



Forest City Regional School District

Every Child, Every Need, Every Day

High School Program of Studies

2025-2026

Revised February 2025

Forest City Regional High School
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2025 - 2026
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.

Forest City Regional High School Teachers Believe:

- Every student can learn.
- Positive relationships are built on mutual respect and are the foundation for all learning.
- Learning happens in a safe, supportive, collaborative environment.
- Student learning is an active process that progresses and changes daily.
- Students learn by engaging with content, generating inquiry, and communicating with teachers and peers.
- Growth is the true measurement of student learning.
- Students will apply the skills we teach them to life experiences.

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Course Scheduling Information

Timeline

In the winter, 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's 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 and Lackawanna 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.

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 Statistics, AP English Language and Composition, AP English 10: AP Seminar, AP Research, AP Government and Politics, AP Biology, AP Chemistry, AP Spanish, AP Computer Science Principles and AP Computer Science AP.

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 began 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

Distinguished 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 1 credit	English 10 1 credit AP Seminar 1 credit	Two English Courses .5 credits each AP Research 1 credit	Two English Courses .5 credits each
Algebra I 1.5 credits OR Algebra IA 1 credit OR Geometry Honors 1 credit	Algebra I B 1 credit OR Geometry Honors 1 credit	Math Requirement 1 credit	Math Requirement 1 credit
General Science 9 1 credit OR Biology Honors with Lab 1.5 credits	Biology Honors with Lab 1.5 credits OR AP Biology with Lab 1.5 credits OR Honors Chemistry with Lab OR General Chemistry	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
Financial Literacy .5 (To be taken one time in HS)	Financial Literacy .5	Public Speaking .5 Financial Literacy .5	Financial Literacy .5
PE/Health .5 credits	Health .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 - 1 credits	Elective Options 4 credit .5 - 1.5	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 1 credit OR Geometry 1 credit OR Intro to Drafting	Math Requirement 1 credit	
Biology 1.5 credits	American History II 1 credit	Science Elective 1 credit minimum
		Social Studies Elective .5 credit
Health/PE .5 credits	Financial Literacy Course .5 Credits	Financial Literacy Course .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 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	5.5 Credits
Financial Literacy	0.5 Credits
Total	23.5 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 (* 2.5 Credits until the end of 27/28 School Year to allow for Financial Lit)
Health & Wellness	1.0 Credit
Financial Literacy	0.5 Credit
Electives**	2.0 Credits (* Adjusted for Financial Literacy starting in 9th grade in 25/26)
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:

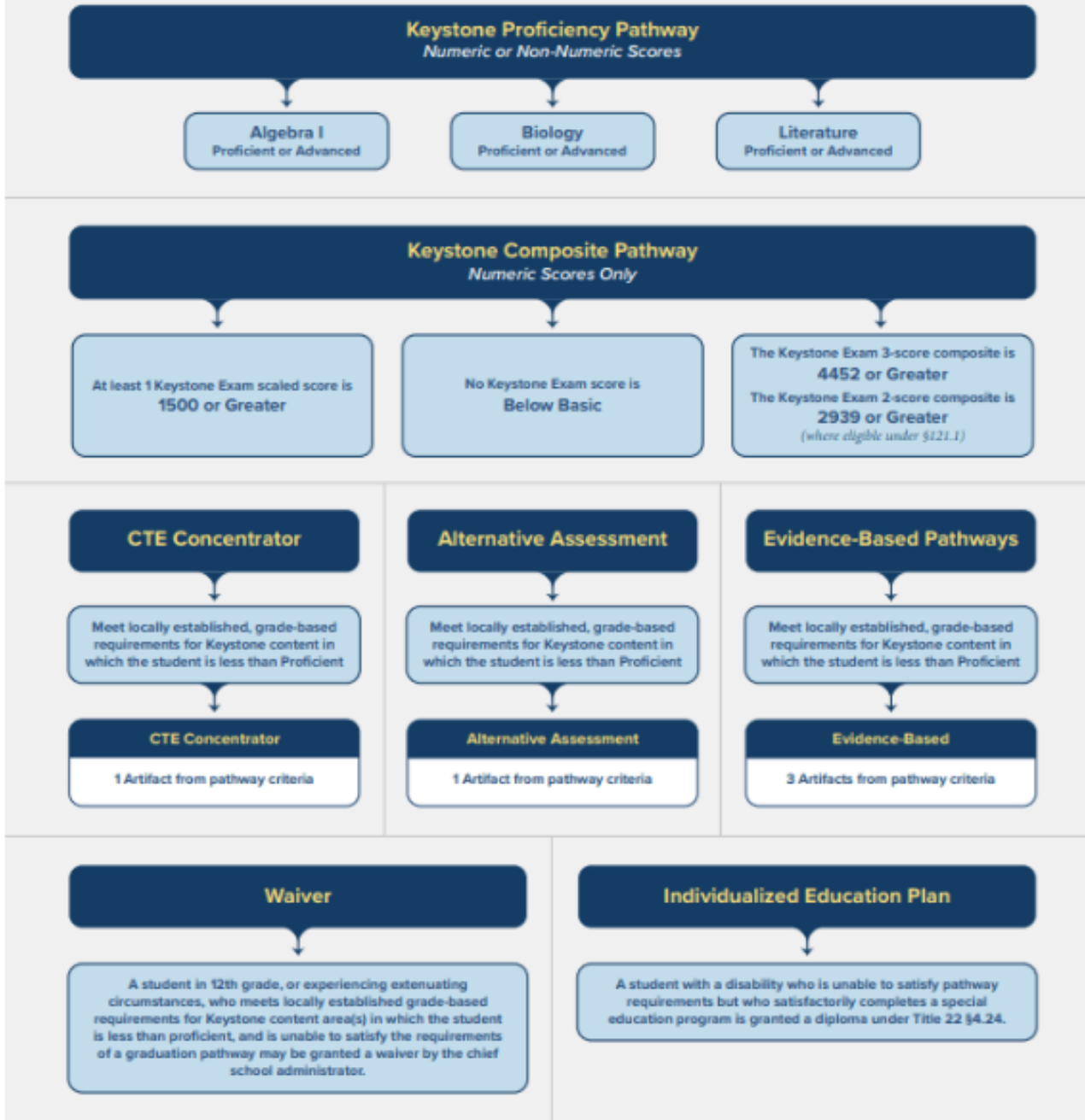
9 th Grade	Health/Physical Education
10 th Grade	Health 10
11 th Grade	Public Speaking
9 - 12 th Grade	Financial Literacy

