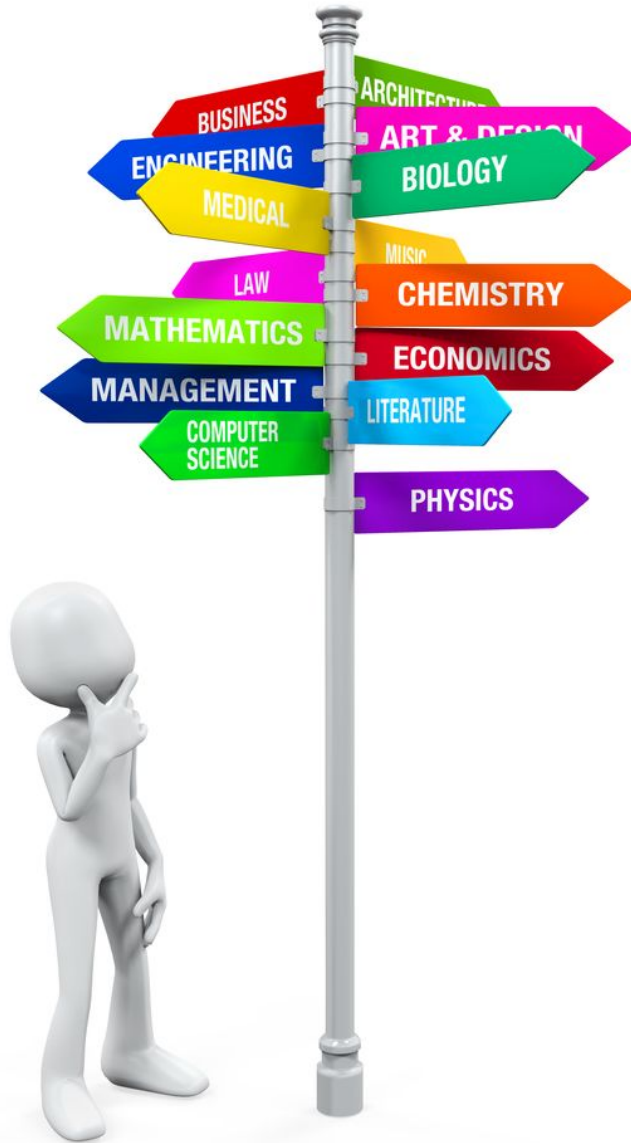


Frazier High School



Program of Studies 2020-2021

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INTRODUCTION

Planning a high school schedule takes a great deal of thought and preparation. Students and parents must consider career choices, college requirements, graduation requirements, student interests and ability level when planning a schedule. Students, in consultation with their parents, school counselors and teachers, should plan a tentative four-year program. (A course distribution list and a course selection sheet appear on page). This plan should meet individual needs. Choices about courses for the following years should focus on the student's interests, abilities, and plans for the future. As you select your courses, pay special attention to course requirements, prerequisites and course sequence.

Scheduling Process

The school counselor will meet with all 9th, 10th, and 11th grade students to schedule for the following school year. During homeroom, the students will receive distribution of current transcripts, a review of graduation requirements, and specific grade level requirements will be discussed followed by entering course requests into the system. All 11th grade students will meet individually with the counselor to discuss graduation requirements.

Mission Statement

The mission of the Frazier School District is to inspire and empower our students so that they can become lifelong learners who are respectful, responsible and productive citizens in a global society.

Vision Statement

The Frazier School District is committed to providing students with an academically rigorous curriculum while developing deeper learning competencies in all students. Frazier sets high expectations in support of students' efforts to strive to achieve academically and in the acquisition of the skills necessary for life success.

GENERAL INFORMATION

Graduation Requirements

Students must meet the following requirements in order to graduate from Frazier High School:

1. Complete a graduation project in one or more areas of concentrated study during their senior year.
2. Earn a minimum of thirty (30) units of study, twenty (20) of which must be earned from the Planned Instructional Chart listed below:

English	4 units
Mathematics	4 units
Science and Tech	4 units
Social Studies	3 units
Arts/Humanities	2 units
Wellness	1 unit
Freshman Seminar	1 unit

- Students who are not eligible to receive a diploma at the time of commencement will not be permitted to participate in the commencement program.
- Students will not receive a diploma at the time of commencement if they did not clear all hold slips.

State Graduation Requirements

(Beginning with the Class of 2022)

Students can meet the statewide graduation requirement by:

- Scoring proficient or advanced on each Keystone Exam - Algebra I, Literature, and Biology.
- Earning a satisfactory composite score on the Algebra I, Literature, and Biology Keystone Exams. The passing composite score will be available in August 2019.
- Earning a passing grade on the courses associated with each Keystone Exam, and satisfactorily complete one of the following: an alternative assessment (SAT, PSAT, ACT, ASVAB, Gold Level ACT WorkKeys), advanced coursework (AP, IB, concurrent enrollment courses), pre-apprenticeship, or acceptance in a 4-year nonprofit institution of higher education for college-level coursework.
- Earning a passing grade on the courses associated with each Keystone Exam, and pass the National Occupational Competency Testing Institute (NOCTI) or the National Institute of Metalworking Skills (NIMS) assessment in an approved Career and Technical Education concentration.
- Earning a passing grade on the courses associated with each Keystone Exam, and demonstrate readiness for postsecondary engagement through three pieces of evidence from the student’s career portfolio aligned to student goals and career plan. Examples of evidence will include ACT WorkKeys, SAT Subject tests, AP, IB and concurrent coursework, higher education acceptance, community learning project, completion of an internship, externship or co-op or full-time employment.

Class Rank

Class rank will be calculated based upon the unit value of each course and the weighted grade received in that course. Class rank will be posted at the end of each academic year. Only classes scheduled for students in grades 9-12, will appear on transcripts and calculated in GPA and Class Rank.

Class Standing

The minimum number of credits necessary for advancement is listed below, although the principal may use discretionary powers in unusual circumstances to waive the standards:

Advancement to: Grade 10 - 6 credits
 Grade 11 - 14 credits

Advanced Placement and Honors Courses

Courses with an Honors or Advanced Placement designation will be given extra “weight” for Honor Roll and RANK calculations ONLY.

All honors courses count as a level 2 weighted course and all advanced placement courses count as a level 3 weighted course for the purposes of honor roll and class rank only.

The Advanced Placement exam will be optional for all students taking an Advanced Placement course. The cost of the advanced placement examination(s) will be covered by the student and then if a score of “3” or higher is obtained the district will reimburse the students.

AP	Honors	Honors
AP American Government	Honors English 9, 10, 11	Honors Biology
AP Calculus	Honors Chemistry	Introduction to Engineering Design (PLTW)
AP Chemistry	Advanced Chemistry	Principles of Engineering (PLTW)
AP English 12	Pre-Calculus	Civil Engineering and Architecture (PLTW)
AP European History	Statistics	Aerospace Engineering (PLTW)AP
U.S. History	Human Biology	Principles of Biomedical Science
AP Physics I	Anatomy & Physiology	Engineering Design & Development(PLTW)
	Computerized Accounting	Spanish III & IV, French III & IV
	BOTS IQ	

College in the High School

Frazier has an agreement with both St. Francis University and Mt. Aloysius College to offer college credit for AP courses taken in high school. Credits earned through this program transfer to many colleges and universities. The courses that are approved as dual enrollment classes are AP American Government, AP English 12, AP European History, AP Physics I, and AP U.S. History. Information on this program can be obtained in the guidance office.

Schedule Change Policy

Important notice to Students and Parents: Be absolutely certain of your course selections. There will be no student or parent initiated schedule changes after the first 3 days of the semester. Dropping a course after the 3 day period may result in a Withdraw Pass (WP) or a Withdraw Fail (WF) on your transcript. If any changes need to be made after this 3 day period they MUST be approved in writing by the original teacher, new teacher, school counselor, principal, and parent.

In selecting your courses for next year, you should consider the following:

- (1) graduation requirements of Frazier High School
- (2) the courses that will meet future educational and/or vocational needs,
- (3) your ability and aptitude to meet the class requirements.

In order to achieve this, you the student, must plan and understand yourself, your capabilities, your interests and limitations. You should plan ahead and discuss your course selections with parents/guardians, counselors and teachers. If you wish to talk to the school counselor you may make an appointment. Parents/guardians wishing to discuss your selections can call 724-736-9507 to schedule an appointment with the school counselor. **Students are reminded that it is their responsibility to ensure that all graduation requirements are met.**

Requests for schedule changes will be difficult if not impossible to accommodate after the last week of school. Schedule changes requested after the last day of school will be limited to the following categories:

1. Failure of a required subject that must be repeated
2. Successful completion of a summer school course
3. Schedule conflicts occur or errors are made by the school during the scheduling process
4. Students register for a class with prerequisites during the scheduling process and then perform poorly during the remainder of the school year.

Work Release Program

Frazier School District recognizes that as students reach their senior year there sometimes exist a need to be released from school on a daily basis for reasons of employment and/ or family illness. This Work Release Program is designed to meet that need while ensuring that the student fulfills all of the requirements needed to graduate from Frazier High School

Requirements

1. The applicant must be a 2nd semester graduating senior.
2. The applicant must have a class schedule that will fulfill all requirements for graduation.
3. If under age, the applicant must possess a valid Employment Certificate.

To continue in the Work Release Program, the student must submit an Employer Verification Form that shows the hours worked and that employment is continued to the school guidance counselor at the end of each month. The form will reveal the days and hours that the student has worked and contain a description of his/her job duties and other accomplishments related to the position. A minimum of six (6) hours per week must be worked during the school day.

Participation in the work release will be terminated when the student's job is terminated. Work release will also be terminated when the student accumulates more than three (3) unexcused absences or more than five (5) unexcused cases of tardiness to school. Work release will also be terminated if the student's grade point average falls below 1.75 or if the student receives an "F" in any of his/her classes during any grading period.

Under no circumstances will any student, approved for this program, be released from school prior to the end of their second period class.

The Work Release Program may be applied to situations involving long-term family illness. If a student is to be released for a reason of long-term family illness, the student must present proof that he/she is needed at home. This proof will be in form of a letter from the student's family doctor. The letter will describe the need for the student's early release and will list the days and hours that he/she will be needed at home. The student must also present a letter from his/her parents verifying the need for the student to be at home and granting permission to be released at a designated time. This requirement for parental verification will be waived if the applicant is eighteen years of age or older and no longer lives with his/her parents. This requirement will also be waived if the applicant has been declared an emancipated youth as provided by law.

STUDENT ATHLETES: NCAA ELIGIBILITY STANDARDS

Students planning to attend an NCAA Division I or II institution are required to complete 16 core courses. Beginning August 1, 2016, NCAA Division I will require 10 core courses to be completed prior to the seventh semester (7 of the 10 must be a combination of English, math, or natural or physical science that meet the distribution requirements as outlined by the NCAA below). Only NCAA approved core courses are used in the calculation of the GPA for NCAA purposes. Be sure to look at your high school’s list of NCAA approved core courses at www.eligibilitycenter.org to make certain that the courses being taken have been approved as core courses.*

*Courses considered elective in nature are generally NOT approved core courses for NCAA eligibility standards. For example, ALL courses in the Art Department, Family & Consumer Science Department, Music Department, and Technology Education Department are NOT approved. However, ALL World Languages ARE approved core courses in addition to some electives like Anatomy I and II and those in the Science and Social Studies areas. There are some exceptions though and you must consult your counselor and utilize the approved core course list for Hempfield Area from the eligibility center website indicated above. Sometimes General courses are not acceptable. Emphasis is on College Preparatory Coursework.

For more information regarding the rules, visit the eligibility center website identified above and consult your school counselor prior to scheduling your courses.

