



Forest City Regional School District

Every Child, Every Need, Every Day

High School Program of Studies

2019-2020

Revised May 2019

Forest City Regional High School
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2019-2020 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 student, 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 student, families, teachers, administrators and community members is essential for continuous improvement.
8. Our shared leadership approach will maximize the professional growth of our educational team by empowering individuals and giving them an opportunity to lead in their areas of expertise.

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Course Scheduling Information

Timeline

In May 2019, school counselors and administration will hold grade level assemblies explaining the course selection process and 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 Guidance Office by the due date.

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

Course selection and scheduling will occur in the 4th quarter of the school year.

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

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

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

Override Process

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

Student Schedule Changes

Students can request a schedule change on the designated summer day in August and/or until the end of the first 6-day cycle of the 2019-2020 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 2018-2019 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 has offered the following Dual Enrollment Courses: Anatomy and Physiology; AP Chemistry; Advanced Public Speaking; AP Government and Politics; AP Calculus; Physics Honors; Psychology; Spanish III; AP Spanish; College Algebra; Honors Chemistry; Accounting I; Accounting II; Calculus Honors. Courses offered for Dual Enrollment credit are at the discretion of the participating higher education institutions.

Level-Up Lackawanna

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

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

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

Advanced Placement

The Advanced Placement (AP) Program offers college level courses and examinations to high school students. Advanced Placement courses make it possible for academically talented students to increase the challenge of their studies, both in high school and in college. The Advanced Placement Program consists of courses identified by the College Board as college level in content. Upon successful completion of an AP course, it is strongly suggested that students take the corresponding AP exam to realize the full benefit of the course. Based on the score the student receives on a particular examination and the specific college or university that a student chooses to attend, college credit or course waiver may be offered. Students enrolled in these courses will be expected to perform at a stringent level of competence and should anticipate 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 Composition and Language, AP Government and Politics, AP Chemistry, AP Spanish, AP Computer Science Principles and AP Computer Science.

Weighted Grades and Honor Roll

Weighted Grades

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

The classes of 2019 and 2020 will follow the previous weighting system of a 5% multiplier for all Honors and Advanced Placement (AP) courses.

Honor Roll Requirements

High Honor Roll

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

Honor Roll

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

Sequence of Study

Grade 9

Health & Wellness/Physical Education	0.50 credit
Diverse World **	0.50 credit
English	1.0 credit
American History I	1.0 credit
Physical Science	1.0 credit
Math (Algebra 1 with Lab 1.5 credits)	1.0 (1.5) credit (s)
Elective (1.5 credits if Algebra I)	2.0 (1.5) credit

Grade 10

Academic

Health & Wellness/Phys. Ed.	0.50 credit
Digital Citizenship**	0.50 credit
English	1.0 credit
American History II	1.0 credit
Biology with Lab	1.5 credit
Math	1.0 credit
Elective	1.5 credit

Career Technology

Health & Wellness/Phys. Ed.	0.50 credit
English	1.0 credit
Biology with Lab	1.5 credit
Math	1.0 credit
CTC Elective	2.0 credit

Grade 11

<u>Academic</u>		<u>Career Technology</u>	
Health & Wellness	0.50 credit	English	1.0 credit
Career & College Readiness**	0.50 credit	Math	1.0 credit
Financial Planning*	0.50 credit	Social Studies	1.0 credit
English	1.0 credit	CTC Elective	2.0 credit
Math	1.0 credit		
Social Studies	1.0 credit		
Science	1.0 credit		
Elective	1.5 credit		

Grade 12

<u>Academic</u>		<u>Career Technology</u>	
English	1.0 credit	English	1.0 credit
Math	1.0 credit	Social Studies	1.0 credit
Social Studies	1.0 credit	Science	1.0 credit
Electives	3.5 – 4.0 credits	CTC Elective	2.0 credit

* Half Credit courses (0.50) counting towards **Elective requirements** include Career Education 9, Financial Planning

** Quarter Credit courses (0.50) counting towards **Arts /Humanities Elective requirements** include This Is Water, Career & College Readiness