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

Pathways to Graduation



Pennsylvania Pathways to Graduation



Pathway Criteria

CTE Concentrator	Alternative Assessment	Evidence-Based
<p align="center">1 Artifact</p>	<p align="center">1 Artifact</p>	<p align="center">3 Artifacts consistent w/student goals ONE or more from Section One No more than TWO from Section Two</p>
<p>Industry-based competency certification</p> <hr/> <p>Likelihood of industry-based competency assessment success</p> <hr/> <p>Readiness for continued engagement in CTE Concentrator program of study</p>	<p>Attainment of one alternative assessment score or better: ACT (21), ASVAB AFQT (31), PSAT/NMSQT (970), or SAT (1010)</p> <hr/> <p>Attainment of Gold Level or better on ACT WorkKeys</p> <hr/> <p>Attainment of 3 or better on AP Exam(s) related to each Keystone content area in which less than Proficient</p> <hr/> <p>Attainment of 4 or better on IB Exam(s) related to each Keystone content area in which less than Proficient</p> <hr/> <p>Successful completion of concurrent enrollment course(s) related to each Keystone content area in which less than Proficient</p> <hr/> <p>Successful completion of a pre-apprenticeship program</p> <hr/> <p>Acceptance into accredited, non-profit Institution of Higher Education (IHE) 4yr program for college-level coursework</p>	<p>Section 1</p> <hr/> <p>Attainment of 630 or better on any SAT Subject Test</p> <hr/> <p>Attainment of Silver Level or better on ACT WorkKeys</p> <hr/> <p>Attainment of 3 or better on any AP Exam</p> <hr/> <p>Attainment of 3 or better on any IB Exam</p> <hr/> <p>Successful completion of any concurrent enrollment or postsecondary course</p> <hr/> <p>Industry-recognized credentialization</p> <hr/> <p>Acceptance into accredited, non-profit Institution of Higher Education (IHE) for college-level coursework in an other-than-4yr program</p> <hr/> <p>Section 2</p> <hr/> <p>Attainment of Proficient or Advanced on any Keystone Exam</p> <hr/> <p>Successful completion of a service-learning project</p> <hr/> <p>Letter guaranteeing full-time employment or military enlistment</p> <hr/> <p>Completion of an internship, externship, or cooperative education program</p> <hr/> <p>Compliance with NCAA Division II academic requirements</p>

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 11th 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, Contact, Experience, Written Reflection, Career Plan, and documentation of the required 25 hours of community service. In addition, students are responsible for completing the Graduation Project Checklist, the Graduation Project Contract (related to the 25 hours of community service).

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

High School

1. Job Interviews
2. My Personality Type
3. Personal Interests
4. Active Listening
5. Career Clusters and Pathways
6. Job Applications
7. Personal Budget

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.

Students in life skills classroom will be uploading the following documents to the Smartfutures platform when applicable:

1. Transition Fair Evidence
2. Job Shadows
3. OVR
4. Simplified Resumes
5. Simplified Interviews
6. Classroom/school jobs
7. Employment boxes
8. Community based work experiences

In addition, students will complete several activities on the smart futures platform to satisfy state requirements.

