principles and AP Computer Science.

# **Weighted Grades and Honor Roll**

## **Weighted Grades**

In order to reward and encourage students to take enriched classes, a 3% multiplier will be used for specifically identified courses and a 5% multiplier will be used for Advanced Placement (AP) to calculate a weighted GPA. This weighting system will begin with the class of 2021.

## **Weighted Courses**

All Advanced Placement Course (AP) will be calculated with a 5% multiplier  
The following courses will be calculated with a 3% multiplier:

Honors Chemistry with Lab  
College Level Physics with Lab

## **Honor Roll Requirements**

### **High Honor Roll**

Requires an average minimum grade of 93% and a minimum grade of 70% or “S” in all subjects.

### **Honor Roll**

Requires an average minimum grade of 88% and a minimum grade of 70% or “S” in all subjects.



## Sequence of Study

Grade 9	Grade 10	Grade 11	Grade 12
English 9 Honors 1 credit	Two English Courses .5 credits each	Two English Courses .5 credits each	Two English Courses .5 credits each
Algebra I 1.5 credits OR Algebra IA 1.5 credits OR Geometry Honors 1 credit	Algebra I B 1 credit OR Geometry Honors 1 credit	Math Requirement 1 credit	Math Requirement 1 credit
Physical Science I Honors 1 credit	Biology Honors with Lab 1.5 credits	Science Elective 1 credit minimum	Science Option
American History I Honors 1 credit	American History II Honors 1 credit	Social Studies Elective 1 credit	Social Studies Option
Freshman Seminar .5 credits		Public Speaking .5	Financial Literacy .5
PE/Health .5 credits	Health .5 credits	Physical Education .5 credits	Physical Education .5 Credits
Foreign Language Option 1 credit	Foreign Language Option 1 credit	Foreign Language Option 1 credit	Foreign Language Option 1 credit
Elective Option .5 credits	Elective Options 1 credit	Elective Options 2 credits	Elective Options 4.5 credits

CTC		
Grade 10	Grade 11	Grade 12
Two English Courses .5 credits each	One English Courses .5 credits Public Speaking .5 credits	Two English Courses .5 credits each
Algebra I B OR Geometry 1 credit	Math Requirement 1 credit	
Biology 1.5 credits	American History II 1 credit	Science Elective 1 credit minimum
		Social Studies Elective 1 credit
Health/PE .5 credits		
CTC Elective 2 credits	CTC Elective 2 credits	CTC Elective 2 credits

\*\* Half Credit courses (0.50) counting towards **Related Arts Elective requirements** include Freshman Seminar, Public Speaking, and Financial Literacy.

Students in grades 9-12 will be scheduled for 7 credits each year

# Graduation Requirements

## Minimum Credit Requirements for Graduation

### Forest City Regional High School

English	4.0 Credits
Science	3.5 Credits
Mathematics	4.0 Credits
Social Studies	3.0 Credits
Health & Wellness	1.0 Credit
*Related Arts	2.0 Credits
Electives	6.0 Credits
Total	24.5 Credits

### Forest City Regional High School/Career Technology Center

English	4.0 Credits
Science	3.5 Credits
Mathematics	3.0 Credits
Social Studies	3.0 Credits
Health & Wellness	1.0 Credit
Electives**	2.5 Credits
CTC Electives	6.0 Credits
Total	23 Credits

\*Courses satisfying the Related Arts electives include: Art, Music, and World Language

\*\* Any elective course would apply

All credits counting towards graduation requirements must be earned in Grades 9 through 12.

### Mandatory Course Requirements

To ensure that Forest City Regional High School graduates have the necessary skills and competencies for post-secondary success, the following courses are mandatory for all students:

9 <sup>th</sup> Grade	Health/Physical Education; Freshman Seminar
10 <sup>th</sup> Grade	Health 10
11 <sup>th</sup> Grade	Physical Education; Public Speaking
12 <sup>th</sup> Grade	Financial Literacy

Through these courses students will work to develop skills for post-secondary success. Students will develop skills to work on a team through Physical Education lessons. Career development skills will be a focus of public speaking, and financial literacy will focus on developing financial competencies to use after high school

# Graduation Project Requirements

## Career Portfolio

As a culmination of the High School career and post-secondary coursework, each student must complete a career portfolio under the guidance and direction of high school faculty members. Students will participate annually in career exploration courses specifically focused on topics relevant to their age appropriate life experiences. Throughout these courses, they will begin to build pieces of evidence which will be added to their career portfolio. This portfolio will be reviewed in their 11<sup>th</sup> grade year for satisfactory completion. This career portfolio is mandated for high school graduation per the Pennsylvania Department of Education.

The Career Portfolio will include the following artifacts or evidence of participation in College and Career Readiness activities: Career Interest Inventory Sheet, Resume, Cover Letter, Reference Letter, Budget Analysis, Networking Brochure, Job Application, Mock Interview (participation), Career Professional Interview, Job Shadowing: Contact, Experience, Mentor Interview, Written Reflection, Career Plan, and documentation of the required 20 hours of community service. In addition, students are responsible for completing the Graduation Project Checklist, the Graduation Project Contract (related to the 20 hours of community service) and the Job Shadowing Contact Confirmation Form.

Students will update all artifacts in Smart Futures. The following Artifacts are integrated into the Smart Futures platform:

### High School

1. Job Interviews (11th Grade, Public speaking)
2. My Personality Type (9th Grade, Freshman Seminar)
3. Personal Interests (9th Grade, Freshman Seminar)
4. Active Listening (11th Grade, Public Speaking)
5. Career Clusters and Pathways (9th Grade, Freshmen Seminar OR ELA)
6. Job Applications (11th Grade, Public Speaking)
7. Personal Budget (12th Grade, Financial Literacy)

Each artifact and activity is aligned with a grade level career education course. Students will be responsible for uploading their approved documents into their career portfolio in Smart Futures.

## Career Portfolio Addendum

For the graduating classes of 2021 and 2022 the requirement for 20 hours of community service is waived due to the COVID-19 Pandemic.

Students are not required to complete the community service hours, but are strongly encouraged to if they are able to do so safely.

## **Career Pathways**

The Career Pathways are designed to map out the most beneficial sequence of courses leading to specific careers. Students and parents are encouraged to review the pathway that matches the interests and post-secondary goals for students.

The pathways identify careers students can enter upon graduation from: high school, technical school, or a four-year college program. Please note that the 4 Year College + column includes careers that require advanced study beyond a bachelor's degree.

Forest City Regional High School has designed five pathways to help students make informed and purposeful scheduling decisions: Agri-Science, Science, and Health; Arts and Communication; Business, Finance Marketing, and Information Technology; Engineering, Manufacturing, and Industrial Technology; and Human Services.

## Pathway: Agri-Science, Science, Health

Description: The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources. Also, planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development. In addition, planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering), including laboratory and testing services, and research and development services.

### Careers:

High School	Technical School	4-Year College +
Hospital Worker Home Health Aide Nurse's Aide Pharmacy Technician Wildlife Reserve Worker Animal Caretaker Food Conservation Extension Service Worker Optician Farmer	Dental Hygienist Medical Lab Technician Radiological Technician Veterinary Technician Nanotechnician Fish and Game Worker Forest Conservation Licensed Practical Nurse Respiratory Therapist	Physician Assistant Environmental Scientist Veterinarian Chemist Athletic Trainer Pharmacist Marine Biologist Physical Therapist Physician Nursing

### Course Recommendations:

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
History	Honors American History I	Honors American History II	American Government OR AP Government & Politics OR Psychology	Psychology Ancient World History Modern US History & Contemporary Issues AP Government & Politics OPTIONAL
Language Arts	English I	1 ELA Credit	1 ELA Credit AND Public Speaking	1 ELA Credit
Mathematics	Honors Geometry OR	Honors Algebra II	Honors Pre-Calc Trig	AP Calculus OR Statistics OR Calculus
	Algebra I	Honors Geometry	Honors Algebra II	Honors Pre-Calc Trig OR College Algebra OR Statistics
	Algebra IA	Algebra IB	Intro to Drafting OR Honors Geometry	Honors Algebra II OR Algebra II Topics OR Civil Engineering OR Applied Mathematics
Science	Honors Physical Science I	Honors Biology	Honors Chemistry Anatomy & Physiology Environmental Science	Honors Physics AP Chemistry Anatomy & Physiology Environmental Science
			Applied Chemistry PA Ecology	Applied Physics PA Ecology
Mandatory Related Arts	PE / Health Freshman Seminar	PE / Health	PE / Health	PE / Health Financial Literacy
Language	Spanish I	Spanish II		
Electives	Band Chorus Introduction to Engineering Design Art Foundations Intro to Business Intro to Engineering Technology	Band Chorus Principles of Engineering Art Foundations Graphic Design Intro to Business	Band Chorus Art Foundations Intro to Business	Band Chorus Intro to Business