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	3.0 Credits
Mathematics	4.0 Credits
Social Studies	4.0 Credits
Health & Wellness	1.0 Credits
*Arts/Humanities Electives	2.0 Credits
<u>Electives</u>	<u>6.0 Credits</u>
Total	24.0 Credits

Forest City Regional High School/Career Technology Center

English	4.0 Credits
Science	3.0 Credits
Mathematics	3.0 Credits
Social Studies	3.0 Credits
Health & Wellness	0.5 Credit

Electives**	2.0 Credit
CTC Electives	6.0 Credits
Total	21.5 Credits

*Courses satisfying the Arts/Humanities electives include: Art, Family and Consumer Science, Music and World Language

** Any elective course would apply

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

Career and Post-Secondary 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 & Wellness; This Is Water: Valuing Yourself and Embracing a Diverse World
10 th Grade	Health & Wellness; Digital Citizenship
11 th Grade	Health & Wellness; College and Career Readiness; Financial Planning

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 12th grade year for satisfactory completion. This career portfolio is mandated for high school graduation per the Pennsylvania Department of Education.

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

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.

Course List

The following is a list of all the courses offered and corresponding credit value and credit level. Course descriptions start on page 17. **All non-required courses will be offered based on student interest, enrollment, and viability of scheduling.**

Course No.	Course Name	Credit Value	Credit Level
<u>ENGLISH LANGUAGE ARTS</u>			
1109	English 9	1	Academic
1183	English 9 Honors	1	Honors
1110	English 10	1	Academic
1184	English 10 Honors	1	Honors
1111	English 11	1	Academic
1185	English 11 Honors	1	Honors
1113	English 12	1	Academic
1186	English 12 Honors	1	Honors
1191	AP Language and Composition	1	AP
1132	Public Speaking	0.50	Academic
1131	Advanced Public Speaking	0.50	Academic
1114	Digital Citizenship	0.50	Academic
1133	Digital Media	0.50	Academic
2110; 2120	English 9/10	1	Academic
2130; 2140	English 11/12	1	Academic
<u>MATHEMATICS</u>			
1222	Algebra I	1	Academic
1289	Algebra I Honors	1	Honors
1223	Algebra II	1	Academic
1283	Algebra II Honors	1	Honors
1230	Geometry	1	Academic
1284	Geometry Honors	1	Honors
1235	College Algebra	1	Academic
1244	Applications of Algebra	1	Academic
1240	Trigonometry/Pre-Calculus	1	Academic
1270	Algebra Enrichment	N/A	Academic
1285	Trigonometry/Pre-Calculus Honors	1	Honors
1241	Calculus Honors	1	Academic
1286	AP Calculus	1	AP
1242	Statistics	1	Academic
1250	Math Functions	1	Academic
<u>SCIENCE & STEM</u>			
1309	Physical Science I	1	Academic
1383	Physical Science I Honors	1	Honors
1311	Biology/Lab	1.5	Academic
1312	Biology Enrichment	N/A	Academic
1384	Biology/Lab Honors	1.5	Honors
1319	Forensic Science	1	Academic

1322	Environmental Science	1	Academic
1321	Anatomy and Physiology	1	Academic
1330	Chemistry/Lab	1.5	Academic
1385	Chemistry Honors/Lab	1.5	Honors
1331	AP Chemistry	1.5	AP
1340	Physics/Lab	1.5	Academic
1386	Physics Honors/Lab	1.5	Honors
1352	Introduction to Engineering Design	1	Academic
1360	Introduction to Engineering Technology	1	Academic
1362	Introduction to Drafting	1	Academic
1353	Principles of Engineering	1	Academic
1354	Digital Electronics	1	Academic
1355	Civil Engineering and Architecture	1	Academic
1361	Computer Science Essentials	1	Academic
1356	AP Computer Science Principles	1	AP
1357	Computer Integrated Manufacturing	1	Academic
1358	Engineering Design and Development	1	Academic
1359	AP Computer Science A	1	AP

SOCIAL STUDIES

1401	American History I	1	Academic
1481	American History I Honors	1	Honors
1410	World History	1	Academic
1484	World History Honors	1	Honors
1411	American History II	1	Academic
1485	American History II Honors	1	Honors
1412	Modern World History	1	Academic
1430	American Government	1	Academic
1491	AP Politics and Government	1	AP
1425	Psychology	1	Academic
1422	This Is Water: Valuing Yourself and Embracing A Diverse World	0.25	Academic
1423	Considering Your Life	0.25	Academic