<u>DIVISION I</u>	<u>DIVISION II</u>
<u>16 CORE COURSES</u>	<u>16 CORE COURSES</u>
<ul style="list-style-type: none"> · 4 years of English · 3 years of Math (Algebra I or higher) · 2 years of Natural / Physical Science (1 year of lab if offered by high school) · 1 year of additional English, Math, or Natural / Physical Science · 2 years of Social Science · 4 years of additional courses (from any area above, including Foreign Language) 	<ul style="list-style-type: none"> · 3 years of English · 2 years of Math (Algebra I or higher) · 2 years of Natural / Physical Science (1 year of lab if offered by high school) · 3 years of additional English, Math, or Natural / Physical Science · 2 years of Social Science · 4 years of additional courses (from any area above, including Foreign Language)

CAREER PATHWAY OPTIONS

There are four pathways that students can follow throughout their four years at Frazier High School to prepare them for life after high school. These specific pathways and their purpose and goals are presented below.

Students will be assisted in the development of a program of study based on their interests and abilities, but they will be expected to assume responsibility for meeting the minimum requirements.

❖ **Engineering Pathway**

This pathway will provide students with a strong academic base focusing on advanced levels of Science, Technology, Engineering, and Math. This pathway is challenging and is appropriate for students who plan to attend a college or university, especially those intending on majoring in math, science, or engineering related field. It also prepares for direct entry to college and should be followed by students with high academic ability and interest.

❖ **Science Pathway**

This pathway will provide students with a strong academic base focusing on advanced levels of English, Math and Science. This pathway is challenging and is appropriate for students who plan to attend a college or university, especially those intending on majoring in a medical or science related field. It also prepares for direct entry to college and should be followed by students with high academic ability and interest.

❖ **College Preparatory Pathway**

The College Preparatory Pathway is intended to prepare students for entrance into 4-year and 2-year colleges, trade schools, and certificate program. This is a pathway that prepares for direct entry to college and should be followed by students with high academic ability and interest. Students are free to explore a wide range of elective courses to meet their varied and specialized interests. Students in this pathway will be prepared for admission to institutions of higher learning by proper selection of academic and elective subjects and also by maintaining a high scholastic rating.

❖ **Career Preparatory Pathway**

The Career Preparatory Pathway is intended to prepare students for entrance into career exploration after graduation. This is a pathway that prepares for entry into career exploration and should be followed by students with academic ability and interest in career exploration. Students are free to explore a wide range of elective courses to meet their varied and specialized interests. Students in this pathway will be prepared for admission into career options by proper selection of academic and elective subjects and also by maintaining a scholastic rating.

❖ **Career and Technology Center Pathway**

The Career and Technology Center Pathway is intended to prepare students for careers and/or post secondary education in a trade or technical school. It is intended for those students who want to approach the job market with not just interest but also skills. Frazier High School is a participating member of the Central Westmoreland Career and Technology Center.

Course Selection Template

Students must choose 8 total credits per year. (regardless of possible work/college release)

R = Required

* Designates Honors (Level 2)

** Designates AP (Level 3)

Course Area	Grade 9	Grade 10	Grade 11	Grade 12
English 4 credits 4 years	4000 English 9(1) or 4001 H English 9*(1) (placement determined by prerequisites only, not a choice)	4100 English 10(1) or 4101 H English 10*(1)	4200 English 11(1) or 4201 H English 11*(1)	4300 English 12(1) or 4301 AP English**(1)
Mathematics 4 credits	4003 Algebra I ^R (1)	4102 Geometry ^R (1) 4202 Algebra II(1)	4202 Algebra II ^R (1) 4203 Trigonometry*(1) 4202 Pre-Calculus*(1) 4302 Statistics*(1) 4216 Financial Algebra(1) 4414 Computerized Accounting(1) 4429 Digital Applied Skills(1)	4203 Trigonometry*(1) 4202 Pre-Calculus*(1) 4302 Statistics*(1) 4216 Financial Algebra(1) 4414 Computerized Accounting(1) 4303 AP Calculus**(2) 4429 Digital Applied Skills(1)
Science 4 credits	4103 Biology(1) 4104 H Biology*(1)	4011 Intro to Engineer Design*(1) 4227 Human Biology* (1) 4205 Applied Chem (1) 4206 Chemistry ^(10 or 11) (1) 4207 H Chemistry ^(10 or 11) (1) 4225 Environmental Sci. (1)	4206 Chemistry ^{R(10 or 11)} (1) 4207 H Chemistry ^(10 or 11) (1) 4205 Applied Chemical Science(1) 4107 Communication Technology(1) 4110 Principles of Engineering*(1) 4305 BOTS*(1) 4417 Anatomy*(1) 4317 Life Science (1) 4412 Intro to GIS(1) 4304 Physics*(1) 4445 Civil Engineering & Architecture*(1) 4405 AP Physics I**(2) 4115 Principles of Biomed. Sci*(.2) 4447 Computer Essential Skills (1)	4110 Principles of Engineering*(1) 4305 BOTS*(1) 4417 Anatomy*(1) 4412 Intro to GIS(1) 4304 Physics(1) 4445 Civil Engineering & Architecture*(1) 4405 AP Physics I**(2) 4307 Advanced Chemistry*(1) 4403 AP Chemistry*(1) 4447 Computer Essential Skills (1)
Social Studies 3 credits	4005 American Government ^R (1)	4105 Contemporary American Studies ^R (1)	4208 The Modern World(1) 4209 Personal Finance(1) 4410 Sociology(1) 4411 Psychology(1) 4412 Global Issues(1) 4400 AP American Government**(1) 4401 AP US History**(1) 4402 AP European History**(1) 4426 Economics (1) 4413 Humanities(1)	4208 The Modern World(1) 4209 Personal Finance(1) 4410 Sociology(1) 4411 Psychology(1) 4412 Global Issues(1) 4400 AP American Government**(1) 4401 AP US History**(1) 4402 AP European History**(1) 4426 Economics (1) 4413 Humanities(1)
Wellness 1 credit	4014 Health 9 ^R (.5) 4014 Phys Ed 9 ^R (.5)	4211 Physical Education (1)	4211 Physical Education (1) 4210 Personal Fitness (1)	4211 Physical Education (1) 4210 Personal Fitness (1)
Arts & Humanities 2 credits	Spanish I (1) or French I (1)	Spanish II or French II (None required if attending 3 years at CTC)	Spanish III or French III Human Development Theory Nutrition & Foods Creative Writing I & II	Spanish IV or French IV Art Art & Design Music Technology Human Development Theory Human Development Lab Nutrition & Foods Creative Writing I & II Communication Studies
Electives 9+ credits	Freshman Seminar FCS, Tech Ed 9	Career Exploration Current Events	Any course that is not considered "Required" (R)	Any course that is not considered "Required" (R)
CTC	9th grade does not attend the CTC.	AM CTC (4)	AM CTC (4) PM CTC (4)	AM CTC (4) PM CTC (4)

Students must complete an application (available in the Counseling Office) to attend the CTC. Pending acceptance. NOT guaranteed!

Engineering Pathway (Class of 2022 and beyond)

Grade 9 (Class of 2023)	Credit
Freshman Seminar	1
Honors English 9*	1
Algebra 1 ^{KE}	1
American Government	1
Honors Biology ^{KE*}	1
9th Grade Rotation (FCS, Tech Ed, Health, Phys Ed)	2
World Language (Spanish I or French I)	1
	8 Total

Grade 10 (Class of 2022)	Credit
Honors English 10 ^{KE*}	1
Geometry	1
Introduction to Engineer Design*	1
Contemporary American Studies	1
Principles of Engineering*	1
Algebra II	1
Honors Chemistry*	1
World Language (Spanish II or French II)	1
	8 Total

Grade 11 (N/A until 2020-21 for Class of 2022)	Credit
Honors English 11*	1
Trigonometry	1
AP Physics I**	2
Aerospace Engineering*	1
Civil Engineering and Architecture*	1
Pre-Calculus*	1
Elective	1
	8 Total

Grade 12 (N/A until 2021-22 for Class of 2022)	Credit
AP English 12**	1
AP Calculus**	2
Advanced Chemistry*	1
AP Chemistry**	1
Engineering Design & Development	1
Electives	2
	8 Total

* - Honors Course (Level 2 weighting)

** - AP Course (Level 3 weighting)

^{KE} - Keystone Exam

***In addition, students (beginning with the graduating Class of 2020) must reach a level of proficiency on the state mandated tests (Keystone Exams in the Areas of Algebra I, Biology, and Literature (English 10)), and complete a career focused graduation project in the 12th grade English class.*

Engineering Pathway (Expires after Class of 2021)

Grade 9	Credit
Freshman Seminar	1
Honors English 9*	1
Algebra I ^{KE}	1
American Government	1
Introduction to Biological Concepts	1
9th Grade Rotation (FCS, Tech Ed, Health, Phys Ed)	2
World Language (Spanish I or French I)	1
	8 Total

Grade 10 (Class of 2021)	Credit
Honors English 10 ^{KE} *	1
Geometry	1
Honors Biology ^{KE} *	1
Contemporary American Studies	1
Introduction to Engineer Design*	1
Algebra II	1
Honors Chemistry*	1
World Language (Spanish II or French II)	1
	8 Total

Grade 11 (Class of 2021)	Credit
Honors English 11*	1
Trigonometry	1
AP Physics I**	2
Principles of Engineering*	1
Aerospace Engineering*	1
Civil Engineering & Architecture*	1
Pre-Calculus*	1
	8 Total

Grade 12 (Class of 2021)	Credit
AP English 12**	1
AP Calculus**	2
Advanced Chemistry*	1
AP Chemistry**	1
Engineering Design & Development*	1
Electives	2
	8 Total

* - Honors Course (Level 2 weighting)
 ** - AP Course (Level 3 weighting)

^{KE} - Keystone Exam

***In addition, students (beginning with the graduating Class of 2020) must reach a level of proficiency on the state mandated tests (Keystone Exams in the Areas of Algebra I, Biology, and Literature (English 10)), and complete a career focused graduation project in the 12th grade English class.*

Science Pathway

Grade 9	Credit
Freshman Seminar	1
Honors English 9*	1
Algebra 1 ^{KE}	1
American Government	1
Honors Biology ^{KE*}	1
9th Grade Rotation (FCS, Tech Ed, Health, Phys Ed)	2
World Language (Spanish I or French I)	1
	8 Total

Grade 10	Credit
Honors English 10 ^{KE*}	1
Geometry	1
Human Biology*	1
Contemporary American Studies	1
Principles of Biomedical Science*	1
Algebra II	1
Honors Chemistry*	1
World Language (Spanish II or French II)	1
	8 Total

Grade 11	Credit
Honors English 11*	1
Trigonometry	1
AP Physics I**	2
Anatomy*	1
Pre-Calculus*	1
Science Elective	1
Elective	1
	8 Total

Grade 12	Credit
AP English 12**	1
AP Calculus**	2
Advanced Chemistry*	1
AP Chemistry**	1
Nutrition & Wellness	1
Electives	2
	8 Total

* - Honors Course (Level 2 weighting)

** - AP Course (Level 3 weighting)

^{KE} - Keystone Exam

***In addition, students (beginning with the graduating Class of 2020) must reach a level of proficiency on the state mandated tests (Keystone Exams in the Areas of Algebra I, Biology, and Literature (English 10)), and complete a career focused graduation project in the 12th grade English class.*

College Prep Pathway

Grade 9	Credit
Freshman Seminar	1
English 9 or Honors English 9*	1
Algebra 1 ^{KE}	1
American Government	1
Biology ^{KE} or Honors Biology ^{KE*}	1
9th Grade Rotation (FCS, Tech Ed, Health, Phys Ed)	2
World Language (Spanish I or French I)	1
	8 Total

Grade 10	Credits
English 10 ^{KE} or Honors English 10 ^{KE*}	1
Geometry	1
Chemistry or Honors Chemistry*	1
Contemporary American Studies	1
Career Explorations	1
Introduction to Engineering Design*	1
Current Events	1
World Language (Spanish II or French II)	1
	8 Total