## Career Technology Options: Health Occupations

	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
History	Honors American History II	American Government AP Government & Politics Psychology Ancient World History Modern US History & Contemporary Issues	
Language Arts	1 ELA Credit	0.5 ELA Credit AND Public Speaking	1 ELA Credit
Mathematics	Algebra IB	Honors Geometry OR Intro to Drafting OR Applied Mathematics	
	Honors Geometry	Algebra II Topics OR Honors Algebra II OR Civil Engineering OR Applied Mathematics	
Science	Honors Biology	Applied Chemistry Applied Physics PA Ecology	
Elective	Health		

## Pathway: Arts and Communications

Description: Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

### Careers:

High School	Technical School	4-Year College +
Sound Technician Radio Operator Dancer Newsroom Worker Photographer Floral Designer Circulation	Choreographer Desktop Publisher Recording Engineer Computer Graphic Artist Artist Musician Broadcast Technician	Art or Music Teacher Music Director Art Director Telecommunications Interior Designer Multi-Media Artist Writer/Editor

### Course Recommendations:

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
History	Honors American History I	Honors American History II	Modern US History & Contemporary Issues Ancient World History American Government Psychology AP Government & Politics Choose 1	
Language Arts	English I	1 ELA Credit	1 ELA Credit AND Public Speaking	1 ELA Credit Advanced Public Speaking
Mathematics	Honors Geometry OR	Honors Algebra II	Honors Pre-Calc Trig	AP Calculus OR Statistics OR Calculus
	Algebra I	Honors Geometry	Honors Algebra II	Honors Pre-Calc Trig OR College Algebra OR Statistics
	Algebra IA	Algebra IB	Intro to Drafting OR Honors Geometry	Honors Algebra II OR Algebra II Topics OR Civil Engineering OR Applied Mathematics
Science	Honors Physical Science I	Honors Biology	PA Ecology Applied Chemistry Applied Physics Choose 1	
Mandatory Related Arts	PE / Health Freshman Seminar	PE / Health	PE / Health	PE / Health Financial Literacy
Language	Spanish I	Spanish II	Spanish III	Spanish IV
Art Electives	Art Foundations	Studio Art II, Graphic Design OR 3-D Art	Studio Art III, Graphic Design OR 3-D Art	Advanced Studio Art AND / OR Graphic Design
Electives	Band, Chorus, Intro to Business			

## Career Technology Options: Commercial and Advertising Design, Digital Communications, Graphic Communications

	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
History	Honors American History II	American Government AP Government & Politics Psychology Ancient World History Modern US History & Contemporary Issues	
Language Arts	1 ELA Credit	0.5 ELA Credit AND Public Speaking	1 ELA Credit
Mathematics	Algebra IB	Honors Geometry OR Intro to Drafting OR Applied Mathematics	
	Honors Geometry	Algebra II Topics OR Honors Algebra II OR Civil Engineering OR Applied Mathematics	
Science	Honors Biology	Applied Chemistry Applied Physics PA Ecology	
Elective			



## Pathway: Business, Finance, Marketing, and Information Technology

Description: Business Management and Administration careers encompass planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Business Management and Administration career opportunities are available in every sector of the economy. In addition, planning, services for financial and investment planning, banking, insurance, and business financial management could be involved.

### Careers:

High School	Technical School	4-Year College +
Bookkeeper Computer Operator File or Payroll Clerk Administrative Assistant Telemarketer Advertising Sales Agent	Claims Adjuster Software Engineer Sales Representative Computer Support Specialist Real Estate Agent Desktop Publisher	Certified Accountant Financial Manager Securities Sales Rep. Systems Software Engineer Systems Analyst Management Analyst FBI Agent

### Course Recommendations:

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
History	Honors American History I	Honors American History II	Modern US History & Contemporary Issues Ancient World History American Government AP Government & Politics Psychology Choose 1	
Language Arts	English I	1 ELA Credit	1 ELA Credit AND Public Speaking	1 ELA Credit Advanced Public Speaking
Mathematics	Honors Geometry OR	Honors Algebra II	Honors Pre-Calc Trig	AP Calculus OR Statistics OR Calculus
	Algebra I	Honors Geometry	Honors Algebra II	Honors Pre-Calc Trig OR College Algebra OR Statistics
	Algebra IA	Algebra IB	Intro to Drafting OR Honors Geometry	Honors Algebra II OR Algebra II Topics OR Civil Engineering OR Applied Mathematics
Science	Honors Physical Science I	Honors Biology	PA Ecology Applied Chemistry Applied Physics Choose 1	
Mandatory Related Arts	PE / Health Freshman Seminar	PE / Health	PE / Health	PE / Health Financial Literacy
Language	Spanish I	Spanish II	Spanish III	Spanish IV
Business Electives	Intro to Business, Advanced Office, Accounting, Business Law, Marketing, Entrepreneurship, Web Page Design, Computer Science, Financial Planning			
Electives	Band Chorus Art Foundations Computer Science Essentials	Band Chorus Art Foundations Graphic Design	Band Chorus Art Foundations Graphic Design	Band Chorus Graphic Design

## Career Technology Options: Computer Systems Networking, Computer Systems Technology

	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
History	Honors American History II	American Government AP Government & Politics Psychology Ancient World History Modern US History & Contemporary Issues	
Language Arts	1 ELA Credit	0.5 ELA Credit AND Public Speaking	1 ELA Credit
Mathematics	Algebra IB	Honors Geometry OR Intro to Drafting OR Applied Mathematics	
	Honors Geometry	Algebra II Topics OR Honors Algebra II OR Civil Engineering OR Applied Mathematics	
Science	Honors Biology	Applied Chemistry Applied Physics PA Ecology	
Elective			

## Pathway: Engineering, Manufacturing, and Industrial Technology

Description: The practical application of math, science, and technology to solve real world problems

Careers:

High School	Technical School	4-Year College +
HVAC Roofer Machine Mechanic Surveyor Machine/Equipment Operator Machinist Plumber Carpenter	Truck Driver CAD/CAM Technician Electrical Technician Diesel Mechanic Production Worker Welder Auto Mechanic/Repair Grader/Dozer Operator	Nuclear Engineer Architect Industrial Engineer Mechanical Engineer Software Engineer* Construction Manager Civil Engineer Cost Estimator Scientist

Course Recommendations:

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
History	Honors American History I	Honors American History II	Modern US History & Contemporary Issues	American Government AP Government & Politics Psychology Ancient World History OPTIONAL
Language Arts	English I	1 ELA Credit	1 ELA Credit AND Public Speaking	1 ELA Credit
Mathematics	Honors Geometry OR	Honors Algebra II	Honors Pre-Calc Trig	AP Calculus OR Statistics OR Calculus
	Algebra I	Honors Geometry	Honors Algebra II	Honors Pre-Calc Trig OR College Algebra OR Statistics
	Algebra IA	Algebra IB	Intro to Drafting OR Honors Geometry	Honors Algebra II OR Algebra II Topics OR Civil Engineering OR Applied Mathematics
Science	Honors Physical Science I	Honors Biology	Honors Chemistry	College Level Physics AND AP Chemistry
			Applied Chemistry	Applied Physics
Mandatory Related Arts	PE / Health Freshman Seminar	PE / Health	PE / Health	PE / Health Financial Literacy
Language	Spanish I	Spanish II		
PLTW Electives	Introduction to Engineering Design Computer Science Essentials* Introduction to Engineering Design Intro to Engineering Technology	Principles of Engineering Computer Science Essentials Computer Integrated Manufacturing*	Engineering Specialization Course: a) Computer Integrated Manufacturing, b) Civil Engineering & Architecture, OR c) Digital Electronics d) AP Computer Science Principles* Drafting	Engineering Design and Development OR Engineering Specialization Course Civil Engineering Computer Integrated Manufacturing AP Computer Science A*
Electives	Band Chorus Intro to Business Art Foundations Entrepreneurship Foods Foods & Nutrition	Band Chorus Art Foundations Graphic Design Intro to Business Entrepreneurship Advanced Foods	Band Chorus Art Foundations Graphic Design Intro to Business Business Law Advanced Office	Band Chorus Graphic Design Intro to Business Business Law