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 th Grade	10 th Grade	11 th Grade	12 th 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 4 9	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 OR AP Statistics
	Algebra I	Honors Geometry	Honors Algebra II	Honors Pre-Calc Trig OR College Algebra OR Statistics/AP 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	General Science 9 OR Honors Biology	Honors Biology OR AP Biology	Honors Chemistry Anatomy & Physiology AP Biology	College Level Physics AP Chemistry Anatomy & Physiology
			General Chemistry PA Ecology	General Physics PA Ecology
Mandatory Related Arts	PE / Health	PE / Health	PE / Health	PE / Health Financial Literacy
Language	Spanish I French I	Spanish II French 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 th	11 th	12 th
History	Honors American History II	American Government OR AP Government & Politics OR Psychology OR Ancient World History OR 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	General Chemistry OR General Physics OR 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 th Grade	10 th Grade	11 th Grade	12 th 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
English I 9	English I 9	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 AP Statistics 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	General Science 9 OR Honors Biology	Honors Biology OR AP Biology OR Honors Chemistry with Lab	PA Ecology General Chemistry General Physics	Choose 1
Mandatory Related Arts			PE / Health	PE / Health Financial Literacy
Language	Spanish I French I	Spanish II French 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 th	11 th	12 th
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	General Chemistry OR General Physics OR 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 th Grade	10 th Grade	11 th Grade	12 th 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 † 9	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 AP Statistics 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	General Science 9 OR Honors Biology	Honors Biology OR AP Biology	PA Ecology General Chemistry General Physics Choose 1	
Mandatory Related Arts			PE / Health	PE / Health Financial Literacy
Language	Spanish I French I	Spanish II French 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 th	11 th	12 th
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	General Chemistry OR General Physics OR 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 th Grade	10 th Grade	11 th Grade	12 th 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 4 9	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 AP Statistics OR Statistics OR Calculus
	Algebra I	Honors Geometry	Honors Algebra II	Honors Pre-Calc Trig OR College Algebra OR AP Statistics 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	General Science 9 OR Honors Biology	Honors Biology OR AP Biology	Honors Chemistry	College Level Physics AND AP Chemistry
			General Chemistry	General Physics
Mandatory Related Arts	PE / Health Freshman Seminar	PE / Health	PE / Health	PE / Health Financial Literacy
Language	Spanish I French I	Spanish II French 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 th	11 th	12 th
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	General Chemistry OR General Physics OR 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 th Grade	10 th Grade	11 th Grade	12 th 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 2
Language Arts	English 4 9	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 AP Statistics 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	General Science 9 OR Honors Biology	Honors Biology OR AP Biology	PA Ecology General Chemistry General Physics	Choose 1
Mandatory Related Arts			PE / Health	PE / Health Financial Literacy
Language	Spanish I French I	Spanish II French II	Spanish III	AP Spanish
Electives	Band Chorus Intro to Business Advanced Office Foods			

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

	10 th	11 th	12 th
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	General Chemistry OR General Physics OR 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		
1107	English Language Arts 7	
1108	English Language Arts 8	
1183	English 9	1.0
1110	English 10	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
1147	Literature and Film	0.5
1191	AP Language and Composition	1.0
1120	AP Seminar (AP English 10)	1.0
1121	AP Research	1.0
1132	Public Speaking	0.5
1131	Advanced Public Speaking	0.5
1133	Digital Media	0.5
MATHEMATICS		
1207	Math 7	
1281	Math 7 Honors	
1208	Math 8	
1282	Algebra I Honors 8	1.0
1210	Algebra IA	1.0
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
1285	Trigonometry/Pre-Calculus Honors	1.0
1241	Calculus Honors	1.0
1286	AP Calculus	1.0
1242	Statistics	1.0
1243	AP Statistics	1.0

SCIENCE

1307	Science 7	
1308	Science 8	
1309	General Science 9	1.0
1384	Biology Honors with Lab	1.5
1394	AP Biology	1.5
1319	Forensic Science (Elective Credit)	1.0
1323	Pennsylvania Ecology	1.0
1321	Anatomy and Physiology	1.0
1330	General Chemistry	1.0
1385	Chemistry Honors with Lab	1.5
1331	AP Chemistry	1.5
1340	General Physics	1.0
1386	College Level Physics /with Lab	1.5

STEM

1350B	MS STEM Exploration	
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

1407	World Geography	
1408	Civics and Government	
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		
1171	Spanish I	1.0
1172	Spanish II	1.0
1173	Spanish III	1.0
1174	AP Spanish	1.0
1161	French I	1.0
1162	French II	1.0
1163	French III	1.0
BUSINESS EDUCATION		
1608	Career Education	
1389	Computers	
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*	0.5
1702	Chorus*	0.5
1706	Music Theory	0.5
1708	Intro to Guitar	0.5
ART EDUCATION		
1808	MS Art	
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	0.5
1810	3D	0.5
1850	Photography	0.5

HEALTH AND PHYSICAL EDUCATION

1907	T7 Phys Ed	
1908A	8 Health/PE	
1915	MS Phys Ed	
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

MS Art

Grade 8

(1808)

Students will create pieces that demonstrate mastery of the elements of art and principles of design. Students will be introduced to a sampling of artistic materials and techniques. Students will begin to explore their own personal aesthetics, making personal choices about the creation of their art. The course will give the students a good indication of what further art study will look like.