Grade 11	Credit
English 11 or Honors English 11*	1
Algebra II	1
Physics	1
Modern World	1
World Language (Spanish III* or French III*)	1
Elective	3
	8 Total

Grade 12	Credit
English 12 or AP English 12**	1
Trigonometry or Statistics or Pre-Calculus*	1
World Language (Spanish IV* or French IV*)	1
Nutrition and Wellness or Human Development	1
Electives	4
	8 Total

* - Honors Course (Level 2 weighting)

* * - AP Course (Level 3 weighting)

^{KE} - Keystone Exam

***In addition, students (beginning with the graduating Class of 2020) must reach a level of proficiency on the state mandated tests (Keystone Exams in the Areas of Algebra I, Biology, and Literature (English 10)), and complete a career focused graduation project in the 12th grade English class.*

Career Prep Pathway

Grade 9	Credit
Freshman Seminar	1
English 9	1
Algebra 1 ^{KE}	1
American Government	1
Biology ^{KE}	1
9th Grade Rotation (FCS, Tech Ed, Health, Phys Ed)	2
World Language (Spanish I or French I)	1
	8 Total

Grade 10	Credits
English 10 ^{KE}	1
Geometry	1
Chemistry or Applied Chemistry	1
Contemporary American Studies	1
Career Explorations	1
Introduction to Engineering Design	1
Current Events	1
World Language (Spanish II or French II)	1
	8 Total

Grade 11	Credit
English 11	1
Algebra II	1
Personal Finance	1
Modern World	1
Elective	4
	8 Total

Grade 12	Credit
English 12	1
Financial Algebra	1
Physics	1
Physical Education	1
Electives	4
	8 Total

* - Honors Course (Level 2 weighting)

* * - AP Course (Level 3 weighting)

^{KE} - Keystone Exam

***In addition, students (beginning with the graduating Class of 2020) must reach a level of proficiency on the state mandated tests (Keystone Exams in the Areas of Algebra I, Biology, and Literature (English 10)), and complete a career focused graduation project in the 12th grade English class.*

Career and Technology Center Pathway

Grade 9	Credits
Freshman Seminar	1
English 9	1
Algebra 1 ^{KE}	1
American Government	1
Biology ^{KE}	1
9th Grade Rotation (FCS, Tech Ed, Health, Phys Ed)	2
World Language (Spanish I or French I)	1
	8 Total
Grade 10	Credits
English 10 ^{KE}	1
Geometry	1
Environmental Science	1
Contemporary American Studies	1
Program of Choice @ CWCTC	4
	8 Total
Grade 11	Credits
English 11	1
Algebra II	1
The Modern World	1
Applied Chemistry	1
Program of Choice @ CWCTC	4
	8 Total
Grade 12	Credits
English 12	1
Math Elective	1
Science Elective	1
Elective	1
Program of Choice @ CWCTC	4
	8 Total

***In addition, students (beginning with the graduating Class of 2020) must reach a level of proficiency on the state mandated tests (Keystone Exams in the Areas of Algebra I, Biology, and Literature (English 10)), and complete a career focused graduation project in the 12th grade English class.*

MATHEMATICS

Algebra I A
 Algebra I B
 Algebra I (Keystone Exam Course)
 Geometry
 Algebra II
 Financial Algebra
 Trigonometry
 Pre-Calculus*
 Statistics*
 AP Calculus**
 Computerized Accounting*
 Digital Applied Skills

ALGEBRA I A**1 Credit**

The first course of beginning algebra skills include expressions, equations, integers, powers and exponents, polynomials, factoring, ratios, proportions, percents, inequalities, and an introduction to the coordinate plane. Also, PA State Standards in Algebra and Keystone applications are stressed.

ALGEBRA I B**1 Credit**

The course is a continuation of algebra skills that emphasizes more advanced concepts such as linear functions and polynomials. This course consists of topics, such as relations and functions, graphing functions, scatter plots and trend lines, arithmetic sequence, finding intercepts, rate of change and slope, slope-intercept form, point-slope form, slopes of parallel and perpendicular lines, exponents, polynomials, and factoring.

ALGEBRA I (Keystone Exam Course)**1 Credit**

This course is a study of the language, concepts, and techniques of Algebra that will prepare students to approach and solve problems following a logical succession of steps. Skills taught in this course lay groundwork for upper level math and science courses and have practical uses. The key units studied in alignment with state assessment anchors include: Equations, Inequalities, Relations and Functions, Linear Functions, Systems of Equations and Inequalities, Exponents and Polynomials, Factoring Polynomials, Rational Expressions, and Probability and Statistics. Students are expected to be highly motivated in striving towards proficiency by way of a strong work ethic.

GEOMETRY**1 Credit**

This Geometry course includes an in-depth analysis of plane, solid, and coordinate geometry as they relate to both abstract mathematical concepts as well as real-world problem situations. Topics include foundations for geometric reasoning, parallel and perpendicular lines, perimeter and area analysis, volume and surface area analysis, properties and attributes of polygons, similarity and congruence, and properties and attributes of

circles. Emphasis will be placed on critical thinking skills as they relate to logical reasoning and argument. Students will be required to use a graphic calculator and other technological tools to discover and explain much of the course content.

Prerequisite: Algebra 1

ALGEBRA II

1 Credit

Students extend their repertoire of mathematics learned in Algebra I. They will study Foundations for Functions, Linear Functions, Linear Systems, Quadratic Functions, Polynomial Functions, Exponential and Logarithmic Functions, Rational and Radical Functions. This course will prepare students for high-stakes tests such as SATs and for more advanced mathematics courses in high school.

Prerequisite: Algebra 1

FINANCIAL ALGEBRA

1 Credit

Students will practice algebra and geometric mathematics using financial business applications. Specific areas that will be covered include the decision making process, financial aspects of career planning, financial management, income analysis, budgeting techniques, savings and investment strategies in order to meet short and long term goals, evaluation of services offered by financial institutions, managing credit cards and debt.

Prerequisite: Geometry

TRIGONOMETRY

1 Credit

Trigonometry is a course that provides students with insight into mathematical ideas involving trigonometry by making connections to both algebra and geometry. This course begins by reviewing basic concepts needed for trigonometry. As students continue with the course, they will learn: The Six Trigonometric Functions, Right Triangle Trigonometry, Radian Measure, Graphing and Inverse Functions, Identities and Formulas, Equations & Triangles. Throughout the course, students will discover examples of the role of mathematics in daily life. This course will prepare students for more advanced mathematics courses in high school.

Prerequisites: 70% or higher in Algebra II.

PRE-CALCULUS*

1 Credit

This course is intended to provide the mathematical background needed for Calculus. The concepts that play a central role in calculus are explored algebraically, graphically, and numerically. Students are expected to participate actively in the development of these concepts without the use of a calculator. A calculator will only be used in this course when appropriate.

This course will include: Fundamentals, Functions, Polynomial and Rational Functions, Exponential and Logarithmic Functions, Systems of Equations and Inequalities, Limits, and a Review of Trigonometry.

Prerequisite: 80% or higher in Trigonometry.

STATISTICS***1 Credit**

Statistics is a course that offers an effective approach to learning the essentials of statistical analysis. It is designed to help students' link statistics and real-world applications. Students use statistical methods to interpret data while focusing on the interpretation and communication of information. This course presents the fundamental concepts of data analysis required to prepare students for advanced topics like acceptance sampling, statistical process control, reliability, and design of experiments. Key concepts include: organizing data; averages and variation; correlation and regression; elementary probability theory; normal curves and sampling distributions; estimation; hypothesis testing; inferences about differences.

Prerequisite: Algebra II

AP CALCULUS****2 Credits**

The primary objectives of this course are to enable students to prove geometric proofs analytically, to develop, through rigorous problem-solving, the ability to find limits of functions and determine continuity of function and find derivatives of functions, to develop graphing techniques using asymptotes, max and min values of functions, including the first and second derivative tests, and to be introduced to integral calculus. The graphing calculator will be used to complete many of these tasks. The major units to be covered are real numbers, functions and graphs, analytical geometry, limits and continuity, differentiation, and integration. This course is designed to prepare students for the A.P. Calculus examination.

Prerequisite: at least an 85 % in Pre-Calculus.

COMPUTERIZED ACCOUNTING**1 Credit**

The primary objectives of this course are to enable students to learn basic knowledge and skills needed for careers in accounting and related business fields, and to learn basic knowledge and skills to serve as a foundation on which to continue the study of accounting at the college level.

The major units to be covered are accounting for a service business, partnership accounting for a merchandising business, and corporate accounting for a merchandising business.

This course includes a hands-on approach using the computer. It presents and integrates automated accounting principles, and provides a hands-on approach for learning how automated accounting systems function. Computer Accounting consists of four major accounting systems commonly found in computerized accounting environments: the general ledger, accounts payable, accounts receivable, and payroll. Students are able to work independently at their own rates.

APPLIED DIGITAL SKILLS**1 Credit**

Google Applied Digital Skills is a semester, digital literacy course. The video tutorial-style, web-based curriculum is designed for students to complete independently, though they're encouraged to seek peer feedback as they progress. However, all of the lessons may be accomplished in pairs or small groups. The curriculum may require some work to be completed in a flipped classroom where students complete the independent activities at home and use class time for brainstorming, editing, and presenting.

SCIENCE and TECHNOLOGY

Biology (Keystone Exam Course)
 Honors Biology* (Keystone Exam Course)
 Human Biology*
 Life Science
 Introduction to Engineering Design (PLTW)*
 Applied Chemical Science
 Chemistry
 Honors Chemistry*
 Advanced Chemistry*
 Anatomy & Physiology*
 AP Chemistry**
 Physics
 Principles of Engineering (PLTW)*
 Graphic Communication
 Bots IQ
 Engineering Design and Development (PLTW)*
 AP Physics 1 – Algebra Based**
 Introduction to GIS
 Civil Engineering and Architecture (PLTW)*
 Aerospace Engineering (PLTW)*
 Environmental Science
 Principles of Biomedical Science (PLTW)*
 Computer Essential Skills (PLTW)

*Advanced Course

**AP Course

BIOLOGY (Keystone Exam Course)**1 Credit**

The course will cover basic chemistry, cellular biology, genetics, evolution, ecology. The curriculum integrates writing skills, critical-thinking skills, and laboratory skills as they apply to the standards. In addition, the coursework will emphasize microscopy, calculating data, graphing and essay exam questions. The course is designed to offer the student a detailed background in biological topics such as cell structure and physiology, genetics, molecular biology, classification of organisms and the continuity of life.

HONORS BIOLOGY* (Keystone Exam Course)**1 Credit**

This course is designed for those students who wish to enter an academic curriculum so that they will be prepared to continue their education in college following their high school graduation. It will cover basic chemistry, cellular biology, genetics, evolution, ecology, classification, and human physiology in greater depth than Biology. The curriculum integrates writing skills, critical-thinking skills, laboratory skills and dissection skills as they apply to the standards. In addition, the coursework will emphasize microscopy, calculating data, graphing and essay exam questions.

Prerequisite: 90% or higher in 8th Grade Science and ranked PSSA Science scores

HUMAN BIOLOGY***1 Credit**

This course is an introduction to the basic principles of human biology. Topics include basic chemistry in human nutrition; human body structure as it relates to human body movement and functions; human reproduction and development; and human genetics.

LIFE SCIENCE**1 Credit**

This course will continue the principles learned in Biology. Topics include cell biology, microbiology (lab), biodiversity (observation of the various kingdoms including systems of classification), and an introduction to human and plant anatomy including comparative anatomy labs/dissections.

INTRODUCTION TO ENGINEERING DESIGN* (PLTW) (1st Year) 1 Credit

Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3D modeling software, and use an engineering notebook to document their work.

APPLIED CHEMICAL SCIENCE**1 Credit**

This course is designed to provide students with the basic concepts involved in chemistry. Students are given the opportunity to apply the principles of the scientific method as a major part of this course. Hands-on activities are used to illustrate concepts and train students in science skills. Major concepts involved include matter and energy, chemistry in everyday life, wave properties, and electromagnetic relationships with matter.