**Career Technology Options: Plumbing and Heating, Welding, Automotive, Building Mechanics, Carpentry, Collision Repair, Electrical Construction and Maintenance, Masonry**

	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
History	Honors American History II	American Government AP Government & Politics Psychology Ancient World History Modern US History & Contemporary Issues	
Language Arts	1 ELA Credit	0.5 ELA Credit AND <u>Public Speaking</u>	1 ELA Credit
Mathematics	<u>Algebra IB</u>	<u>Honors Geometry OR</u> <u>Intro to Drafting OR</u> <u>Applied Mathematics</u>	
	<u>Honors Geometry</u>	<u>Algebra II Topics OR</u> <u>Honors Algebra II OR</u> <u>Civil Engineering OR</u> <u>Applied Mathematics</u>	
Science	Honors Biology	Applied Chemistry Applied Physics PA Ecology	
Elective			

## Pathway: Human Services

Description: Preparing individuals for employment in career pathways that relate to families and human needs. In addition, planning, managing, and providing education and training services, and related learning support services.

### Careers:

High School	Technical School	4-Year College +
Utility Worker Teacher's Assistant Home Care Aide Child Care Worker Armed Services Career Travel Agent Cosmetics Representative	Teacher's Aide Cosmetologist Massage Therapist Fire Fighter Postmaster Chef Crime Lab Technician Fashion Designer	Teacher/Principal Lawyer Mental Health Counselor Workforce Director Hotel/Motel Management Criminologist Marriage/Family Therapist

### Course Recommendations:

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
History	Honors American History I	Honors American History II	Modern US History & Contemporary Issues Ancient World History Choose 2 American Government AP Government & Politics Psychology	
Language Arts	English I	1 ELA Credit	1 ELA Credit AND Public Speaking	1 ELA Credit AND Advanced Public Speaking
Mathematics	Honors Geometry OR	Honors Algebra II	Honors Pre-Calc Trig	AP Calculus OR Statistics OR Calculus
	Algebra I	Honors Geometry	Honors Algebra II	Honors Pre-Calc Trig OR College Algebra OR Statistics
	Algebra IA	Algebra IB	Intro to Drafting OR Honors Geometry	Honors Algebra II OR Algebra II Topics OR Civil Engineering OR Applied Mathematics
Science	Honors Physical Science I	Honors Biology	PA Ecology Applied Chemistry Applied Physics Choose 1	
Mandatory Related Arts	PE / Health Freshman Seminar	PE / Health	PE / Health	PE / Health Financial Literacy
Language	Spanish I	Spanish II		
Electives	Band Chorus Intro to Business Advanced Office Foods			

**Career Technology Options: Child Development, Cosmetology, Culinary Arts, Protective Services, Service Occupations**

	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
History	Honors American History II	American Government AP Government & Politics Psychology Ancient World History Modern US History & Contemporary Issues	
Language Arts	1 ELA Credit	0.5 ELA Credit AND Public Speaking	1 ELA Credit
Mathematics	Algebra IB	Honors Geometry OR Intro to Drafting OR Applied Mathematics	
	Honors Geometry	Algebra II Topics OR Honors Algebra II OR Civil Engineering OR Applied Mathematics	
Science	Honors Biology	Applied Chemistry Applied Physics PA Ecology	
Elective			

## Course List

The following is a list of all the courses offered and corresponding credit value and credit level.  
All non-required courses will be offered based on student interest, enrollment, and viability of scheduling.

Course No.	Course Name	Credit Value
ENGLISH LANGUAGE ARTS		
1183	English 9 Honors	1.0
1140	Dystopian Literature	0.5
1141	Short Stories	0.5
1142	British Literature	0.5
1143	World Literature	0.5
1144	Mystery	0.5
1145	American Literature	0.5
1191	AP Language and Composition	1.0
1132	Public Speaking	0.5
1131	Advanced Public Speaking	0.5
1133	Digital Media	0.5
MATHEMATICS		
1210	Algebra IA	1.5
1211	Algebra IB	1.0
1222	Algebra I	1.5
1283	Algebra II Honors	1.0
1224	Algebra II Topics	1.0
1284	Geometry Honors	1.0
1235	College Algebra	1.0
1244	Applied Mathematics	1.0
1270	Algebra Remediation	0.5
1285	Trigonometry/Pre-Calculus Honors	1.0
1241	Calculus Honors	1.0
1286	AP Calculus	1.0
1242	Statistics	1.0
SCIENCE & STEM		
1383	Physical Science I Honors	1.0
1312	Biology Remediation	0.5
1384	Biology Honors with Lab	1.5
1319	Forensic Science	1.0
1322	Environmental Science	1.0
1323	Pennsylvania Ecology	1.0
1321	Anatomy and Physiology	1.0

1330	Applied Chemistry	1.0
1385	Chemistry Honors with Lab	1.5
1331	AP Chemistry	1.5
1340	Applied Physics	1.0
1386	College Level Physics /with Lab	1.5
1352	Introduction to Engineering Design	1.0
1360	Introduction to Engineering Technology	1.0
1363	Technical Essentials	0.5
1364	Engineering Design Essentials	0.5
1362	Introduction to Drafting	1.0
1353	Principles of Engineering	1.0
1349	Principles of Engineering	0.5
1354	Digital Electronics	1.0
1355	Civil Engineering and Architecture	1.0
1361	Computer Science Essentials	1.0
1356	AP Computer Science Principles	1.0
1357	Computer Integrated Manufacturing	1.0
1357A	Computer Integrated Manufacturing A	0.5
1357B	Computer Integrated Manufacturing B	0.5
1358	Engineering Design and Development	1.0
1359	AP Computer Science A	1.0

#### SOCIAL STUDIES

1481	American History I Honors	1.0
1484	Ancient World History Honors	1.0
1485	American History II Honors	1.0
1412	Modern U.S History and Contemporary Issues	1.0
1430	American Government	1.0
1491	AP United States Government and Politics	1.0
1425	Psychology	1.0

#### WORLD LANGUAGES

1161	German I	1.0
1162	German II	1.0
1171	Spanish I	1.0
1172	Spanish II	1.0
1173	Spanish III	1.0
1174	AP Spanish	1.0

#### BUSINESS EDUCATION

1534	Freshman Seminar	0.5
1600	Introduction to Business	0.5
1601	Accounting I	1.0



1612	Accounting II	1.0
1602	Web Page Design	0.5
1603	Entrepreneurship	0.5
1604	Advanced Office	0.5
1634	Marketing	0.5
1613	Business Law	0.5
1245	Financial Literacy	0.5

#### MUSIC EDUCATION

1701	Band*	1.0/.05
1702	Chorus*	1.0/.05
1706	Music Theory	0.5
1708	Introduction to Guitar	0.5
1709	Introduction to Piano	0.5

#### ART EDUCATION

1800	Art Foundations	0.5
1814	Art Foundations	1.0
1802-1807	Studio Art II, III	1.0/.05
1812	Advanced Studio Art	1.0/.05
1811	Graphic Design	1.0
1810	3D	0.5

#### HEALTH AND PHYSICAL EDUCATION

1909	Health/Physical Education 9*	0.5
1902	Health 10*	0.5
1910	Physical Education 11*	0.5
1911	Physical Education Elective	0.5

\* Courses are not included in the calculation of class rank and GPA.

# Course Descriptions

## Art Education

### Art Foundations

(1800) Credit: 0.5

(1814) Credit 1.0

Grade 9 -12

This course is for students who are interested in learning how to draw using many art mediums. Designed for first year art students, this course will cover techniques in pencil, watercolor, mark making, collage, and acrylic paint. There will be sketchbook requirements to aid in the student's artistic growth. This course is for students who love art and want to learn more, and is a prerequisite for all other studio art courses and 3D.