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 I, 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

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: 0.5

Grade 11-12

Scheduling Note: Priority will be given to students in grade 12

Prerequisite: Art Foundations

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. Additionally students will participate in Adobe Certified Professional exams Adobe Certified Professional is the **industry-recognized certification** that validates proficiency in Creative Cloud software and foundational knowledge for digital media careers through a 50-minute, live-in-the-app exam.

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.

Photography (1850) Credit: 0.5

Grade 11-12

Scheduling Note: Priority will be given to students in grade 12

Prerequisite: Art Foundations

This course covers basic concepts and practice of digital photography, including understanding and use of the camera, lenses, and other basic photographic equipment. The course will address aesthetic principles as they relate to composition, space, exposure, light and color. Additionally students will work with Adobe lightroom as they explore editing techniques.

Business Education

MS Career Education-8

This course continues to explore the features and capabilities of Smart Futures while students transition to Middle School. Students will complete personal career inventories and explore personal interests and career clusters whether they choose to go directly into the workforce, military or post-secondary education. Students will research possible career interests and the necessary academic and/or the technical path that they need to take including occupations related to the Career Technology Center. Students will be encouraged to research careers and occupations “outside the box” via college, My Next Move, Career One Stop, Smart Futures, etc. websites for post-secondary options.

These experiences will help identify careers of interest and develop employability skills that will serve them into the postsecondary world. Employability skills such as time management, teamwork, work ethics, effective communication skills, problem solving skills, etc are stressed throughout the lessons. Students will prepare resumes, cover letters, reference pages, and job applications

In addition, the class will watch the documentary “First Generation: A Guide to College” where the struggles of being a first generation student of four high school students is documented. Lessons throughout the documentary include inventory about what the middle schoolers actually know about college, the jargon (such as SAT, credits, semester, FAFSA, etc), the financial aspects of paying for college, the necessary tools to succeed, etc. A mini-mock interview will also be required.

MS Comput

(1389)

This course provides a more in depth tutorial of Microsoft Applications including Windows, the Office Suit: Word, PowerPoint, and Excel. Students will need to follow oral and written directions and demonstrate good work habits to be successful in the course.

Financial Literacy

Grade 9 - 12

(1245) Credit: 0.5

Prerequisite: None

This class is designed to prepare for the financial transition to adulthood and life after high school. The topics covered will include career and college choices, savings, credit cards and loans, credit scores and reports, and money management, budgeting, renting an apartment, buying a home, insurance, taxes, and investing. This course is mandatory.

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

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

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

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

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

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. Note: Some classes may be offered only on an alternating basis year to year. Consult the course selection sheet for current offerings.

English Language Arts 7

Grade 7

(1107)

The Seventh Grade English Language Arts course utilizes the iReady curriculum framework focusing on multiple genres of literature and several writing styles that will be taught and practiced throughout the year. Students will work independently and collaboratively at developing reading, vocabulary, spelling, grammar, writing, listening, and presentation skills. All of these skills will be embedded in a variety of units that will require students to analyze text, make inferences, and think both critically and abstractly. Module 1 focuses on genre exploration, independent reading, and foundational skills. The focus of Module 2 is nonfiction and research. Module 3 features an in depth analysis of literature and craft. The final modules examine poetry and argumentative writing.

English Language Arts 8

Grade 8

(1108)

The Eighth Grade English Language Arts course builds upon skills developed in seventh grade. This course continues to focus on multiple genres of literature and several writing styles that will be taught and practiced throughout the year. Students will work independently and collaboratively at developing reading, vocabulary, spelling, grammar, writing, listening, and presentation skills. All of these skills will be embedded in a variety of units that will require students to analyze text, make inferences, and think both critically and abstractly. Module 1 focuses on genre exploration, independent reading, and foundational skills. The focus of Module 2 is nonfiction and research. Module 3 features an in depth analysis of literature and craft. The final modules examine poetry and argumentative writing.

English 9

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.

English 10

Grade 10

1110 (Credit 1.0)

The English 10 course builds on the fundamentals introduced in English 9. During the first half of the year, the

focus will be on developing students' writing skills, with an emphasis on mastering the writing process. Students will learn to convey complex ideas, concepts, and information clearly and accurately. They will be immersed in the research process—crafting strong, defensible thesis statements, evaluating sources, and producing a multi-page academic paper. The second semester will center on the study of literature, including poetry, drama, novels, short stories, and non-fiction. Students will analyze text, cite evidence, and respond critically to their learning. They will demonstrate their understanding through class discussions and academic writing. Grammar instruction will be integrated throughout the year, both independently and within the context of their reading and writing.