WORLD LANGUAGES

1161	German I	1	Academic
1162	German II	1	Academic
1171	Spanish I	1	Academic
1172	Spanish II	1	Academic
1173	Spanish III	1	Academic
1174	AP Spanish	1	AP

FAMILY AND CONSUMER SCIENCE

1509	LIVING DYNAMICS	0.25	
1530	Foods	0.50	Academic
1531	Foods and Nutrition I	1	Academic
1532	Advanced Foods and Nutrition	0.50	Academic

BUSINESS EDUCATION

1606	Career Education 9	0.25	Academic
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1600	Introduction to Business	0.50	Academic
1601	Accounting I	1	Academic
1612	Accounting II	1	Academic
1602	Web Page Design	0.5	Academic
1603	Entrepreneurship	0.5	Academic
1604	Advanced Office	0.5	Academic
1605	Sports/Entertainment Marketing & Management	0.5	Academic
1613	Business Law	0.5	Academic
1245	Financial Planning	0.25	Academic

MUSIC EDUCATION

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

ART EDUCATION

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

HEALTH AND PHYSICAL EDUCATION

1909	Health/Physical Education 9	0.50	Academic*
1902	Health/Physical Education 10	0.50	Academic*
1910	Health/Physical Education 11	0.50	Academic*
1911	Fitness Training	0.50	Academic
1912	Team & Individual Sports	0.50	Academic

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

Course Descriptions

Art Education

Art Foundations

1800 Credit: .5

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 aide 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

(I-1802; II-1804; III-1806) Credit .5

Grade 9-12

Prerequisite: Art Foundations I

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 aide 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 I, II, and III represent the number of years electing to take art.

Advanced Studio Art

(1812) Credit 1

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 in on career application in design, commercial art, and industry while developing the student's own personal style.

Graphic Design

(1811) Credit: 1

Grade 10-12

Prerequisite: none

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

3D

(1810) Credit: .5

Grade 10-12

Prerequisite: art foundations

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

Business Education

Career Education 11

Grade 11

(1130) Credit: 0.50

Prerequisite: None

This course is a practical guide in helping students “Get There”...wherever “there” might be for each individual student by developing essential skills needed for the post-secondary world. The course will focus on the following: developing resumes, writing cover letters, and obtaining references; interviewing skills; job shadowing; soft skills; work place ethics; telephone skills; and job search skills.

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

Digital Citizenship

Grade 10

(1114) Credit: 0.50

Prerequisite: None

This course focuses on the use of digital media and environments to communicate and work collaboratively while applying concepts of appropriate online behavior. Students will learn about human, cultural, and societal issues related to technology as they practice legal and ethical behaviors. Major topics will be demonstrating how to be a

good citizen in a cyber community, using personal safety strategies on the Internet, learning guidelines for email and social networking safety, learning to recognize and report cyberbullying and learning how to determine appropriate sites on the Internet and what to do if they encounter an inappropriate site.

This is a mandatory course for all 10th Grade students.

Career & College Readiness

Grade 11

(1130) Credit: 0.50

Prerequisite: None

This course is a practical guide in helping students “Get There”... wherever “there” might be for each individual student by developing essential skills needed for the post-secondary world. The course will focus on the following: developing resumes, writing cover letters, and references; interviewing skills; job shadowing; soft skills; work place ethics; telephone skills; and job search skills.