### Studio Art, II, III

(I-1803, II-1805, III-1807) Credit 1.0

(I-1802; II-1804; III-1806) Credit 0.5

Grade 10-12

Prerequisite: Art Foundations

These courses are a continuation of art foundations, designed to help students strengthen their basic drawing skills, and further challenge them with a variety of two and three dimensional media. Techniques will be covered in pencil, charcoal, colored pencil, mark making, watercolor, acrylic paint and mixed media. There will be sketchbook requirements to aid in the student's artistic growth. These courses are geared toward students who love art and want to learn more and improve their overall skill and aesthetics. Studio Art II, and III represent the number of years electing to take art.

### Advanced Studio Art

(1812) Credit 1.0

(1813) Credit 0.5

Grade 12

Prerequisite: Art Foundations, Studio Art I, Studio Art II

This course is a college preparation course for gifted art students who plan to pursue art as a career. The course is designed to provide students with ample opportunities to develop their creative potential in various media, as well as their understanding of visual communication and appreciation. Emphasis will be placed on creating and preparing an art portfolio. Sketchbook and summer work are requirements. The art major course provides intensive studio experience needed to prepare a portfolio for college admission. The emphasis in most projects is on career application in design, commercial art, and industry while developing the student's own personal style.

### Graphic Design

(1811) Credit: 1.0

Grade 10-12 Prerequisite: none

This course is designed to develop skills in Adobe Illustrator and Adobe Photoshop. Students will study the vast world of Graphic Design. Students will research careers and will work on projects as if they were designing for a specific customer. Students will create Photo manipulations as well. Any student electing to take graphic design will need access to a camera and computer.

### 3D

(1810) Credit: 0.5

Grade 10-12

Prerequisite: Art Foundations

3D seeks to expand your understanding of design theory as it relates to the Three Dimensional World. This course will focus only on 3D artworks. Techniques in ceramics, sculpture, plaster, cardboard construction, etc. will be explored.

## **Business Education**

### **Freshman Seminar**

Grade 9

(1534) Credit: 0.5

This year-long course will focus on helping students transition from middle school to high school. With an emphasis on what it means to GO BE GREAT, students will gain a deeper understanding of what it means to be Generous with your time and talents, Respectful of yourself and others, Enthusiastic about your school and studies, Accountable for your work and behavior, and Tenacious when pursuing success. Grade level teachers will work with their groups to address each of these components. Counselors will push into the class to complete career inventories, and introduce the CTCLC application process.

### **Financial Literacy**

Grade 12

(1245) Credit: 0.5

Prerequisite: None

This class is designed to prepare seniors for the financial transition to adulthood and life after high school. The topics covered will include career and college choices, opportunities, time and money management, budgeting, funding an apartment, buying a home, insurance, taxes, investing, building a good credit history and maintaining a good credit history.

This course is mandatory for all 12th Grade non-CTC students.

### **Introduction to Business**

Grades 9 through 12

(1600) Credit: 0.5

Prerequisite: None

This class will give students an overview of business. Emphasis is placed on their roles in the community – worker, citizen, and consumer.

### **Accounting I**

Grades 9 through 12

(1601) Credit: 1.0

Prerequisite: None

This course is designed to help students understand the basic principles of the accounting cycle. Emphasis is placed on the analysis and recording of business transactions; preparation and interpretation of financial statements; accounting systems; banking and payroll activities; basic types of business ownership; and accounting career orientation. Mathematical skills and critical thinking are reinforced. In addition to simulations utilizing various technologies, projects, meetings, conferences, and FBLA competitions provide opportunities for application of industrial competencies.

### **Accounting II**

Grades 10 through 12

(1612) Credit: 1.0

Prerequisite: Accounting I

This course is a continuation of the concepts learned in Accounting I and includes units of study pertaining to partnerships, corporations, and management use of accounting data.

### **Web Page Design**

Grades 9 through 12

(1602) Credit: 0.5

Prerequisite: None

This course introduces students to basic web design using HTML (Hypertext Markup Language) and CSS (Cascading Style Sheets). Throughout the course students are introduced to planning and designing effective web pages; implementing web pages by writing HTML and CSS code; enhancing web pages with the use of page layout techniques, text formatting, graphics, images, and multimedia; and producing a functional, multi-page website.

**Entrepreneurship**

Grades 10 through 12

(1603) Credit: 0.5

Prerequisite: None

In this course students will learn the fundamentals of organizing and starting a small business as they create their own completed, bound business plan. The course covers such topics as the challenges of entrepreneurship, building the business plan, strategic planning, franchising, and forms of ownership, marketing, pricing, cash flow, financial planning, putting the plan to work, ethical/legal concerns, and the regulation of the environment. They will also develop an understanding of what it means to be an entrepreneur and how they can use their unique skills and talents to start a small business venture.

**Advanced Office**

Grades 9 through 12

(1604) Credit: 0.5

Prerequisite: None

This project-oriented course will utilize Microsoft Office and include instruction on keyboarding, word processing, spreadsheets, databases, presentation and publishing software. Students will be able to use these skills for their personal use, for assignments required in other classes, and for future secondary education and/or workplace activities. Assessment techniques using computer-aided testing will also be practiced.

**Marketing**

Grades 10 through 12

(1605) Credit: 0.5

Prerequisite: None

This course explores the world of marketing. Students will find out what it takes to market a product or service in today's fast-paced business environment. They learn the fundamentals of marketing using real-world business examples. Emphasis will be placed on all aspects of marketing including: planning, consumer behavior, product research, advertising, and communications. The course will provide insight into the characteristics, organization, and operation of the business.

**Business Law**

Grades 10 through 12

(1613) Credit: 0.5

Prerequisite: None

Students in this course develop an understanding of business and personal law, legal procedures and remedies, rights and duties of citizens, consumers, workers and business owners, and apply principles to legal situations. Topics of study include ethics, juvenile justice, courtroom procedure and civil, criminal, consumer, contract, sale, credit, employment, housing and business law.

## English Language Arts

All English Language Arts classes are designed to provide students with a strong foundation to prepare them for academic and professional reading, writing, and communication. In all courses students will learn and practice strategies and processes to enhance skills in comprehension, persuasion, investigation, problem solving, evaluation, and explanation. In addition to preparing students for real world applications, these courses are designed to prepare students to use literature and writing to attain professional and personal goals.

### English 9 Honors

Grade 9

(1183) Credit: 1.0

This course is designed to support students' development in reading, writing, listening, speaking, and research skills. This course emphasizes reading, discussing, and writing about fiction and non-fiction selections. Critical thinking, vocabulary development, study skills, college preparation activities as well as the application of skills to various assessments are stressed. Students analyze text, cite evidence, and respond critically to their learning. Students take ownership of their learning through goal-setting, annotation, reflection, independent text selection, and activities that allow for peer collaboration. In addition, students are encouraged to exchange views with their peers while formulating and defending their own perspectives. Students will develop the essential skills required to be successful throughout college and future careers. Ultimately, students will end the course taking the Keystone Exam as administered by PA Dept. of Education.

### Dystopian Literature

Grades 10-12

(1140) Credit 0.5

The novels and short stories in this course are all defined by their dystopian setting - a society characterized by oppression and injustice. Dystopian stories challenge readers to reflect on global issues and the role of the individual in society. Classic works by George Orwell and Ray Bradbury will be highlighted, along with more contemporary literature, to further illustrate the dystopian theme. This course will focus on the importance of setting in establishing the central ideas in the text and will require students to make connections between the classic works and the contemporary works. Throughout the course of study, the four aspects of language – reading, writing, speaking, and listening – will be emphasized. Class discussion and academic writing will be expected in response to the readings. Students will also develop the skills needed to determine an author's intent, recognize the techniques authors use to deliver their messages, and evaluate the literary value of the chosen works.

### Short Stories

Grades 10-12

(1141) Credit 0.5

Students will read several short stories and study the connecting central ideas of those stories. The class will explore the evolution of the short story as a literary genre and will critically analyze the idea of the "single effect." The literary elements of character, setting, plot, conflict, point of view, and central idea will be highlighted. This genre allows students to dig deep into the ways in which authors structure stories for maximum impact and focus on the importance of word choice and sentence structure to create plot. Mastery of reading, writing, speaking, and listening skills will be a focus of the course.