Dystopian Literature

(1140) Credit 0.5

Grades 10-12

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

(1141) Credit 0.5

Grades 10-12

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

(1142) Credit 0.5

Grades 11-12

The British Literature course covers seminal works of literature from the Anglo-Saxon period to the start of the Romantic Era. *Beowulf* and *Paradise Lost* are featured along with at least one Shakespeare play. Elements of poetry and classic works of non-fiction are also presented. 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. Academic writing and class discussion will be emphasized in response to the readings.

World Literature

(1143) Credit 0.5

Grades 11-12

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. This course contains a

research component as well.

(1144) Credit 0.5

Mystery Genre: From Fiction to Reality

Grades 11-12

This course offers an in-depth exploration of the mystery genre through the analysis of iconic works by Agatha Christie, Sir Arthur Conan Doyle, and William Faulkner. Students will examine the distinctive characteristics of classic detective fiction, from the methodical investigations of Sherlock Holmes to the intricate psychological landscapes of Faulkner's works. In addition to these literary masterpieces, students will also delve into real-life unsolved mysteries, comparing the boundaries between fiction and reality. Writing assignments and research projects will encourage students to explore the mechanics of crafting compelling mysteries while developing their own written expression. The course fosters a deeper understanding of mystery narratives, encouraging students to engage with both the literary tradition and the world of unsolved mysteries, sharpening their analytical and creative skills.

American Literature

(1145) Credit 0.5

Grades 11-12

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. Additional activities, including the completion of a research component will be assigned throughout the semester.

Literature and Film

(1147) Credit 0.5

Grades 11-12

The Literature and Film class will examine classic literary works alongside their film adaptations. Students will analyze both mediums, comparing and contrasting them while exploring the reasons behind any differences. This semester-length course will require students to make connections between the films and the source material and be able to express understanding through class discussion and academic writing. Throughout the course of study, the four aspects of language – reading, writing, speaking, and listening – will be emphasized.

AP Language and Composition

Grades 11 and 12

(1191) Credit: 1.0

Prerequisite: English 9 Honors, AP Seminar or English 10; Proficient on Keystone Literature and/or Department Chair Review of Keystone Scores

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.

AP Seminar

(1120) Credit: 1.0

Grades 10- 12

Prerequisite: English 9 Honors

Students will develop and practice the skills in multidisciplinary research, collaboration, and communication they will need in any academic discipline. Students will investigate topics in a variety of subject areas, write research-based essays, and design and give presentations both individually and as part of a team. Students will analyze topics through multiple lenses to construct meaning or gain understanding, investigate, and propose solutions to real-world problems. This course qualifies students to earn The Advanced Placement Capstone diploma based on two year-long AP Courses: AP Seminar and AP Research.

AP Research

(1121) Credit: 1.0

Grades 11- 12

Prerequisite: English 9 Honors and AP Seminar

AP Research, the second course in the AP Capstone experience, allows students to deeply explore an academic topic, problem, issue, or idea of individual interest. Students design, plan, and implement a yearlong investigation to address a research question. Through this inquiry, they further the skills they acquired in the AP Seminar course by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. Students reflect on their skill development, document their processes, and curate the artifacts of their scholarly work through a process and reflection portfolio. The course culminates in an academic paper of 4,000–5,000 words (accompanied by a performance, exhibit, or product where applicable) and a presentation with an oral defense.

Supplemental English Language Arts Electives (Elective Credit Only)

Public Speaking/Career Education

Grade 11

(1132) Credit: 0.5

This beginner's speech class is mandatory for all students in grade 11. The class will emphasize the importance of verbal and nonverbal communication while addressing public speaking anxiety and building confidence. Students will focus on how to research a topic by locating sources that are credible, reliable information. The students will research, write and deliver effective speeches. Types of speeches include storytelling, informative, persuasive, and a speech with a technology component. Also, students will have a speaker's choice presentation (e.g. humorous, introduce a speaker, farewell, eulogy, nomination, acceptance). Analyzing the audience, effective listening, and in-depth studying of body language are included in the curriculum.

The career education component of the class prepares students for college and the workforce by researching potential careers through personal career inventory, analyzing the job market, the importance of soft skills, workplace ethics, industry and career jargon, financial aid, internship and apprenticeships, using job boards for employment searchers, etc. In addition, students will prepare resumes, cover letters, reference pages, complete job applications, and letter of recommendation requests. Students will participate in a mock job or college interview.

Advanced Public Speaking

Grade 12

(1131) Credit: 0.5

Prerequisite: Public Speaking/ **Career Education**

Advanced Public Speaking will build upon students' general knowledge of communication through public speaking. The course will enable students to refine and gain more experience in preparing to speak formally and informally. In addition to a variety of speeches presented, the course includes assertive communication, skills when dealing with difficult people, analysis of famous speeches, how to properly use a microphone, etc. The students are also encouraged to join the school's YouTube morning announcements as anchors in the broadcast.

The students will also prepare a Sixth Grade Transition Program for the school's sixth graders as they prepare to enter middle school. The seniors will collect and analyze data from the sixth graders when preparing meaningful, learning based activities for the program.