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

Financial Planning

Grade 11

(1245) Credit: 0.50

Prerequisite: None

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

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

Introduction to Business

Grades 9 through 12

(1600) Credit: 0.50

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

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

Prerequisite: Accounting I

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

Web Page Design

Grades 9 through 12

(1602) Credit: 0.5

Prerequisite: None

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

Entrepreneurship

Grades 10 through 12

(1603) Credit: 0.5

Prerequisite: None

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

Advanced Office

Grades 9 through 12

(1604) Credit: 0.5

Prerequisite: None

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

Sports and Entertainment Marketing Management

Grades 10 through 12

(1605) Credit: 0.5

Prerequisite: None

This course explores the world of marketing from the perspective of the sports and entertainment field along with opportunities in varied fields of marketing and management. 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 9 through 12

(1613) Credit: 0.5

Prerequisite: None

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

English Language Arts

English 9

Grade 9

(1109) Credit: 1

This course is designed to assist students in continuing their growth in reading, writing, listening, speaking, and research skills. Students will use strategies to refine critical reading and writing skills and vocabulary development in order to analyze various types of literary works and to write effectively. Through the study of a variety of text types and media, students build knowledge, analyze ideas, delineate arguments, and develop writing, collaboration, and communication skills.

English 9 Honors

Grade 9

(1183) Credit: 1

This honors level course is intended for students who desire a more challenging curriculum. This course is designed to assist students in continuing their growth in reading, writing, listening, speaking, and research skills. Students will use strategies to refine critical reading and writing skills and vocabulary development in order to analyze various types of literary works and to write effectively. Through the study of a variety of text types and media, students build knowledge, analyze ideas, delineate arguments, and develop writing, collaboration, and communication skills.

English 10

Grade 10

(1110) Credit: 1

This course offers a variety of rich texts that engage students in analysis of literary and journalistic nonfiction as well as poetry, drama, and fiction. Working with these texts, students will continue their growth in reading, writing, listening, speaking, and research skills. Students will use strategies to refine critical reading and writing skills and vocabulary development in order to analyze various types of literary works and to write effectively. Through the study of a variety of text types and media, students build knowledge, analyze ideas, delineate arguments, and develop writing, collaboration, and communication skills.

English 10 Honors

Grade 10

(1184) Credit: 1

This honors level course is intended for students who desire a more challenging curriculum. This course offers a variety of rich texts that engage students in analysis of literary and journalistic nonfiction as well as poetry, drama, and fiction. Working with these texts, students will continue their growth in reading, writing, listening, speaking, and research skills. Students will use strategies to refine critical reading and writing skills and vocabulary development in order to analyze various types of literary works and to write effectively. Through the study of a variety of text types and media, students build knowledge, analyze ideas, delineate arguments, and develop writing, collaboration, and communication skills.

English 11

Grade 11

(1111) Credit: 1

English 11 continues to develop students' skills in analyzing complex literary and informational texts as students delve deeply into works by acclaimed authors and historical figures and classical works. Students will use strategies to refine critical reading and writing skills and vocabulary development in order to analyze various types of literary works and to write effectively. Through the study of a variety of text types and media, students build knowledge, analyze ideas, delineate arguments, and develop writing, collaboration, and communication skills. Completion of a research paper is mandatory.

English 11 Honors

Grade 11

(1185) Credit: 1

This honors level course is intended for students who desire a more challenging curriculum. English 11 continues to develop students' skills in analyzing complex literary and informational texts as students delve deeply into

works by acclaimed authors and historical figures and classical works. Students will use strategies to refine critical reading and writing skills and vocabulary development in order to analyze various types of literary works and to write effectively. Through the study of a variety of text types and media, students build knowledge, analyze ideas, delineate arguments, and develop writing, collaboration, and communication skills. Completion of a research paper is mandatory.

English 12

Grade 12

(1113) Credit: 1

This is a comprehensive study of British Literature from the Anglo Saxon period through the Romantic Age. Studies of non-fiction, short fiction, drama, poetry, and novels form the foundation of the course, with emphasis on critical analysis of the assigned literary works through class discussion and responsive writing. Completion of a research paper is mandatory.

English 12 Honors

Grade 12

(1186) Credit: 1

This is a comprehensive study of British Literature from the Anglo Saxon period through the Romantic Age. This accelerated course is intended for students who desire a more challenging curriculum. Studies of non-fiction, short fiction, drama, poetry, and novels form the foundation of the course, with emphasis on critical analysis of the assigned literary works through class discussion and responsive writing. Independent reading of classic works is required during the school year. Completion of a research paper is mandatory.

AP Language and Composition

Grades 11 and 12

(1191) Credit: 1

Prerequisite: English 10 or 11

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.