### British Literature

Grades 10-12

(1142) Credit 0.5

This course in British Literature covers seminal works such as Beowulf, Paradise Lost, and Hamlet, as well as classic works of non-fiction. Using these works as a foundation, students will recognize and discuss themes and connections that cross cultures. Emphasis will be on recognizing the connections between history and literature and how the history of the time period impacts the literature written during that time period. Written expression and class discussion will be emphasized in response to the readings and research skills will be taught and practiced to gain mastery of the research process.

**World Literature**

(1143) Credit 0.5

Grades 10-12

This course is a study of representative works of world literature. Students read and analyze literary works, including the novel, short story, lecture, and poetry from various cultures with an emphasis placed on key ideas that express the commonality of the human spirit and experience across cultures. This course stresses critical thinking in the areas of reading, writing, and oral communication. Students are expected to complete a novel, short stories, poems, and nonfiction texts, as well as be able to discuss, analyze, and evaluate these pieces. Written expression and class discussion will be emphasized in response to the readings.

**Mystery**

(1144) Credit 0.5

Grades 10-12

This course is a genre study. Students read and analyze works from the genre's masters, Agatha Christie and Sir Arthur Conan Doyle, as well as a classical piece from William Faulkner. A focus will be placed on the relationship of the ten essential elements of mystery. In addition, students will examine real life mysteries and complete a non-fiction research project. Written expression and class discussion will be emphasized in response to the readings. Additional activities include the completion of a non-fiction research project and presentations given throughout the semester within the context of the course.

**American Literature**

(1145) Credit 0.5

Grades 10-12

Students will analyze works of prose, drama, and fiction as an expression of individual or communal values in relation to the social, political, or cultural contexts. Through a variety of text types students will think critically including inquiry, analysis, evaluation, and synthesis of information. This course emphasizes writing through the analysis of American literature. Students build knowledge, analyze ideas, delineate arguments, and develop writing, collaboration, and communication skills.

**AP Language and Composition**

(1191) Credit: 1.0

Grades 11 and 12

Prerequisite: English 9 Honors

The AP English Language and Composition course cultivates the reading and writing skills that students need for college successes and for intellectually responsible civic engagement. This course guides students in becoming curious, critical, and responsive readers of diverse texts, and becoming flexible, reflective writers of texts addressed to diverse audiences or diverse purposes. The reading and writing students are exposed to will deepen and expand their understanding of how written language functions rhetorically. This course cultivates the rhetorical understanding and use of written language by directing students' attention to written/reader interactions in their reading and writing of various formal and informal genres.

This course prepares students to take the national AP exam in May, which may result in college credit.

## Supplemental English Language Arts Electives (Elective Credit Only)

### **Public Speaking**

Grade 11

(1132) Credit: 0.5

This beginner's speech class is mandatory for all students in grade 11 and will emphasize the importance of verbal and nonverbal communication. Students will learn how to research a topic by locating sources and evaluating the credibility and reliability of information. Students will conduct research and write and deliver effective speeches. The fundamentals of impromptu speaking and listening skills are incorporated into the course. Students will write cover letters, resumes, and peer and professional evaluations. Types of speeches include informative, persuasive, and demonstrative. Students will also have a speaker's choice presentation (e.g. eulogy, farewell, humorous, nomination, and acceptance). Some speeches will have technology requirements. Students will also introduce a speaker and participate in a mock job or college interview.

### **Advanced Public Speaking**

Grade 12

(1131) Credit: 0.5

Prerequisite: Public Speaking

Advanced Speech will build upon students' general knowledge of communication through public speaking. The course will enable students to gain more experience in preparing to speak formally and informally. Students will refine techniques learned in Public Speaking. In addition to a variety of speeches presented, assignments also include telephone skills, assertive communications, analysis of famous and historical speeches, group problem solving, and morning announcements, mock interviews with area businessmen and women, and college essay writing. The technology component includes podcasts and Google Earth. Each student will have an individual secured website where his/her videotaped speeches will be uploaded to allow the student to view and critique his/her own speech at home. This course could be taken as Dual Enrollment which would make it eligible for college credit at Keystone and/or Lackawanna Colleges.

### **Digital Media**

Grades 9 through 12

(1133) Credit: 0.5

Prerequisite: None

Digital Media is an elective course which provides motivated students with an introductory experience in media production. This intensive hands-on course explores camera operation, script writing, lighting, audio production, video editing and the effects of television on viewers. Students will be provided with all the basic skills necessary to produce a live daily news program, special video features, public service announcements, short films, and commercials. This course will also equip students with the skills necessary to function in a technology and media-centered society.

# Physical Education

## Health/Physical Education 9

Grade 9

(1909) Credit: 0.5

The topics in this course include drug education, personal hygiene, disease, sexual education, AIDS, fitness, mental health and nutrition education. Emphasis is placed on the knowledge and decision-making skills that will enable students to contribute effectively to their present and future health. This course stresses the knowledge and skills involved in both team and individual sports and the development of positive attitudes concerning physical conditioning and lifetime sports. Activities include touch football, soccer, basketball, volleyball, softball, ultimate frisbee, weight training, and dance.

This course is mandatory for all 9th Grade students.

## Health 10

Grade 10

(1902) Credit: 0.5

The topics in this course include drug education, personal hygiene, disease, sexual education, AIDS, fitness, mental health and nutrition education. Emphasis is placed on the knowledge and decision-making skills that will enable students to contribute effectively to their present and future health. This course stresses the knowledge and skills involved in both team and individual sports and the development of positive attitudes concerning physical conditioning and lifetime sports. Activities include touch football, soccer, basketball, volleyball, softball, ultimate frisbee, weight training, and dance.

This course is mandatory for all 10th Grade students.

## Physical Education 11

Grade 11

(1910) Credit: 0.5

The topics in this course include drug education, personal hygiene, disease, sexual education, AIDS, fitness, mental health and nutrition education. Emphasis is placed on the knowledge and decision-making skills that will enable students to contribute effectively to their present and future health. This course stresses the knowledge and skills involved in both team and individual sports and the development of positive attitudes concerning physical conditioning and lifetime sports. Activities include touch football, soccer, basketball, volleyball, softball, ultimate frisbee, weight training, and dance.

This course is mandatory for all 11th non-CTC Grade students.

## Physical Education Elective

Grades 9-12

(1911) Credit: 0.5

(1912) Credit: 1.0

This elective course provides students with the opportunity to acquire the knowledge and skills necessary to successfully participate in a wide range of both team and individual sports. Lessons will focus on skill development as well as an understanding of basic and advanced strategy in order to cultivate life-long participation in a variety of sports. Additionally, this course will also provide students with a fundamental knowledge of fitness components and how they apply to human movement. Students will have the opportunity to participate in a variety of fitness activities and ultimately design a program tailor-made to their specific goals and needs.



# Mathematics

## Algebra IA

Grades 9 and 10

(1210) Credit: 1.5

Algebra IA requires each student to compute, problem-solve, make/test conjectures, and apply math concepts to real-life scenarios. Topics include operations with real numbers, variables, algebraic expressions, equations/inequalities, graphing, rates of change, functions, and data analysis. Students will communicate mathematically using multiple representations.

## Algebra IB

Grades 9 and 10

Prerequisite: Algebra IA

(1211) Credit: 1.0

Algebra IB requires each student to compute, problem-solve, make/test conjectures, and apply math concepts to real-life scenarios. Topics include operations with algebraic expressions, equations/inequalities, polynomials, factoring, graphing, functions, data analysis, and probability. Students will communicate mathematically using multiple representations.

## Algebra I

Grades 9 and 10

(1222) Credit: 1.5

Algebra I requires each student to compute, problem-solve, make/test conjectures, and apply math concepts to real-life scenarios. Topics include operations with real numbers, variables, algebraic expressions, equations/inequalities, polynomials, and factoring, graphing, rates of change, functions, data analysis, and probability. Students will communicate mathematically using multiple representations.