CHEMISTRY**1 Credit**

Chemistry is designed to meet the needs of the academic student planning to attend college in the future. Students will concentrate on the concepts of matter and energy, its properties and changes. Through both in class activities and laboratory experiments the students will gain a background knowledge in stoichiometric relationships, composition of matter, formula writing.

Prerequisite: To qualify for chemistry a student must have a 70% or better in Algebra I.

HONORS CHEMISTRY***1 Credit**

This is an accelerated course designed to meet the needs of the advanced student planning to attend college and major in the science field in the future. Chemistry involves the study of matter, its properties, and changes. Through both in-class activities, and laboratory experiments, the student gains a background in stoichiometric relationships, gas laws, the composition and hierarchy of matter and formula writing. Students will concentrate on both qualitative and quantitative analysis in the laboratory. Those students completing the course with at least an 83% overall average can choose to elect the Advanced Placement course in chemistry offered during the senior year. Students who successfully complete chemistry may also elect other science courses, and can enter college chemistry during their freshman year at the introductory level.

Prerequisite: a 90% average or better in Algebra I^{KE} and currently enrolled in Algebra II.

Honors Chemistry will be required for all students planning to take AP Chemistry.

ADVANCED CHEMISTRY*

1 Credit

The Advanced Chemistry course is for college bound students with intended majors requiring one year or less of college chemistry. Advanced chemistry topics include solution chemistry, bonding, intermolecular attractions, collective properties, organic chemistry, nuclear chemistry, and thermodynamics. Emphasis will be placed on laboratory investigations and the application of topics to real world problems.

Prerequisite: a 90% average in Honors Chemistry and 90% or better in Algebra II and should have completed or currently be enrolled in Trigonometry.

Advanced Chemistry will be required for all students planning to take AP Chemistry.

ANATOMY & PHYSIOLOGY*

1 Credit

This course will investigate the concepts of Anatomy and Physiology including the following; major organ systems of the human body; the structure and function of each organ system; interrelationships among and between each organ system; and anatomical dissection and identification of the organ systems. This course emphasizes organizational and critical thinking skills while highlighting independent research. The student will be expected to independently conduct research, design experiments, and write scientifically, as well as use logic and reasoning in scientific inquiry. Students are evaluated and assessed on their individual performance in the following areas: examinations, laboratory exercises, laboratory reports, class presentations, research projects, research papers, homework/class work, and class participation. Students will be expected to read and discuss scientific journals and literature.

AP CHEMISTRY**

1 Credit

AP Chemistry is designed for the student in pre-professional modes such as engineering, medicine, or any other college major requiring an advanced background in chemistry. The course is involved in detailed study of chemical systems such as acid/base equilibrium, thermochemistry, organic chemistry, reaction kinetics, and redox reactions. Students will prepare to successfully complete the AP exam in the spring of their senior year, enabling them to possibly place out of introductory levels of college chemistry as freshmen. The laboratory investigations emphasize the topics likely to be of importance on the AP exam, as well as other topics which may be related.

The prerequisite courses or skills necessary for this course is at least an 85% average in Advanced Chemistry and a 90% or better in Algebra II and currently enrolled in Calculus.

PHYSICS

1 Credit

The primary objective of the Physics course is for students to solve problems, perform activities, labs, and projects to experience the concepts and equations of physics. The course is designed for a student who needs a high school level physics course in preparation for college level physics course. The course covers content in the following units of physics: mechanics, thermodynamics, fluids, waves and optics, and electricity and magnetism. A textbook is used as a guide for the course content. Supplement materials are used for

instruction throughout the course as well. All student work is organized in a 3-ring binder including notebook. Labs in the course include video analysis of moving objects, friction lab, collisions lab, a solar panel lab, windmill lab, and others. Projects in the course include using physics concepts to design and build a Bridge, Drag Boat, Egg Drop, and Rube Goldberg device.

Prerequisite Courses: Be currently enrolled in or have completed Algebra II.

PRINCIPLES OF ENGINEERING* (PLTW) (2nd Year)

1 Credit

Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation. Student should have completed Algebra I. Introduction to Engineering is recommended before beginning this course. Students should be concurrently enrolled in Geometry and ready to learn basic trigonometric concepts.

Prerequisite Courses: Algebra I

GRAPHIC COMMUNICATION

1 Credit

Graphic Communication introduces students to the world of graphics. You may not realize but everything you see daily was produced by someone in the graphics industry. These examples could be Billboards, animated commercials/TV shows, T-shirts and even the unique variety of Snapchat filters. In this class, you will explore the programs used in the Graphics industry. These programs include Adobe Illustrator, Photoshop and Premiere. Students will learn the principles for producing visually appealing designs. Then, move towards creating a graphic that will be transferred onto your very own shirt using the screen printing process. Finally, students will write, direct, film and edit their own video.

BOTS IQ*

1 Credit

BotsIQ is an educational robotics competition for students that is a spinoff from the popular BattleBots® television show. It provides students with a unique, hands-on experience allowing them to experience career options in the manufacturing, science, technology, engineering, and math fields. Students in BotsIQ will design and build a 15 pound battle robot from concept to completion. Throughout the design process, students will be involved with one or more areas of the engineering process such as mechanical design, electrical design, manufacturing, documentation, marketing, and finance. Students will keep an engineering journal that will contain brainstorm sketches, refined sketches, research notes, and meeting notes. Students will use AutoDesk Inventor 3D CAD software. Students will learn about numerous manufacturing processes and decide the best option for each component. Students will compete with their bot in the Southwestern PA BotsIQ competition and possibly the National Robotics League competition.

Prerequisite Courses: Algebra II, Geometry, (Intro to Engineering Design, and Principles of Engineering are highly recommended)

ENGINEERING DESIGN AND DEVELOPMENT*(PLTW) (3rd Year) 1 Credit

Engineering Design and Development (EDD) is the capstone course in the PLTW high school engineering program. EDD should be taken as the final capstone PLTW course since it requires application of the knowledge and skills from the PLTW foundation courses. It is an engineering course in which students work in teams to design and develop an original solution to a valid open-ended technical problem or the Bots IQ 15 pound combat robot project by applying the engineering design process. The course applies and concurrently develops secondary level knowledge and skills in mathematics, science, and technology. The course is appropriate for 12th grade students who are interested in any technical career path. Since the projects can vary with student interest, the curriculum focuses on problem solving,

The BotsIQ option in EDD is an educational robotics competition for students. It is a spinoff of the popular BattleBots® television show. It provides students with a unique, hands-on experience allowing them to experience career options in the manufacturing, science, technology, engineering, and math fields. Students in EDD who choose the BotsIQ project will use engineering process to design, develop, and build a 15 pound battle robot from concept to completion. Throughout the design process, students will be involved with one or more areas of the engineering process such as mechanical design, electrical design, manufacturing, documentation, marketing, and finance. Students will keep an engineering journal that will contain brainstorm sketches, refined sketches, research notes, and meeting notes. Students will use AutoDesk Inventor 3D CAD software. Students will learn about numerous manufacturing processes and decide the best option for each component. Students will compete with their bot in the Southwestern PA BotsIQ competition and possibly the National Robotics League competition.

Prerequisite Courses: Algebra II, Geometry, Intro to Engineering Design (IED), Principles of Engineering (POE)

AP PHYSICS I: Algebra-Based****2 Credit**

AP Physics I: Algebra-Based is the equivalent of a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It will also introduce electric circuits. Students should take AP Physics I if they expect to take physics beyond the high school level. Students can take AP Physics I in place of Physics as a first year physics course. AP Physics 1 is offered as a dual-enrollment class and students also have the option to take the AP Physics 1 exam at the end of the spring semester.

Activities used in this course include keeping a notebook, solving problems, laboratory experiments, cooperative-learning sessions, discussions, demonstrations, creating and interpreting graphs, video analysis, creating models, and scientific and graphing calculators.

Prerequisite Courses: Algebra II, Honors Chemistry, Trigonometry is highly recommended or can be taken concurrently.

*****College in the High School course offered through Mt. Aloysius College and Saint Francis University. Separate application necessary.*****

INTRODUCTION TO GIS**1 Credit**

This course introduces basic concepts in Geographic Information Systems(GIS) and Geospatial Technologies. During this course, students will learn basic GIS principles and the application of GIS and GPS in their education and life. Concepts include but are not limited to analysis, management, representation of geographic information as well as data collection in areas such as construction, wildlife management, diseases and epidemics, natural disaster impact areas and recreational facilities (to name a few!) Students will use arcGIS and Google Earth to represent their data.

CIVIL ENGINEERING AND ARCHITECTURE (PLTW)***1 Credit**

Students learn important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3D architecture design software. Civil Engineering and Architecture assumes Students should have knowledge and experience from IED and POE PLTW foundation courses. It also assumes the completion of Geometry.

AEROSPACE ENGINEERING (PLTW)***1 Credit**

This course propels students' learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing an airfoil, propulsion system, and rockets. They learn basic orbital mechanics using industry-standard software. They also explore robot systems through projects such as remotely operated vehicles.

ENVIRONMENTAL SCIENCE**1 Credit**

The course asks the question "What makes Earth unique among planets?" The question is answered in the first four units, providing a background for understanding and discussing the natural functioning of the different Earth systems: geophysical systems, the atmosphere, the oceans, and, finally, natural ecosystems. The remaining units delve into human interaction and impact on the environment.

PRINCIPLES OF BIOMEDICAL SCIENCE (PLTW)***1 Credit**

In the introductory course in the PLTW Biomedical Science program, students explore concepts of biology and medicine to determine the factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own experiments to solve problems.

COMPUTER ESSENTIAL SKILLS**1 Credit**

Students will experience the major topics, big ideas, and computational thinking practices used by computing professionals to solve problems and create value for others. This course will empower students to develop computational thinking skills while building confidence that prepares them to advance to Computer Science Principles and Computer Science A.

LANGUAGE ARTS

English 9
Honors English 9*
English 10 (Keystone Exam Course)
Honors English 10*(Keystone Exam Course)
English 11
Honors English 11*
English 12
AP English 12**
Humanities
Public Speaking
Journalism
Creative Writing I
Creative Writing II
Communication Studies

* Advanced Course

**AP Course

ENGLISH 9

1 Credit

The primary objectives of this course are to enable students to examine and improve their understanding of literature, composition, and oral communication, complete the required literature reading for the academic core and extend upon this core by reading a minimum of four outside works, and closely examine the writing process and different styles of writing. The Pennsylvania Common Core Standards and Assessment Anchors and Eligible Content will be the focus.

The major units to be covered are: Short Story—used as an introduction to the various literary terms and devices incorporated in the text. Discussion of the themes will be promoted. Poetry—emphasis on style and technique, similes and metaphors will be examined. Epic poetry – used as an extension of poetry with emphasis on devices and techniques will be covered. Drama—an introduction to Shakespeare: universal themes and oral interpretations will be addressed. Novel— novels on the reading list and accelerated reader will be covered. A heavy emphasis will be placed on plot and theme. Writing—writing through the literature will be covered throughout the year. Grammar will be taught through composition.

The major activities and projects required for this course include novels that will be read independently and tested through Accelerated Reader. Several essays utilizing narrative, informative, and persuasive writing will be covered emphasizing PSSA and Keystone exam techniques and the PA Domain Scoring Guide. At least two major projects will be assigned.

HONORS ENGLISH 9*

1 Credit

Honors English 9 is an accelerated English survey course aimed at college bound students. This class offers students literary analysis, writing/composition, and reading comprehension with an emphasis on independent reading. Students will be writing in various modes including narrative, persuasive, and expository styles with writers' workshops focused on vocabulary, grammar, and style. Students will focus on literary classics in preparation for SAT tests, Keystone exams, AP Literature, and college expectations.