Digital Media

Grades 9 through 11

(1133) Credit: 0.5

Digital Media is an elective course which provides motivated students to support the high school's two means of communication for the students, teachers, and staff: FCR's YouTube morning announcements broadcast (WFCR-TV) and the scrolling announcements. The scrolling announcements, which provides students and staff with necessary daily information, are via digital monitors throughout the high school.

The students will learn the necessary skills which include script writing, researching, and adding creative elements to both mediums.

Physical Education

Physical Education

Grade 7

(1900)

This program 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.

Health and Wellness 8

Grade 8

(1901)

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.

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.

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

Math 7

Grade 7

(1207)

This course focuses on understanding and applying proportional relationships, operations with rational numbers, linear expressions and equations, and solving problems related to 2 and 3 dimensional figures, and drawing inferences about populations based on samples.

Math 7 Honors

Grade 7

(1281)

Prerequisite: 90% Math 6; PSSA Scores; PVAAS Projection; Teacher Recommendation

This course focuses on understanding and applying proportional relationships, operations with rational numbers, linear expressions and equations, and solving problems related to 2 and 3 dimensional figures, and drawing inferences about populations based on samples. Early 8th grade topics will be introduced such as linear equations with multiple solutions, as well as an introduction to linear functions.

Math 8

Grade 8

(1208)

This course focuses on expressions and linear equations, identifying and writing functions to describe relationships, graphing various relationships, solving problems related to 2 and 3 dimensional figures. This course emphasizes mathematical communication, collaboration, and problem solving.

Algebra I Honors 8

Grade 8

(1282) Credit: 1.0

Prerequisite: 88% Math 7 Honors; 90% Math 7 or Math 8; PVAAS Projection; Teacher Recommendation

Algebra I requires each student to compute, problem-solve, make/test conjectures, and apply math concepts to real-life scenarios in an accelerated manner. Topics include operations with real numbers, variables, algebraic expressions, equations/inequalities, polynomials, factoring, graphing, rates of change, functions, data analysis, probability, problem solving with 2 and 3 dimensional figures. Students will communicate mathematically using multiple representations.

If a student is placed in Algebra 1 (based on PSSA scores, teacher recommendation & grades from previous years), they are considered to be on the “accelerated course of study in mathematics.” A student in 8th grade can gain 1 high school credit IF and only if they pass the Keystone exam at the end of the 8th grade year. If a student does not pass the Keystone exam, they will NOT get the high school credit.

Students who score proficient or advanced on the Keystone exam will earn 1 credit. The grade in the class will NOT impact the student's high school GPA. It is still the expectation that the student will take a math class every year in high school which will equate to 5 total math credits (1 above the requirement).

Algebra IA

Grades 9 and 10

(1210) Credit: 1.0

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

(1211) Credit: 1.0

Prerequisite: Algebra IA

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, systems of equations, 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, systems of equations, polynomials, and factoring, graphing, rates of change, functions, data analysis, and probability. Students will communicate mathematically using multiple representations.

Geometry Honors

Grade 9

(1284) Credit: 1.0

Prerequisite: Algebra I; Proficient on Keystone Algebra I and/or Department Chair Review of Keystone Scores
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.

Geometry

Grade 10, 11, 12

(1230) Credit: 1.0

Prerequisite: Algebra I; Proficient on Keystone Algebra I and/or Department Chair Review of Keystone Scores
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; Proficient on Keystone Algebra I and/or

Department Chair Review of Keystone Scores

The math class will be a real-world 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 and/or Department Chair Review of Keystone Scores

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

Prerequisite: Algebra I or Algebra IA and Algebra IB; Geometry Honors or Geometry; Proficient on Keystone Algebra and/or Department Chair Review of Keystone Scores

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 or Geometry, Algebra II Honors, Proficient on Keystone Algebra I and/or Department Chair Review of Keystone Scores

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 and/or Department Chair Review of Keystone Scores

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 opportunities to apply knowledge to real-life problems. Topics of study include polynomial functions, complex numbers, rational functions, trigonometric functions and their inverses, logarithmic and exponential functions, 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 and/or Department Chair Review of Keystone Scores

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 and/or Department Chair Review of Keystone Scores

This course is designed to prepare students for the AP Calculus Test as well as college level calculus courses. This honors mathematics course is different from the equivalent standard level course in the fast pacing, the quality of the work expected, and the quantity of the work required inside and outside of the classroom. 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. Students who take this course will take the Advanced Placement Calculus Test given in May.

Statistics

Grades 11 and 12

(1242) Credit: 1.0

Prerequisite: Algebra I, Geometry Honors, Algebra II Honors, Proficient on Keystone Algebra Assessment and/or Department Chair Review of Keystone Scores

Students will work with probability, data collection, descriptive and inferential statistics, probability, and technological tools to analyze statistics. This mathematics course is an accelerated level course in both the quality of the work expected and the quantity of the work required inside and outside of the classroom. 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.