## Geometry Honors

Grades 9 and 10

(1284) Credit: 1.0

Prerequisite: Algebra I; Proficient on Keystone Algebra I

Geometry unifies concepts of Geometry, Algebra, and arithmetic. Logical methods of mathematical thinking will be emphasized while studying surface area, volume of two and three dimensional objects, congruence, similarity, formal proofs, parallel and perpendicular lines, polygons, right triangles, trigonometry, equations/inequalities, circles, probability, and real-life applications. Students will use enhanced problem-solving and reasoning skills to compute, test conjectures and apply concepts to real-life scenarios. Students will communicate mathematically using multiple representations.

## Applied Mathematics

Grades 11 and 12

(1244) Credit: 1.0

Prerequisite: Algebra I or Algebra IA and Algebra IB, Geometry Honors; Proficient on Keystone Algebra I

The math class will be a virtual classroom where the students put into practice the skills they are learning in the curriculum. The curriculum begins by students coming in on the first day and applying for a job, then teaching the students how to earn money and pay their bills, a practice that continues throughout the course, while the units progress to cover topics that affect how they choose to spend their money. The focus is on applying math skills to real world situations, not the mechanics of how to do the math. Students will develop the ability to get jobs in specific fields, pay bills, save and invest money, and manage their homes. At the end of the course, they buy their grades with the money they have earned.

## **Algebra II Honors**

Grades 10 and 11

(1283) Credit: 1.0

Prerequisite: Algebra I or Algebra IA and Algebra IB; Geometry Honors; Proficient on Keystone Algebra

This course requires students to use enhanced communication, problem-solving, and reasoning skills to compute, make/test conjectures, and apply math concepts to real-life scenarios. Topics include operations with real and complex numbers, variables, algebraic expressions, exponents, radicals, equations/inequalities, polynomials, factoring, graphing, rates of change, a variety of functions, data analysis, and probability. Students will communicate mathematically using multiple representations.

## **Algebra II Topics**

Grades 10 and 11

(1224) Credit: 1.0

This course requires students to use enhanced communication, problem-solving, and reasoning skills to compute, make/test conjectures, and apply math concepts to real scenarios related to technical, trade, and health programs of study. Topics include operations with real and complex numbers, variables, algebraic expressions, exponents, radicals, equations/inequalities, polynomials, logarithms, factoring, graphing, rates of change, a variety of functions, data analysis, and probability. Students will communicate mathematically using multiple representations and emphasis will be placed on the application of fractions, decimals, and percents to real-life problems.

## **College Algebra**

Grade 12

(1235) Credit: 1.0

Prerequisite: Algebra I or Algebra IA and Algebra IB, Geometry Honors, Algebra II Honors, Proficient on Keystone Algebra I

College Algebra is considered a preparatory course for seniors who will major in a nonmathematical or non-scientific program when entering college. This course covers a variety of topics including basic algebra, set notation, logic, number theory, matrices, numeration systems, and consumer mathematics. This course could be taken as Dual Enrollment which would make it eligible for college credit at Keystone and/or Lackawanna Colleges.

## **Trigonometry/Pre-Calculus Honors**

Grades 11 and 12

(1240) Credit: 1.0

Prerequisite: Algebra I or Algebra IA and Algebra IB, Geometry Honors, Algebra II Honors, Proficient on Keystone Algebra I

Trigonometry/Pre-Calculus Honors is a course that integrates algebra, geometry, and trigonometry in an accelerated manner. This course focuses on making connections between topics and provides opportunity to apply knowledge to real-life problems. Topics of study include polynomial functions, complex numbers, rational functions, trigonometric functions and their inverses, inverse functions, vectors and matrices, and parametric and polar curves.

## **Calculus Honors**

Grade 12

(1285) Credit: 1.0

Prerequisite: Algebra I, Geometry Honors, Algebra II Honors, Trigonometry/Pre-Calculus, Proficient on Keystone Algebra I

Calculus is a college preparatory course for students who will major in science, engineering, math, and other related fields or professional courses. Students are expected to use graphical, numerical and analytical approaches to problem solving. The topics of study include properties of functions, graphs, limits, derivatives, and integrals. Topics are applied to real-world problems.

**AP Calculus**

Grade 12

(1286) Credit: 1.0

Prerequisite: Algebra I, Geometry Honors, Algebra II Honors, Trigonometry/Pre-Calculus, Proficient on Keystone Algebra I

This course is designed to prepare students for the AP Calculus Test as well as college level calculus courses. Students are expected to use graphical, numerical and analytical approaches to problem solving. Emphasis is placed on developing concepts, connecting concepts, and applying these concepts to solve complex problems. The topics of study include graphs, limits, derivatives, and integrals. Students extend their understanding of these topics using technology, cooperative learning, and mathematical writing.

**Algebra Remediation**

Grades 9 through 12

(1270) Credit: 0.5

Prerequisite: Algebra I

This course is for students who have not passed the Keystone Algebra Exam. Individualized instruction will be provided based upon the student's performance on the Keystone Algebra Exam.

**Statistics**

Grades 11 and 12

(1242) Credit: 1.0

Prerequisite: Algebra I, Geometry Honors, Algebra II Honors, Proficient on Keystone Algebra Assessment

Students will work with probability, data collection, descriptive and inferential statistics, probability, and technological tools to analyze statistics. The main focus of the course will be exploring data, planning a study, producing models using probability theory, and making statistical inferences. Students will work with statistical measures of centrality and spread, methods of data collection, methods of determining probability, binomial and normal distributions, hypothesis testing, and confidence intervals. Students will use multiple representations to present data including written descriptions, numerical statistics, formulas, and graphs.

## Music Education

### **Band**

Grades 9 through 12

(1701) Credit: 1.0

(XXXX) Credit 0.5

Students taking this class are provided with a balanced, comprehensive study of music through concert band. The course provides opportunities to foster and refine musical expression through instrumental performance, analytical/evaluative skills, and aesthetic judgment.

### **Chorus**

Grades 9 through 12

(1702) Credit: 1.0

(XXXX) Credit: 0.5

Students will sing and explore many different styles and periods of music. Students will participate in various performances throughout the year.

### **Music Theory**

Grades 9 through 12

(1706) Credit: 0.5

Prerequisite: None

This course acquaints the serious music student with a working knowledge of the essentials of scale construction, chord make-up, chord construction, harmonization of a given melody and a general background in the writing of music. Time is spent on singing and dictation of melodies designed to prepare the prospective college-bound music major with a sufficient musical background.

### **Introduction to Guitar**

Grades 9 through 12

(1708) Credit: 0.5

Prerequisite: None

This course is a beginner's class designed for students who wish to develop basic guitar playing skills. Students will gain an understanding of musical notation, learn basic music theory and develop their individual playing skills. Acoustic guitars will be available through the music department, but students may use their own guitars if they choose. At home practice will be required for students enrolling this course.

### **Introduction to Piano**

Grades 9 through 12

(1709) Credit: 0.5

Prerequisite: None

This course is a beginner's class designed for students who wish to develop basic piano playing skills. Students will gain an understanding of musical notation, learn basic music theory and develop their individual playing skills.

## Science & STEM

### Physical Science I Honors

Grade 9

(1383) Credit: 1.0

This course exposes students to the applications of both physics and chemistry. Students will use concepts of these sciences to design their own labs, solve problems, and develop products. Students will be expected to conduct individual research and independent study to further learning. Mathematical applications will be included.

### Biology Honors with Lab

Grade 10

(1384) Credit: 1.5

Prerequisite: Physical Science I

The course is designed to enable the student, through a series of classroom instruction and labs, to become aware not only of his own existence, structure, and functions, but of other forms of life from the simplest to the more complex. Students enrolled in the accelerated section of Biology are responsible for additional independent exercises including scientific problem solving, experimental design, reading, writing, and application of concepts based on a more in depth focus on course topics. It is designed to increase critical thinking skills, research, communication, and collaboration abilities and to develop a more comprehensive understanding of biological principles.

### Environmental Science

(1322) Credit: 1.0

Environmental Science is an enrichment course designed to provide students with the scientific principles, concepts, and methodologies to understand the interrelationships of the natural world. Students will identify and analyze environmental issues and will explore how their everyday lives revolve around their use of the natural world and the resources it provides. Topics will include soils, current issues, forestry, wildlife, and aquatics. Students taking this course will be encouraged to participate in Envirothon and the FCR Watershed Program.