The major units to be covered are: Short Story—used as an introduction to the various literary terms and devices incorporated in the text. Discussion themes will be promoted. Poetry—emphasis on style and

technique, similes and metaphors will be examined. Epic poetry – used as an extension of poetry with emphasis on devices and techniques will be covered. Drama—an introduction to Shakespeare: universal themes and oral interpretations will be addressed. Novel novels on the reading list and accelerated reader will be covered. A heavy emphasis will be placed on plot and theme. Writing—writing through the literature will be covered throughout the year. Grammar will be taught through composition.

The major activities and projects required for this course include classic literary works that will be read independently and tested through Accelerated Reader. Several essays utilizing narrative, informative, and persuasive writing will be covered emphasizing PSSA and Keystone exam techniques and the PA Domain Scoring Guide. At least two major projects will be assigned.

Prerequisites: 90% or higher in 8th grade English, score in the 9-12 grade equivalency range on STAR Reader, and ranked PSSA scores.

ENGLISH 10 (Keystone Exam Course)

1 Credit

The primary objectives of this course are to provide instruction and practice in essential language skills in reading, writing, speaking, and listening, and to provide opportunities to use these skills in developing effective forms of communication through various activities and projects. It will provide students the opportunity to learn about themselves and their world through the experiences of others as presented in selected forms of literary genres. The students will write narratives, descriptions, expositions, character sketches, and persuasive papers. Grammar skills will be reviewed/retought when necessary as evidenced in students' writing projects. The major units to be covered include the short story, poetry, nonfiction, drama, The King Arthur Legend, and the novel. The literary focus will include the techniques and literary devices authors use to produce the total effect of the work.

HONORS ENGLISH 10* (Keystone Exam Course)

1 Credit

Honors English 10 is an advanced, comprehensive study of English: literary analysis, composition, and reading comprehension, including lessons on grammar and vocabulary. Literary selections represent an array of genre and time periods, and lessons will emphasize the authors' styles. Writing assignments will cover persuasive, informational, narrative, reflective, and descriptive modes, with rubrics stressing clarity and conciseness. Students will be challenged to understand the text and subtext of thematically and stylistically relevant articles and essays drawn primarily from current periodicals. Students will conduct research and use current technology to both gather and present information.

Prerequisites: 85% or higher in Honors English 9 or a 90% or higher in regular English 9 and score above grade level on STAR Reader

ENGLISH 11

1 Credit

The primary objectives of this course are to enable students to respond orally and in writing to information and insight gained from various texts, respond critically to various types of literature: essays, journals, poetry, biographies, plays, and the short story. They will analyze period idea in various selections; write for a variety of purposes: comparison/ contrast, informative and persuasive. Students will compose and give short oral presentations and use the library for research.

The major units to be covered are Prehistory to 1780, 1750-1850, 1845-1880, 1865-1910, 1910-1930, 1930-1960, and 1960 to the Present.

The major activities and projects required for this course include, but are not limited to: explication of long poetic works, completion of the course project which is a job shadow for a career of choice, completion of Career Cruising.

HONORS ENGLISH 11*

1 Credit

English 11 Honors course is an enriched program designed for more advanced students. This rigorous course examines the works of significant American authors. Exploration of major pieces of American literature enhances students' understanding of literary style, and will develop students' skills in analysis and interpretation. Students will employ a variety of written and alternative assessments to demonstrate their ability to analyze, compare, and interpret literary works. Heavy emphasis will be placed on reading, writing, and researching. Students will read several American novels independently.

Prerequisites: 85% or higher in 10th grade Honors English or 90% or higher in regular English 10, and score above level on Star Reader.

ENGLISH 12

1 Credit

The primary objectives of this course are to enable students to read, discuss, and write about English literature. The students will recall, interpret, listen and speak intelligently about the historical periods in which this literature was written and will analyze literature through both figurative and literal means.

The major units covered are the Anglo-Saxon Period, Medieval Period, Elizabethan Age, Eighteenth Century, Romantic Age, Victorian Age, and the Twentieth Century.

The major activities and projects required for this course include multi-paragraph compositions, research paper, research presentation, career focused graduation project, tests, quizzes, and recitations.

AP ENGLISH 12**

1 Credit

The AP English course at Frazier High School will engage its participants in the careful reading and critical analysis of imaginative literature. Students will not only deepen their understanding and increase their pleasure in literature, but will develop critical standards for interpreting the effects writers create by means of artful manipulation of the language. Students in AP English will study individual works, their characters, action, structure, and the language.

Both large-scale literary elements such as form and theme, and smaller-scale elements such as figurative language, imagery, symbolism and tone will be emphasized within each selection. AP English students at Frazier will also be expected to consider literary selection from their historical standpoint so that they may learn to derive meanings in relation to their own experiences.

Students of AP English at Frazier will be expected to establish a familiarity with both English and American Writers and experience all genre within English and American literary domains.

Furthermore, since writing is an integral part of the AP English course, writing assignments will focus on critical analysis of literature and will include expository, analytical and argumentative essays. Also, well

constructed creative writing assignments will be included to help students appreciate and deepen their knowledge of what literary artistry is about. The goal of both types of writing is to increase the students' ability to understand what they have read and to explain clearly, coherently, and even beautifully what they understand of literary works and why they interpret them as they do.

Throughout the course, emphasis will be placed on helping students develop stylistic maturity which will include: wide-range vocabulary used with denotative and connotative accuracy, subordination and coordination; logical organization, enhanced by specific techniques of coherence such as repetition, transitions and emphasis. Rhetorical effectiveness must also be a part of the Advanced Placement regimen. Techniques such as controlling tone, maintaining consistent voice, achieving parallelism and antitheses must be practiced. A student of Advanced Placement will be made aware of stylistic effects and levels of diction. These differences are indicated most easily through fiction, poetry, and all literature that is studied throughout the course.

Finally, Advanced Placement students must be practiced in the recognition of varied literary collections through early, yearly, and diligent instruction of such material to attain the successful outcome of a high score on the Advanced Placement examination.

In addition, students must also complete a career focused graduation project.

Prerequisite: 85% or higher in 11th grade Honors English or 90% or higher in regular English 11.

*****College in the High School course offered through Mt. Aloysius. Separate application necessary.*****

HUMANITIES

1 Credit

This course is designed for juniors and seniors interested in learning about the art and culture of the Paleolithic Era through through the Modern Era. A comparison of the different historical eras will be studied in terms of art, literature, music, philosophy, architecture, politics, and religion.

PUBLIC SPEAKING

1 Credit

Students are invited to improve their speaking skills by learning basic delivery skills of volume, rate, expression, and eye contact in short, fun personal speeches. Throughout the course, students will learn how to prepare a short Prezi presentation and speaker notes, give announcement, personal interest, introduction, award, demonstration, informative, and persuasive speeches, and create their own public service announcement. All speeches are prepared in class as students learn to choose speech topics, prepare outlines, revise speeches, practice, present speeches, and reflect upon speech presentations.

JOURNALISM

1 Credit

Students will develop interviewing, reporting, broadcasting, editing, and publishing skills to cover national, local and especially high school news. Students will create a number of project-based activities. Writing, public speaking and presentation making are all vital components to the course as well. Students will publish work through the various means of media.

CREATIVE WRITING I

1 Credit

Creative writing involves creative thinking, which is the making of new connections among ideas. Taking the thoughts and putting them into words make for a new and deeper understanding of an idea.

The purpose of this course is to provide students instruction and opportunity to put their thoughts and feelings into words and those words onto paper in a clear, meaningful way through various kinds of writing.

Students will work individually and in small groups writing short stories, both fiction and nonfiction, writing various kinds of poetry, and composing other forms of imaginative writing, as per teacher discretion.

Writing assignments will involve using the writing process.

The final project is a collection of students' writings compiled into a book.

This course can help you improve as a writer, but only if you are willing to work at the job.

Only students who sincerely enjoy writing, and have maintained at least an 80% average in the previous year's English class, should take this course.

CREATIVE WRITING II

1 Credit

Taught in conjunction with the Creative Writing I course, second year students will have the opportunity to refine the writing skills and forms taught in Creative Writing I. Students will work with poetry, fiction, nonfiction and drama.

The purpose of this course is to expand writing skills by producing longer, more involved writings. All writing projects will be individualized according to the student's writing talents and interests. Projects must be formally presented and published. Students will refine editing skills and will be required to submit works in competitions and for formal publication.

Students must have passed Creative Writing I to take the class.

COMMUNICATION STUDIES

1 Credit

Communication studies will focus on two specific areas of the communication field: public speaking and high school journalism. Students will learn how to organize, prepare, and present a variety of speeches. The course will focus heavily on the informative speech and the persuasive speech.

The high school journalism curriculum will allow students to explore all phases of producing a newspaper. Students will write, edit, prepare layout, and publish articles for a fictional high school newspaper. They will also be required to maintain and meet deadlines.

Students will also complete a course project of either a video that reflects some aspect of high school life or a paper on some aspect of the media. Students will meet individually with the teacher to discuss components of each project.

SOCIAL STUDIES

- American Government
- AP American Government**
- Contemporary American Studies
- AP United States History**
- The Modern World
- AP European History**
- Personal Finance
- Sociology
- Psychology
- Geography
- Conspiracy Theory
- Pop Culture and Politics
- Economics

* Advanced Course
**AP Course

AMERICAN GOVERNMENT

1 Credit

The American Government course is designed to provide an understanding of the development of our form of government, its workings today, and its increasing complexities. The course will begin with an examination of the creation of our democracy and Constitution, and then concentrate on the legislative, executive, and judicial branches of the federal government. Additionally, the election process and the Bill of Rights will be extensively studied.

AP AMERICAN GOVERNMENT**

1 Credit

AP American Government studies the operations and structure of the U.S. government and the behavior of the electorate and politicians. Students will gain the analytic perspective necessary to critically evaluate political data, hypotheses, concepts, opinions, and processes. Along the way, they'll learn how to gather data about political behavior and develop their own theoretical analysis of American politics. They'll also build the skills they need to examine general propositions about government and politics, and to analyze the specific relationships between political, social, and economic institutions. The equivalent of an introductory college-level course, AP American Government prepares students for further study in political science, law, education, business, and history.

Prerequisite: at least an 85 % average in American Government, and English 10^{KE} or English 11.

*****College in the High School course offered through Mt. Aloysius College. \$55 per credit. Separate application necessary*****

CONTEMPORARY AMERICAN STUDIES

1 Credit

The primary objectives of this course are to provide a sequential development of historical information for students to use in a variety of situations, providing practical experiences for students to use for better understanding their relationship to and functions in their nation, and encouragement and development of

comprehension, thinking, writing, and researching skills. A special emphasis on the interrelationships of cultures which have created the present American society will be provided.

The major topics/units include: The Progressive Era (1890-1920), World War I (1914-1919), The Roaring Twenties (1920-1929), The Great Depression (1929-1940), World War II (1940-1945), The Cold War (1945-1960), The Civil Right Movement (1955-1975), The Vietnam War (1960-1975), Nixon & Watergate (1968-1976), The Reagan Revolution (1980-1992), The 1990's & the New Millennium (1990-2001)

AP UNITED STATES HISTORY**

1 Credit

The primary objectives of this course are to provide students with factual knowledge to deal with problems in American History, assessment of materials for the purpose of determining validity and merit in a variety of sources, and promote and develop comprehension and writing skills appropriate for college level work. Skills and preparation for the advanced placement exams will be stressed. Document based, primary source questions will be used.

The major units to be covered are discovery through colonial establishment/Revolutionary Era, the Constitution and New Republic/nationalism and economic expansion, Civil War, industrialization/urban life/economic changes in America, U.S. foreign policy in the 20th century, economic challenges, and recent foreign policies and social changes.

Prerequisite: at least an 85 % average in Contemporary American Studies and English 10^{KE} or English 11.