AP Statistics

Grades 11 and 12

(1243) Credit: 1.0

Prerequisite: Algebra I, Geometry Honors, Algebra II Honors, Proficient on Keystone Algebra Assessment and/or Department Chair Review of Keystone Scores

AP Statistics is offered to students following the successful completion of Algebra II Honors or above and who have the recommendation of their math teacher. This is a fast-paced, intensive course equivalent to a one-semester, introductory, non-calculus-based college course in statistics. Topics studied in detail include descriptive and inferential statistics, basic concepts of probability, probability distributions, applications of the normal distribution, confidence intervals, hypothesis testing, and correlation and regression. Class activities will involve exploring data, planning a study, anticipating patterns, and statistical inference. Students will learn to use a graphing calculator to analyze data in each class. Students who take this course will take the Advanced Placement Statistics Test given in May.

Music Education

Band

Grades 7 through 12

(1701) 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 7 through 12

(1702) 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

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.

Intro to Guitar

(1708) Credit: 0.5

Grades 9 through 12

An introductory course in the fundamentals of guitar playing, designed for the beginning student. A dual approach to the instrument will be taught: 1) as an accompaniment for singing; the student will learn chords, progressions, strums, and finger-picking; 2) as a solo instrument; the student will learn the fundamentals of reading music, as applied to the guitar; e.g. staff-notation, meters, rhythms, scales, positions with emphasis on developing dexterity.

Science & STEM

Science 7

Grade 7

(1307)

This course is designed to give students the background in: properties of matter, atoms and elements, periodic table and chemical bonding, motion, forces, energy, heat.

Science 8

Grade 8

(1308)

This course is designed to give students the background they need in : explanation of living things, viruses/bacteria, protists/fungi, plants, populations/communities, ecosystems/biomes, living resources, energy resources.

General Science 9

(1309) Credit 1.0

This course is designed to provide an opportunity to investigate areas of Ecological and Environmental Sciences as well as Biochemistry and how they are an integral part of everyday life. Students will investigate the composition, diversity and how living things are connected to earth. The fundamental concept of evolution will lead to investigations into explorations of the living world, the physical environment, and the interactions that occur in and between ecosystems. Biochemistry will involve the study of the molecular composition of living cells, the organization of biological molecules within the cell, and the structure and function of these biological molecules. Students will engage in investigations to understand and explain the behavior of living things in a variety of scenarios that incorporate scientific reasoning, analysis, communication skills and real-world applications.

Biology Honors with Lab

Grade 9 & 10

(1384) Credit: 1.5

Prerequisite: Successful completion of Algebra I (may be taken simultaneously). Proficient or Advanced on the 8th Grade Science PSSA and Reading PSSA or successful completion of General Science 9.

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.

AP Biology with Lab

(1394) Credit 1.5

Prerequisites: Concurrent enrollment or successful completion of Honors Chemistry with Lab; Proficient on the Biology Keystone Exam, Proficient on the Literature Keystone Exam, Proficient on the Keystone Algebra Keystone and/or Department Chair Review of Keystone Scores

AP Biology is offered to students following the successful completion of Biology Honors or above and who have the recommendation of their Biology teacher. This is a fast-paced, intensive course equivalent to a two semester college introductory biology course. Topics covered include in-depth review of cell anatomy and physiology, mitosis and meiosis, cellular energetics, heredity and molecular genetics, the anatomy and physiology of plants and animals, and ecology. Primary emphasis is given to developing an understanding of concepts rather than memorizing terms and technical details. Summer work is required. The course will include taking the AP Biology Exam in May. This course is designed for college-bound students planning to major in any of the biological sciences.

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 and/or Department Chair Review of Keystone Scores
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.

General Chemistry

Grades 11 and 12

(1330) Credit: 1.0

Prerequisite: Proficient on Keystone Algebra I and/or Department Chair Review of Keystone Scores
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 10-and 12

(1385) Credit: 1.5

Prerequisite: Algebra II; Biology; Proficient on Keystone Algebra I and/or Department Chair Review of Keystone Scores, Teacher Recommendation

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 with Lab

Grade 12

(1331) Credit: 1.5

Prerequisite: Chemistry Honors with Lab; Proficient on Keystone Algebra I and/or Department Chair Review of Keystone Scores, Teacher Recommendation

This course is a college level class focusing on atomic theory, stoichiometry, the periodic table, bonding, molecular structure, interaction of gasses, 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.

General Physics

Grade 11/12

(1340) Credit: 1.0

Prerequisite: Proficient on Keystone Algebra I and/or Department Chair Review of Keystone Scores

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: Honors 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.

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

MS STEM Exploration

1350B

An activity-oriented program designed to help students explore math, science, and technology. Strong emphasis is placed on the design process. Students may choose to take this class in both seventh and eighth grades. In school years beginning during odd years, students will participate in exploratory activities related to chemical engineering, electricity, computer programming and mechatronics. In school years beginning during even years, students will participate in exploratory activities related to workshop safety, basic fabrication, computer aided design, rapid prototyping, and sustainable architecture.