English 9/10

Grades 9 and 10

(2110; 2120) Credit: 1

This course is designed to assist students in continuing their growth in reading, writing, listening, speaking, and research skills. Students will use strategies to improve reading and writing skills and vocabulary development in order to analyze various types of literary works and to write effectively.

English 11/12

Grades 11 and 12

(2130; 2140) Credit: 1

This course is designed to assist students in continuing their growth in reading, writing, listening, speaking, and research skills. Students will use strategies to improve reading and writing skills and vocabulary development in order to analyze various types of literary works and to write effectively.

Supplemental English Language Arts Electives (Elective Credit Only)

Public Speaking

Grades 10 through 12

(1132) Credit: 0.5

This is a beginners' speech class emphasizing the importance of verbal and nonverbal communication and the techniques of researching, writing and delivering effective speeches. Incorporated are the fundamentals of impromptu speaking and listening skills. Types of speeches include informative, persuasive, and demonstrative.

Students will also have a speaker's choice presentation (e.g. eulogy, farewell, humorous, nomination, and acceptance). Some speeches have technology requirements. Students will also introduce a speaker and participate in a mock job or college interview.

Advanced Public Speaking

Grade 12

(1131) Credit: 0.5

Prerequisite: Public Speaking

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

Digital Media

Grades 9 through 12

(1133) Credit: 0.5

Prerequisite: None

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

Career & College Readiness

Grade 11

(1130) Credit: 0.25

Prerequisite: None

This course is a practical guide in helping students "Get There"...wherever "there" might be for each individual student by developing essential skills needed for the post-secondary world. The course will focus on the following: developing resumes, writing cover letters, and references; interviewing skills; job shadowing; soft skills; work place ethics; telephone skills; and job search skills.

This is a mandatory course for all 11th grade students.

Digital Citizenship

Grade 10

(1114) Credit: 0.25

Prerequisite: None

This course focuses on the use of digital media and environments to communicate and work collaboratively while applying concepts of appropriate online behavior. Students will learn about human, cultural, and societal issues related to technology as they practice legal and ethical behaviors. Major topics will be demonstrating how to be a good citizen in a cyber community, using personal safety strategies on the Internet, learning guidelines for email and social networking safety, learning to recognize and report cyberbullying and learning how to determine appropriate sites on the Internet and what to do if they encounter an inappropriate site.

This is a mandatory course for all 10th Grade students.

Family and Consumer Science

Foods and Nutrition I

Grades 9 through 12

(1531) Credit: 1

This course will focus on how to select, store, prepare, and serve foods. It will stress the importance of healthy cooking, eating and nutritional value.

Foods

Grades 9 through 12

(1530) Credit: 0.5

This course will focus on how to select, store, prepare, and serve foods. It will stress the importance of healthy cooking and eating.

Advanced Foods and Nutrition

Grades 11 and 12

(1532) Credit: 0.5

Prerequisite: Foods and Nutrition I

In Advanced Foods and Nutrition, students will have the opportunity to develop advanced food preparation skills while applying the nutrition information and food preparation skills learned in FCS Foods and Nutrition 1. Students will have the opportunity to explore areas of interest which may include cultural and regional cuisines, convenience foods, creating and adapting recipes, cake decorating, changes in nutritional needs throughout the life cycle, vegetarian diets, eating disorders, meal planning, and careers in foods and nutrition related occupations.

Health and Physical Education

Health/Physical Education 9

Grade 9

(1909) Credit: 0.25

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/Physical Education 10

Grade 10

(1902) Credit: 0.25

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.

Health/Physical Education 11

Grade 11

(1910) Credit: 0.25

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

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

Fitness Training

Grades 9-12

(1911) Credit: 0.5

This activity-based program is designed to 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.

Team & Individual Sports

Grades 9-12

(1912) Credit: 0.5

This program 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.

Mathematics

Sequence of Mathematics Offerings for Grades 9-12

Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Math 7 Honors	Algebra I Honors	Geometry Honors	Algebra II Honors	Trig/Pre-Calculus Honors Trig/Pre-Calculus College Algebra Statistics	AP Calculus Calculus Honors College Algebra Statistics
Math 7	Math 8	Algebra I	Geometry	Algebra II Applications of Algebra Statistics	Trig/Pre-Calculus College Algebra Applications of Algebra Statistics

Students may move diagonally depending on change in ability and interest.