*****College in the High School course offered through Mt. Aloysius College. \$55 per credit. Separate application necessary*****

THE MODERN WORLD: 1789 TO PRESENT

1 Credit

This course will examine some of the major historical events and periods of the modern era beginning with the Middle Ages, through the world wars, and up to history that is being made today. Students will be working on developing historical thinking skills such as interpreting primary sources and making historical arguments using relevant evidence.

AP EUROPEAN HISTORY**

1 Credit

In AP European History, students investigate significant events, individuals, developments, and processes from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction of Europe and the world, economic and commercial development, cultural and intellectual development, states and other institutions of power, social organization and development, national and European identity, and technological and scientific innovations.

Prerequisite: at least an 85% in The Modern World: 1789 to Present and English 10 or English 11.

*****College in the High School course offered through Mt. Aloysius College. \$55 per credit. Separate application necessary*****

PERSONAL FINANCE

1 Credit

This course covers the management of household and personal finances. It provides an overview of financial concepts with special emphasis on their application to issues faced by individuals and households: budget management, savings, housing and other major acquisitions, borrowing, insurance, investments, meeting retirement goals, and estate planning. The course provides an overview of principles and techniques for the management of a household's assets and liabilities. In addition, it studies financial institutions and their relationship to households, along with discussion of financial instruments commonly held by individuals and families.

SOCIOLOGY

1 Credit

This course provides students with a comprehensive examination of the basic concepts, principles, and methods central to the scientific study of the evolution, structure, and function of human society. The first goal of this course is to teach students to think like sociologists. The second goal is to help students develop a sociological imagination, which will enable them to view their own lives within a larger social and historical context. The third goal is to help students understand and thus appreciate the rich diversity that is possible in social life by exposing them to data from a wide variety of cross-cultural and historical sources.

PSYCHOLOGY

1 Credit

This course is an introduction to the study of behavior in humans as it applies to mental processes. Students will explore topics such as development, social psychology, personality, states of consciousness, stress, and psychological disorders. Both normal and abnormal studies will be included. This course will challenge students to use their metacognitive abilities in order to develop a meaningful understanding of their sense of self.

GEOGRAPHY

1 Credit

Geography will help students be more informed about the people, places, and cultures around them. The course begins locally with the study of nearby locations, like Fayette County, PA & eventually expands to the study of the United States & eventually covers all 7 continents & all the countries of the world. Students complete Map Quizzes, WebQuests, Study Guides, etc for each Unit/Chapter covered throughout the class. Units include Fayette County, PA, The State of Pennsylvania, the United States, U.S. Lakes & Rivers, Canada, Central & South America, The Caribbean, Europe, The Middle East, Oceania/Australia, Asia, Africa

CONSPIRACY THEORY

1 Credit

This class covers a variety of American-based conspiracy theories such as the Moon Landing Hoax, the assassination of JFK, Paul is Dead, the 27 Club, Area 51, music, and pop culture. It also explores the psychology of why people believe in conspiracy theories and need to know desire humans possess. The class culminates with a research project into the conspiracy theory of the student's choosing.

POP CULTURE & POLITICS

1 Credit

The purpose of this course is to allow students to better understand the impact of historical and political events on American society. Students will learn about major historical and political events in U.S. history and, once they have a thorough understanding of an event, we will then undertake an examination of how that event is depicted in, and its impact on popular culture. Topics will include political assassinations, war, protest music, elections and social media, and political scandals, among others.

ECONOMICS

1 Credit

Economics is the study of how human beings attempt to satisfy needs and wants with scarce resources. The first part of the course will focus on the fundamental concepts of Economics including, but not limited to: supply, demand, and scarcity. Other topics of study will include the organization of individual businesses and corporations, the labor market, the role of government in regulating the economy and developing economic policy (i.e. taxation and the Federal Reserve System), banking, investing (stocks, bonds, mutual funds), and the modern global economy.

WORLD LANGUAGES

Spanish I
French I
Spanish II
French II
Spanish III*
French III*
Spanish IV*
French IV*

*Advanced Course

SPANISH I

1 Credit

The primary objectives of this course are to enable students to speak the Spanish language with correct pronunciation and intonation at a beginning level. In addition, students will develop a working vocabulary of basic Spanish words. Students will be able to converse on familiar topics using elementary Spanish grammatical construction. Students will also be able to comprehend, speak, read, and write at a basic level while gaining an understanding of Spanish people and their culture and traditions.

Major units covered are: greetings and salutations, numbers, time, months, days of the week, weather conditions, seasons, expressions of like and dislike, food, body parts, classroom objects, clothing, places in

the community, family, gender and number agreement, subject pronouns, adjectives, ser and estar, a vast number of nouns, and verbs in present tense.

FRENCH I

1 Credit

The primary objectives of this course are to enable students to speak, write, read, and understand basic (survival) French. Students will be able to express both positive and negative thoughts, ask & answer simple questions, and discuss common, everyday activities.

Units in this course introduce basic vocabulary & grammar and offer an introduction to French culture. The following topics are covered: greetings; family & friends; colors; numbers; time; days & months; seasons & weather; describing people; professions; personal possessions; invitations; action verbs & their negatives; places; clothes; and school.

SPANISH II

1 Credit

The primary objectives of this course are to enable students to develop oral and written self-expression with emphasis on pronunciation, intonation, and grammatical construction while expanding working vocabulary from Spanish I. Students will know methods and procedures of more advanced Spanish grammar structure. Students will increase their comprehension of the written and spoken language. Students will write more advanced sentences and dictation. Students will expand their knowledge of Spanish people and culture.

The major units to be covered are: extensive review of Spanish I, reflexive pronouns and verbs, authentic foods, personal hygiene, family, clothing, and leisure activities; as well as in depth discussions about stereotypes, concluding with a virtual tour of Mexico.

Prerequisite course: Spanish I

FRENCH II

1 Credit

The primary objectives of this course are to enable students to speak, write, read, and understand French at an intermediate level. Students will be able to ask about and discuss events in the present, past, and future.

Units in this course introduce intermediate vocabulary & grammar and allow students to discover more about Francophone culture around the world. The following topics are covered: review of French I; food & drink; helping others; parts of the body; narrating past events (the passé composé & the imparfait); countries of the world; and the future.

Prerequisite course: French I

SPANISH III*

1 Credit

The primary objectives of this course are to enable students to develop oral and written self-expression on an intermediate level. Students will develop speaking and composition skills on assigned topics using structures and vocabulary presented in class. Students will use present, past, and future tenses. Students will also delve into the world of art and Spanish speaking artists throughout history.

The major units to be covered are: preterite tense, imperfect tense, present progressive, simple future.

Prerequisite courses: A 75% or higher in Spanish II**FRENCH III*****1 Credit**

The primary objectives of this course are to enable students to speak, read, understand, and write French at a more advanced level. Students will begin to read short literature selections and informational articles written in French.

Units in this course introduce advanced vocabulary & grammar and offer greater exposure to French culture and history. The following topics are covered: review; daily routines; physical appearance & emotional state; household chores; obligations; vacation activities; the natural world; shopping; traveling abroad; staying in France; and health & wellness. In addition, students will read authentic French literature from various time periods. Cultural readings will focus on fashion; music; nature; travel & tourism; & different eras in the history of France.

Prerequisite courses: a 75% or higher in French II**SPANISH IV*****1 Credit**

The primary objectives of this course are to enable students to expand working vocabulary acquired in the first three levels of Spanish, and to further understand and use advanced grammatical structures. Students will read, translate, and understand more advanced Spanish literature, speak and write Spanish at a more advanced level, and demonstrate correct usage of composition and creative writing skills at a higher level. The major units to be covered are: preterite and imperfect, future tense, poetry, various types of literature, and art.

Prerequisite courses: a 75% or higher in Spanish III**FRENCH IV*****1 Credit**

The primary objectives of this course are to enable students to expand working vocabulary acquired in the first three levels of French, and to further understand and use advanced grammatical structures. Students will read, translate, and understand more advanced French literature; speak and write French at a more advanced level; and demonstrate correct usage of composition and creative writing skills at a higher level. Students will understand the history and geography of French-speaking countries and Francophone influences in the world today.

Thematic units in this course focus on French cities; personal relationships; and education & careers. Students will also explore the regions of France; Francophone countries; and the Impressionist art movement through various projects. As time allows, literature selections will include: short stories; traditional folk tales; and novels (*Le fantôme de l'opéra* by Gaston Leroux & *Le petit prince* by Antoine de Saint-Exupéry).

Prerequisite courses: a 75% or higher in French III

ARTS

Art
Art and Design
Music Technology
Music Theory

ART

1 Credit

The objective of this course is to extend and refine abilities to investigate and respond to the visual arts. Students are able to apply more complex technical skills as they manipulate the elements of art and principles of design, art media, and original ideas. They will produce original works of art that are developed from preliminary sketches and ideas that are maintained in a sketchbook/journal.

The students will demonstrate the ability to incorporate all that they have learned about art history, interdisciplinary connections, and the use of technology within their art using a variety of techniques and media. Examples will include, but not be limited to the following: printmaking, shading, watercolor, collage, pen & ink, digital photography, graphic art, 2-D & 3-D design, oil & chalk pastels, charcoal, acrylic painting, and relief sculpture.

Evaluation will be based on art production, teacher observation, expanded vocabulary, student/teacher assessments, class participation, the display of their art, and overall growth.

ART AND DESIGN

1 Credit

The objective of this course is to extend and refine abilities to investigate and respond to the visual arts in an innovative manner. Students are able to apply more complex technical skills as they manipulate the elements of art and principles of design, art media, and original ideas. Student work will be geared toward “real-life” artistic expression, how we see art in the world around us in a 2-dimensional sense and how to morph 2-dimensional work into 3-dimensional sculptural forms. Students will also work collaboratively on a 4D environmental design project and conduct research on 5D experience design.

The students will demonstrate the ability to incorporate all that they have learned about art history, interdisciplinary connections, and the use of technology within their art using a variety of techniques and media. Projects will reflect the themes of artistic careers, innovation, and problem solving skills.

Evaluation will be based on art production, teacher observation, expanded vocabulary, student/teacher assessments, class participation, the display of their art, and overall growth.

MUSIC TECHNOLOGY

1 Credit

Music Technology is a course for any student in grades 11 and 12. Students will discover and explore introductory concepts used in music sequencing, notation and recording. No prior musical experience is needed. Students will create music using sequencing/editing software. Students interested in the current methods of music creation and production should consider taking this course.

MUSIC THEORY

1 Credit

Music Theory is a course open to any student in grades 10-12. Students will explore music notation and composition, theory concepts, chord structures, and traditional 4-part music writing. Prior music experience is strongly recommended. Students that do not have musical experience should seek approval from the teacher before taking this class. Band students that are interested in writing music or furthering their understanding of music should consider taking this course.

FAMILY AND CONSUMER SCIENCE

Human Development Theory

Human Development Lab

Nutrition & Wellness

HUMAN DEVELOPMENT THEORY

1 Credit

This course is offered as an introductory course for all students interested in having children in the future, studying early childhood development and for those who hope to pursue careers related to children/humans such as teaching, nursing, social work, psychology, child care, etc. The course focuses on the human and how he/she transitions through the life cycle, and more specifically the growth and development of the child, from conception through preschool. Course topics include family dynamics, childhood theories and theorists, roles of parents and child caregivers, preparing for childbirth, birth defects and childhood diseases, toy selection and safety, positive and negative discipline and the physical, social, emotional and intellectual development of and proper care of a child into an adult.

Human Development Theory is restricted to 11th and 12th grade students.

HUMAN DEVELOPMENT LAB

1 Credit

This course will focus on preparing students for working with children, being their own children or in a career in a childcare profession or education. Students will be exposed to skills, knowledge and attitudes that are needed to effectively work with children, staff, and parents. Problem solving and creativity skills will be used to plan and implement learning activities and strategies for infant to school aged children. Along with their classroom activities, students will be required to carry a RealCare infant simulator for a 48 hour period, in addition to engaging in practical “hands on” work experiences (Co-op, which is 75% of the 2nd/4th quarter grade based on which semester the course is taken) at accredited pre-school programs.