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.

Introduction 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 and/or Department Chair Review of Keystone Scores, 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 and/or Department Chair Review of Keystone Scores, 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, Algebra 1 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

World Geography

Grade 7

(1407)

This course gives the student a balanced, broad view of the interaction of people with their physical and cultural environment. Students will explore humans' impact on the earth and how modern technology helps provide answers to questions about our ever-changing planet. In addition, the five themes of geography - location, place, human environment interaction, movement, and regions are emphasized in a regional approach to geography.

Civics and Government

Grade 8

(1408)

This course explores what it means to be an informed and participating citizen in a democratic society and the fundamental principles of the United States government. Students will learn about the three branches of government, the process of lawmaking and the electoral college system. Students will understand the rights and responsibilities of citizenship and how these rights are protected under the U. S. Constitution and the Bill of Rights and through the system of courts. In addition, students will explore how they can actively participate in their community and political system, often focusing on current events to develop critical thinking and civic engagement skills.

American History I Honors

Grade 9

(1481) Credit: 1.0

This course offers a comprehensive study of America from the colonial era to the pre-Civil War era. Topics included are the European influences on the formation of the colonies, tensions with Great Britain leading to declaring independence, the American Revolution, the writing of the Constitution, American expansionism and 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

Spanish I

Grades 8 through 12

(1171) Credit: 1.0

In this rigorous introduction course, emphasis is placed on mastery of pronunciation and vocabulary. Present, simple future, and past-preterite tenses are introduced, along with the fundamentals of grammar, reading, and comprehension. Development of the ability to speak and understand is emphasized. Spanish-speaking culture and geography are also introduced.

Students in 8th grade will be given the opportunity to take Spanish I if they receive a proficient or advanced score on the 7th grade ELA PSSA (or an equivalent test). The student will get 1 high school credit if they receive a 65% or above for the class and score at least 85% on the “World Language Proficiency Exam” set for this class. The grade they receive in this class will not impact their high school GPA.

Spanish II

Grades 9 through 12

(1172) Credit: 1.0

Prerequisite: Spanish I

This rigorous course reviews Spanish I tenses and introduces the past-imperfect and present perfect tense, the subjunctive mood, and other fine points of grammar not already covered. It further develops the student's ability to speak, read, write, and understand Spanish. The culture of Spanish-speaking countries is covered in more depth.

Spanish III

Grades 10 and 12

(1173) Credit: 1.0

Prerequisite: Spanish II

In this Pre-AP course, cultural background is pursued further in the development of individual skills through the six AP Spanish Language & Culture themes: Families and Communities, Science and Technology, Beauty and Aesthetics, Contemporary Life, Global Challenges, and Personal and Public Identities. Advanced grammar is reinforced through presentations and written communication. Students explore Spanish-speaking culture through literature, video presentations, holiday projects, and more.

AP Spanish

Grades 11 - 12

(1174) Credit: 1.0

Prerequisite: Spanish III

The FCR AP Spanish Language & Culture class allows students to further develop all areas essential to language learning through the six AP Spanish Language & Culture themes: Families and Communities, Science and Technology, Beauty and Aesthetics, Contemporary Life, Global Challenges, and Personal and Public Identities. Literature is read and interpreted much more closely, and various styles of assignments and assessments 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.

French I

Grades 8 through 12

(1161) Credit: 1.0

In this rigorous course students are challenged to read, write, speak and listen to French. Over a span of 8 units students will be able to comprehend conversation with the themes of-Introducing and describing yourself and others, school, family and friends, restaurant/cafe, free time/hobbies, the home, vacation and holidays. The

culture of France and francophile countries will be discussed according to the outlined themes. Students will be able to communicate in the present, simple future and past tense.

Students in 8th grade will be given the opportunity to take French if they receive a proficient or advanced score on the 7th grade ELA PSSA (or an equivalent test). The student will get 1 high school credit if they receive a 65% or above for the class and score at least 85% on the “World Language Proficiency Exam” set for this class. The grade they receive in this class will not impact their high school GPA.

French II

(1162) Credit: 1.0

Grades 8 through 12

In this rigorous course students are challenged to read, write, speak and listen to French. Over a span of eight units students will be able to communicate and comprehend conversation with the following themes-food, health, technology, town/city, future/jobs, countryside and the arts. The culture of France and francophile countries will be discussed according to the outlined themes. Students will be able to communicate in the conditional, future and subjunctive tenses.

French III

(1163) Credit: 1.0

Grades 9-12

In this rigorous course students are challenged to read, write, speak and listen to French. Over a span of eight units students will be able to communicate and comprehend conversation with the following themes-personal relationships, life in the city, influences of media, the value of ideas, evolution of society, generations of family and research/progress. The culture of France and francophile countries will be discussed according to the outlined themes. Students will be able to communicate using various forms of grammar.