### Pennsylvania Ecology

(1323) Credit 1.0

Pennsylvania Ecology incorporates the application of various concepts concerned with the interrelationships among components of the natural and human-made world. These components combine the disciplines of ecology, resource management, agriculture diversity, government and the impact of human actions on natural systems. This course focuses primarily on Pennsylvania watersheds, threatened and endangered species, pest management and the development of laws and regulations that protect, control and manage the environment to meet societal needs for long term sustainability. Pennsylvania Ecology offers a hands-on application in areas of study, including local outdoor field work in addition to classwork. Topics of study include: Watersheds & Wetlands, Renewable & Non-renewable resources, environmental health, agriculture and society, integrated pest management, ecosystems and their interactions, threatened, endangered and extinct species, humans and the environment, environmental laws and regulations, current events/local issues imbedded within each topic.

### Anatomy and Physiology

Grades 11 and 12

(1321) Credit: 1.0

Prerequisite: Biology; Proficient on Keystone Biology

Anatomy and Physiology is an extensive, detailed introduction to the structure and function of the human body. It covers each of the body's systems in regard to terminology, structure, function, morphology, pathology, and clinical applications which reveal the most up-to-date procedures and technology. It is designed for students preparing for careers in health-related professions, such as nursing, occupational and physical therapy, medicine, dentistry, and medical technology. As a result of its scope, it is extremely useful for students pursuing the biological sciences, scientific technology, sports medicine, and forensics.

**Applied Chemistry**

Grades 11 and 12

(1330) Credit: 1.0

Prerequisite: Proficient on Keystone Algebra I

This course provides an introduction to the fundamentals of chemistry with emphasis on applications of principles and concepts. Laboratory work and mathematical exercises are included.

**Chemistry Honors with Lab**

Grades 11 and 12

(1385) Credit: 1.5

Prerequisite: Algebra II; Biology; Proficient on Keystone Algebra I

This course provides an introduction to the fundamentals of chemistry with an emphasis on principles and concepts. Laboratory work and mathematical exercises are included. This course will include a more in-depth study of mathematical calculations involved in chemistry. A good foundation in algebraic problem solving is required.

**AP Chemistry**

Grade 12

(1331) Credit: 1.5

Prerequisite: Chemistry Honors with Lab; Proficient on Keystone Algebra I

This course is a college level class focusing on atomic theory, stoichiometry, the periodic table, bonding, molecular structure, interaction of gases, solutions and their properties, thermodynamics, acids and bases, chemical kinetics, equilibrium, electrochemistry, and nuclear chemistry. This course will include a double laboratory period each week for a total of 162 hours of coursework. The student will be required to keep a laboratory binder documenting their laboratory activities and reports. AP Chemistry has a curriculum that has been directed by the College Board and is designed to prepare the student to take the AP Examination scheduled in May. This course is more rigorous than a high school chemistry course and will require extensive work outside of the classroom. Summer work is required.

**Applied Physics**

Grade 12

(1340) Credit: 1.0

Prerequisite: Proficient on Keystone Algebra I

This course is an introduction to the science of physics. Areas of study include mechanics, properties of matter, heat, sound, and light. Laboratory work and application projects are included.

**College Level Physics with Lab**

Grade 12

(1386) Credit: 1.5

Prerequisite: Chemistry; Concurrently enrolled in Calculus or AP Calculus

This course is an accelerated introduction to the science of physics. Areas of study include mechanics, properties of matter, heat, sound, and light. Laboratory work and mathematical exercises are included.

**Biology Remediation**

Grades 11 through 12

(1312) Credit: 0.5

Prerequisite: Biology Honors with Lab

This course is for students who have not passed the Keystone Biology Exam. Individualized instruction will be provided based on student's performance on the Keystone Biology Exam.

**Supplemental Science Electives (Elective Credit Only)**  
The following STEM courses are eligible for Elective credit only.

**Forensic Science**

Grades 11 and 12

(1319) Credit: 1.0

Forensic Science is a high-interest course rich in exploration and lab investigation which applies and integrates many disciplines of scientific study such as Biology, Anatomy and Physiology, Chemistry, Physics, Entomology and Earth Science. This course surveys key topics in forensic science, including the application of the scientific process to forensic analysis, procedures and principles of crime scene investigation, physical and trace evidence, and the law and courtroom procedures from the perspective of the forensic scientist. The combination of basic theory, laboratory experiments and analysis of fictional crime scenarios, students learn about forensic tools, technical resources, forming and testing hypotheses, proper data collection, and responsible conclusions.

**Introduction to Engineering Design (IED)**

Grades 9 through 12

(1352) Credit: 1.0

This is the first foundational course for the high school Project Lead the Way curriculum. IED uses a design development process while enriching problem-solving skills. Students create and analyze models using specialized computer software.

**Intro to Engineering Design**

Grades 9 through 12

(1364) Credit: 0.5

This half credit course is an abbreviated version of Introduction to Engineering Design. Students will gain experience applying the design process to define a real world problem, generate possible solution concepts, develop a solution and test it.

**Introduction to Engineering Technology (IET)**

Grades 9 through 12

(1360) Credit: 1.0

This course will provide students with an opportunity to explore and develop basic technical skills as they relate to engineering and technology and the product life cycle. Topics will include basic technical mathematics, technical communication and documentation, design process, workshop safety, and materials processing. Students will begin the course with an introductory fabrication experience, using basic hand tools and power tools to construct a physical model. As students progress, they will continue to explore the application of basic technical engineering concepts to occupational and educational opportunities that they may choose to pursue in the future.

**Technical Essentials**

Grades 9 through 12

(1363) Credit: 0.5

The purpose of this course is to allow students who are unable to schedule the full credit course, IET, the ability to schedule a technical STEM course. This course will provide students with the opportunity to gain exposure to the same types of experiences as Introduction to Engineering Technology, but in an abbreviated format. Basic technical math, documentation, design process, and workshop safety will be emphasize

**Principles of Engineering (POE)**

Grades 10 through 12

(1353) Credit: 1.0

Prerequisite: Introduction to Engineering Design and Proficient on Algebra 1 Keystone or approval by instructor.

This is the second foundational course for the high school Project Lead the Way curriculum. In POE, students explore technology systems and engineering processes to find out how math, science, and technology help people.

### **Principles of Engineering (POE)**

Grades 10 through 12

(1349) Credit: 0.50

Prerequisite: Introduction to Engineering Design and Proficient on Algebra 1 Keystone or approval by instructor.

This half credit course is the first half of the second foundational course for the high school Project Lead the Way curriculum. In POE, students explore technology systems and engineering processes to find out how math, science, and technology help people. This half credit course will focus on Energy and Power and Materials and structure.

### **Civil Engineering and Architecture (CEA)**

Grades 11 and 12

(1355) Credit: 1.0

Prerequisite: Principles of Engineering or approval by instructor.

This is one of the specialization courses in the high school Project Lead the Way curriculum. In CEA, students learn about various aspects of civil engineering and architecture and apply their knowledge to the design and development of residential and commercial properties and structures. Students use 3D design software to design and document solutions for major course projects.

### **Computer Science Essentials**

Grades 9 through 12

(1361) Credit: 1.0

This course exposes students to a diverse set of computational thinking concepts, fundamentals, and tools used by computer science professionals. Students begin by using visual, block-based programming languages before transitioning to text-based programming. Students will create apps and develop websites, and learn how to make computers work together to put their design into practice. They'll apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them.

### **AP Computer Science Principles**

Grades 11 and 12

(1356) Credit: 1.0

Prerequisite: Principles of Engineering or Computer Science Essentials or instructor approval

This is one of the specialization courses in the high school Project Lead the Way curriculum. Students are introduced to computational tools that foster creativity and develop computational thinking to solve open-ended, practical problems. Students learn and develop computer graphics, web-based applications, data mining applications using discrete mathematics and data visualization, simple Android applications, and computer models. This course has a curriculum that has been directed by the College Board and is designed to prepare the student to take the AP Examination scheduled in May. This course is extremely rigorous and will require summer work and extensive work outside of the classroom.

### **Computer Integrated Manufacturing**

Grades 11 and 12

(1357) Credit: 1.0

Prerequisite: Principles of Engineering or instructor approval

Students are taught about manufacturing processes, product design, robotics, and automation. Students learn about the Principles of Manufacturing, how to program Computer Numerical Control (CNC) equipment and robotic arms, and how to design and program automated manufacturing systems.