Algebra I

Grades 9 and 10

(1222) Credit: 1

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

Algebra I Honors

Grade 9

(1289) Credit: 1

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, and factoring, graphing, rates of change, functions, data analysis, and probability. Students will communicate mathematically using multiple representations. All 8th Grade students will attend an additional math enrichment block which will focus on mathematics topics designated by individual student data.

Geometry

Grades 9 through 11

(1230) Credit: 1

Prerequisite: Algebra I

Geometry unifies concepts of geometry, algebra, and arithmetic. Logical methods of mathematical thinking and reasoning will be emphasized while studying surface area, volume of 2 and 3 dimensional objects, congruence, similarity, formal proofs, parallel and perpendicular lines, polygons, right triangles, trigonometry, equations/inequalities, circles, probability, and real-life applications. Students will communicate mathematically using multiple representations.

Geometry Honors

Grades 9 and 10

(1284) Credit: 1

Prerequisite: Algebra I; Proficient on Keystone Algebra I

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

Applications of Algebra

Grades 11 and 12

(1244) Credit: 1

Prerequisite: Geometry; Proficient on Keystone Algebra I

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

Algebra II

Grades 10 through 12

(1223) Credit: 1

Prerequisite: Geometry; Proficient on Keystone Algebra I

Algebra II requires each student to compute, problem-solve, 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 Honors

Grades 10 and 11

(1283) Credit: 1

Prerequisite: Algebra I; Geometry; Proficient on Keystone Algebra I

This course requires student 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.

College Algebra

Grade 12

(1235) Credit: 1

Prerequisite: Algebra II

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

Grades 11 and 12

(1240) Credit: 1

Prerequisite: Algebra II

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

Trigonometry/Pre-Calculus Honors

Grades 11 and 12

(1240) Credit: 1

Prerequisite: Algebra II

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

functions, trigonometric functions and their inverses, inverse functions, vectors and matrices, and parametric and polar curves.

Calculus Honors

Grade 12

(1285) Credit: 1

Prerequisite: Trigonometry/Pre-Calculus

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

Prerequisite: Trigonometry/Pre-Calculus

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

Algebra Enrichment

Grades 9 through 12

(1270) Credit: N/A

Prerequisite: None

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

Statistics

Grades 11 and 12

(1242) Credit: 1

Prerequisite: Algebra II or concurrently enrolled in Algebra II

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

Music Education

Band

Grades 9 through 12

(1701) Credit: 1.0/0.5

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

Chorus

Grades 9 through 12

(1702) Credit: 1.0/0.5

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

Music Theory

Grades 9 through 12

(1706) Credit: 0.5

Prerequisite: None

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

Introduction to Guitar

Grades 9 through 12

(1708) Credit: 0.5

Prerequisite: None

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

Introduction to Piano

Grades 9 through 12

(1709) Credit: 0.5

Prerequisite: None

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

Science & STEM

Physical Science I

Grade 9

(1309) Credit: 1

This is an introductory course designed to teach students the elementary principles of chemistry and physics. Topics covered include the composition and structure of matter, electricity, magnetism, heat, sound, light, nuclear energies, and the study of forces.

Physical Science I Honors

Grade 9

(1383) Credit: 1

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

Biology with Lab

Grade 10

(1311) Credit: 1.5

The course is designed to enable the student, through a series of lectures and labs, to become aware not only of his own existence, structure, and functions, but with other forms of life from the simplest to the more complex.

Biology Honors with Lab

Grade 10

(1384) Credit: 1.5

Prerequisite: Physical Science I

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

Environmental Science

(1322) Credit: 1

Environmental Science is an introductory course designed to provide students with the scientific principles, concepts, and methodologies to understand the interrelationships of the natural world. Students will identify and analyze environmental issues and will explore how their everyday lives evolve around their use of the natural world and the resources it provides. Topics will include Ecology, Waterlands and Wetlands, Natural Resources, Agriculture and Society, and Humans and the Environment. Students taking this course will be encouraged to participate in Envirothon and the FCR Watershed Program.