****Attendance is EXTREMELY IMPORTANT for success in this course due to the time spent out of the building when engaging in the Co-op experience.****

This course is restricted to 11th and 12th grade students who have passed Human Development Theory with a grade of 80% or better. Students enrolled in this course are responsible for providing their own transportation to and from their assigned work sites. The work sites may be located throughout the Frazier School District.

NUTRITION & WELLNESS

1 Credit

Nutrition and Wellness is designed to teach skills as they apply to human nutrition and wellness needs. Students will collaborate ideas of eating healthy, food production and preparation and in making healthier food choices at home, eating out or in their shopping practices. Students will review the factors that influence our food selection, physiologically, culturally and socially. They will assess the nutrition needs across the life span, analyze the technology used in cooking and experiment with the food science principles while preparing recipes. Students will define the basic fundamentals of making healthier lifestyle choices in bettering their overall physical and mental wellness. A variety of community resources will come together in this hands-on interactive class. This is a diversified life skills program aimed at helping students strive for excellence in becoming independent members of families and society.

ADDITIONAL COURSES

Freshman Seminar
9th Grade Rotation
Career Exploration
Current Events
Personal Fitness
Physical Education 11/12

FRESHMAN SEMINAR

1 Credits

All 9th Grade students are required to enroll in Freshman Seminar. This is a transition course designed to provide students with the skills and knowledge necessary to meet expectations in high school and beyond.

The main focus of the curriculum includes:

1. **Research Skills** - This course addresses the academic standards in writing. Students will review the writing process. This course also introduces students to research skills and the senior project with a focus on the MLA style of research writing. Students will learn the validity of responsible research using materials from the library as well as responsible Internet use. One major project, a research paper, is required.
2. **Test Taking Skills** - Throughout this course, students will become familiarized with different types of test preparation: note-taking, time management, review methods for tests, and strategies and skills for taking tests. Students will have an understanding as well as critically analyze different types of test questions to become more successful test takers. Completing this portion of the Freshman Seminar coursework requirements this year will not only prepare students for upcoming assessments such as tests, but it will also help them achieve a successful academic high school career by facilitating their transition into the work and expectations that are awaiting them in high school.
3. **Study Skills** - This class is designed to help students improve their learning effectiveness, attitudes, and motivation towards learning. The following are part of the curriculum designed to help students reach their maximum potential: Active Listening, Note Taking Skills, Textbook Reading and Study Methods, Graphic Organizers, Study Space, and Memory Techniques.

4. **Presentation Skills/Public Speaking** - In this course, students will learn the skills needed to make an appropriate impression in their professional and personal lives. These skills are essential to making a lasting impact on other professionals as well as handling personal matters.

9th Grade Rotation

2 Credits

The 9th Grade Rotation course is comprised of 4-9 week courses. The courses and their descriptions are:

1. **Technology 9** is designed to provide students with a complete understanding of the Google Applications that will be used throughout the high school. The course is designed around three objectives: 1) develop an understanding of Google Chromebooks; 2) develop an understanding of managing Google Drive; and 3) develop an understanding of the Google Applications including Gmail, Google Docs, Google Slides, Google Sheets, and Google Sites.
2. **Health 9** is broken into 6 Units. Units 1,2,4,5, and six will last approximately 5 days and Students will learn the material on the first four days and be assessed on the 5th. Unit 3 **Project Towards No Drug Abuse** will be spread over approximately 3 weeks.

Units

- | | | |
|--------------------------------|----------------------------------|---------------|
| 1. Introduction to Health | 4. First Aid and CPR | 7. Final Exam |
| 2. Mental and Emotional Health | 5. Physical Activity and Fitness | |
| 3. TND Curriculum | 6. Reproductive Health | |

3. **Family and Consumer Science 9 (FaCS9) Pathways** class will focus on students nurturing themselves and others in taking an increased responsibility for living independently. This class will be quarter length and worth .5 credit. An integrated approach will be used to help students identify, create and evaluate goals and alternative solutions to significant problems of everyday life. Performance based assessments will be the foundation of student learning. Students will: identify resources and how to obtain consumer goods and services; create a budget, and show the relationship for managing income, expenses and savings; explain one's consumer rights and how they are protected; assess the factors affecting the availability of housing; deduce the importance of time management skills; solve dilemmas using a practical reasoning approach; practice stress management strategies; define how to properly care for oneself, including personal hygiene and basic first aid; demonstrate tools used to effectively communicate with others; plan a menu and describe the effectiveness of the use of meal management principles; set positive short-term and long-term (career oriented) goals; complete a Holland Code personality test, match results to jobs and investigate one further and create a job seeking portfolio, to include how to obtain a work permit, fill out a job application and complete a resume and reference resource page.
4. **Physical Education 9** In this nine week course students will be assessed on their ability to understand and participate in physical activities that develop motor skills and physical fitness. This will be accomplished through instruction in the following activities: Team handball, volleyball, lacrosse, Ultimate Frisbee, soccer, basketball, football, eclipse ball, tennis, badminton, speedminton, golf, and cooperative games. Skills and lead up games specific to each sport will be progressively taught culminating into game play. Students will also explore the history and terminology of each

sport, game strategies, fitness activities and development of teamwork/sportsmanship. The course will also follow up with the physical fitness testing. Units may be added or omitted due to weather and availability. Safety concepts, rules, and etiquette are emphasized in all activities.

CAREER EXPLORATION (All 10th grade College Prep and Career Prep students) 1 Credit

This course is designed to help students explore a variety of careers to consider and begin planning a career path. This Career Exploration Course is designed to help students become proficient in core areas to ensure success after high school. The course is designed around five objectives: (1) Solving Problems And Thinking Skillfully (2) Communicating Effectively, Applying Technology (3) Working Responsibly (4) Planning And Managing A Career (5) Managing Resources

CURRENT EVENTS 1 Credit

This course encourages students to read and watch the news and hold class discussions on the matters. This course will focus on media coverage and the difference between biased and unbiased news events.

PERSONAL FITNESS (11th and 12th grade only) 1 Credit

This course is designed to give students the opportunity to learn fitness concepts and conditioning techniques used for obtaining optimal physical fitness. Students will benefit from comprehensive weight training and cardiorespiratory endurance activities. Students will learn the basic fundamentals of strength training, aerobic training, yoga, stretching, dynamic warm-ups and overall fitness training and conditioning. Course includes both lecture and activity sessions. The concept of wellness, or striving to reach optimal levels of health, is the cornerstone of this course and is exemplified by one of the course objectives: students designing their own personal fitness program as a way to develop the skills necessary to become fit and achieve some degree of fitness within the course.

Can only be taken once during high school career.

PHYSICAL EDUCATION 11/12 1 Credit

This course is designed for students to gain a basic knowledge of team and individual sports/activities. Team and individual sports/activities will include, but are not limited to: Team handball, volleyball, lacrosse, Ultimate Frisbee, soccer, basketball, football, eclipse ball, tennis, badminton, speedminton, golf, and cooperative games. Skills and lead up games specific to each sport will be progressively taught culminating into game play. Students will also explore the history and terminology of each sport, game strategies, fitness activities and development of teamwork/sportsmanship. The course will also follow up with the physical 20fitness testing.

Can only be taken one time per school year.

LEARNING SUPPORT

Senior High Math
Senior High English

SENIOR HIGH MATH

1 Credit

The general objectives of this course are to develop student skill levels in the areas of content, operations, application, measurement, with an emphasis on transition examples to develop everyday living skills. Skill levels will be developed to an accuracy level appropriate to each student's individual differences.

The major units to be covered are life skills on the job, skills for vocational training, survival math skills, and skills for transition from high school to real life situations.

Major activities and projects required for this course include handling a checkbook, payroll clerk skills, cash register and job skills training, and varied activities for transition to real life situations.

The learning support program is designed to be implemental for remediation in all major subject areas and addresses students who have been identified through psychological and diagnostic tests, faculty referrals, and observations.

These students are remediated in subject areas that show progressive rates that are not sufficient to maintain passing grades. Through resource room techniques and individual educational prescriptions, students are monitored and rated on their individual rates of progression in deficient subject areas.

Students are graded according to progression and, when possible, are mainstreamed or included in the class into which progression was inadequate.

SENIOR HIGH ENGLISH

1 Credit

The purpose of this class is to provide learning support students remediation in the areas of English Language Arts. This class will assist students in learning the basic fundamental skills when reading. This class will expose students to grade level materials while instructing at their reading level to help improve their reading skills. The class will work on skills including main idea, summarizing, figurative language, fact and opinion, analogies, multiple meaning words, and context clues as well as increasing fluency and comprehension. Guided reading will also be worked on where students will work on critical skills using short texts. Skills such as visualization, questioning, text connections, making inferences, and predicting will be studied.

**CENTRAL WESTMORELAND
CAREER AND TECHNOLOGY CENTER**

Central Westmoreland Career and Technology Center (CWCTC) in New Stanton provides 23 Programs that allow students the opportunity to increase their technical ability in order to become prepared for life after high school.

They are no longer a “vo-tech” school. They are now a part of the NEW PA Career and Technical Education system.

Central Westmoreland CTC prepares students for today’s economy and workforce needs by balancing meaningful career and workplace skills along with college readiness skills. This is done through both academics and hands-on learning. Many students graduate from the CTC with industry certifications. This allows them to enter directly into the workforce, apprenticeships, or colleges and trade schools. Students in certain programs can even earn college credits while attending the CWCTC.

Automotive Collision Technology
Automotive Technology
Carpentry
Commercial & Advertising Art
Computer & Information Science
Construction Trades Technology
Cosmetology
Culinary Arts
Electrical Technology
Graphic Design
Health Occupations Technology
Heating & Air Conditioning
Horticulture
Logistics and Warehouse Management
Machine Trades Technology
Masonry Technology
Painting & Decorating Trades
Plumbing
Powerline
Protective Services
Robotics Engineering
Sports Therapy and Exercise Science
Welding
Wellness

AUTOMOTIVE COLLISION TECHNOLOGY 3 Credits (1st Year)/4 Credits (2nd and 3rd year)

Students enrolled in the Automotive Collision Technology Program are exposed to the latest equipment and develop skills necessary to be an effective Auto Collision Specialist. Students will be knowledgeable in the repair and restoration of the body and frame of automobiles. Students will work with practical applications

in estimating, frame straightening, metal straightening, panel replacement, mig welding, plasma cutting, plastic repairs, and painting which includes the state of the art water based technology. This program has received national certification by The National Institute for Automotive Service Excellence (ASE).

AUTOMOTIVE TECHNOLOGY 3 Credits (1st Year)/4 Credits (2nd and 3rd year)

Students interested in the service and repair of automotive equipment will find the Auto Technology program an outstanding choice. Students will be trained to utilize all the latest diagnostic equipment in the industry. Emphasis is placed on standard shift drive and conventional and front wheel drive theory. Exploration will include a study of Automotive Electronics. Advanced students will receive instruction in the following areas: air conditioning, wheel alignment, and brakes. Students will also complete the state vehicle safety and emissions inspector certifications. Students will work toward ASE (Automotive Standards of Excellence) certification and may participate in the AYES (Automotive Youth Education Systems) internship.

CARPENTRY 3 Credits (1st Year)/4 Credits (2nd and 3rd year)

Carpentry students develop skills to become effective members of a construction team. Students will gain valuable skills that will enable them to produce residential and commercial framework, cabinetry, and other forms of woodwork. The program consists of practical application in woodworking, tool/machine handling, building layout and framing. Skills will also be developed in roof construction, exterior/interior finish work, stair construction and concrete forms. Students are also exposed to the various inspection and building code requirements.

COMMERCIAL & ADVERTISING ART 3 Credits (1st Year)/4 Credits (2nd and 3rd year)

The Commercial Art students learn to serve the communication media in today's world: books, posters, packages, displays, and signs. The program consists of practical application as well as basic theory. The practical application consists of drawing, figure construction and anatomy, cartooning, layout and graphic design, lettering and typography, mechanical overlays, and portfolio assembly. The theoretical studies include color, layout design and composition, as well as advertising art.