### **Computer Integrated Manufacturing A**

Grades 11 and 12

(1357) Credit: 0.5

Prerequisite: Principles of Engineering or instructor approval

In this half credit course students are taught about the principles of manufacturing and the manufacturing process. Students learn about the Principles of Manufacturing, how to program Computer Numerical Control (CNC) equipment and robotic arms, and how to design and program automated manufacturing systems.



## **Computer Integrated Manufacturing B**

Grades 11 and 12

(1357) Credit: 0.5

Prerequisite: Principles of Engineering and Computer Integrated Manufacturing A

In this half credit course students are taught about the elements of automation and the integration of manufacturing. Students learn about the Principles of Manufacturing, how to program Computer Numerical Control (CNC) equipment and robotic arms, and how to design and program automated manufacturing systems.

## **Engineering Design and Development**

Grade 12

(1358) Credit: 1.0

Prerequisite: Completion of: Civil Engineering and Architecture, Computer Science Principles or Computer Integrated Manufacturing with a grade of 80% or greater

This is a capstone class where the knowledge and skills students acquired throughout Project Lead the Way Engineering come together. Students identify an issue and then research, design, and test a solution for that issue, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to fully document the design.

## **AP Computer Science A**

Grades 11 and 12

(1359) Credit: 1.0

Prerequisites: 90% Principles of Engineering; 90% Algebra II Honors; Teacher Recommendation

AP Computer Science is an introductory computer science course that emphasizes object-oriented programming methodology with a concentration on problem solving and algorithm development. It is meant to be equivalent to a first-semester college-level course in computer science. This course has a curriculum that has been directed by the College Board and is designed to prepare the student to take the AP Examination scheduled in May. This course is extremely rigorous and will require summer work and extensive work outside of the classroom.

## **Introduction to Drafting**

(1362) Credit: 1.0

Prerequisite: Introduction to Engineering Technology, Introduction to Engineering Design, or concurrent enrollment at CTC.

This course will focus on allowing the student to develop drafting techniques and planning skills required for employment in technical industries like manufacturing, engineering technology, and construction/architecture. Students will use computer aided design and 3d printing to accurately design and model mechanical parts and both residential and industrial buildings. Models will be in electronic form (using CAD) and physical form (3d printed). Strong emphasis will be placed on accuracy of design, interpretation of working drawings (blueprints), and technical math skills directly applicable to industry.

## Social Studies

### **American History I Honors**

Grade 9

(1481) Credit: 1.0

This course offers a comprehensive study of America from the colonial era, including European influences on the formation of the colonies, tensions with Great Britain leading to declaring independence, and the American Revolution, the writing of the Constitution, and American expansionism through the events that created tensions that led to the Civil War. Students will be challenged to study and explore in greater depth with the goal of developing higher-level cognitive skills, such as analysis, comparison, and contrast, through the use of more rigorous text, as well as classroom activities and in-depth, student-centered classroom discussion.

### **American History II Honors**

Grade 10

(1485) Credit: 1.0

This course presents an historical overview of United States history from the Civil War to present-day America. Emphasis will be placed on the political, economic, social, and cultural development of our nation along with the military conflicts and international relations involving the United States and the world. Using historical documents, films and photographs, as well as classroom situations, students will gain an understanding of how the United States developed and grew after the Civil War period. This course will focus on in depth comparisons and contrasts of the world's political, economic, social, and cultural systems.

### **Ancient World History Honors**

Grade 11 and 12

(1484) Credit: 1.0

Prerequisite: American History

The World History course offers students an opportunity to study ancient civilizations that have impacted the history of the world. Students will learn about the origins of man and will investigate how people formed great civilizations like those of Mesopotamia, Egypt, China, Greece, and Rome. Students will be studying such recurring themes of history as cultural interaction, the growth of government and political systems, development of religious and ethical systems, revolution, and the building of empires. Students will be encouraged to study all of these civilizations in greater depth with the goal of developing higher level thinking skills such as analysis, comparison, and contrast through the use of more varied on-line exercises, as well as classroom activities.

### **Modern U.S. History and Contemporary Issues**

Grades 11 and 12

(1412) Credit: 1.0

This course covers the 1960's to the present day. Students will examine global trade and policies, economic comparisons of nations, conflicts, trends, cultural movements and important modern historical figures that have shaped our present status in the world today. Students will examine current topics such as world hunger, war, peace activism, environmental issues, and civil rights struggles that have impacted our world.

### **American Government**

Grades 11 and 12

(1430) Credit 1.0

This course covers an in-depth curriculum of how the American Government works. Emphasis is placed on studying the U. S. Constitution, the three branches of government and the Bill of Rights. Through class debates, mock elections and trial simulations, students gain an understanding of how the American system of government functions today.

**AP United States Government and Politics**

Grades 11 and 12

(1491) Credit: 1.0

This course provides an analytical perspective on government and politics in the United States. At a minimum, students should already be familiar with the various institutions, groups, beliefs, and ideas that constitute United States political reality. This course explores the political theory and everyday practice that direct the daily operation of our government and shape our public policies. The express purpose of this course is to prepare students to take the AP Examination for U.S. Government and Politics. The course is for all intents and purposes taught on a college level and it requires a substantial amount of reading and preparations for every class. The objectives of this course go beyond a basic analysis of how our government works. Students will develop a critical understanding of the strengths and weaknesses of the American political system, as well as their rights and responsibilities as citizens.

**Psychology**

Grades 11 and 12

(1425) Credit: 1.0

Major topics covered include: introduction to psychology, focusing on major figures in the field; learning principles, focusing on stimulus and response, operant vs. classical conditioning, reinforcement and punishment, and behavior; personality theory, focusing on Freudian theories of id, ego and superego, collective unconscious, cognitive theory and humanism; memory and thought, concentrating on feature extraction, selective attention and memory theories, problem-solving and critical thinking; sensations and perception and perceptual influence; motivation and emotion, focusing on causation, notions of beauty, drive reduction, social motives, intrinsic vs. extrinsic motivation, pleasure principle, physiological theories of emotion and opponent process theory.

## World Languages

### **German I**

Grades 9 through 12

(1161) Credit: 1.0

In this course emphasis is placed on mastery of pronunciation and vocabulary. Two tenses in German, present and conversational past, are covered along with the fundamentals of grammar, reading comprehension, and development of ability to speak and understand. Geography of Germany is covered, and culture is introduced.

### **German II**

Grades 10 through 12

(1162) Credit: 1.0

Prerequisite: German I

This course covers all tenses in German and all other fine points of grammar not previously covered. It develops further a student's ability to speak, read, and write the German language. It also helps students to understand the culture of the Germanic countries: Germany, Austria, and Switzerland.

### **Spanish I**

Grades 9 through 12

(1171) Credit: 1.0

In this course emphasis is placed on mastery of pronunciation and vocabulary. Present, present progressive and simple future tenses in Spanish along with the fundamentals of grammar, reading, comprehension and development of the ability to speak and understand are emphasized. Hispanic culture and geography are covered. Students learn the locations of countries in South America, Central America, the Caribbean, and regions of Spain.

### **Spanish II**

Grades 10 through 12

(1172) Credit: 1.0

Prerequisite: Spanish I

This course reviews Spanish I tenses, the two past tenses, and all other fine points of grammar not already covered. It develops further a student's ability to speak, read, write, and understand Spanish. The culture of Hispanic countries is covered in more depth.

### **Spanish III**

Grades 11 and 12

(1173) Credit: 1.0

Prerequisite: Spanish II

Cultural background is pursued further with creative writing and development of individual skills. Advanced grammar is reinforced through presentations, poetry, and interpretation of short stories. Students explore Hispanic culture through literature, culinary activities, video presentations, holiday projects, and field trips.

### **AP Spanish**

Grade 12

(1174) Credit: 1.0

Prerequisite: Spanish III

A continuation of Spanish III allows students to develop further all areas essential to language learning. Stories are read and interpreted much more closely. Novels, journal prompts, and current events assignments reinforce communication and expression in Spanish. Individual projects are emphasized and encouraged. This course has a curriculum that has been directed by the College Board and is designed to prepare the student to take the AP Examination scheduled in May. This course is extremely rigorous and will require summer work and extensive work outside of the classroom.