Forensic Science

Grades 11 and 12

(1319) Credit: 1

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.

Anatomy and Physiology

Grades 11 and 12

(1321) Credit: 1

Pre-requisite: Biology; Proficient on Keystone Biology

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

Chemistry with Lab

Grades 11 and 12

(1330) Credit: 1.5

Prerequisite: Proficient on Keystone Algebra I

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

Chemistry Honors with Lab

Grades 11 and 12

(1385) Credit: 1.5

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

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

AP Chemistry

Grade 12

(1331) Credit: 1.5

Prerequisite: Chemistry; Proficient on Keystone Algebra I

This course is a college level class focusing on atomic theory, stoichiometry, the periodic table, bonding, molecular structure, interaction of gases, solutions and their properties, thermodynamics, acids and bases, chemical kinetics, equilibrium, electrochemistry, and nuclear chemistry. This course will include a double laboratory period each week for a total of 162 hours of course work. 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.

Physics with Lab

Grade 12

(1340) Credit: 1.5

Prerequisite: Algebra II and Proficient on Keystone Algebra I

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

Physics Honors with Lab

Grade 12

(1386) Credit: 1.5

Prerequisite: Chemistry; Concurrently enrolled in Calculus or AP Calculus

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

Biology Enrichment

Grades 9 through 12

(1312) Credit: N/A

Prerequisite: None

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

The following STEM courses are eligible for elective credit only.

Introduction to Engineering Design (IED)

Grades 9 through 12

(1352) Credit: 1

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 Technology (IET)

Grades 9 through 12

(1360) Credit: 1

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 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 and engineering concepts to occupational and educational opportunities that they may choose to pursue in the future.

Principles of Engineering (POE)

Grades 10 through 12

(1353) Credit: 1

Prerequisite: Introduction to Engineering Design; Proficient on Algebra 1 Keystone

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.

Digital Electronics (DE)

Grades 11 and 12

(1354) Credit: 1

Prerequisite: Principles of Engineering

This is one of the specialization courses in the high school Project Lead the Way curriculum. In DE, students learn the fundamentals of analog and digital electronics, including combinational and sequential logic design, programmable logic devices, state machines, and microcontrollers.

Civil Engineering and Architecture (CEA)

Grades 11 and 12

(1355) Credit: 1

Prerequisite: Principles of Engineering

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

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

Prerequisite: Principles of Engineering

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

Prerequisite: Principles of Engineering

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.

Engineering Design and Development

Grade 12

(1358) Credit: 1

Prerequisite: Completion of: Digital Electronics, Civil Engineering and Architecture, Computer Science Principles or Computer Integrated Manufacturing

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

Grades 11 and 12

(1359) Credit: 1

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 of 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

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

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

Social Studies

American History I Honors

Grade 9

(1481) Credit: 1

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

American History II Honors

Grade 10

(1485) Credit: 1

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.

World History Honors

Grade 11 and 12

(1484) Credit: 1

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 American Government

Grades 11 and 12

(1412) Credit: 1

This course covers the 1970s to the present. Students will examine global politics, conflicts, trends, and cultural movements. 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. This course is especially valuable because it places the history of America in the proper perspective of world history, thus giving students a better understanding of the role of our nation in world affairs.

AP Politics and Government

Grades 11 and 12

(1491) Credit: 1

Prerequisite: American History II or World History

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

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.

This is Water: Valuing Yourself and Embracing A Diverse World

Grade 9

(1422) Credit: 0.25

This course is a 45-day introduction into the world you're going to enter after graduation; covering topics in psychology, philosophy and sociology where the main topic is you and the value of all of us.

This course is mandatory for all 9th Grade students.

World Languages

German I

Grades 9 through 12

(1161) Credit: 1

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

German II

Grades 10 through 12

(1162) Credit: 1

Prerequisite: German I

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

Spanish I

Grades 9 through 12

(1171) Credit: 1

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

Spanish II

Grades 10 through 12

(1172) Credit: 1

Prerequisite: Spanish I

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

Spanish III

Grades 11 and 12

(1173) Credit: 1

Prerequisite: Spanish II

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

AP Spanish

Grade 12

(1174) Credit: 1

Prerequisite: Spanish III

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