COMPUTER AND INFORMATION SCIENCE 3 Credits (1st Year)/4 Credits (2nd and 3rd year)

The fast-paced ever-changing computer field has opened many opportunities for individuals with a desire to work with computers. Those enrolled in the program will receive an overview of computer fundamentals. Students will have an extensive study of the software packages available on Microsoft Office such as: Word, Power Point, Access and Excel. A comparison of text editors and Dreamweaver, editor for web development, will be completed. An opportunity to explore and become knowledgeable in Visual Basic, Oracle SQL, C++, Java and Android Programming will be given to the students.

CONSTRUCTION TRADES TECHNOLOGY 3 Credits (1st Year)/4 Credits (2nd and 3rd year)

A skilled trade's mechanic is a valuable part of any construction team. Students in this program will become skilled and knowledgeable in plumbing, carpentry, electricity, painting, wall coverings, and masonry in order to become a part of this team. A trained professional can work on new construction as well as restoration projects. Students enrolled in the Construction Trades program will also gain valuable skills in blueprint reading, tool and material handling, and building code requirements.

COSMETOLOGY 3 Credits (1st Year)/4 Credits (2nd and 3rd year)

Students enrolled in the Cosmetology Program will gain skills in haircutting techniques, shampooing, and coloring and also develop skills in manicures, pedicures and massages. Exploration is placed on hair structure, anatomy, and sanitation. A simulated salon environment is used by students to allow for practice of these skills. The goal of the program is for students to gain skill proficiency in preparation for the State Board of Cosmetology Exam.

CULINARY ARTS 3 Credits (1st Year)/4 Credits (2nd and 3rd year)

A reputation for serving and preparing good food is essential for any restaurant, hotel or resort. The Culinary Arts students will gain the skills to be an effective part of the hospitality industry. Students will develop skills in hot/cold food preparation, baking and menu planning in the school's kitchen. Techniques in cake decorating and other confectionary items will be explored. Emphasis will be placed on safety nutrition and restaurant operation.

ELECTRICAL TECHNOLOGY 3 Credits (1st Year)/4 Credits (2nd and 3rd year)

Electricity plays a vital role in the way we live, work, and spend our leisure time. Skilled electricians are needed to perform work in industrial, public and residential buildings. Students acquire practical application in the installation and maintenance of programmable controls, residential wiring, electrical circuits and commercial wiring. Students will also have the opportunity to learn solar and wind technology. Students will gain valuable skills when working with transformers, capacitors, resistors, inductors and conduit bending. Proficiency will be developed in blueprint reading and understanding of the National Electrical Code.

GRAPHIC DESIGN 3 Credits (1st Year)/4 Credits (2nd and 3rd year)

Students looking for a future that will enable them to communicate through multiple modalities will enjoy the Graphic Design program. The program consists of an overview of the graphic technology field. Students will explore such areas as: graphic design, art, digital design, photography, pre-press production, offset printing, bindery work, silk screen production, as well as desk top publishing. Students enrolled in this program will also generate and edit photography with Adobe editing and design products.

HEALTH OCCUPATIONS TECHNOLOGY 3 Credits (1st Year)/4 Credits (2nd and 3rd year)

Health Occupations Technology is a program designed to prepare individuals for entry level employment in a variety of health occupations under the supervision of a registered nurse. Special emphasis is placed on nurse assisting, medical assisting, and home health care. The core curriculum consists of planned coursework for introduction of health careers, basic anatomy and physiology, medical terminology, legal and ethical aspects of health care and communications. This curriculum is based on research, experience and many resources. The goal of the Health Occupations Technology program is to train a worker that is skilled, knowledgeable and able to meet the needs of the industry today and well into the future.

HEATING & AIR CONDITIONING 3 Credits (1st Year)/4 Credits (2nd and 3rd year)

Heating and Air Conditioning Systems control the temperature, humidity and total air quality. The need for trained technicians continues to grow in this area. Students enrolled in the program will gain valuable skills in all aspects of the HVAC industry. Entry level students will become knowledgeable in electricity beginning with OHM's Law, advancing to schematics and circuitry. Emphasis is placed on piping, soldering and brazing. Students will be able to install, diagnose and repair fossil fuel systems and heat pumps. Valuable skills will be gained in blueprint reading and customer service.

HORTICULTURE 3 Credits (1st Year)/4 Credits (2nd and 3rd year)

The Horticulture program is an excellent opportunity for students to gain valuable skills to work in a greenhouse environment. Students will explore plant science concepts as they relate to producing crops in a greenhouse or nursery setting. Techniques for creating flower arrangements and/or corsages designed for use in weddings, parties and other social affairs will be developed. Students will work in the retail store to develop skills in marketing and retailing. In the school's outdoor lab, students become knowledgeable in landscape design, maintenance and installation. Students will become proficient in the use of power tools as well as basic hand tools used in the trade.

LOGISTICS AND WAREHOUSE MANAGEMENT 3 Credits (1st Year)/4 Credits (2nd and 3rd year)

As technology advances the way we ship and receive goods, the need for trained material handlers will continue to grow. Students enrolled in the Logistics and Warehouse Management program will gain practical application by working in the school's live distribution center. Participants will gain valuable skills in the use of the computer in maintaining an ongoing inventory, receiving and shipping goods, and updating stock cards. Students will also learn the bar coding process for scanning merchandise for inventory control. Professional communication and telephone skills are stressed throughout the program. The proper use and operation of an electric forklift, electric pallet lift and other equipment used by a materials handler will be taught in the course. Students will also be knowledgeable in postal regulations, preparing shipments and costs.

**MACHINE TRADES TECHNOLOGY
3rd year)****3 Credits (1st Year)/4 Credits (2nd and**

Metal Workers use powered machine tools to shape and form many parts which when assembled, produce many of the products that we use. The Machine Trades Technology program is a NIMS (National Institute of Metal working Skills) certified program that consists of practical application in metal cutting, drilling, milling, turning, grinding, sawing and non-traditional electrical discharge/plunge and wire cutting machines. Students become proficient in the use of rulers, micrometers, dial calipers, optical-comparator, CMM (Coordinate Measuring Machine), hardness tester and surface finisher testers. Students will also gain skills in blueprint readings. Interested students may acquire NIMS credentials that are recognized by employers nationwide.

MASONRY**3 Credits (1st Year)/4 Credits (2nd and 3rd year)**

Mason work is used in every part of our daily lives. Skilled masons construct hospitals, schools, malls and even our homes. Masons work with such materials as concrete, brick, stone and tile. The program consists of practical application of blueprint reading, and the use of masonry tools and equipment. Students will become proficient in layout design, arches, bonds, corners and ornamental patterns. Students will gain skills to complete fireplaces, glass block windows, walls and ceramic tile work. Exercises will be repeated in order to develop accuracy, neatness, speed and the necessary experience to analyze and solve problems. Students will also gain knowledge in estimating costs of projects and building code requirements.

**PAINTING AND DECORATING TRADES
and 3rd year)****3 Credits (1st Year)/4 Credits (2nd**

This program is an excellent opportunity for those interested in exterior/interior painting, interior decorating, wood finishing, drywall finishing and spray-painting. The program consists of practical application as well as a basic theory. The practical application includes applying paint to interior and exterior surfaces. Emphasis is placed on proper handling of brushes, rollers, and spray equipment. Students will be taught to hang wallcoverings, borders, vinyl fabric, and faux finishing that will enhance the look of interior rooms. Students will gain skills in estimating, measuring and color fundamentals. Time is also allotted for wood finishing and refinishing.

PLUMBING**3 Credits (1st Year)/4 Credits (2nd and 3rd year)**

Students enrolled in the plumbing program will have a strong understanding of plumbing fundamentals. Explorations will occur in a hands-on environment. Students will develop skills in sanitary piping systems, venting piping systems, and water supply systems, both in installation and repair. Plumbing students will learn to read blueprints as well as how electricity and welding are utilized in the trade. Students will gain valuable knowledge in job planning and OSHA regulations.

POWERLINE**3 Credits (1st Year)/4 Credits (2nd and 3rd year)**

Students enrolled in the Powerline program will make the connection to America's communication network. Students will gain technical skills in installation, troubleshooting and repair of telecommunication equipment of all types, including telephone networks, computer networks, and video systems. Students will gain a fundamental understanding of electricity and electronics. Students also have the opportunity to learn pole

and tower climbing techniques. Particular attention will be given to the computer and how it relates to telecommunication. Interested students may acquire industry certifications in networking and fiber optics through C-Tech.

PROTECTIVE SERVICES year)

3 Credits (1st Year)/4 Credits (2nd and 3rd

The Protective Services program is intended to present a comprehensive public safety education to students interested in pursuing a career or volunteer service in the fire, emergency medical, law enforcement or emergency management services. The primary focus in this program is personal safety and the interrelationship between public safety agencies. Since all areas of public safety must work together, and responsibilities often overlap boundaries, the student will be expected to meet a minimum level of proficiency in all areas of the training program. The program also serves as a springboard into health-care, legal, industrial safety and public administration education careers.

ROBOTICS ENGINEERING year)

3 Credits (1st Year)/4 Credits (2nd and 3rd

Robotics Engineering curriculum covers electronics, integrated computer applications, technical science, and robotics technology. Intense and rigorous, the program challenges students to achieve excellence by focusing on real applications using ROBOTC programming language. Students will utilize CAD programs for electronic circuits and testing, along with virtual instrumentation for design of robotic behaviors through challenges and gaming situations. Students in this program enjoy math, science, technology, and computers. Students enrolled in the program have the opportunity to join the “FIRST” robotics team.

SPORTS THERAPY AND EXERCISE SCIENCE 3 Credits (1st Year)/4 Credits (2nd and 3rd year)

Sports Therapy and Exercise Science is a Sports Medicine class designed to expose the student to health care professions such as physical / occupational therapy, speech language pathology, athletic training, exercise physiology related to cardiac rehabilitation and personal training. Those interested in becoming a physician or physician assistant would also gain a wealth of knowledge from this class. Students can obtain a certification from the National Academy of Sports Medicine (NASM) as well as CPR and First Aide certification. This course provides clinical experience, medical terminology, anatomy, physiology, pathophysiology and clinical and general nutrition. The student will learn about the normal processes of the human body and what can go wrong when disease or dysfunction exist. Students will be able to watch surgeries and visit medical facilities to observe rehabilitation. Clinical skills will be taught and practiced. Students will be challenged in math and science. Writing for medical documentation purposes will be a focus throughout the curriculum. Like all of our technology programs, this is a STEM program.

WELDING

3 Credits (1st Year)/4 Credits (2nd and 3rd year)

Welding is the most common way of permanently joining metal parts. Because of its strength, welding is used to construct and repair ships, automobiles, spacecraft and many other manufactured products. Students enrolled in the program will be taught the fundamentals of welding. Students will learn to join metals by using Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), and Gas Tungsten Arc Welding (GTAW). Students will also acquire skills in Oxy Acetylene Gas Welding. Skills in metal forming, layout and cutting will also be obtained. Job safety is stressed throughout the program.

WELLNESS

1 Credit

Enrollment in a Wellness course is required only as necessary to meet sending school district graduation requirements. Wellness provides students with course credit to meet the Health/Physical Education requirements of their sending school district. Students can enroll in Wellness and earn 1 credit each year. This course uses a blended curriculum based on the Pennsylvania Academic Standards for Health, Safety, and Physical Education. Students will engage in both physical activity and health concepts that promote “life-long” wellness. Throughout the course, personal and team fitness activities will be implemented to reinforce health concepts and encourage well-being. Through a broad range of differentiated activities and instruction, students will be given learning opportunities that enrich their personal health. This will include the physical, social, emotional, intellectual, and environmental aspects as related to their personal development.